

**The Secretary of Energy**

Washington, DC 20585

August 25, 2003

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DNF SAFETY BOARD

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW
Washington, D.C. 20004-2901

Dear Chairman Conway:

Thank you for your letter regarding the Department of Energy's processes for addressing the risks posed by the use of suspect/counterfeit items (S/CI) in safety-related and mission-sensitive applications. We agree with and appreciate the concerns noted in your correspondence and that we have taken additional actions to ensure that items and components heat treated by Temperform USA are not installed in safety-related or mission-sensitive applications affecting defense nuclear facilities.

Enclosed are the results of the detailed investigations conducted by the Office of Environmental Management and the National Nuclear Security Administration for parts and materials from Temperform USA. While our investigations indicate that some of our sites did have procurements involving Temperform USA or its vendors, we have not identified any safety issues associated with the procurement or use of these parts and materials. The site reports are included as attachments to this letter. We will be glad to discuss the results of the site investigations with you or members of your staff.

Also enclosed is a description of our revisions to the S/CI process within the Office of Environment, Safety and Health. In making revisions to the S/CI process, the Department incorporated lessons learned from previous S/CI incidents. Ms. Beverly A. Cook, Assistant Secretary for Environment, Safety and Health, is responsible for ensuring that the Department has an effective process in place to address S/CI issues. We will work with your staff to keep them informed of our progress in implementing the new process.

Finally, as directed by the Deputy Secretary, the Office of Independent Oversight and Performance Assurance has conducted a review of the S/CI processes across the Department. The results of that review were provided to you in a briefing on August 18, 2003, and a copy of the final report is enclosed. The review concludes



that weaknesses in DOE Headquarters and site S/CI processes contributed to gaps and delays in the Departmental investigation of the Temperform USA issue. We also agree with your concerns regarding the response by DOE managers to S/CI issues overall, and will monitor progress to ensure that the new process is effectively implemented throughout the Department.

Please do not hesitate to contact us if you require additional information.

Sincerely,

A handwritten signature in dark ink, appearing to read "Spencer Abraham", is written over a faint, circular embossed seal or stamp.

Spencer Abraham

Enclosures

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ATTACHMENT ONE
STATUS OF TEMPERFORM INVESTIGATION AT
DEFENSE NUCLEAR FACILITIES

STATUS OF TEMPERFORM INVESTIGATION AT DEFENSE NUCLEAR FACILITIES

Background

In June 2002 the Government – Industry Data Exchange Program (GIDEP) issued an Agency Action Notice regarding the improper heat treating of aluminum parts by Temperform USA. The notice indicated that Temperform USA allegedly provided false certifications of heat treating processes and quality inspections from 1998 to at least 2000 on numerous Department of Defense (DoD) programs. Although the notice was directed primarily at DoD, NASA, and commercial prime contractors involved with aviation and aeronautical programs, the notice did recommend that other organizations “...review all orders or procurements associated to aluminum alloy parts, (especially parts identified as “flight safety critical”) for possible impact....”

In response to that GIDEP Notice, the DOE Quality Assurance Working Group (QAWG) sent an email to its members in July 2002 requesting information to determine if any weapons systems, support devices, or any other programs had parts or raw material that may have been heat treated, supplied, or tested by Temperform USA. A follow-on email was sent to QAWG members in December 2002 to provide additional information and to clarify the request.

In February 2003 the Defense Nuclear Facilities Safety Board (Board) sent a letter to the Secretary of Energy indicating its concerns with the Department’s progress in addressing the Temperform USA issue. The letter requested a report that documented the implementation of the complete set of actions required to verify that no aluminum parts heat treated by Temperform USA are in use in safety-related or mission-sensitive applications.

Although the QAWG had collected a substantial amount of information, it was not clear that the investigation results were adequate or consistent or that they would support an adequate response to the Board’s request. On February 11, 2003, the Assistant Secretary for Environmental Management (EM) provided clarification in a memorandum to EM sites on the information needed to complete the investigation.

On March 18, 2003, the Assistant Secretary for Environment, Safety and Health (EH) sent a memorandum to EM and the National Nuclear Security Administration (NNSA) requesting that they verify completion of their inquiries into possible use of items heat-treated by Temperform USA. The EH memorandum included lines of inquiry that expanded upon those previously developed by EM. The Defense Criminal Investigative Service gave the Department permission to release to Department contractors the affected part numbers and the identity of the companies that sent parts to Temperform USA. That list of the companies who had parts processed at Temperform USA or who approved Temperform USA as a vendor was included with the EH and EM memorandums. The part number list (a 1,200 plus page document) was made available to EM and NNSA to support their investigation.

EM and NNSA completed their investigations and submitted the results of their reviews to the Office of Environment, Safety and Health. A corporate review of the reports was completed by EH to determine if there were any issues requiring further corporate attention. That corporate review supported the EM and NNSA conclusions that no heat-treated aluminum materials/parts, components, or equipment supplied by Temperform USA are in safety-related or mission-critical applications at defense nuclear facilities. No new issues requiring corporate action were identified.

Summary of the Results of Temperform USA Investigations

Environmental Management

In February 2003, the Assistant Secretary for Environmental Management (EM) initiated an investigation into the use of improperly heat-treated aluminum by Temperform USA. The investigation covered all EM field organizations and/or activities. Formal responses were received from the seven field elements that EM serves as the Lead Program Secretarial Officer (LPSO). Field elements where EM is not the LPSO chose to submit formal responses to their respective LPSO.

The investigation covered a comprehensive and thorough review of contractors, suppliers, and subcontractors procurement activities from May 1998 to present and included a review for materials/parts, components, or equipment heat-treated, supplied, or tested by Temperform USA or Temperform USA vendors in safety-related or mission sensitive applications. The investigation also included a review for Temperform USA materials/parts, components, or equipment used in non-safety-related applications. None of the EM sites' investigations reported placing contracts with Temperform USA or Temperform USA vendors for heat-treated aluminum materials/parts, components, or equipment.

EM Headquarters (HQ) performed a review of the field elements' responses to the use of improperly heat-treated aluminum by Temperform USA in safety-related or mission sensitive applications. The review confirmed that the EM field elements investigations covered the time frame from May 1998 to the present; included a review of materials/parts, components and equipment, not just raw materials; and a review of contractors, suppliers, and subcontractors procurement records.

Each field element identified a cost associated with the investigation or claimed no cost due to the insignificant amount of resources to perform the investigation. Suspect/counterfeit items were reflected as a part of each sites' training activities in accordance with DOE 0 440.1 A, *Worker Protection Management for DOE and Federal Contractor Employees*.

EM HQ staff were involved and had numerous discussions with field element personnel regarding the results of the investigations to re-affirm that the investigations covered the time frame from May 1998 to the present and included a review of materials/parts, components and equipment, not just raw materials. Further, discussions with the Office of the Inspector General (IG) noted that only 7 percent of the aluminum parts tested by the Air

Force were found to be defective. This gives support that while not all Temperform USA materials/parts produced after May 1998 were defective, all materials/parts, components, and equipment produced or tested by Temperform USA or Temperform USA vendors after May 1998 should be classified as suspect. EM HQ staff also ensured that all EM field organizations responded to the investigation through their appropriate LPSO.

The investigation focused on safety-related and mission-sensitive application, but also covered non-safety-related applications. The investigation concluded that EM, including its contractors, suppliers and subcontractors have not procured and/or used heat-treated aluminum materials/parts, components, or equipment supplied by Temperform USA or Temperform USA vendors.

The result of the investigations, based on the detailed responses provided by the Site Offices, is summarized below. The specific reports are included as appendices to this report. EM staff is available to discuss the results of the review with Board staff upon request.

EM SITES	Temperform or Temperform Vendor?	Safety- Related or Mission Sensitive?	Disposition
Carlsbad Field Office	No	No	Not Applicable
Idaho	No	No	Not Applicable
Ohio	No	No	Not Applicable
Oak Ridge	No	No	Not Applicable
Office of River Protection	No	No	Not Applicable
Rocky Flats	No	No	Not Applicable
Richland	No	No	Not Applicable
Savannah River	No	No	Not Applicable

National Nuclear Security Administration

In a memorandum dated April 4, 2003, Dr. Everet H. Beckner, Deputy Administrator for Defense Programs and C.S. Przybylek, Chief Operating Officer requested their NNSA Site Managers to investigate whether aluminum parts supplied by Temperform USA were in use in safety or mission sensitive applications. The investigations were to be conducted based on the lines of inquiry issued with that memorandum and the results reported within 30 days.

The investigations identified some materials and parts procured from Temperform or vendors (see Attachment 4 of Appendix Two). However, the investigations confirmed that these materials/parts were not used in any safety-related or mission-sensitive application at any site.

The result of the investigations, based on the detailed responses provided by the Site Offices, is summarized below. The specific reports are included as appendices to this report. NNSA staff is available to discuss the results of the review with Board staff upon request.

NNSA SITES	Temperform or Temperform Vendor?	Safety-Related or Mission Sensitive?	Disposition
SSO/SNL	Yes	No	Action Completed - Records reviewed. Verified no safety system or mission sensitive application.
PXSO/BWXT	Yes	No	Action Completed - Records reviewed. Verified no safety system or mission sensitive application.
SRSO/WSRC	No	Not Applicable	Not Applicable
LASO/LANL	Yes	No	Action Completed - Records reviewed. Verified no safety system or mission sensitive application.
YSO/BWXT	No	Not Applicable	Not Applicable
LSO/LLNL	Yes	No	Action Completed - Records reviewed. Verified no safety system or mission sensitive application.
KCSO/ Honeywell	Yes	No	Action Completed - Records reviewed. Verified no safety system or mission sensitive application.
Nevada Test Site	Yes	No	Action Completed - Records reviewed. Verified no safety system or mission sensitive application.

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ATTACHMENT TWO
SUSPECT/COUNTERFEIT ITEMS (S/CI)
PROCESS IMPROVEMENTS

SUSPECT/COUNTERFEIT ITEMS PROCESS IMPROVEMENTS

As pointed out in the Board's letters to the Secretary, the Department's process for dealing with S/CI issues had several flaws. Some of those flaws were inherent in the process, and some were related to failing to implement the process as designed. Although the Quality Assurance Working Group (QAWG) had completed a "lessons learned" study from a previous S/CI incident related to Solid State Devices Inc. (SSDI), some of the failures indicated in that study reoccurred with the Temperform USA S/CI issue.

The Department of Energy is committed to establishing and implementing a process to ensure that S/CI are quickly identified and that items and components installed in safety-related or mission-sensitive applications affecting defense nuclear facilities meet the intended function and operability requirements. In making revisions to the S/CI process, the Department considered the recent experience investigating Temperform USA, reviewed the QAWG lessons learned document from the SSDI incident, and also the *Report of the Senior Managers' Task Group to Resolve Outstanding Issues Concerning Suspect/Counterfeit Items in Response to Inspector General Report DOE/IG-0340*.

There are several differences in this improved process that will ensure that problems previously identified will not occur again. The Office of Environment, Safety and Health (EH) has taken a corporate leadership role and is accountable for ensuring the effective implementation of this process, rather than a Department-wide committee (i.e., the QAWG). Weekly review meetings are conducted by the EH Operating Experience Group to ensure the timely consideration of issues. S/CI incidents determined to be significant will be dealt with immediately by the Assistant Secretaries or Deputy Administrator level rather than by staff. EH, with support from the Office of General Counsel (GC) and IG, will ensure that sensitive or "Official Use Only" information is handled properly and that Headquarters and field organizations get all relevant information in a timely manner to ensure an effective investigation. The results of investigations of significant S/CI issues will be consolidated, reviewed, evaluated, and documented by EH. To ensure that these actions appropriately incorporate the previous lessons learned, EH will conduct periodic self-assessments of the new process for feedback and improvement. Additionally, EH will continue to review and seek improvements in the process used to collect and distribute potential S/CI related information across the Department. An example of this is the modification to the Office of Performance Assessments and Analysis (EH-3) website to include S/CI information and links to other related websites.

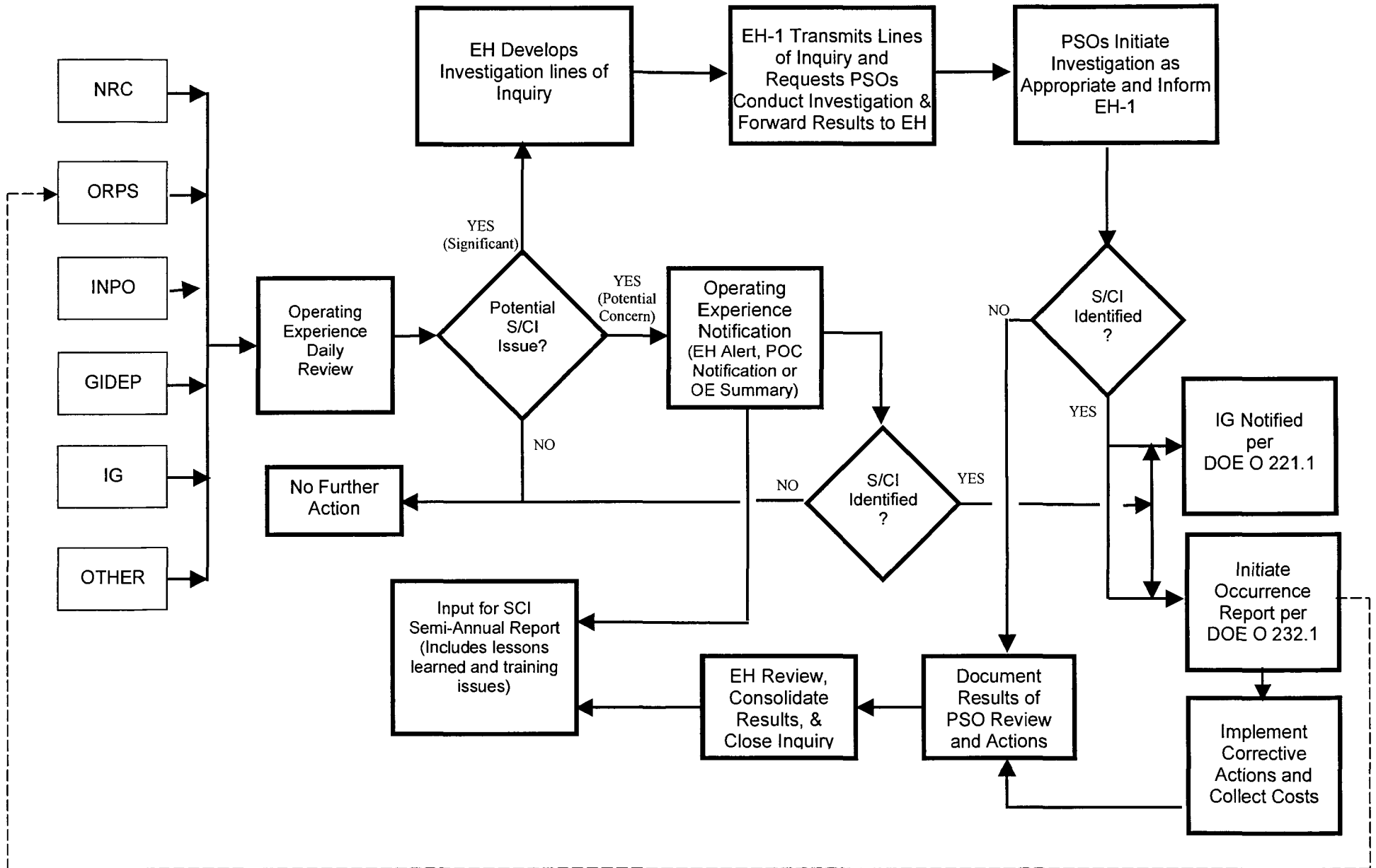
The process associated with the identification and elimination of S/CI is described in the flow chart and description following the list of commitments below.

Action/Commitment	Due Date	Status
EH has responsibility to collect and screen sources of information to identify potential S/CI areas of concern.	May 2003	This action has been implemented

Action/Commitment	Due Date	Status
<p>To ensure that prompt actions are taken for matters of a high priority, such as the current issue associated with Temperform USA, EH will develop lines of inquiry for the investigation. The Assistant Secretary for Environment, Safety and Health will send a memorandum to the applicable Program Secretarial Officers (PSOs) requesting action in accordance with those lines of inquiry. The PSOs will conduct investigations, take appropriate actions if S/CI are identified, and will document the results of their reviews. EH will review the PSO responses for completeness and closeout the investigation as appropriate.</p>	<p>May 2003</p>	<p>This action has been implemented.</p>
<p>S/CI matters that are not designated as a high priority but of concern to individual organizations will be sent out for information using the Department's Operating Experience Program.</p>	<p>May 2003</p>	<p>This action has been implemented</p>
<p>EH will continue to develop a Semi-Annual S/CI report that documents actions taken as a result of potential S/CI issues. This includes both high priority matters and those matters sent out for information by EH-3. The report will also include a "lessons learned" section and also identify potential S/CI training issues.</p>	<p>August 2003</p>	<p>The first Semi-Annual S/CI Report developed by EH will cover the first half of calendar year 2003 and will be issued no later than August 2003</p>
<p>EH will develop an internal process guide and checklists to initiate the process within EH and to provide criteria to assist the OE Group in identifying and dispositioning potential S/CI issues. These documents will be used as "working drafts" until the directives related to S/CI are approved.</p>	<p>June 2003</p>	<p>This action has been implemented</p>
<p>EH-3 will receive S/CI training as part of their professional development and Office-specific qualifications will be established that include the S/CI process.</p>	<p>July 2003</p>	<p>The S/CI training has been completed. The Office-specific qualification requirements are being identified.</p>
<p>The Office of Independent Oversight and Performance Assurance (OA) will conduct a review of the S/CI processes across the Department.</p>	<p>August 2003</p>	<p>This independent review is currently underway.</p>

Action/Commitment	Due Date	Status
<p>EH will review the results of the OA review, perform a causal analysis of the S/CI process and Temperform issues, and implement corrective actions as appropriate. Additionally, EH will conduct routine self-assessment to continuously improve the S/CI process.</p>	<p>December 2003</p>	<p>Awaiting results of the OA review and the implementation of the new SCI process.</p>
<p>Directives will be revised to reflect the process and the roles and responsibilities of EH and other organizations. It is anticipated the DOE O 414.1, DOE G 414.1, DOE O 440.1A, and DOE G 440.1-6 will be revised to consolidate the S/CI process and requirements. The EH internal process guide and checklists will be finalized and approved based on the approved directives.</p>	<p>November 2003</p>	<p>The directives are currently being reviewed to identify needed revisions.</p>

Suspect/Counterfeit Item Process Flow Chart



Suspect/Counterfeit Item Process Flow Chart Description

The following is a brief description of the S/CI process flow chart. A more detailed explanation of the entire process will be provided in the *Office of Environment, Safety and Health Process Guide for the Identification and Disposition of Suspect/Counterfeit Items at Department of Energy Facilities*.

Operating Experience Daily Review – On a routine basis, the Office of Corporate Performance Assessment (EH-3) reviews and screens various sources of information for potential impact to the Department. This includes reviewing for potential S/CI issues. The sources of information include:

- Nuclear Regulatory Commission (NRC) – this includes Information Notices, Regulatory Issue Summaries and specific reports.
- Occurrence Reporting System (ORPS) – this includes a review of all events posted on the ORPS system
- Institute for Nuclear Power Operation (INPO) – this includes a review of information in the Nuclear Network Technical Exchange
- Government – Industry Data Exchange Program (GIDEP) – this includes a review of related information posted in the GIDEP
- Inspector General (IG) – this includes events that the IG may be made aware of because of criminal or civil investigations that are underway.
- Other

Potential S/CI Issue? – Those SCI issues that are determined to affect more than one Program Secretarial Officer (PSO) and/or be of significant concern will be elevated to EH-1. Other items of potential concern will be documented through the Operating Experience program for review by field and Headquarters (HQ) points of contact. An EH Alert may also be issued as a way of notifying potentially affected organizations and to provide guidance and/or recommendations to deal with the potential issue. If EH-3 determines that the issue does not impact the Department then no further action is taken.

Screening criteria and checklists are being established to assist EH-3 in making this determination. They may also obtain advice and assistance from other subject matter experts in the Department to assist them in making this determination. Additionally, training on S/CI will be provided as necessary to EH-3 to provide them with the necessary background to make these determinations.

Operating Experience Notification (EH Alert, POC Notification or OE Summary) – The EH OE Group will analyze the potential S/CI issue and document their results using a Data Collection Sheet (DCS). This analysis will include a description of the issue and may include the potential impact on DOE facilities. Depending on the results of that analysis, the information may be provided to the DOE complex using one of several methods. An EH Alert may be issued, a notification may be sent to specific points of contact in the field or at Headquarters, or an article in the OE Summary may be written. Regardless of how the information is provided, field and HQ organization will review the information for potential applicability at their specific

location. If a field or HQ organization identifies an S/CI issue, an Occurrence Report will be initiated by the organization discovering the S/CI and the IG will be notified. The Occurrence Report will be reviewed by the OE Group as part of their daily review. If the OE Group determines that the issue is crosscutting and/or of significant concern, it will be elevated to EH-1.

EH Develops Investigation Lines of Inquiry – Those items that are determined to be crosscutting and/or of significant concern are elevated to EH-1. A support group will be convened as necessary with applicable representatives from the line, GC and IG. The GC and the IG representatives in the group will assist in dealing with sensitive or “Official Use Only” information related to ongoing investigations. This support group will assist EH in developing lines of inquiry to investigate and disposition the S/CI issue. Members of the support group will be designated by their management and will have the means and authority to act on behalf of the organization. Support groups will be formed on an ad hoc basis and may consist of representatives from organizations such as:

- Environment, Safety and Health (EH) - Lead
- Inspector General (IG)
- General Counsel (GC)
- Environmental Management (EM)
- National Nuclear Security Administration (NA)
- Office of Science (SC)
- Fossil Energy (FE)
- Nuclear Energy (NE)

EH-1 Transmits Lines of Inquiry and Requests PSOs Conduct Investigation – EH-1 will send a memorandum to the applicable PSOs describing the issue and requesting an investigation in accordance with the lines of inquiry. This memorandum will also include a request to respond to EH-1 with a plan, schedule for completing the investigation, the results of the investigation and the PSO evaluation of the results.

PSOs Initiate Investigation – PSOs will direct their field organizations to conduct an investigation of the S/CI issue, as they deem necessary. They will inform EH-1 of their schedule and activities in this area.

Document Results of PSO Review and Actions – PSOs will evaluate and document the results of their investigation whether an S/CI is identified or not. If S/CI is identified, an Occurrence Report is initiated and the IG is notified per the requirements dictated in the Departments directives. The PSOs also initiate the appropriate corrective measures to remedy the S/CI issue and collect the cost associated with this effort. The documented results of the investigation, including any corrective action, are forwarded to EH-1 for information.

EH Review, Consolidate Results, and Close Inquiry – EH will consolidate the results of the PSO reports and review them for completeness. They may make recommendations to the PSOs regarding the report results. EH will forward consolidated information such as cost data and other information to the IG or other organizations as appropriate to closeout the investigation.

S/CI Semi-Annual Report – EH will continue to develop a Semi-Annual S/CI Report that documents potential S/CI identified and their disposition. It will also provide for lessons learned and indicate any potential training issues. The Report will indicate the current status of the S/CI program and any recommendations for improvements and/or corrective actions taken.

SEPARATION

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The Deputy Secretary of Energy
Washington, DC 20585

03.1476

August 12, 2003

MEMORANDUM TO ALL DEPARTMENTAL ELEMENTS

FROM: KYLE E. MCCLARROW 

SUBJECT: Actions to Improve the Department's Management of Suspect/Counterfeit and Non-Conforming Items

At my direction, the Office of Independent Oversight and Performance Assurance (OA) completed a special study of the Department's management of suspect/counterfeit items (S/CIs). As the attached report demonstrates, some aspects of S/CI programs were effective at some Department of Energy (DOE) sites. However, there were weaknesses in the S/CI processes at DOE Headquarters and most sites in a number of important areas.

The weaknesses in DOE Headquarters and site S/CI processes contributed to gaps and delays in the Departmental investigation of a safety-related S/CI issue involving aluminum that was allegedly improperly heat treated by Temperform USA, which is an aluminum heat treating company. For example, some sites did not complete adequate investigations in a timely manner and some DOE subcontractors were not included in the scope of the investigation.

The Office of Environment, Safety and Health (EH) and several sites recognized some of the weaknesses with current S/CI processes and have developed some corrective actions. This report identifies additional weaknesses that need to be addressed as the Headquarters and site corrective actions are refined and implemented. The recommendations in the attached report need to be considered by the EH and all DOE program offices and sites, including those sites that were not specifically included in the scope of this special study. DOE program offices need to direct their field elements and contractors to review the OA report and conduct an applicability review to determine whether the recommendations apply to their programs and facilities and take appropriate actions to improve S/CI processes.

Thank you for your attention to this important matter. Your cooperation and support will be needed to improve the Department's S/CI processes.

cc:
See Attached List

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**Independent Oversight Special Study of The Department of Energy's
Management of Suspect/Counterfeit Items
August 2003**

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SPECIAL STUDY

Independent Oversight
Special Study of
The Department of Energy's
Management of
Suspect/Counterfeit Items

August 2003



Office of Independent Oversight and Performance Assurance
Office of the Secretary of Energy

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DOE SAFETY BOARD

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Abbreviations Used in This Report

CY	Calendar Year
DCIS	Defense Criminal Investigative Service
DOE	U.S. Department of Energy
EM	DOE Office of Environmental Management
ES&H	Environment, Safety, and Health
GIDEP	Government Industry Data Exchange Program
IG	Office of the Inspector General
NCR	Non-Conformance Reporting
OA	Office of Independent Oversight and Performance Assurance
OMB	Office of Management and Budget
ORPS	Occurrence Reporting and Processing System
QAWG	Quality Assurance Working Group
S/CI	Suspect/Counterfeit Item

OVERSIGHT



FOREWORD

After the Defense Nuclear Facilities Safety Board raised some issues of potential safety concerns associated with improperly heat-treated aluminum, the Secretary of Energy and I commissioned the Office of Independent Oversight and Performance Assurance (OA) to conduct a special study of the Department of Energy's management of suspect/counterfeit items (S/CIs). As OA's report demonstrates, the Department's investigation of the aluminum issue was not timely, and there are a number of weaknesses in the Headquarters and site processes for managing S/CIs.

It is a distressing but undeniable fact that there are unscrupulous vendors throughout the world that distribute defective products. There are also many instances where legitimate vendors unknowingly distribute items that do not conform to specifications because of deficiencies in design or manufacturing. These S/CIs and non-conforming items could break or fail in a way that could injure our workers or cause a safety system to fail.

Therefore, it is important that the Department's S/CI program effectively preclude the use of S/CIs in safety-related applications. At the Headquarters level, we need effective processes for disseminating S/CI information and providing clear directions when actions are needed to address S/CI issues. At the site level, we need to integrate effective S/CI controls into site processes, including design, procurement, maintenance, inspections, and operations. We also need to ensure that we regularly assess our performance and have effective processes to share information when S/CIs or non-conforming items are found.

This OA report will be useful in improving the Department's safety posture with respect to S/CIs. All DOE program offices, field elements, and contractors should use this report as a baseline for conducting self-evaluations of the effectiveness of their S/CI controls and making any needed improvements in their S/CI processes. The Office of Environment, Safety and Health is leading DOE efforts to make the needed improvements in the Headquarters processes.

A handwritten signature in black ink, appearing to read "K. McSlarrow".

Kyle McSlarrow
Deputy Secretary of Energy

Executive Summary

The Secretary of Energy's Office of Independent Oversight and Performance Assurance (OA) conducted a special study of the U.S. Department of Energy's (DOE) management of suspect/counterfeit items (S/CIs) in May-August 2003. The purpose of the special study was to evaluate the effectiveness of DOE Headquarters and field element management of S/CI processes. The Deputy Secretary directed OA to conduct this study after the Defense Nuclear Facilities Safety Board raised issues about the effectiveness of the DOE investigation of potential safety concerns associated with aluminum that was allegedly improperly heat-treated by Temperform, USA (an aluminum heat treating company).

Some aspects of S/CI processes are effective. DOE S/CI policies and guidance identify many elements of an effective S/CI process. Some sites have well-structured and generally effective processes for integrating S/CI provisions into site procurement and maintenance programs. For example, some sites have established an S/CI coordinator position to ensure that S/CI requirements are implemented by the multiple site organizations that have S/CI responsibilities, such as engineering, facility maintenance, and procurement.

However, weaknesses in Headquarters, DOE field element, and site contractor processes reduce the likelihood that DOE sites will reliably preclude S/CIs or other non-conforming parts from being used in safety-related applications at DOE sites. S/CIs received considerable attention within DOE and by the Defense Nuclear Facilities Safety Board in the mid 1990s but have received limited attention in the past several years, contributing to gradual degradation of the effectiveness of S/CI controls (e.g., S/CI responsibilities were not realigned following reorganizations). S/CIs are still being discovered in DOE facilities, clearly indicating that current controls (e.g., procurement receipt inspections) are not fully effective in preventing the introduction of S/CIs.

At DOE Headquarters, the S/CI communication and information exchange processes lack sufficient structure and rigor to

ensure consistent and effective dissemination of information and tracking of needed actions. In addition, current DOE Headquarters S/CI policies and directives do not adequately address some aspects of Office of Management and Budget Policy Letter 91-3, which established national policies for addressing non-conforming items, such as S/CIs. Further, roles and responsibilities are not defined in sufficient detail to ensure effective performance and ascertain accountability. OA tracked information about selected non-conforming items, including S/CIs, to determine whether the information was adequately disseminated to and used by the field to address potential concerns; in most cases, the information had not been effectively communicated to or acted on at the site level. The DOE Assistant Secretary for Environment, Safety and Health had previously recognized some of these shortcomings.

Based on OA's review of seven DOE sites, implementation of DOE S/CI requirements varies in rigor, level of formality, and effectiveness. Some sites do not have structured S/CI processes and lack adequate processes for implementing S/CI requirements. For example, requirements do not always flow down to the working level and to subcontractors, and in one case, DOE order provisions that address S/CIs were eliminated from the contractual requirements through the Work Smart Standards process. Deficiencies were also identified in several aspects of procurement, disposition, and reporting functions. For example, reporting requirements are not clearly specified at many sites, and in some cases, procurement inspections identified S/CIs but no report was generated. There were instances in which S/CIs were held in a warehouse for several years without a report being generated, and other instances where S/CIs were not adequately segregated to preclude their use. Weaknesses in roles and responsibilities and training programs contributed to the observed deficiencies. Further, only one of the seven sites reviewed during this study has performed assessments of S/CI requirements and their implementation.

The Headquarters and site weaknesses contributed to deficiencies and delays in performing investigations of potential safety concerns associated with the Temperform aluminum issue. Weaknesses in the Headquarters requirements and processes contributed to breakdowns in communicating information and expectations related to Temperform aluminum. For example, information was sent out informally and was not received by some organizations because the distribution list was not maintained. In addition, the use of aluminum in aircraft—a major concern relative to Temperform aluminum—was not emphasized in Headquarters direction; some DOE organizations and contractors that own or lease aircraft did not perform adequate investigations. The initial investigations performed by some sites were based on incomplete information and were not comprehensive or rigorous. Subsequently, clear direction was provided by the Office of Environment, Safety and Health (EH) and program offices, and sites conducted more rigorous investigations.

EH, program offices, and sites have taken a number of actions to address the specific problems noted in the response to the Temperform issue. Site investigations of the possible presence or safety impact of aluminum, which were initiated almost one year ago, are now complete at major sites under the cognizance of the National Nuclear Security Administration and the DOE Office of Environmental Management. However, there are a few gaps in the scope of investigations (e.g., omission of a few subcontractors, or purchase card

items). Some non-defense sites have not completed investigations. EH indicated that the final report for defense nuclear sites is to be completed and submitted in the near future.

EH has developed an action plan to enhance Headquarters management of S/CIs that identifies the areas (e.g., revisions to directives) that need to be enhanced. Sustained management attention will be needed to ensure that the action plan is finalized and that the needed improvements are further defined and effectively implemented. Further, EH needs to develop an effective process for systematically addressing cross-cutting issues and ensuring effective communication and completion of required actions.

Most sites evaluated during this special study have begun to take action to enhance their S/CI processes. DOE program offices need to ensure that these efforts are sustained and effectively address the identified weaknesses. DOE program offices also need to direct their sites that were not included in this special study to evaluate their S/CI processes to ensure that weaknesses are identified and addressed.

Overall, the current processes for managing S/CI issues at DOE Headquarters and most DOE sites need improvement. The ongoing and planned initiatives are appropriate, but most are in development or the early stages of implementation. Sustained management attention and increased coordination between EH, DOE program offices, and DOE sites will be needed to ensure that these initiatives are implemented and verified to be effective.

The Secretary of Energy's Office of Independent Oversight and Performance Assurance (OA) conducted a special study of the U.S. Department of Energy's (DOE) management of suspect/counterfeit items (S/CIs). This special study is responsive to the Deputy Secretary of Energy's March 2003 memorandum directing OA to increase independent oversight attention on cross-cutting safety issues raised by the Defense Nuclear Facilities Safety Board (DNFSB). The special study was performed by the OA Office of Environment, Safety and Health Evaluations from May to August 2003.

The purpose of the special study was to evaluate the effectiveness of DOE Headquarters and field element management of S/CI-related processes and ongoing actions to enhance those processes. The special study focused primarily on the safety implications of S/CIs but also examined selected aspects of processes for reporting information needed for criminal investigations and cost recovery efforts. To evaluate safety implications, OA evaluated DOE processes for disseminating S/CI information and ensuring that S/CIs are not installed in safety-related applications, which include systems, components, or structures whose failure could adversely affect the environment or the health or safety of workers or the public.

The scope of the study encompasses the DNFSB's concerns about DOE actions to address information about suspect aluminum items. However, the special study addresses the broader subject of management of S/CIs and includes items that do not conform to requirements because of fraudulent activities (e.g., deliberate misrepresentation or fabrication of test results) or other reasons (e.g., discovery of unintended manufacturing defects that could pose safety concerns).

OA focused on selected Headquarters organizations with S/CI responsibilities and selected DOE sites. DOE Headquarters organizations, such as the National Nuclear Security Administration (NNSA), the Office of Environmental Management (EM), and the Office of Science

(SC), have line management responsibility and provide direction to DOE field elements. The Office of Environment, Safety and Health (EH) is responsible for S/CI policy and requirements and was recently assigned responsibility for management of the DOE S/CI process. Until recently, the Quality Assurance Working Group (QAWG) was responsible for management of the DOE S/CI process and was involved in the screening and dissemination of information during the timeframe of this review; EH will perform these functions in the future. The DOE Office of the Inspector General (IG) is responsible for processes for handling sensitive information and for implementing certain DOE responsibilities related to possible waste, fraud, and abuse (e.g., maintaining evidence). The DOE General Counsel is responsible for providing legal opinions on various matters, including S/CI issues. The DOE Office of Management, Budget, and Evaluation supports DOE line management in such areas as budgets and procurement policies.

Background

S/CIs are a longstanding area of interest to DOE and other government agencies, primarily because of the potential safety and mission impacts of non-conforming parts. The Government Industry Data Exchange Program (GIDEP) was established as a cooperative activity between government and industry participants to share technical information, including information related to items that may be defective. In accordance with the Executive Office of the President's Office of Management and Budget (OMB) Policy Letter 91-3, agencies are required to establish policies and procedures for using GIDEP to exchange information, examine GIDEP information and promptly disseminate safety-related information, conduct assessments of the effectiveness of their programs, and establish procedures for involving the IG in S/CI issues, including receipt and dissemination of sensitive information.

In the mid-1990s, a number of occurrences of S/CIs in DOE facilities (e.g., non-conforming nuts

and bolts) prompted DOE to take a number of actions to enhance its program for managing S/CIs. DOE site contractors were directed to review procurement processes and perform facility walkdowns to identify and correct S/CI problems. Also, numerous personnel at DOE sites were trained on S/CI requirements and recognizing suspect items. At Headquarters, DOE established the QAWG in 1996 to support line management in the communication and resolution of cross-cutting quality assurance issues (e.g., developing training courses and S/CI guidance).

On June 14, 2002, GIDEP issued an Agency Action Notice transmitting a Department of Defense Inspector General "Notification of Potentially Defective Product" that addressed quality issues concerning aluminum that was allegedly improperly heat-treated by an aluminum heat treating company—Temperform, USA (Temperform). Improper heat treating could result in decreased strength, increased susceptibility to corrosion and cracking, and reduced fatigue life. The use of such suspect parts in DOE facilities could adversely impact safety. For example, improperly treated aluminum parts used in hoisting and rigging applications could fail and cause injuries to workers. The Notice provided a Department of Defense Inspector General report on alleged falsified heat treatment and inspection processes at Temperform that included a list of Temperform customers (vendors) that may have used their aluminum heat treating services during the period in question. The Notice also included a cautionary note requiring prior consent of the Defense Criminal Investigative Service (DCIS) prior to release of the notice to nongovernmental personnel.

On July 29, 2002, the QAWG disseminated an email forwarding the GIDEP Notice on Temperform aluminum. The QAWG email included some suggested actions and noted the restrictions on distribution to non-Federal personnel. The email requested a response from DOE elements by August 19, 2002. Subsequently, the QAWG determined that the initial email did not provide

sufficient direction to ensure that the potential concerns were identified and addressed. On December 19, 2002, the QAWG disseminated a second email, which included the vendor list as a separate attachment and indicated that it was imperative that DOE contractors determine whether they had done business with the listed vendors and purchased heat-treated aluminum parts for use in safety applications.

In a February 2003 letter to the Secretary of Energy, the DNFSB expressed concerns about the adequacy and timeliness of the DOE actions to address the GIDEP notification and determine whether non-conforming aluminum parts were installed in safety-related or mission-critical applications. After various meetings and memoranda between DOE and the DNFSB, DOE issued a letter on April 21, 2003, describing the status of DOE's investigation into parts and materials from Temperform and the actions DOE was taking to enhance its processes. The DNFSB, in an April 25, 2003, letter to DOE, indicated that DOE's response did not provide adequate information and requested that DOE provide a more detailed assessment and corrective action plan to ensure adequate disposition of future issues involving S/CIs. As part of DOE's response to the DNFSB concerns, in May 2003 the Deputy Secretary of Energy directed OA to evaluate DOE's management of the S/CIs and recommend improvements.

Figure 1 shows a timeline with some key events related to DOE's investigation of the Temperform issue.

Organization of the Report

The OA special study included two major components: a review of DOE Headquarters management of the S/CI processes, which is discussed in Section 2; and a review of implementation of S/CI processes by selected DOE sites, which is discussed in Section 3. Section 4 presents conclusions and recommendations for management consideration. Appendix A provides supplemental information, including review team composition and the dates of the key review activities.

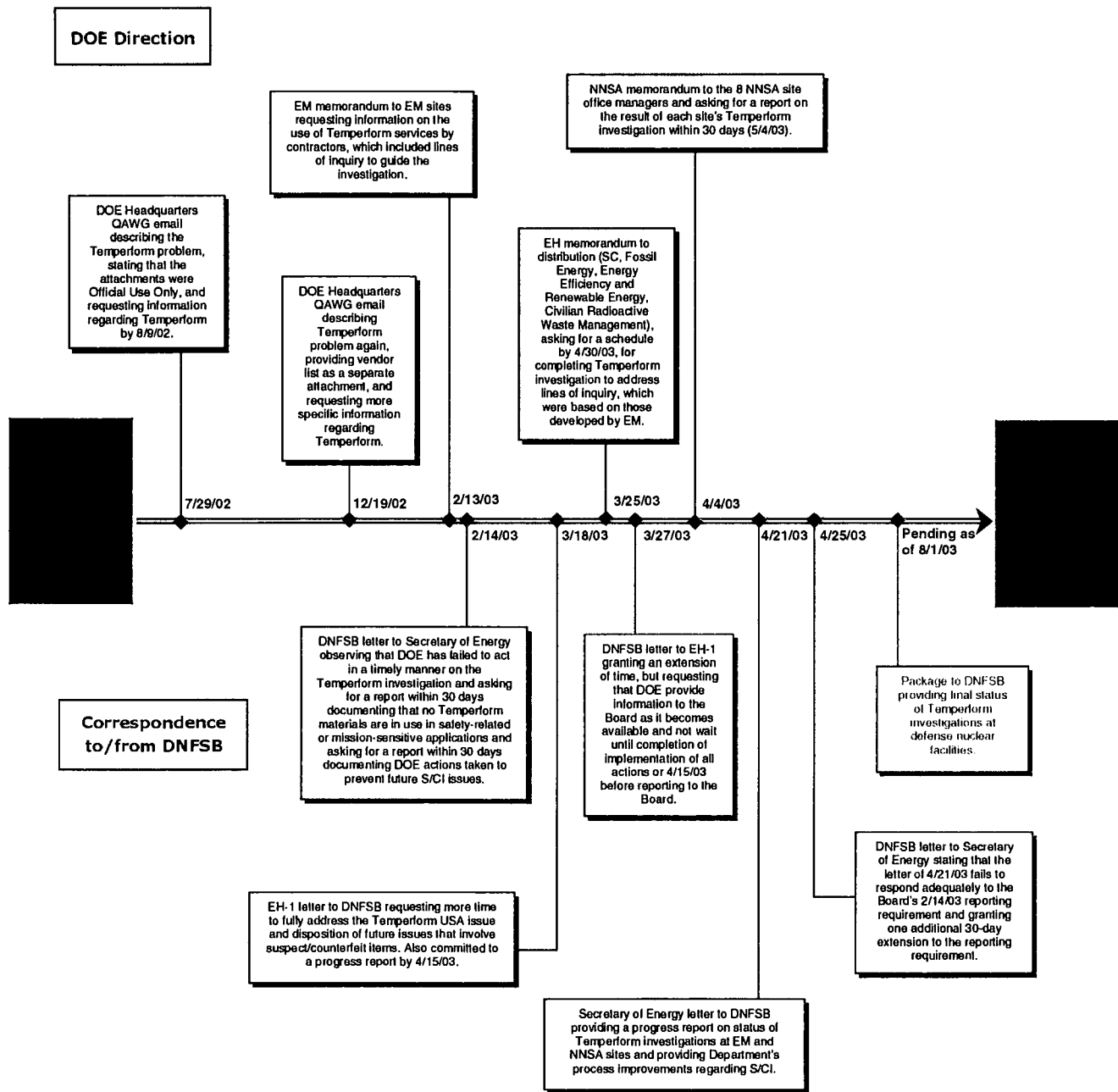


Figure 1. Temperform Investigation Timeline

In examining Headquarters processes, OA evaluated:

- Policies and directives, to determine whether DOE can ensure effective and sustained response to S/CI information
- Roles and responsibilities, to determine whether responsibilities, authorities, accountability, and interfaces for Headquarters functions are appropriately established and understood
- Communication and information exchange, to determine the adequacy of DOE Headquarters processes for providing timely and relevant information to DOE field elements and collecting information from the field
- Headquarters actions relating to the GIDEP Notice, to determine the process weaknesses that led to delays in adequately assessing the potential safety implications of suspect aluminum materials
- Ongoing EH and program office enhancements, to determine whether the enhancements will address current deficiencies and result in an effective program.

2.1 Policies and Directives

Applicable rules or DOE directives (e.g., 10 CFR 830 Subpart A, *Quality Assurance*, and DOE Order 414.1A, *Quality Assurance*) require a comprehensive quality assurance program for safety-related activities. The *DOE Quality Assurance Management Systems Guide for Use with 10 CFR 830.120 and DOE Order 414.1A* explicitly identifies S/CIs as a type of quality problem that needs to be considered in DOE sites' quality assurance plans and establishes expectations for relevant site processes, such as procurement and inspections, to ensure the quality of items. As a complement to the quality assurance

requirements and to address worker safety concerns (e.g., maintaining evidence for investigations and disseminating information to other agencies), DOE Order 440.1A, *Worker Protection Management for DOE Federal and Contractor Employees*, establishes requirements specific to S/CIs. A detailed guide (DOE Guide 440.1-6, *Implementation Guide for Use with Suspect/Counterfeit Items Requirements of DOE O 440.1, Worker Protection Management; 10CFR820; and DOE 5700.6C, Quality Assurance*) establishes specific expectations for implementing the S/CI requirements. DOE policies, directives, and guidance adequately address many S/CI elements. However, a number of weaknesses in the current DOE policies were identified, as discussed in the following paragraphs.

Although referenced in DOE guidance, DOE directives do not explicitly establish requirements and responsibilities for implementing OMB Policy Letter 91-3. This Policy Letter requires agencies to establish policies and procedures for using GIDEP to exchange information, examine GIDEP information and promptly disseminate safety-related information, conduct assessments of the effectiveness of their programs, and establish procedures for receipt and dissemination of sensitive information. The fact that neither the directives nor guidance establishes clear expectations for dealing with sensitive information contributed to the delays in disseminating information and ensuring an adequate investigation of aluminum heat-treated by Temperform (see Sections 2.4 and 3). The directives do not provide for reporting information to GIDEP as specified in the Policy Letter. Because the reference to GIDEP is in the Guide and not the Order, DOE sites are not contractually required to address the GIDEP provisions. Consequently, none of the evaluated sites has entered information on suspect and non-conforming products into the GIDEP failure experience database, which was established to promote information exchange among agencies. Further, none of the evaluated sites has established specific procedures and processes for inputting, receiving, and disseminating sensitive information into GIDEP as required by the Policy Letter.

The requirements for DOE organizations are included in Attachment 1 to DOE Order 440.1A and are basically the same as those imposed on site contractors. However, two additional requirements that apply to DOE are delineated (i.e., pursuing legal remedies and disseminating S/CI information to other Federal agencies and private industry); these two unique requirements are not clearly assigned to a specific DOE organization. Neither the Order nor the Guide has been updated to reflect changes in the DOE organization (e.g., creation of NNSA), and the Guide references DOE directives that have been cancelled (such as DOE Order 5700.6C, *Quality Assurance*).



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The definitions of the terms “suspect” and “counterfeit” are not specified in the Order, but are discussed in the Guide. This situation has led to the use of different definitions at some sites. One site developed a very narrow, site-specific definition of S/CIs that could result in under-reporting of S/CIs and preclude notification of the IG. In addition, the scope of application of the term S/CI provided in the Guide has led to some confusion in application in the field. The term “safety system”—defined in the Guide to include non-nuclear safety applications—has been interpreted by some sites as synonymous with the definition of a safety system specifically for nuclear facilities. This interpretation can result in an overly narrow application of S/CI controls.

As discussed in Section 3.3, some DOE sites have not established effective processes for implementing DOE Order 440.1A requirements. In addition, most of the specific expectations for implementing an S/CI process are provided in non-mandatory guidance. Some

sites have not adopted DOE guidance and have not developed comparably effective alternatives. As discussed in Section 3.1 and 3.7, S/CI information was not always communicated effectively, reporting requirements were not always met, and informal processes for disseminating information and tracking actions were not effective. Such deficiencies could be addressed by strengthening DOE requirements for communicating and tracking lessons learned.

Overall, DOE policies and guidance address many elements of an effective S/CI process, but some areas need further clarification. As part of its plan to improve the process for management of S/CI, EH plans to revise Department directives to support changes in responsibilities and processes. These revisions need to reflect the above weaknesses. EH actions to clarify DOE S/CI and non-conforming item reporting requirements, including definitions of suspect and counterfeit items, are currently being addressed in the ongoing revisions to DOE Manual 231.1-2X, *Occurrence Reporting and Processing of Operations Information*. These changes also need to be reflected in other DOE directives and guides that address control of S/CIs.

2.2 Roles and Responsibilities

DOE safety-related roles, responsibilities, authorities, and accountability are delineated in the *Safety Management Functions, Responsibilities, and Authorities Manual* (DOE Manual 411.1-1B) and in the “Responsibilities” sections of various DOE orders (e.g., DOE Order 440.1A and DOE Order 414.1A). These documents adequately establish responsibilities for Headquarters line management organizations with respect to the directives that include S/CI-related requirements (e.g., DOE Order 440.1A worker protection requirements and DOE Order 414.1A quality assurance requirements). However, they delineate only general areas of responsibility and contain little specific information on S/CI responsibilities.

DOE directives do not adequately delineate responsibilities, authorities, accountability, and interfaces for some important Headquarters S/CI support functions, such as information analysis, dissemination, and reporting. In general, the directives lack specificity in the assignment of S/CI responsibilities, hindering any efforts to hold individuals and organizations accountable for performance. The responsibilities of the QAWG related to S/CIs were not explicitly addressed in DOE directives, and the QAWG did not have documented procedures to govern its operations and clear

responsibilities for individuals and organizations. For example, responsibilities for basic administrative functions, such as maintaining a current list of QAWG members and field points of contact, were not established and assigned. Further, the interface between the QAWG and line management organizations was not adequately defined and thus did not ensure that information was always adequately communicated through the line management chain.

Overall, DOE lacks a structured program, with clear responsibilities and authorities, for implementing Headquarters S/CI functions. These weaknesses contributed to the inadequate communication of the GIDEP Notice on Temperform, as discussed in Section 2.4. The recent assignment of responsibility for the Department's management of S/CIs to EH has established a mechanism for achieving accountability for overall program implementation. Further efforts by EH to improve the Department's S/CI process are needed to ensure clear assignment of responsibilities for Headquarters and field organizations as well as those within EH.

2.3 Communication and Information Exchange

As noted previously, EH is restructuring its organization; the QAWG has been discontinued and its functions are performed by an EH office. Until this recent change, the QAWG performed most DOE Headquarters communication and information exchange functions, and DOE used a support contractor to perform many of the analysis functions, such as reviewing GIDEP Notices and other sources of information. Contractor personnel performing screens would not have had access to the GIDEP Notice on Temperform. The QAWG typically disseminated information via regular teleconferences, databases, email, and, in some significant cases, Quality Alerts. Screeners captured information from review of various data sources (GIDEP, Institute for Nuclear Power Operations, Nuclear Regulatory Commission, and Occurrence Reporting and Processing System) on data collection sheets. A subcommittee reviewed these sheets in order to determine their disposition, and the results of these reviews were items for discussion at QAWG meetings. In many cases, the section of the data sheets describing the disposition of the items was incomplete. For most data sheets, the information was passed to various contacts and committees for action as appropriate.

Although operating without procedures, the QAWG included numerous knowledgeable and conscientious individuals who demonstrated individual initiative in many cases. On numerous occasions, the QAWG disseminated timely and relevant information through its teleconferences. It also provided a good forum for DOE-wide discussion of S/CI issues, sharing information and lessons learned among DOE personnel, and raising awareness of S/CI issues. For example, the QAWG was instrumental in developing and updating S/CI training materials.

However, the QAWG was not a fully effective, structured process. As discussed above, it had no documented procedures for its operations (beyond a description and flow diagram in the guide). Specific weaknesses in the communication and information exchange functions include:

- Processes for disseminating information were not formalized or effective. The QAWG lacked adequate documented criteria, thresholds, or timeframes for prioritizing, categorizing, analyzing, and disseminating information to the field. The Headquarters screening and analysis process has been inconsistent and does not effectively filter irrelevant information. Some of the data collection sheets did not include adequate information to be of value to sites, and some sites were no longer receiving or utilizing the information. Sometimes relevant and potentially important information (e.g., the Temperform notice) was not addressed with a higher degree of urgency, such as with a Quality Alert.
- Information was not disseminated in a timely manner. Feedback regarding QAWG interaction with the leadership of DOE professional committees, such as fire protection and hoisting and rigging, and field personnel indicated that the QAWG information was often not timely or significant, and that feedback from working groups regarding significance or applicability was not solicited.
- There were no formal training programs or qualification requirements for personnel who performed screening and analysis of incoming S/CI information.
- Interfaces between line management and support organizations were not defined. Line management

organizations had not established processes for interfacing with the QAWG to ensure that information was effectively communicated and acted on as appropriate. As a working group supporting line management, the QAWG could suggest action but had no authority to direct DOE field elements or sites to take action. Such authority is appropriately reserved for line management. Until 1998, the QAWG worked through the DOE field management organization, but DOE reorganizations eliminated this mechanism. Participation in QAWG conference calls—a mechanism for sharing information—was voluntary and inconsistent. The conference calls were not well structured to provide information in a categorized and prioritized manner. There was no systematic process for ensuring that sites received information or that the site point-of-contact list was accurate. Some personnel on the email address list (used for communication to QAWG personnel and points of contact) had retired or were on other long-term assignments and did not respond to emails from the QAWG. There were no provisions for verifying receipt or updating distribution lists.

- Sensitive information was not adequately handled. There were no documented procedures for dealing with sensitive information (e.g., information that cannot be shared with contractors). DOE did not seek approval to release sensitive information so that a timely and effective investigation could be conducted by contractors. The lack of procedures may have impacted the screening process; as noted, the GIDEP Temperform information was not to be provided to non-Federal personnel (who were performing the screening function), and there were no established processes for dealing with sensitive information.
- Headquarters had not established a process for sharing information from DOE sites with other agencies through GIDEP as required by the OMB Policy Letter.
- There were no established provisions for self-assessments of the Headquarters processes for managing S/CIs, and no assessments had been performed.

Recently, EH began implementing improvements to the S/CI process and has developed a draft process description. EH has also conducted training for

individuals involved in screening of information. Observation of initial screening of information indicated that further improvement is needed to ensure that useful information is provided to the sites. EH has also disseminated some recent information on S/CIs in their operating experience reports (e.g., suspect/counterfeit fasteners found in ratcheting tie-down straps). The draft EH S/CI process description addresses some, but not all, of the weaknesses noted above.

Overall, historical practices for communication and information exchange were not well structured and were not always effective. Improvements have been initiated but need additional attention to ensure that all identified weaknesses are addressed.

2.4 Headquarters Actions Relating to the Temperform Notice

Weaknesses described in Section 2.3 contributed to unnecessary delays in disseminating sufficient information and clear direction to the field with regard to Temperform aluminum. As a result, the initial investigations at many DOE sites were not timely or effective in determining whether suspect aluminum represented a safety concern. Specific weaknesses in the initial Headquarters handling of Temperform information include:

- Some sites did not receive and respond to the information because the emails were sent to the wrong email address or went to personnel who were no longer at the site or were not engaged in S/CI activities.
- DOE Headquarters did not take action to address the restrictions on providing information to contractors (e.g., coordinating with the DCIS to get permission to disseminate the information to selected contractor personnel) so that an effective investigation could be conducted. The initial (July 19, 2002) email indicated some restrictions on providing information to contractors but did not provide an acceptable path forward for conducting an effective investigation in the absence of such critical information. The suggested actions in the December 2002 email emphasized the importance of a thorough investigation at contractor sites but did not resolve the restrictions on contractor access. The unclear instructions in both emails contributed to several field elements disseminating the restricted

information to their contractors without the requisite permission from DCIS.

- The QAWG did not initially interact with DOE Headquarters program offices to ensure that the sites recognized the priority and importance of the investigations, and to ensure that line management endorsed and supported the investigations. Consequently, some sites initially performed only cursory examinations.
- Contractors did not initially provide DOE with some information (e.g., costs of investigations) requested by GIDEP.

The initial Headquarters actions with regard to the Temperform issue were insufficient to ensure a timely and effective investigation at all DOE sites. The weaknesses in the processes discussed in Sections 2.1 through 2.3 manifested themselves in inadequate direction and follow-up by DOE Headquarters.

Similar problems were evident in past events, as documented in a 1996 independent oversight report and a 1998 QAWG lessons-learned report. However, the corrective actions resulting from these reports were not sufficient to prevent recurrences. For example, the 1998 report identified a problem with multiple requests for information coming from multiple DOE organizations. The 1998 report also identified the lack of a mechanism for disseminating sensitive S/CI information; such a mechanism is needed to ensure that sites have sufficient information to conduct effective investigations while criminal investigations are ongoing. These same problems adversely impacted DOE's response to the GIDEP Notice on Temperform aluminum.

After the initial communications and responses were determined to be inadequate, EH and DOE program offices increased their involvement and direction. Line management has now directed sites to ensure that their investigations are thorough and rigorous. EM directed sites to conduct investigations utilizing specific lines of inquiry. (Errors in the initial EM lines of inquiry have been corrected.) EH provided the lines of inquiry to NNSA and other Headquarters line organizations to begin their investigations. However, as a result of the uncoordinated and differing instructions and requests among the different Headquarters programs, the comprehensiveness of field organization investigations and responses has varied, as further described in Section 3.1. Also, the

interim reports were not well organized and some sites did not complete all needed actions, such as investigations of subcontractors and credit card purchases. Some non-defense offices have not yet completed their investigations, and there are no clear timelines for completion.

DOE Headquarters actions also did not encompass a few potentially important DOE activities. For example, the Headquarters instructions did not address such DOE Headquarters-managed functions as the Office of Safeguards Transportation (OST) and the nuclear emergency search team, which report to NNSA Headquarters. However, OST and the nuclear emergency search team use aircraft, and the use of Temperform aluminum in aircraft was a particular concern raised in the GIDEP Notice. Further, the line of inquiry did not emphasize the importance of evaluating aircraft owned or leased by DOE. In addition, a protective force contractor that uses helicopters did not complete an evaluation and was not directed to perform one by the DOE line management chain.

Overall, DOE Headquarters actions with respect to the GIDEP Notice on Temperform aluminum were not sufficient to ensure a timely and comprehensive initial investigation. Subsequent actions were taken by EH and DOE line management to address recognized deficiencies. However, some potentially important activities were not investigated, and some non-defense sites have not completed investigations. The communication weaknesses contributed to significant delays in the investigative process at many DOE sites.

2.5 Ongoing EH and Program Office Enhancements

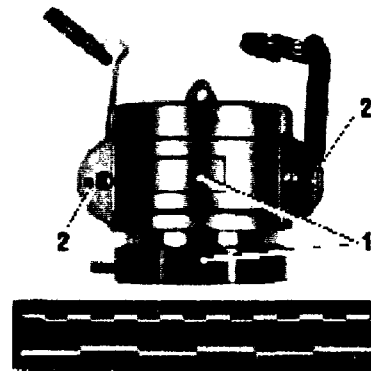
EH is developing an action plan to address recognized weaknesses in the current processes for managing S/CI issues. The action plan identifies the appropriate general areas (e.g., directives) that need to be enhanced. Sustained management attention will be needed to ensure that the action plan is finalized and that the general areas of needed improvement identified in the draft action plan are translated into a detailed set of actions that fully address the weaknesses identified in this report. In addition, effective coordination between EH and line management will be needed to ensure that the new processes are effectively communicated to all DOE sites and are understood and accepted in the field. Sustained EH management attention is also needed to ensure that the new

processes are effectively implemented, evaluated after implementation, refined as needed, and verified to be effective in addressing the complex and diverse needs of the various DOE organizations.

However, the ongoing actions are not sufficiently comprehensive to address all weaknesses. Areas that warrant additional attention include:

- Continued attention is needed to developing adequate procedures to ensure effective, consistent, and timely analysis and dissemination of information, as well as effective management of issues that warrant priority management attention and responses from line management. Such procedures need to address sensitive information and reporting, as well as the interface between EH and line management.
- Provisions for self-assessments of Headquarters functions are not yet established.
- EH needs to assure that revisions to directives adequately capture requirements and responsibilities for DOE line organizations and that the scope and definitions associated with S/CIs are clearly established.
- The QAWG has been disbanded, and EH has assumed responsibility for cross-cutting quality assurance issues. However, EH has not yet informed the field elements about the change in approach, and most field elements are not aware of the change in points of contact or communication lines.

EH has been recently assigned to address cross-cutting environment, safety, and health (ES&H) issues for the Department. EH has applied some effort to understand the causes of the deficiencies related to the Temperform investigation, and has developed actions to improve the management of S/CIs. However, EH has not utilized a structured approach to evaluate the conditions, determine the causes and extent of conditions, develop a corrective action plan that clearly assigns responsibility and deliverables, and identifies measures of effectiveness. More fundamentally, EH has not performed a rigorous and systematic needs assessment to determine other needed actions to ensure timely and effective responses to future issues involving non-conforming items. In addition, the corrective action plan developed by EH addresses the Temperform issue



Suspect/Counterfeit Stainless Steel Hose Connector (missing manufacturer's identification, improperly placed locking holes, magnetic properties inconsistent with marking indicating 316 stainless steel)

only and does not address the underlying lack of structured processes for managing cross-cutting issues, which contributed to deficiencies and delays in the initial DOE efforts to investigate the Temperform issue.

2.6 Summary

Current DOE Headquarters S/CI policies and directives, roles and responsibilities, training, and communication and information exchange processes have weaknesses that need to be addressed. Policies and directives do not adequately address some aspects of the Policy Letter. Roles and responsibilities are not defined in sufficient detail to ensure effective performance and accountability, and Headquarters personnel who perform S/CI functions did not participate in a formal training program. Also, the Headquarters S/CI communication and information exchange processes lack the structure and rigor needed to ensure consistent and effective performance. These process weaknesses contributed to delays and deficiencies in the effectiveness of the DOE response to the GIDEP Notice on Temperform.

Subsequent actions by EH and program offices have addressed most of the specific problems in the response to the GIDEP Notice, and formal investigations have been performed or initiated at most sites. However, additional attention is needed to prevent future recurrence of similar problems. Particular attention is needed in the areas of directives, program management (including a structured and documented program), operating procedures (with clear thresholds, criteria, and timelines), interface between EH and line management, clarity of responsibilities and authorities, and self-assessments. A systematic needs analysis is a requisite step for ensuring that program enhancements are sufficient to establish and maintain an effective Headquarters program for managing S/CIs. Periodic

self-assessments are also critical to ensure that enhancements are effectively implemented and achieve the desired objectives. In addition, EH needs to develop a process for managing cross-cutting issues, such as

the S/CI issue, to ensure that information is disseminated in an effective manner and that actions required by the field are formally communicated through appropriate channels and responses are tracked.

3.0 Implementation of Suspect/Counterfeit Item Requirements at DOE Sites

OA evaluated DOE field element and site contractor processes against DOE requirements and expectations in the following areas: investigations of suspect aluminum items in response to the GIDEP Notice on Temperform; roles and responsibilities; flowdown of requirements; training; procurement, inspection, and acceptance; disposition of installed items; reporting and information exchange; and assessments.

The evaluation is based on a review of DOE field element and site contractor implementation of DOE S/CI processes at seven selected sites that provide a cross-section of line management organizations and missions. Three NNSA sites were included: Los Alamos National Laboratory, the Pantex Plant, and the Kansas City Plant. These NNSA sites include a weapons laboratory and nuclear and non-nuclear production/operations facilities. Los Alamos had confirmed instances of procurement of Temperform-treated aluminum parts, providing OA an opportunity to review the effectiveness of the site investigation and response. Three EM sites were evaluated: the Savannah River Site, the Hanford Site, and the Office of River Protection. One SC site, the Oak Ridge National Laboratory, was also included.

3.1 Response to GIDEP Notice on Temperform

As discussed in Section 2.4, many Headquarters factors have contributed to the lack of timeliness and comprehensiveness of the Temperform investigation. The Temperform investigation also revealed problems at the DOE field office and contractor levels. Within DOE field organizations, communications are sometimes informal and uncoordinated. For example, the QAWG communications generally came to the ES&H or quality assurance support organization within the DOE field or support offices. In some cases, these organizations informally requested (via telephone or email) Temperform information from the contractor's ES&H or quality assurance support organizations without the involvement of

either DOE or contractor line management or the contracting officer.

When Headquarters issued more formal direction (memoranda), this direction flowed directly from the field DOE line management to the contractor line management, in some cases informally and without the involvement of the DOE ES&H or quality assurance support organizations. The lack of formal communication and clear assignment of S/CI responsibilities within some DOE field offices and between site and support offices results in multiple, differing, and/or incomplete requests to the contractors. Consequently, some contractors performed separate, but concurrent, Temperform investigations or performed investigations that varied in scope, depth, and quality.

After receiving formal direction from their respective line management in early 2003, in most cases contractors performed timely, comprehensive, and complete investigations. Two of the seven evaluated sites found confirmed or suspected Temperform-treated material, and in both cases the material was appropriately evaluated and dispositioned.

Although most of the investigations were adequate, specific weaknesses in investigation scope or processes include:

- Two of the evaluated sites did not review credit card purchases. At one of these sites, controls are in place to exclude the use of the credit card system when procuring critical materials, so purchase of Temperform-treated aluminum via this system was unlikely. At the other site, however, credit cards are used extensively for purchases below \$2500. Credit card purchases include safety-related components at nuclear facilities, including a reactor that uses heat-treated aluminum in core components and in other safety-related applications.
- In several cases, prime or subcontractors that might have used Temperform materials were not included in the investigations. These

included a site security force contractor that operates aircraft at one site, and all subcontractors at two other sites.

- Most sites had not established a mechanism that effectively captured and maintained information on non-conforming items. Therefore, for these sites the Temperform investigation was a one-time activity and did not preclude Temperform-treated materials from being procured in the future.
- Occurrence Reporting and Processing System (ORPS) reporting of the Temperform material discoveries was not timely at one site (a three-month delay following discovery) and was not performed at the other site that discovered and dispositioned aluminum that might have been treated by Temperform.

These problems were exacerbated by delayed and erroneous communications at all levels regarding Temperform before and throughout the formal investigations.

Overall, the investigations of the Temperform issue were delayed by communication weaknesses. Subsequent investigations performed after line management provided direction were more rigorous but have some specific weaknesses. DOE and contractor management attention is needed to ensure that processes and corresponding responsibilities and authorities addressing these deficiencies are effectively developed and implemented.

3.2 Roles and Responsibilities

DOE program offices and field elements have typically assigned responsibilities for broad safety areas, such as quality assurance, to organizational elements and/or individual staff members. In some cases, individual DOE staff members have been tasked to perform S/CI functions, such as participation in QAWG activities. Some DOE individuals are knowledgeable and proactive in performing these functions.

However, in most cases, DOE program offices and field elements have not established or documented clear and specific expectations and responsibilities for performing DOE line management functions specific to S/CI requirements. Responsibilities for such functions as line management oversight of S/CIs, reporting S/CI issues, monitoring information sources (e.g., GIDEP), and ensuring that S/CI requirements

flow down from contracts to operating procedures are rarely defined and documented. At one site, the recent NNSA reorganization and corresponding realignment of responsibilities between the site office and the support center contributed to unclear direction to the contractor. In addition, DOE field elements are not using performance objectives or measures to promote effective contractor performance.

Requirements governing S/CI processes are defined in rules and DOE directives (e.g., quality assurance and worker safety directives) that are incorporated into the site operating contracts. At some sites, DOE line management and site contractors have translated the contractual requirements into institutional S/CI processes and procedures. However, at other sites, the contractual requirements have not been effectively captured in institutional program plans, institutional or facility procedures, or working-level procedures/instructions (see Section 3.3) so that responsibilities can be readily assigned and organizational elements and individuals can be held accountable.

DOE contractors generally have well-established responsibilities for such site processes as quality assurance, engineering, and procurement. Many aspects of S/CI management fall within the scope of these processes. For example, site procurement processes typically have appropriate measures (e.g., approved vendors, receipt inspections) to assure the quality of procured materials. However, effective management of S/CI issues requires effective coordination among many site organizational elements and processes to address concerns unique to S/CIs. For example, clear processes and responsible individuals need to be established to handle sensitive information and maintain records and materials that may be needed for government investigations or prosecution of fraudulent vendors.

OA's review indicates that the rigor and specificity in defining responsibilities for unique S/CI concerns varied considerably across the inspected sites. Three of the evaluated contractors have appropriately defined and documented specific responsibilities for most aspects of S/CI management. For example, a few contractors have formally assigned individuals to serve as S/CI coordinators. The coordinator positions have defined responsibilities and authorities to coordinate the numerous organizational interfaces and ensure that S/CI processes are effectively implemented. However, at other evaluated sites, responsibilities, authorities, and accountabilities for S/CIs are not as clearly and specifically defined and documented. Some sites have

no S/CI coordinator or have informally assigned the responsibilities. In addition, expectations and responsibilities for certain functions are not well defined or communicated at some sites. For example, expectations and responsibilities for performing receipt inspections have not been established for credit card purchases at some sites.

Areas where weaknesses were noted in responsibilities and accountability for S/CI management at multiple sites include:

- Non-conformance reporting (NCR) systems—the primary means for reporting non-conforming items, including SC/Is—do not include clear S/CI responsibilities and expectations for properly documenting S/CIs, complying with ORPS and IG reporting requirements, and facilitating communication of S/CI information.
- Interfaces between procurement organization and users are not well defined. Procurement elements that develop and maintain lists of approved or qualified suppliers do not receive routine feedback from the users on the performance of items they have acquired. As a result, information necessary for holding the vendors accountable is not always comprehensive.

Overall, most DOE field elements and several sites have weaknesses in the definition of S/CI responsibilities, authorities, and accountabilities. These weaknesses contributed to implementation deficiencies discussed throughout this section.

3.3 Flowdown of S/CI Requirements

As discussed in Section 2.1, DOE requirements and guidance address many aspects of an effective S/CI process. However, as discussed below, some DOE requirements did not adequately flow down to the working level.

Two of the seven sites did not adopt the S/CI provisions of the worker safety order and did not develop suitable alternatives. In accordance with DOE policies, DOE field elements and contractors may apply approved DOE processes, such as the Work Smart Standards process or the standards/requirements identification document (S/RID) process, to tailor requirements to site-specific hazards and activities. At one site, the DOE field element and prime contractor

applied the Work Smart Standards process and did not incorporate the S/CI provisions of DOE Order 440.1A into the contract. At another site, the S/CI requirements were incorporated into the Work Smart Standards set but were not addressed in the site policy or implementing documents. These two sites are still required to implement a quality assurance program but have not implemented DOE-specific controls in important areas, such as S/CI training, systems for disseminating S/CI information, mechanisms for identification and disposition of installed S/CIs, procurement, inspection, testing, and reporting. There are no national or industrial standards that encompass S/CIs, and these two sites did not establish or implement comparably effective S/CI controls as part of their quality assurance program. The absence of the DOE Order 440.1A S/CI provisions (or comparably effective site-specific measures) contributed to poorly documented and fragmented S/CI controls at these two sites. The effectiveness of the S/CI controls at these sites depends primarily on the training and expertise of individuals, and implementation of controls at these two sites was not consistently effective. Further, because the specific S/CI requirements were not in the prime contract, they did not flow down to subcontractors, and subcontractor employees did not always receive the appropriate S/CI training.

At other sites, the effectiveness of flowdown of S/CI requirements to the working level varied. Some sites had effective programs for flowdown of requirements, with only a few deficiencies. The S/CI provisions of DOE Order 440.1A were included as contractual requirements in the Savannah River S/RID and were appropriately addressed in institutional-level and lower tier procedures. This formal approach provided the workforce with a clear understanding of responsibilities and performance expectations and resulted in effective dissemination of S/CI information from internal and external sources. The other sites adopted the S/CI provisions and established a formal S/CI process and mechanisms (e.g., procedures) for implementing some S/CI requirements at the working level, but these mechanisms were not always comprehensive or effectively implemented.

Specific weaknesses in flowdown of requirements that reduce the effectiveness of S/CI controls at one or more sites include:

- S/CI requirements were not imposed on some subcontractors. The two sites that did not adopt the DOE Order 440.1A S/CI requirements, as well

as one other site contractor, did not transmit the S/CI requirements of DOE Order 440.1A to subcontractors.

- Receipt inspection procedures and testing requirements did not have adequate provisions for inspecting lifting and rigging items for S/CIs at three sites.
- Most sites have not fully delineated requirements and responsibilities for dissemination of S/CI information in implementing procedures, contributing to instances where information regarding S/CI events was not adequately disseminated on site or reported off site to other agencies and sites.
- Most sites have not translated the DOE Order 440.1A S/CI training requirements for site-specific use, with clear expectations for attendance at training and frequency of training/retraining. As a result, some individuals who need training have not been trained or are not current in their training (see Section 3.8).
- Most sites have not developed specific provisions for assessments of S/CI processes as part of their quality assurance plans or self-assessment programs. Only one site performs regular assessments (see Section 3.7).

DOE Order 440.1A also specifies S/CI requirements applicable to the Federal staff, such as dissemination of S/CI information to other Federal agencies and private industry. None of the DOE/NNSA field elements have established formal processes for implementing these requirements. The poorly defined processes for communicating S/CI information to contractors have contributed to delays in responding to the Temperform issue.

Overall, flowdown of requirements varies in effectiveness. Although some deficiencies in implementation of S/CI controls were identified at all sites, implementation is more effective at sites that have adopted the S/CI provisions of DOE Order 440.1A and that have robust mechanisms for translating the contractual requirements into working-level instructions. Sites that have not adopted DOE Order 440.1A provisions or that have incomplete flowdown of requirements to the working level are less effective in implementing controls, and their programs lack the

defense-in-depth that full and effective implementation of DOE directives would provide.

3.4 Training

Most DOE sites have provided S/CI training to many site individuals who perform S/CI functions (e.g., warehouse personnel who perform receipt inspections) or may encounter S/CIs during their normal work activities (e.g., maintenance personnel). For example, at one site, nearly 900 contractor employees have received site S/CI awareness training, and procurement personnel have received additional training. Another site has held initial and refresher training classes every two to three years for large groups of personnel, including managers, supervisors, procurement personnel, and workers. Another site provides initial and refresher training and plans to conduct knowledge-based and performance-based surveys to evaluate S/CI training effectiveness. The large number of trained individuals at DOE sites increases the likelihood that S/CIs will be identified during normal operations.

OA team personnel attended training classes at Headquarters and several sites and determined that the courses were effective in raising awareness of S/CI issues and the associated safety implications. Hands-on instruction and samples of S/CIs were used effectively to train individuals to identify S/CIs. Several sites had effectively divided S/CI training into two parts: a hands-on training section provided by a knowledgeable subcontractor, and a second part addressing the site's specific S/CI process, procedures, requirements, and implementation.

However, weaknesses were identified in S/CI training programs and implementation of those programs at most sites. While a large number of personnel have received training, some of the training was provided on a reactive basis and not driven by an institutional training program. Most sites have not established formal S/CI training programs or qualification requirements for personnel who perform S/CI-related functions. Most sites have not established formal training requirements defining the type of training needed, who should receive that training, the basis for selecting those individuals designated to receive training, the content of initial training, or the frequency and content of refresher training. At many sites, there are limited or no requirements that subcontractors involved in the procurement or handling of potential S/CI materials receive training. In most instances, there are no requirements for personnel to attend training prior to performing duties, such as receipt inspection, that are

critical to recognizing and preventing the introduction of S/CIs into critical systems and components. At one site, S/CI training is not a requirement for any position, and attendance at S/CI training is voluntary. At some sites, S/CI training is not effectively integrated into the site training program because the S/CI process does not have a clear owner.

Such weaknesses in S/CI training processes have contributed to deficiencies in the application of training to the workforce. At most sites, some personnel with responsibilities related to S/CIs—for example, personnel who perform receipt inspection, purchasing,

quality assurance, system engineering, and maintenance—have not received training or are not current on their refresher training. This is of particular concern in the case of system engineers who are involved in design, procurement, and inspection activities, where properly trained personnel can prevent the introduction of S/CIs. The recent DOE initiative to establish a system engineering program in

response to DNFSB 2000-2 further underscores the important role of system engineers and the need for them to receive S/CI training.

Overall, although S/CI training for administrative and management personnel generally addresses examples of the hardware aspects of S/CIs, in many instances it does not adequately address site-specific processes for identifying, dispositioning, and reporting S/CIs. For example, the processes for reporting S/CIs to the IG vary from site to site, and site-specific reporting and working interfaces with the IG are not integrated into S/CI training.

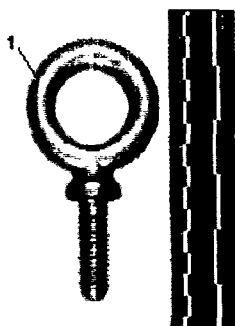
3.5 Procurement, Inspection, and Acceptance

DOE Order 440.1A requires line management to establish and implement procurement process controls to prevent the unintended introduction and use of S/CIs in safety systems and other applications that can create potential hazards to workers. All evaluated site contractors have incorporated some S/CI control elements into procurement and quality programs, but

the processes have been established and implemented with varying degrees of rigor, integration, consistency, and effectiveness.

The evaluated sites have mature and well-established formal processes for procurement of materials, particularly for safety system procurement. S/CI controls have generally been formally incorporated into procurement processes, from design input through receipt inspection and installation. In many instances, these controls are appropriately designed to identify and prevent the introduction or use of non-conforming material, including S/CIs, that could affect critical equipment and processes, the safety of workers or the public, or the environment. Typically, various controls are incorporated into different processes and procedures, thus providing defense-in-depth and multiple opportunities to identify and prevent the introduction of S/CIs into safety-affecting installations or applications. Although not specifically directed toward S/CIs, the rigorous quality controls used for nuclear weapons stockpile procurement processes pose additional barriers to exclude non-conforming materials from weapon production and support activities.

Most sites that were reviewed have established well-defined, graded approaches to classifying items, or categories of items, according to the level of safety or quality risk in their intended applications, such as safety-class and safety-significant systems, structures, and components (SSCs); SSCs that are important to safety or defense-in-depth; and workforce personnel safety items. Appropriate quality acceptance criteria, including S/CI considerations, are typically specified to suppliers in procurement documents and inspected by the site during source or receipt inspections. Site contractors have incorporated terms and conditions related to S/CIs into many procurement contracts, typically for items historically identified as S/CIs. All evaluated sites had qualification processes to evaluate selected vendors' quality programs and past performance to establish that suppliers were reliable, and to provide assurance that procured material would meet specifications. All evaluated sites have established multiple, graded purchasing methods based on cost, type of material, and the safety or quality level required for its end use. These range from user-controlled purchasing systems (e.g., credit cards, sometimes referred to as purchase cards or P-cards) for low-cost consumables, with few institutional controls for purchases that have no safety or quality requirements, to formal, well-documented processes for weapons components and special fabrication of safety-affecting materials.



Suspect/Counterfeit Eyebolt
(no manufacturer's markings to verify rated load capacity)

At some sites, certain types of items (e.g., threaded fasteners, valves, circuit breakers, and lifting gear) are inspected for S/CIs on receipt because there have been a significant number of past instances where vendors have distributed counterfeit or non-conforming versions of these items. When specified, receipt inspections are generally performed effectively by experienced, trained, and knowledgeable quality control inspectors. However, at several sites, receipt inspections are performed by technical personnel who do not have the same level of training and certification as quality control inspectors.

In general, the controls for S/CIs in procurement and inspection documents are more rigorously established and adhered to for weapons production and support programs than for items intended for installation in facilities or for general uses, such as hoisting and rigging. In most cases, controls for the identification of non-conforming S/CIs, the labeling/tagging of accepted material, and procedures for issue and use are adequately defined and implemented. However, OA identified weaknesses in some elements of these processes at all evaluated sites and in many elements at a few sites. Areas of weakness identified at multiple sites include:

- **Site contractors do not ensure that subcontractors have established and implemented sufficient S/CI controls.** Several sites lack controls to ensure that procurement processes and equipment brought on site by subcontractors provide sufficient protection from the introduction and use of S/CIs that could affect worker safety.
- **S/CI controls for items that could affect worker safety are not always sufficient or effectively implemented.** Items that could affect worker safety, such as equipment for high-pressure steam, air, gas systems, and lifting gear, are not always identified or designated to be receipt-inspected for safety or quality attributes, including those for S/CIs. Some sites appropriately perform receipt inspections for S/CIs on all hoists, cranes, hooks, and below-the-hook lifting gear. Other sites procure this material from their qualified vendors as just-in-time items without inspection for S/CIs before use. For research projects, S/CI inspections are not consistently required by procurement procedures or specified in procurement documents.

- **Processes for requisitioning safety-affecting items lack sufficient controls.** At several sites, S/CI clauses in procurement contract terms and conditions are not consistently applied to all types of items with a history of S/CIs. In some cases, S/CI clauses are not included in requisitions or purchase contracts for items that could affect worker safety. Several sites have inadequate limitations on the use of procurement credit cards to purchase items affecting safety. For some just-in-time programs, no additional quality inspections, including S/CIs, are specified, even on a sampling basis, for such items as threaded fasteners and electrical equipment that have a documented history of being S/CIs. In those cases, total reliance is placed on vendors not to supply S/CIs based on prior vendor qualification, or on the inclusion of S/CI information clauses in requisitions or contracts. At one site, the end users (maintenance craft), who are trained to identify S/CIs, perform the only review for S/CIs at the time they obtain the facility maintenance material (e.g., fasteners, breakers, and valves) from stores. Most sites have not established or maintained an updated formal listing of products that have historically been identified as S/CIs; such a listing could help preclude the procurement of known S/CIs or provide a handy resource for the identification of installed or warehoused S/CIs.
- **Supplier evaluations and performance monitoring are not always adequate.** The establishment and maintenance of a listing of qualified vendors pose problems at several sites. The process and results of conducting supplier quality audits, including specification of S/CI criteria, are generally well established and performed. However, except for weapons procurement, the criteria for determining when a supplier needs qualification and to what level of detail are not always clear, and the frequency and processes for re-inspection or re-qualification are not always defined. Several sites lack effective methods for routinely collecting and evaluating quality-related performance data (e.g., receipt-inspection results) or performing formal, periodic reviews of vendor performance. In instances where S/CIs are identified during receipt inspections, sites typically do not formally communicate relevant information to the vendor so that vendors can take corrective action to preclude recurrence.

- **There is insufficient rigor in identifying and dispositioning non-conforming items and S/CIs during storage and receipt inspections.** Most sites do not consistently and effectively document and evaluate non-conforming items, including S/CIs, to ensure that the extent of condition and root causes are identified and addressed. In addition, sites do not typically document on the NCR system or other corrective action documents or procedures that potential S/CIs are to be reported through ORPS and to the IG. Other weaknesses include the failure to evaluate the potential for identified S/CIs to be installed or located elsewhere on site, inadequate root cause analysis, and allowing scrapping of S/CIs valued at less than \$3000 without an NCR or reporting. Failure to determine the source and cause of suspect/counterfeit fasteners and circuit breakers found during inspections at material issue stations at one site resulted in the introduction of additional S/CIs, which were identified several years later during inspections at the same locations. In another case, S/CI material identified during receipt inspection had not been documented on NCRs or reported through ORPS or to the IG for over three months after identification.

Overall, contractors at the evaluated sites have incorporated many S/CI control elements into procurement and quality programs, and the rigor of controls appropriately reflects the safety significance of the items in most cases. However, processes have been established and implemented with varying degrees of rigor, consistency, and effectiveness. The procurement process weaknesses identified during this review typically result from inadequate definition of responsibilities (see Section 3.2) and inconsistent or incorrect application of S/CI controls.

3.6 Disposition of Installed Items

Although procurement and receipt inspection processes provide some assurance that S/CIs will be identified prior to being installed, S/CIs are still found. The S/CIs being found at sites today could have been introduced before controls were implemented and could have remained undetected in previous walkdowns. S/CIs could also have been introduced because of weaknesses in the current controls or ineffective implementation of the controls. Therefore, DOE Order

440.1A requires sites to develop and implement procedures for inspection, identification, evaluation, and disposition of S/CIs installed in safety systems. All the evaluated sites have established processes that support the identification and disposition of installed items; however, the detail, rigor, and effectiveness of these processes vary.

All evaluated sites perform inspection and maintenance of safety-affecting equipment, such as hoisting and rigging equipment and nuclear-safety-related components. These inspection and maintenance activities provide opportunities to look for S/CIs, and some site procedures specifically direct maintenance personnel to look for S/CIs. In addition, some sites provide maintenance personnel with badges/cards portraying suspect bolt head markings to facilitate identification of S/CIs during inspection and maintenance activities. Furthermore, as discussed in Section 3.4, many site maintenance personnel have attended S/CI training, which has increased their awareness of S/CIs and their ability to identify S/CIs.

However, S/CI provisions have not been integrated with existing sites processes (e.g., routine or special maintenance inspection activities) at some sites. For example, sites often rely on maintenance personnel to look for S/CIs as part of maintenance activities and have trained them to recognize S/CIs. However, the site processes (e.g., maintenance procedures) usually do not prompt individuals to look for S/CIs and do not include links to tools (e.g., lists of S/CIs and non-conforming items) that could be useful. Similarly, some sites' processes do not have links to S/CI reporting provisions and do not provide clear instructions for actions to take when S/CIs are identified or suspected. In most instances, S/CI requirements can be effectively addressed by integrating the S/CI provisions into existing site processes, such as routine and preventive maintenance, procurement processes, system and equipment inspections/walkdowns, ORPS, NCRs, and lessons learned.

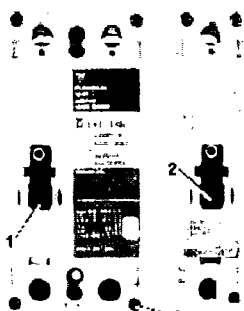
Another mechanism for identifying S/CIs is to perform targeted inspections to look for a certain type of S/CI in installed equipment or storage areas. Typically, such targeted inspections would be prompted by reports of the discovery of S/CIs at other DOE, government, or industry sites, and would be conducted where warranted based on an evaluation of potential safety impacts. However, as discussed in Section 3.7, most sites have not established a fully effective system for S/CI reporting and information exchange. In addition, most sites do not have documented processes for reacting to information and performing targeted

inspections. The variation in the effectiveness of site processes is evident in the response to information about non-conforming tie-downs, which was disseminated through the QAWG and other sources. Some sites appropriately evaluated the information, performed targeted inspections, and identified and dispositioned non-conforming items. However, other sites were not aware of the potential problem or took no action when they received the information.

If an S/CI is identified in installed equipment, sites are required to evaluate its impact and disposition. Most of the evaluated sites use the NCR system as the primary vehicle for evaluating and dispositioning S/CIs. At most evaluated sites, the NCR systems appropriately include provisions for removing equipment from service until the impact of the S/CI is determined, involving engineering in determining the impact and ultimate disposition of the S/CI, and documenting and reporting resolution of non-conformances. In addition, several sites have established S/CI control procedures that provide specific provisions for controlling and evaluating S/CIs in installed equipment. For example, several site contractors have established an S/CI control procedure that requires S/CIs to be color-coded if they are determined to be acceptable to remain in place.

However, weaknesses in the S/CI disposition processes or their implementation were identified at most sites evaluated:

- Most site NCR procedures do not include directions for evaluating whether non-conforming items might be S/CIs.
- Most site NCR procedures do not establish expectations for the timeliness of evaluating and disposition of potential S/CIs.
- In some instances, items that could have been S/CIs were removed from equipment, but NCRs were not developed as required by site procedures.
- Some S/CI control procedures are too limited in scope (e.g., only addressed fasteners).



Suspect/Counterfeit Circuit Breaker
(factory seals missing, amperage not stamped on toggle switch, epoxy filler missing)

These weaknesses, combined with the NCR weaknesses discussed in Sections 3.5 and 3.7, reduce the level of assurance provided by site S/CI processes. No instances were identified where sites had identified a potential S/CI in installed equipment and allowed it to remain in service without formal engineering review and disposition. However, some inspection processes are limited in scope (e.g., focusing on fasteners), and potentially relevant information is not always formally evaluated through the NCR process and is not always shared.

Overall, most evaluated sites have formal or informal processes for identifying and dispositioning installed S/CIs. However, most sites' maintenance and inspection procedures do not specifically address inspection for S/CIs. In addition, some weaknesses in site processes for dispositioning installed S/CIs degrade the timeliness and formality of dispositioning potential S/CIs.

3.7 Reporting and Information Exchange

As part of OA's evaluation of the effectiveness of management systems and controls for timely reporting and exchange of information, OA reviewed the implementation of ORPS and IG reporting requirements and their integration into contractor processes for disposition of non-conforming items, including S/CIs. OA also followed up on actions taken by the field in response to the GIDEP Notice on Temperform, with emphasis on the identification of lessons learned from processes and mechanisms used to communicate Headquarters direction and expectations to the field. In addition, the OA special study selected ten case study examples of potentially safety-significant non-conforming item concerns, including S/CIs that had been identified from both external and internal sources. The case studies provided further insight into the effectiveness of the overall communication flow between Headquarters and the field. Case study examples were specifically selected to ensure that they were safety-significant; had wide, generic applicability to the DOE complex; and had been previously screened and disseminated by the QAWG.

Of the seven DOE field organizations that were evaluated, none of the Federal organizations has a documented process in place to ensure timely communication of information about S/CIs to their contractors or to monitor associated contractor actions. However, some DOE field elements have designated

a Federal employee to be responsible for line oversight of the S/CI process; these field elements generally communicate external information received by the field office to the contractor.

Some sites do not effectively integrate requirements for reporting to the IG into NCR or other such site reporting processes. In some instances, sites did not provide reports to the IG before destroying or disposing of S/CIs. At one site, NCRs are not required for non-conforming items that are to be scrapped if the value is less than \$3000, whether S/CI-designated or not. The effectiveness of S/CI reporting processes and NCR systems is also hindered by poorly defined roles and responsibilities and interfaces (see Section 3.2) and insufficient institutional expectations and requirements (see Section 3.3). In addition, as discussed in Section 2.1, none of the reviewed sites are reporting to the GIDEP database as required by the Policy Letter.

At several sites, contractor procedures include appropriate provisions for reporting, but those procedures are not always effectively implemented. Sites have successfully identified and reported S/CIs on a number of occasions, but on other occasions, weaknesses in NCR process implementation have impacted timely identification and communication of S/CI information. For example, at several evaluated sites, S/CIs identified during receipt inspection were not always reported in ORPS or to the IG as required by site procedures. At one site, identified S/CI parts were held in a warehouse for several years but were not reported in ORPS or to the IG. At several sites, NCRs were not always issued after S/CIs were identified, as required by site procedures; S/CI reporting requirements were then not met because the NCR (which was the only applicable reporting mechanism) was not generated. In some cases, no evaluation of the potential for the identified S/CIs to be installed or at other locations was documented on NCRs. The source and cause of S/CI material (fasteners and circuit breakers) found during inspections of warehouses and issue stations at one site were not determined during the disposition of the resulting NCRs, and subsequent inspections at the same locations several years later identified that additional S/CIs had been introduced. In addition to failure to follow existing site procedures, other factors discussed elsewhere in this report (e.g., differing interpretations of ORPS reporting requirements, a lack of S/CI training, insufficient S/CI assessments, and insufficient site awareness of S/CI issues) contributed to reporting weaknesses. DOE

sites generally do not adequately evaluate the extent of condition and root causes as part of the analysis and reporting processes.

With some exceptions, most evaluated sites have established processes for receipt and dissemination of external information about S/CIs and other non-conforming items. Most sites use their lessons-learned program as the principal mechanism for screening external information about S/CIs and other non-conforming items and disseminating that information to site organizations. The Savannah River Site has a detailed and rigorous lessons-learned program that is used effectively to communicate and document S/CI information. Also, most sites routinely receive and screen information from the DOE Society for Effective Lessons Learned Sharing (SELLS) database, DOE Operating Experience Weekly Reports, the Consumer Product Safety Commission website, and internal site-specific lessons-learned sources, such as occurrence reports.

Some site contractors have also developed additional mechanisms. For example, the Savannah River Site developed and uses a Controlled Products List to capture and consolidate all S/CI and non-conforming item information from the site lessons-learned program. Field procurement engineers use this list to ensure that S/CI and non-conforming items are not included in requisitions. The consolidation of S/CI information and non-conforming items on a single list increases awareness and facilitates the use of S/CI information by responsible site personnel.

Although the framework for an effective communications process is in place at most reviewed sites, process and performance weaknesses have resulted in untimely or ineffective evaluation and dissemination of S/CI and non-conforming item information. Only three sites that were evaluated were familiar with and able to show evidence of receipt and dissemination of seven or more items from the ten selected case studies. Other sites that were reviewed demonstrated awareness of less than half of the ten case study items and typically could provide only anecdotal evidence of dissemination. As a result of awareness created by the OA review, several sites have initiated formal communication and investigation for some case study items.

Most site lessons-learned processes lack rigor and formality in documenting the applicability of lessons learned, actions required or taken in response to lessons learned, and follow-up and closure of actions taken. Key deficiencies that reduce the effectiveness of lessons-learned processes include:

- Lessons-learned procedures typically lack sufficient requirements for formally documenting feedback on applicability reviews, needed actions, or actions taken. Established, formal feedback mechanisms are rarely used. As discussed in Section 3.1, weaknesses in lessons-learned program feedback processes contributed to untimely and ineffective initial investigative efforts for Temperform aluminum at one site.
- Distribution lists for communication of lessons learned are not formally documented, maintained, and controlled to ensure that appropriate organizations and individuals receive S/CI and non-conforming item information in a timely manner.
- Established, formal lessons-learned processes are often not used. Instead, information is disseminated informally (e.g., by email), thus bypassing formal applicability and priority determinations, development of needed actions, and formal tracking and feedback mechanisms.
- Not all available information sources, such as the GIDEP failure database, the NNSA lessons-learned database, and the QAWG data collection sheets, are routinely screened for lessons-learned applicability. Participation in the GIDEP failure database is voluntary, and most sites are unaware of this information resource. As discussed in Section 2.3, the QAWG had no systematic process for ensuring that sites received information or that the site point-of-contact list was accurate.
- Several sites indicated that multiple Headquarters efforts (i.e., establishing additional, duplicative lessons-learned databases) complicated site efforts and drained limited site resources.

The failure to identify and document the applicability of lessons learned, needed actions, or actions taken was previously identified as a recurring deficiency on OA inspection activities (see the March 2003 *Independent Oversight Lessons Learned Report*).

DOE does not have a formal institutional driver to ensure that sites establish rigorous lessons-learned programs. DOE expectations for the generation and application of lessons learned are defined in a DOE standard; general expectations are expressed in other policies but are not codified in a mandatory DOE order.

Several sites evaluated in this special study had ongoing initiatives to further strengthen the formality of their lessons-learned processes. However, this OA review demonstrates a need for additional DOE-wide actions to strengthen lessons-learned requirements to ensure timely communication, analysis, and closure of safety-significant information that requires line management action.

OA's review indicates that S/CIs are still being discovered during receipt inspections and maintenance/operations of facilities. These continued discoveries indicate that S/CIs are still being supplied to DOE sites, and that vendor controls cannot be relied on exclusively. Comprehensive and robust S/CI programs are still needed. At the seven sites, OA determined that contractors with robust S/CI processes have, in general, identified and reported a larger number of S/CIs than sites with less robust programs. When DOE management attention was directed at S/CIs in the 1995 timeframe, a large number of S/CIs were reported via ORPS, many identified as a result of directed inspections of installed equipment. Since then, for many sites, there have been very few reports of S/CIs through ORPS until the recent attention resulting from the Temperform issue. Reporting on the identification of both installed and procured S/CIs has dramatically increased throughout the DOE complex in 2003.

Overall, the effectiveness of management systems and controls for timely reporting and exchange of information varies widely for the seven evaluated sites, and improvements are needed at most sites. Contractor NCR systems provide a viable mechanism but have not always been used effectively to properly document S/CIs, comply with ORPS and IG reporting requirements, and facilitate communication of S/CI information. Ongoing EH and planned program office enhancements should improve the consistency in site reporting of S/CIs and non-conforming item information, but additional strengthening of lessons-learned requirements is warranted.

3.8 Assessments

Various DOE directives (e.g., worker safety order, quality assurance order/rule, the integrated safety management policy, and the line management oversight policy) require line management to perform assessments of safety-related systems and processes. S/CI processes are one of the many safety system functional areas that are to be assessed by DOE line management oversight programs and contractor

assurance programs. DOE directives do not specify minimum frequencies for assessments of specific safety systems, such as S/CI processes. Rather, DOE field elements and contractors are required to develop site-specific assessment priorities and plans, such as site quality assurance plans.

Of the seven sites reviewed, only the Pantex Plant has devoted significant attention to S/CI processes in its site-specific assessment program. Although a few weaknesses were noted, the Pantex Plant contractor assessment program includes regular self-assessments and independent assessments of S/CI processes. For example, the contractor's assessment organization performed an independent assessment of compliance with the S/CI requirements in July 2002, and the quality organization performed assessments of the S/CI processes in August 2000 and in June 2003. These assessments identified opportunities for improvement, and several enhancements are under way or planned. In addition, NNSA's Pantex Site Office routinely conducts quality assurance surveys, which occasionally address elements of S/CI processes.

At the other sites reviewed, DOE field element and site contractor assessment programs do not have provisions for regularly assessing the effectiveness of S/CI processes. In a few instances, portions of S/CI-related processes (e.g., procurement) were assessed as part of a review of other safety programs, but most sites have not performed recent assessments focusing on the effectiveness of their S/CI processes. With few exceptions, DOE contractors do not assess S/CI processes as a regular part of their line management self-assessments. Similarly, DOE line and contractor independent assessments (e.g., assessments by quality assurance organizations or audit organizations) rarely address S/CI elements, even when related processes (e.g., procurement or maintenance) are assessed.

Overall, based on OA's sample of seven sites, assessment programs at most DOE sites do not adequately assess the effectiveness of S/CI processes. The S/CI process and implementation deficiencies noted at several sites result at least partially from the lack of effective assessments by DOE line management and site contractors.

3.9 Summary

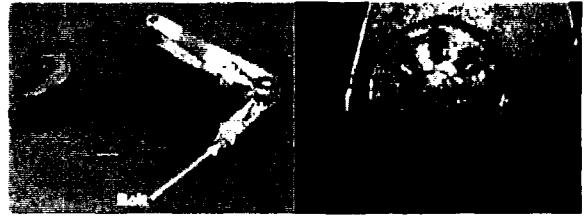
S/CIs are still being discovered in DOE warehouses and facilities, indicating a need for improvement in S/CI controls and increased management attention. Increased attention is needed to ensure that information about S/CIs and non-conforming items is effectively communicated and readily accessible. Effective assessments by DOE line management and site contractors are also essential to ensure that programs are improved and sustained.

Based on a sample of seven DOE sites, the implementation of DOE S/CI requirements varies in rigor, level of formality, and effectiveness. Some sites have mature programs with well-documented processes and clear responsibilities, with only a few weaknesses. Other sites and most DOE field elements do not have structured programs and rely extensively on individual training and initiative to identify and disposition S/CIs. In general, the sites with structured programs and designated S/CI coordinators are more effective in implementing controls and discovering S/CIs. Although the effectiveness of S/CI processes varied considerably, all sites had some weaknesses in procurement, disposition, reporting functions, assessments, flowdown of requirements, roles and responsibilities, or training programs. The weaknesses in S/CI processes have, in turn, contributed to delays in performing effective investigations in response to the GIDEP Notice on Temperform.

Conclusions

Weaknesses in the DOE Headquarters and site S/CI processes resulted in delays and deficiencies in DOE's initial investigations of the Temperform issue. Improvements are needed to preclude recurrence of similar problems. The ongoing and planned actions by EH and some sites are generally appropriate but need to be expanded and applied across the DOE complex as follows:

- EH should expand their draft action plan to address the applicable recommendations listed below. EH also needs to ensure that the general areas of needed improvement identified in the draft action plan are translated into a detailed set of actions that fully address the weaknesses identified in this report. Further, EH needs to communicate the new processes to DOE sites, including expectations for field interfaces and feedback on the new processes and information systems.
- All DOE program offices (including those not evaluated in this special study) need to direct their field elements and contractors to review this OA report and conduct an applicability review for each of the recommendations. This applicability review should critically examine current processes at each site to determine whether the recommendations are applicable to their programs and facilities and take appropriate actions to enhance their processes.
- EH also needs to coordinate and monitor DOE Headquarters efforts to address the recommendations that apply to DOE Headquarters, in accordance with their responsibilities for monitoring and tracking line management progress in addressing cross-cutting issues, as described in the Deputy Secretary of Energy's memorandum of March 31, 2003.



Ratchet Tie-Down and Suspect/Counterfeit Bolt

Recommendations

This OA evaluation identified the following recommendations. These potential enhancements are not intended to be prescriptive. Rather, they are intended to be reviewed and evaluated by the responsible line management and modified as appropriate, in accordance with programmatic objectives and priorities. The recommendations for DOE field elements and contractors are based on the review of a sample of DOE sites. However, all DOE field elements and contractors should examine the recommendations and the associated underlying weaknesses in Sections 2 and 3 to determine applicability to their facilities and activities.

Headquarters Line Organizations

1. For all sites under each program office's jurisdiction, ensure that the provisions of DOE Order 440.1A, Attachment 2, Section 22 (or comparably effective standards) are addressed and that S/CI processes are effectively implemented. Specific actions to consider include:

- Ensure that S/CI processes and other S/CI-related processes (e.g., quality assurance and procurement) are assessed by the responsible field element (or other suitable means) to determine their effectiveness in addressing safety-related aspects of S/CIs.
- Ensure that the provisions of DOE Order 440.1A, Attachment 2, Section 22 (or comparably effective alternative site-specific requirements) have been established in the site

contract and Work Smart Standards or S/RIDs and flow down to the working level.

- Ensure that unique aspects of S/CI, such as reporting requirements and interfaces with the IG, are fully addressed.
- Evaluate reporting processes and their implementation to determine whether reporting and sharing of information meet DOE expectations.
- Ensure that DOE field elements and contractors have adequate provisions for regular assessments of S/CI processes or regularly address S/CI as part of self-assessments of facilities.

2. Ensure that processes are established to provide reliable and formal communications with site organizations. Specific actions to consider include:

- Coordinate with other line organizations for sites where multiple programs are present to ensure that all appropriate operations are included and to avoid redundant requests.
- Review distribution lists for future correspondence regarding S/CIs to ensure that all appropriate organizations are included.
- Develop processes for regularly updating interfaces and points of contact, including clear responsibilities for updates.
- Ensure that processes are established for providing formal line management direction to contractors (including involvement of the contracting officer where applicable) when DOE requires a formal report or actions in response to an S/CI or non-conforming item issue.

Office of Environment, Safety and Health

1. Expand the scope of EH's ongoing efforts to enhance the process for capturing, reviewing, and disseminating information about S/CIs to Departmental organizations. Ensure that the following items are considered:

- Ensure that the revised process communicates all appropriate information by a structured process to

responsible individuals and avoids reliance on informal mechanisms, such as conference calls and emails. The following elements should be addressed:

- Criteria for determining and utilizing the appropriate formal communication mechanism, such as an EH Alert, Operations Weekly, or input into the Department's lessons-learned database
 - Provisions in the mechanism utilized for significant items for specifying actions, reporting requirements, and milestones for completion of actions
 - Guidelines for timelines for processing information, including timelines for urgent actions
 - Provisions for consolidated DOE/NNSA resources for a single, comprehensive lessons-learned program and database.
- Establish processes for implementing the OMB requirements for exchange of information regarding non-conforming items, including a process for handling sensitive information obtained from GIDEP and expectations and assignment of responsibilities for inputting information into GIDEP.
 - In coordination with the IG, clarify expectations for reporting information about suspect items to the IG.
 - Ensure that the process is clearly communicated with line organizations, including expectations for types of information to be provided by the various mechanisms (e.g., Departmental lessons-learned process) and disposition of information from various sources. Consider issuing a transition plan that describes how and when EH will perform functions previously performed by the QAWG.

2. Expand the scope of EH's ongoing efforts to revise applicable DOE directives to improve the processes for the Department's management of S/CIs.

- Ensure that Departmental policies and directives effectively establish requirements and

responsibilities for implementation of OMB Policy Letter 91-3, *Reporting Nonconforming Products*. Departmental policies and directives need to clearly delineate requirements and responsibilities for both DOE and its contractors to use the GIDEP failure database to exchange information, examine GIDEP information and promptly disseminate safety-related information, conduct assessments of the effectiveness of programs, and establish procedures for involving the IG in receipt and dissemination of sensitive information.

- Ensure that roles and responsibilities for implementation of S/CI requirements are clearly defined in DOE directives. These requirements should clearly address DOE/NNSA Headquarters, field elements, and their contractors, and should be appropriately tailored based on the current overall missions and functions of each major organizational element.
- Ensure that key terms, such as “suspect” and “safety systems,” are clearly and consistently defined in DOE directives. Ensure that key definitions and terms used in directives clearly establish and maintain the intended broad scope of application of S/CI requirements, particularly in their use in nuclear facility, non-nuclear facility, and worker safety applications.
- Ensure that S/CI training program requirements and expectations are clearly delineated and addressed in applicable DOE orders and supporting guides. The guidance documents should address the types of individuals (positions) that should receive training and the type of training. It should also provide examples of training on site-specific processes and procedures for identifying, dispositioning, and reporting S/CIs, including how each site interfaces with the IG as part of the reporting process.
- Review and evaluate the need for establishing additional S/CI requirements for sites to formally establish a mechanism that captures and maintains current and accurate information on S/CIs and non-conforming products. Such a mechanism (e.g., a controlled product list) is essential to ensure effective implementation of S/CI controls for preventing and minimizing the potential for introduction of S/CIs and non-conforming products.

- Review and evaluate the need for establishing requirements for minimum performance expectations to ensure that sites establish rigorous lessons-learned programs. Departmental expectations for the generation and application of lessons learned are defined in a standard and manual, and general expectations are expressed in other policies, but they are not codified in a mandatory DOE directive. Failure to identify and document the applicability of lessons learned, needed actions, and actions taken has been identified as a recurring deficiency in OA inspection activities, previous Type A and B incident investigations, and this special study.

3. Establish centralized information sources to provide ready and efficient access to information about known S/CIs and non-conforming items to Departmental organizations. Ensure that the following items are considered:

- In the website for S/CI information being established by EH, consider including and maintaining a list of known S/CI items for reference.
- Establish mechanisms for providing information about vendors that have distributed S/CIs.
- Consider identifying individual subject matter experts in various areas (e.g., electrical, fasteners, fire protection) to serve as DOE-wide points of contact on technical aspects of S/CI decisions. For example, sites could call an individual to obtain advice on a particular non-conforming item (e.g., is the non-conforming item within the normal range of defects, or is it indicative of deliberate fraud that needs to be reported?).
- Tailor Headquarters S/CI processes to meet the needs of DOE sites, which have a wide range of resources and capabilities (e.g., some of the larger DOE field elements and large sites are essentially self-contained with respect to S/CI management and are capable of performing screening and analysis functions with little or no support from Headquarters, whereas other sites have fewer resources and expertise in the area of S/CI and must rely heavily on DOE Headquarters to perform screening and analysis functions).

4. Develop a structured process for managing the correction of cross-cutting issues. Specific actions to consider include:

- Ensure that the process addresses identifying causal analysis, determining the extent of condition, clearly establishing deliverables, assigning responsibility for actions, tracking actions to closure, and measuring effectiveness.
- Establish processes for interacting and coordinating with program offices and sites to ensure effective and efficient dissemination of information while ensuring that formal direction is provided through line management channels, including the contracting officers where appropriate.
- Expand or modify existing processes (e.g., lessons learned, corrective action management) to provide a mechanism for ensuring that necessary actions in response to non-conforming item issues are documented, assigned to organizations, tracked, and monitored.

DOE Sites (Field Elements and Contractors)

1. Ensure that appropriate requirements, limitations, and S/CI controls are clearly prescribed for the use of all established methods of procurement and that implementation of these requirements is periodically monitored. Specific actions to consider include:

- Ensure that formal supplier qualification and re-qualification processes are established and implemented, including routine collection and evaluation of feedback on vendor performance. Ensure that alternative mechanisms, such as commercial item dedication processes, provide comparably effective controls.
- Ensure that appropriate S/CI controls, including receipt inspection criteria, are applied to both safety-related and important-to-safety (e.g., emergency power, life safety, and boilers) infrastructure SSCs and to other equipment that could affect worker safety (e.g., lifting gear). Establish these controls on a graded basis that considers the risks involved and historical experience with S/CIs.

- Ensure that adequate controls are implemented for segregation and separate storage of material identified as suspect/counterfeit, to be inspected, on quality assurance hold, inspected, and accepted.
- Ensure that subcontractors establish and implement sufficient controls to preclude the introduction or use of S/CIs. These controls should address construction materials, maintenance or modification equipment and components, and the use of subcontractor-owned or rental equipment (cranes, hoists, etc.) on site.
- Fully integrate S/CI processes, requirements, and controls into integrated safety management and quality assurance programs and procedures (e.g., training, procurement, maintenance, and assessment) to ensure adequate linkage to S/CI elements.

2. Evaluate the processes in place for identifying and dispositioning installed S/CIs to ensure that they provide assurance that installed S/CIs will be identified and appropriately dispositioned. Specific actions to consider include:

- Establish expectations for timeliness in determining whether non-conforming items are S/CIs.
- Establish protocols for clearly identifying S/CIs that are determined to be acceptable for use.
- Incorporate inspections for S/CI material into routine maintenance activities, and provide clear guidance for the disposition of installed S/CI materials identified during routine inspections and maintenance activities. Integrate expectations for S/CI controls within existing processes, such as routine and special inspections for S/CIs, in site procedures and provide guidance for performing such inspections.

3. Evaluate and enhance current management systems and processes for reporting and information exchange to ensure that they are capable of maintaining current, accurate information on S/CIs and associated suppliers, use all available sources, and ensure dissemination of relevant information on S/CIs. Specific actions to consider include:

- Evaluate the need for a documented process that formalizes roles and responsibilities and interfaces for management of S/CIs, including provisions for the handling of sensitive information and interfacing with the local DOE IG to ensure effective, consistent, and timely communication of S/CI information.
- Consider establishing S/CI coordinator positions to ensure that the multiple site organizations work together to perform S/CI functions effectively.
- Ensure that appropriate S/CI reporting requirements are effectively integrated into site contractors' processes for disposition of non-conforming items, such as site NCR processes, as required by appropriate DOE directives.
- Evaluate lessons-learned processes to determine whether all available and relevant information resources, such as GIDEP, are being utilized for screening S/CIs and other relevant information for potential applicability to site activities.
- Evaluate the rigor and formality of lessons-learned processes and ensure that sufficient requirements and performance expectations have been established for the documentation of applicability reviews, needed actions, and actions taken for lessons learned that require line management attention and action. Lessons learned requiring line management action should be integrated with the site's corrective action management processes to ensure formal tracking, feedback, and closure of actions taken.
- Ensure that corrective action and issues management procedures include formal linkage to S/CI reporting requirements for DOE site offices, ORPS, contractor general counsels, and the IG. Improve documentation of procurement information related to non-conforming material, including S/CIs.

4. Establish sufficient site mechanisms, such as a controlled product list, to maintain current and accurate information on S/CIs. Include provisions for making this information readily available to site personnel who have S/CI responsibilities for procurement, inspection, and other areas associated with the implementation of S/CI controls.

5. Evaluate S/CI training programs and make necessary revisions as needed. Specific actions to consider include:

- Formalize S/CI training programs to include the identification of positions and associated personnel required to receive training, the processes for designating those personnel who must receive initial and refresher training, and the required frequencies for refresher training.
- Ensure that all personnel involved in design, system engineering, procurement, inspection, maintenance, or other functions involving potential S/CI materials receive S/CI process and hands-on training. Place special emphasis on ensuring that system engineers involved in the design, procurement, and inspection of materials and components with the potential for S/CIs receive such training.
- Ensure that subcontractors involved in the procurement or handling of potential suspect/counterfeit materials and components receive initial and refresher training and are knowledgeable of site S/CI processes, procedures, requirements, and controls.
- Ensure that S/CI training addresses site-specific processes and procedures for identifying, dispositioning, and reporting S/CIs, including reporting to the IG.

6. Ensure that S/CI process assessments are performed by both DOE and the contractor to provide management with adequate information on S/CI processes and implementation of S/CI requirements. Specific actions to consider include:

- Ensure that S/CI processes are subject to regular self-assessments, consistent with site self-assessment protocols.
- Perform assessments of S/CI processes to evaluate significant changes to S/CI processes and establish a baseline for implementation where appropriate. Based on the baseline reviews, tailor further assessments to the maturity of the S/CI processes.
- During assessments of areas that interface with S/CI processes (procurement process, NCR

process, etc.), consider and evaluate S/CI lines of inquiry as appropriate.

- Perform DOE line management assessments of contractors' S/CI processes within the range of

assessment activities, based on the maturity and/or level of activity of the S/CI processes or when significant changes to the processes have been implemented. Assessments in related areas, such as procurement, should consider S/CI interfaces.

APPENDIX A

SUPPLEMENTAL INFORMATION

A.1 Dates of Review Activities

Headquarters Review May 12 - June 6, 2003

Site Reviews

Los Alamos National Laboratory	June 9 - 13, 2003
Savannah River Site	June 9 - 13, 2003
Kansas City Plant	June 23 - 27, 2003
Hanford Site	June 23 - 27, 2003
Office of River Protection	June 23 - 27, 2003
Oak Ridge National Laboratory	July 7 - 11, 2003
Pantex Plant	July 7 - 11, 2003

Report Writing and Validation July 14 - 31, 2003

A.2 Review Team Composition

A.2.1 Management

Glenn Podonsky, Director, Office of Independent Oversight and Performance Assurance
Michael Kilpatrick, Deputy Director, Office of Independent Oversight and Performance Assurance
Patricia Worthington, Director, Office of Environment, Safety and Health Evaluations
Thomas Staker, Deputy Director, Office of Environment, Safety and Health Evaluations

A.2.2 Quality Review Board

Michael Kilpatrick	Patricia Worthington
Thomas Staker	Dean Hickman
Robert Nelson	Tom Davis

A.2.3 Review Team

Patricia Worthington, Team Leader	Robert Compton
Thomas Staker, Deputy Team Leader	Albert Gibson
Robert Freeman	Mark Good
Ali Ghovanlou	Bernard Kokenge
Mike Gilroy	Jim Lockridge
Jim O'Brien	Ed Stafford
William Miller	

A.2.4 Administrative Support

Mary Ann Sirk
Tom Davis

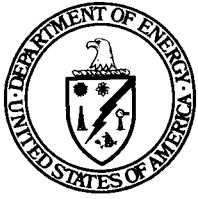
SEPARATION

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APPENDIX ONE

**OFFICE OF ENVIRONMENTAL MANAGEMENT FIELD
REPORTS ON TEMPERFORM**

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Department of Energy

Washington, DC 20585

MAY 18 2003

MEMORANDUM FOR BEVERLY A. COOK
ASSISTANT SECRETARY FOR
ENVIRONMENT, SAFETY AND HEALTH

FROM

Jessie Hill Roberson
JESSIE HILL ROBERSON
ASSISTANT SECRETARY FOR
ENVIRONMENTAL MANAGEMENT

SUBJECT: Office of Environmental Management's Final Report on the
Investigation of the Use of Improperly Heat Treated
Aluminum Supplied by Temperform USA

The purpose of this memorandum is to provide you with the Office of Environmental Management's (EM) final report on the investigation of the use of improperly heat-treated aluminum materials/parts, components and equipment supplied by Temperform or Temperform vendors in safety-related or mission sensitive applications. EM conducted a very thorough and comprehensive investigation into the use of Temperform products. The investigation covered the EM field elements and included a review of contractors', subcontractors' and suppliers' procurement records/activities for materials/parts, components or equipment placed with Temperform or one of its vendors from May 1998 to the present. The investigation concluded that EM's contractors, subcontractors or suppliers have not procured and/or used heat-treated aluminum materials/parts, components or equipment supplied by Temperform USA or its vendors.

Attached is a copy of the EM final report documenting the investigation and conclusions. If you have any questions please call Ms. Sandra Johnson at (202) 586-0755.

Attachments

cc:

M. Whitaker, DR-1

P. Golan, EM-3

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**OFFICE OF ENVIRONMENTAL MANAGEMENT (EM)
FINAL REPORT ON THE
INVESTIGATION OF THE USE OF TEMPERFORM**

EXECUTIVE SUMMARY:

In February 2003, the Assistant Secretary for Environmental Management (EM) initiated an investigation into the use of improperly heat-treated aluminum by Temperform USA. The investigation, through lines of inquiry, covered a review of EM field elements' contractors', suppliers', and subcontractors' procurement activities from May 1998 to the present and included a review for materials/parts, components, or equipment heat-treated, supplied, or tested by Temperform USA or Temperform USA vendors. The investigation focused on safety-related and mission-sensitive application, but also covered non-safety-related applications.

The investigation concluded that EM, including its contractors, suppliers and subcontractors have not procured and/or used heat-treated aluminum materials/parts, components, or equipment supplied by Temperform USA or Temperform USA vendors. The total cost to perform the investigation was \$19,398.77. Attached is a summarization of the EM field elements' investigation results (Attachment 1), including cost to perform the investigation and all field documentation (Attachment 2). This represents EM's final report on the investigation into the use of improperly heat-treated aluminum by Temperform USA.

BACKGROUND:

In July 2002, the Department of Energy's Quality Assurance Working Group (QAWG) reviewed data from the Government-Industry Data Exchange Program (GIDEP) and discovered that the Defense Criminal Investigation Service was investigating a quality/safety issue concerning aluminum parts heat-treated by Temperform USA. The QAWG initiated an informal investigation to determine if DOE contractors, suppliers, or subcontractors had procured and/or used heat-treated aluminum materials/parts, components, or equipment supplied or tested by Temperform USA or Temperform USA vendors in safety-related applications. Many sites began the investigation based on this information.

In early February 2003, the Assistant Secretary for Environmental Management was officially informed of the Temperform issue/problem by the Director of the Office of Safety and Engineering (EM-5). On February 11, 2003, due to concerns raised regarding the investigation by the QAWG, EM issued a memorandum for all EM field organizations to initiate a formal investigation into the use of improperly heat-treated aluminum by Temperform or Temperform vendors in

safety-related and mission sensitive applications for EM activities. The EM memo contained specific lines of inquiry that the EM field elements were to pursue in conducting their investigation to be completed within 30 days.

On March 18, 2003, the Office Environment, Safety and Health (EH) issued a memorandum to EM and Defense Programs requesting both organizations to conduct a formal investigation into the use of improperly heat-treated aluminum materials/parts, components and equipment by Temperform or Temperform vendors in safety-related or mission sensitive applications. The EH memo contained lines of inquiries similar to the EM memo.

On March 30, 2003, EM provided a status of its investigation to EH and committed to provide a final report by April 30, 2003. At the time of the status report none of the EM field elements' responses identified the procurement or use of materials/parts, components or equipment that may have been heat-treated, supplied or tested by Temperform or Temperform vendors.

In early April 2003, EM recognized two differences between the EM and EH memos and informed EH and the Defense Nuclear Facilities Safety Board staff that the final report would be delayed until May 15, 2003, to ensure the differences had been addressed. The EM memo made reference to a time frame between May 1998 and May 2002 and reference to raw materials. The EH memo made reference to a time frame after May 1998 and reference to materials/parts, components and equipment. EM contacted each of the field elements and received either formal or Email responses re-affirming that the investigation covered a review of procurement activities from May 1998 to present and included materials/parts, components, and equipment.

INVESTIGATION:

The EM formal investigation covered all EM field organizations/activities. Formal responses were received from the seven field elements that EM serves as the Lead Program Secretarial Officer (LPSO). Field elements where EM is not the LPSO chose to submit formal responses to their respective LPSO. The investigation covered a comprehensive and thorough review of EM field elements' contractors, suppliers and subcontractors procurement activities from May 1998 to present and included a review for materials/parts, components, or equipment heat-treated, supplied, or tested by Temperform USA or Temperform USA vendors in safety-related or mission sensitive application. The investigation also included a review for Temperform materials/parts, components, or equipment used in non-safety-related applications.

None of the EM sites' investigations reported placing contracts with Temperform USA or Temperform vendors for heat-treated aluminum materials/parts, components or equipment.

EM REVIEW:

EM Headquarters (HQ) performed a review of the field elements' responses to the use of improperly heat-treated aluminum by Temperform USA in safety-related or mission sensitive applications. The review confirmed that the EM field elements investigations covered the time frame from May 1998 to the present; included a review of materials/parts, components and equipment, not just raw materials; and a review of contractors, suppliers and subcontractors procurement records. Each field element identified a cost associated with the investigation or claimed no cost due to the insignificant amount of resources to perform the investigation. Suspect/counterfeit Products Training was reflected as a part of each sites' training activities in accordance with DOE O 440.1A, *Worker Protection Management for DOE and Federal Contractor Employees*.

EM HQ staff were intimately involved and had numerous discussions with field element personnel regarding the results of the investigations and to re-affirm that the investigations covered the time frame from May 1998 to the present and included a review of materials/parts, components and equipment, not just raw materials. Further, discussions with the Office of the Inspector General noted that only 7% of the aluminum parts tested by the Air Force were found to be defective. This gives support that while not all Temperform materials/parts produced doing after May 1998 were defective, all materials/parts, components, and equipment produced or tested by Temperform or Temperform vendors after May 1998 should be classified as suspect. EM HQ staff also ensured that all EM field organizations responded to the investigation through their appropriate LPSO.

CONCLUSION:

EM has concluded that as a result of the thorough and comprehensive investigations performed by its field elements that there is no evidence that Temperform materials/parts, components or equipment were procured, installed or used in safety-related or mission sensitive applications. EM continues to support and re-affirm the need for a more formal and institutionalized system to identify suspect/counterfeit products and provide notification to the DOE line organizations. EM is working closely with EH to ensure there is rigor, discipline, and formality behind the implementation and actions to support this type of system.

EM takes quality issues, such as suspect/counterfeit materials/parts, components and equipment very seriously and will act quickly to investigate all concerns in a rigorous and discipline manner to ensure the safety and protection of its workers, public, and the environment.

**ATTACHMENT ONE
OFFICE OF ENVIRONMENTAL MANAGEMENT
SUMMARIZATION RESULTS
OF TEMPERFORM INVESTIGATION**

The Office of Environmental Management (EM) field elements initially investigated the Temperform issue based on information available from Quality Assurance Working Group (QAWG) in Emails of July 2002 and December 2002. On Feb. 11, 2003, EM issues an official memorandum formally requesting the EM field elements to perform the Temperform investigation. In late April 2003 and early May 2003, EM contacted each field element to re-affirm that the Temperform investigation covers a review of records from May 1998 to present and included parts, equipment and components. Both formal and Email responses were received for the EM field elements. The formal and Email responses are summarized below, including the cost of the investigation.

EM SITES	Temperform or Temperform Vendor	Safety-Related or Mission Sensitive	Disposition	Cost
CBFO	No	Not Applicable	Not Applicable	\$86.64
IDAHO	No	Not Applicable	Not Applicable	\$4,860.00
OHIO	No	Not Applicable	Not Applicable	WV \$1,789.00
OAK RIDGE	No	Not Applicable	Not Applicable	Cost was insignificant
ORP	No	Not Applicable	Not Applicable	CHG \$5,383.00
ROCKY FLATS	No	Not Applicable	Not Applicable	\$380.13
RICHLAND	No	Not Applicable	Not Applicable	BHI \$2,500.00 PNNL \$3,650.00
SAVANNAH RIVER	No	Not Applicable	Not Applicable	\$750.00

Total cost to perform the investigations: \$19,398.77.

**ATTACHMENT TWO
OFFICE OF ENVIRONMENTAL
MANAGEMENT**

**Site Support Documentation on the
Temperform Investigation**

CARLSBAD FIELD OFFICE

Response to Temperform Investigation

DOE F 1325.8

United States Government

Department of Energy

memorandum

Carlsbad Field Office
Carlsbad, New Mexico 88221

DATE: March 13, 2003

REPLY TO
ATTN OF: CBFO:QA:ALH:GS:03-0081:UFC 1000.00

SUBJECT: Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company

TO: Jessie Hill Roberson, Assistant Secretary, EM-1

This is in response to your memorandum dated February 11, 2003, Subject as above, requesting an investigation into use of improperly heat-treated aluminum parts/materials supplied by Temperform Company. WIPP personnel have completed the requested investigation and have determined that there has been no procurement or installation of Temperform parts/materials at the WIPP site.

Following are the specific responses to the individual lines of inquiry requested in your memorandum:

1) *"Has site contractor(s) (including their subs) procured or used raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May 2002."*

Response: Investigation results indicate that WIPP site has not procured or used this type of raw material.

2) *"Has site contractor(s) (including their subs) procured or used raw material that may have been heat treated, supplied or tested by Temperform from vendors/suppliers identified on the attached list, between May 1998 and May 2002."*

Response: Investigation results indicate that WIPP site has not procured materials from the vendors/suppliers identified on the list.

3) *"If you discover that site contractor(s) (or subs) have or use materials/parts or equipment heat treated, supplied or tested by Temperform or Temperform vendors:*

- a. *"Determine whether these parts are installed in any system performing a safety function (i.e., safety class or safety significant system); or if they are intended for use in a safety system but are still in inventory. If you do discover parts in safety systems, please perform engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so."*

Jessie Hill Roberson

-2-

March 13, 2003

- b. *"Collect and track information on procurement and use of Temperform parts or materials for non-safety related systems. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety applications."*

Response: Not applicable since these materials or vendors have not been identified in the WIPP system.

- 4) *"Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information such as part number or model number and application/systems may be useful information to share with other Department of Energy (DOE) sites."*

Response: Not applicable since these materials or vendors have not been identified in the WIPP system.

- 5) *"Determine the cost associated with this investigation. The Office of Inspector General will attempt to recover the cost associated with the investigation. The cost should be broken into categories: total cost for man-hours; total cost for disposition of material (i.e., replacement cost, scrap cost etc.); total cost for travel (if any) and total cost for testing (if any). Backup documentation is not necessary to be submitted, but should be maintained by your respective sites in case the costs are challenged later."*

Response: Estimated costs for WIPP investigation of this matter are for man-hours only. Labor costs consist of time spent to research procurement records of 2 hours at \$43.32 per hour totaling \$86.64. There are no costs associated with the other categories listed since such parts/materials were not identified as having been procured.

- 6) *"Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees."*

Response: The WIPP M&O Contractor has had a suspect/counterfeit identification program implemented for the last 6 years. This program provides periodic training on identification of suspect/counterfeit parts to maintenance, warehouse, and inspection personnel. All authorized requisitioners and credit card holders are also required to participate in this training. In addition, there is a designated Suspect/Counterfeit Program Coordinator who is the central point for collection and dissemination of information about suspect/counterfeit parts issues identified within the industry.

If you have any further questions regarding this matter, please contact Ms. Ava Holland, CBFO Quality Assurance Manager, at 505-234-7423.



Dr. Ines R. Triay
Manager

Vaughan, Larry

From: Holland, Ava - DOE [Ava.Holland@wipp.ws]
Sent: Tuesday, May 06, 2003 2:37 PM
To: 'Vaughan, Larry'
Subject: RE: Temperform

Larry
Yes, it did. The search was actually phrased as universal -- it looked for everything related to Temperform and the identified vendors. And don't worry about pestiness -- that's a qualification required for all of our jobs <g>.
Ava

-----Original Message-----

From: Vaughan, Larry [mailto:Larry.Vaughan@em.doe.gov]
Sent: Tuesday, May 06, 2003 10:30 AM
To: 'Holland, Ava - DOE'
Subject: RE: Temperform

Ava,

Do you know if the search cover raw materials, parts, equipment and components? I think it would have, but please check to make sure. Sorry to be a pest (smile).

Thanks
again
lv

-----Original Message-----

From: Holland, Ava - DOE [mailto:Ava.Holland@wipp.ws]
Sent: Tuesday, May 06, 2003 12:23 PM
To: Larry Vaughan (E-mail)
Subject: Temperform

Larry
My apologies for not getting back with you immediately when you called last week.

The investigation of potential use of temperform materials performed by WTS for the WIPP site included the time frame of 1995 to the present. This research was performed using electronic procurement records contained in the WIPP site IBSS system, and incorporated search parameters as listed in the memo issued by Ms. Roberson on February 11, 2003:

- * procurement of raw material that may have been heat treated, supplied or tested by Temperform
- * use of any of the suppliers listed in the memo's attachment to supply raw material that may have been heat treated, supplied or tested by Temperform

The results of the research indicates that WTS has not directly procured raw materials that may have been heat treated, supplied or tested by Temperform; nor has any such material been procured through any of the listed suppliers.

If you need additional information, give me a call.
Ava

Vaughan, Larry

From: Holland, Ava - DOE [Ava.Holland@wipp.ws]
Sent: Wednesday, April 30, 2003 10:08 AM
To: Larry Vaughan (E-mail)
Subject: Temperform

Larry

I've just received confirmation from WTS that the research performed on Temperform covered the entire time span of the financial database from 1995 to the present. If there is any other information you need, please call.

Ava

IDAHO OPERATIONS OFFICE

Response to Temperform Investigation

memorandum

Idaho Operations Office

Date: February 28, 2003

Subject: INEEL Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company (TS-QAD-03-007)

To: Jessie Hill Roberson
Assistant Secretary for Environmental Management

Reference: Memorandum, Jessie H. Roberson to Distribution, Subject: Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company, dated February 11, 2003

In the referenced memorandum you requested a report concerning the Temperform investigation that was conducted at the INEEL.

Our initial investigation was performed at the request of Tom Rotella, NA-53, Chairman of the DOE Quality Assurance Working Group (QAWG); this was an electronic mail request. We responded to this request on August 14, 2002, by electronic mail. The investigation determined that none of our site contractors, including subcontractors, had procured or used finished items or raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May 2002.

On January 21, 2003, we received an electronic mail request from Larry Vaughn, EM-5, to estimate the costs associated with this investigation. We responded by electronic mail to him on January 23, 2003, that the total costs were approximately \$4860. These costs include the labor costs of both federal and contractor personnel.

The INEEL training and qualification program concerning suspect and counterfeit item (s/ci) controls is a mature program which was initiated in the fall of 1992 and implements the requirements of DOE O 440.1A and DOE G 440.1-6, *Implementation Guide for use with Suspect/Counterfeit Items Requirements of DOE O 440.1, Worker Protection Management*. Roles and responsibilities are documented in INEEL M&O contractor procedure MCP-9110, and employees with job responsibilities in the s/ci area are required to read the procedure and complete an online class (TRN711). In addition to this institutionalized training, in FY2000 and FY2001, 720 INEEL employees attended classroom training on s/ci provided by the DOE QAWG, which provided an opportunity to observe and handle actual counterfeit items that had been received in the DOE complex.

BNFL, Inc, the contractor for the privatized Advanced Mixed Waste Treatment Project (AMWTP), has also confirmed to DOE-ID that there is no application of heat-treated aluminum at the AMWTP facilities. Additionally, BNFL, Inc. has incorporated the guidance provided by DOE G 440.1-6 into primary inspection procedure MP-Q&SI-5.7. BNFL trains its inspection force on recognition and identification of s/ci, and requires demonstration of this knowledge as part of the qualification process.

Jessie Hill Roberson

-2-

February 28, 2003

Please contact Geoff Beausoleil at 208-526-5558 or beausogl@id.doe.gov if you have any questions.

A handwritten signature in black ink, appearing to read "W. E. Bergholz, Jr.", with a stylized flourish at the end.

Warren E. Bergholz, Jr.
Acting Manager

Vaughan, Larry

From: Beausoleil, Geoffrey L [beausogl@id.doe.gov]
Sent: Tuesday, May 13, 2003 11:33 AM
To: Larry Vaughan, EM-5
Subject: FW: GIDEP Agency Action Notice Regarding Temperform USA



TS-QAD-03-007.doc



RE: DOE-ID and
INEEL Response ...

Larry, here are a couple of e-mails from over the past 9 months regarding Temperform. I have also attached an unsigned version of the memo responding to Jessie (which I think you already have). I reverified this morning that the INEEL investigation went back at least 5 years. Let me know if you need more.

<<TS-QAD-03-007.doc>>

Geoffrey L. Beausoleil, DOE-ID
Deputy Director, Quality Safety & Health Division
208-526-5558
beausogl@id.doe.gov
"Execution coupled with accountability = Performance"

> -----Original Message-----

> From: Beidelman, D L
> Sent: Tuesday, May 13, 2003 9:23 AM
> To: Beausoleil, Geoffrey L
> Subject: FW: GIDEP Agency Action Notice Regarding Temperform USA

>
>
>
> "Oderint Dum Metuant"

> D. Lee Beidelman, DOE-ID
> Quality Assurance Specialist

> -----Original Message-----

> From: Davis, Robert D
> Sent: Tuesday, January 07, 2003 8:43 AM
> To: Southard, Jerry L; Thomas Rotella (E-mail); 'Larry Miller'
> Cc: Beausoleil, Geoffrey L; Beidelman, D L; Penny, Seldon K; Anderson, Brian S; Mooney, Lance A
> Subject: RE: GIDEP Agency Action Notice Regarding Temperform USA

>
> Thanks, Jerry, for checking once again to ensure INEEL is not vulnerable to the Temperform, heat-treated aluminum issue.

> Tom/Larry- Attached is our earlier conclusion, which remains valid. DOE-ID and BBWI plan no further action at this time.

> Please call me at (208) 526-4244 with questions.

>> <<RE: DOE-ID and INEEL Response Regarding Heat Treated Aluminum Issue>>

> Bob Davis
> DOE-ID QA

> -----Original Message-----

> From: Southard, Jerry L
> Sent: Tuesday, January 07, 2003 7:58 AM
> To: Davis, Robert D
> Cc: Beausoleil, Geoffrey L; Beidelman, D L; Penny, Seldon K; Anderson, Brian S
> Subject: Re: GIDEP Agency Action Notice Regarding Temperform USA

>
> I have compared the detailed list of companies who had parts processed at Temperform with our Qualified Suppliers List and found no matches. Previous research identified the only quality significant application of Aluminum and it did not involve Temperform.

>
> I do not propose any further research unless you feel we have missed something.

>
> Robert D Davis@Exchange 12/19/02 04:23 PM To: Jerry L Southard/SOUTJL/CC01/INEEL/US@INEL, D L
Beidelman@Exchange cc: Geoffrey L Beausoleil@Exchange, Brian S Anderson@Exchange Fax to: Subject: FW:
GIDEP Agency Action Notice Regarding Temperform USA

>
>
> Lee/Jerry-- I am forwarding the attached list of Temperform customers for your INFORMATION. I
believe that our earlier research re/ potential INEEL exposure on this issue remains valid and conclusive: The only
potential use of heat-treated aluminum at INEEL is in the Advanced Test Reactor, and the earlier research indicated that
the ATR core supplier maintains very tight controls on materials, and found no potential problems. Additionally, I don't
think there's any new information on the attachment that we haven't already seen and considered.

>
> However, I could be wrong; it happens about once every 20 years or so. Opposing views, etc.??
RDD

>
> -----Original Message-----

> From: Beausoleil, Geoffrey L
> Sent: Thursday, December 19, 2002 1:43 PM
> To: Davis, Robert D
> Subject: FW: GIDEP Agency Action Notice Regarding Temperform USA
> Importance: High

>
> Looks like the Temperform issue is raising its head again. Can you please have someone take care
of this?

>
> Geoffrey L. Beausoleil, DOE-ID
> Director, Quality Assurance Division
> 208-526-5558
> beausogl@id.doe.gov
> "Our processes, not our people, need to be the control point!"

>
> > The Quality Assurance Working Group is sending out this information about potentially fraudulent
heat treated aluminum parts from the Temperform Company once again. We are doing this to ensure that all of the DOE
sites understand the nature of the situation and what should be done to ensure that inferior products are not installed in
any application that is needed to ensure safe operations, be it in a system or an instrument or any other situation.

>
> Attached to this message is a list of companies who had parts processed at Temperform or who
approved Temperform as a vendor. It is imperative that contractors

- >
> 1.) ascertain whether or not they did business with any of these companies;
>
> 2.) determine if that business involved purchasing of parts or products that contained heat treated
aluminum parts from Temperform ;
>
> 3.) and determine if those parts or products are used to ensure safety.

>
> If affirmative answers exist for all three of these questions, the part in question should be evaluated by
competent engineering personnel and removed from service or stock and destroyed if necessary. Please make an
assessment

> regarding damages in these cases to our Agency.

>
> We ask that any instance of aluminum parts that may have been heat treated at Temperform you find
during this effort be reported to the Quality Assurance Working Group.

>
> Please contact me at 301-903-2649 or Matt Cole at 301-903-8388 if you have any questions.

>
> Tom Rotella,

>
> QAWG Chairman

> << File: Temperform - Companies Associated.pdf >>

Vaughan, Larry

From: Beausoleil, Geoffrey L [beausogl@id.doe.gov]
Sent: Tuesday, May 06, 2003 3:04 PM
To: Vaughan, Larry
Subject: RE: Temperform

It is true. They did look at raw materials, parts, components and equipment.

Geoffrey L. Beausoleil, DOE-ID
Deputy Director, Quality Safety & Health Division
208-526-5558
beausogl@id.doe.gov
"Execution coupled with accountability = Performance"

-----Original Message-----

From: Vaughan, Larry [mailto:Larry.Vaughan@em.doe.gov]
Sent: Tuesday, May 06, 2003 12:37 PM
To: Beausoleil, Geoffrey L
Subject: RE: Temperform

Geoffrey,

Thanks for the response. I took a closer look at the ID response dated 2/28/03. The response seems to indicate that the investigation covered a look for raw materials, parts, components and equipment even though these specific words are not used in the ID Manager's letter. Please let me know if this is true or not. This is another one of the differences between the EM and EH memos.

Thanks

lv

-----Original Message-----

From: Beausoleil, Geoffrey L [mailto:beausogl@id.doe.gov]
Sent: Tuesday, May 06, 2003 1:17 PM
To: Larry Vaughan, EM-5
Subject: Temperform

Larry,

The INEEL investigation on Temperform did cover the period of May 98 to present. In addition, this investigation included BBWI and BNFL, and sub-contractors/suppliers to them. Foster-Wheeler was not included in the investigation because F-W has not yet begun ordering/procuring material.

Should there be additional questions, please call.

Geoffrey L. Beausoleil, DOE-ID
Deputy Director, Quality Safety & Health Division
208-526-5558
beausogl@id.doe.gov
"Execution coupled with accountability = Performance"

Vaughan, Larry

From: Beidelman, D L [beideldl@id.doe.gov]
Sent: Thursday, January 23, 2003 12:49 PM
To: larry.vaughan@em.doe.gov
Subject: FW: Costs for Temperform Investigation

Importance: High

Larry, sending this again because I got your email address wrong. Forgot to have it independently verified!

D. Lee Beidelman, DOE-ID
Quality Assurance Specialist

> -----Original Message-----

> From: Beidelman, D L

> Sent: Thursday, January 23, 2003 10:15 AM

> To: 'larry.vaughn@em.doe.gov'

> Cc: Davis, Robert D; Beausoleil, Geoffrey L; Southard, Jerry L; Mooney, Lance A; Anderson, Brian S;
'edumas@bnflinc.com'

> Subject: Costs for Temperform Investigation

> Importance: High

>

> Larry,

>

> This is in response to your request for information concerning INEEL estimated costs associated with the Temperform investigation. If you have any questions, please call me at 208-526-2159.

>

> Man-Hours:

>

> DOE-ID, 11 hours @ \$60/Hr. equals \$660

> BWXT, 1 hours @ \$100/Hr. equals \$100

> BBWI, 40 hours @ \$100/Hr. equals \$4000

> BNFL, 1 hour @ \$100/Hr. equals \$100

>

> Man-Hours Total Cost: \$4860

>

> Testing: NONE

>

> Travel: NONE

>

> D. Lee Beidelman, DOE-ID

> Quality Assurance Specialist

>

Vaughan, Larry

From: Beausoleil, Geoffrey L [beausogl@id.doe.gov]
Sent: Wednesday, January 08, 2003 9:19 AM
To: 'Larry Vaughan, EM-5'
Subject: FW: GIDEP Agency Action Notice Regarding Temperform USA



RE: DOE-ID and
INEEL Response ...

Larry,

thought you would like to see this response, too.

Geoffrey L. Beausoleil, DOE-ID
Director, Quality Assurance Division
208-526-5558
beausogl@id.doe.gov

"Our processes, not our people, need to be the control point!"

> -----Original Message-----

> From: Davis, Robert D
> Sent: Tuesday, January 07, 2003 8:43 AM
> To: Southard, Jerry L; Thomas Rotella (E-mail); 'Larry Miller'
> Cc: Beausoleil, Geoffrey L; Beidelman, D L; Penny, Seldon K; Anderson,
> Brian S; Mooney, Lance A
> Subject: RE: GIDEP Agency Action Notice Regarding Temperform USA
>
> Thanks, Jerry, for checking once again to ensure INEEL is not vulnerable
> to the Temperform, heat-treated aluminum issue.
> Tom/Larry- Attached is our earlier conclusion, which remains valid.
> DOE-ID and BBWI plan no further action at this time.
> Please call me at (208) 526-4244 with questions.
> <<RE: DOE-ID and INEEL Response Regarding Heat Treated Aluminum Iss ue>>
> Bob Davis
> DOE-ID QA
>

> -----Original Message-----

> From: Southard, Jerry L
> Sent: Tuesday, January 07, 2003 7:58 AM
> To: Davis, Robert D
> Cc: Beausoleil, Geoffrey L; Beidelman, D L; Penny, Seldon K; Anderson,
> Brian S
> Subject: Re: GIDEP Agency Action Notice Regarding Temperform USA
>

> I have compared the detailed list of companies who
> had parts processed at Temperform with our Qualified Suppliers List and
> found no matches. Previous research identified the only quality
> significant application of Aluminum and it did not involve Temperform.
>

> I do not propose any further research unless you
> feel we have missed something.
>
>
>
>
>

> Robert D Davis@Exchange 12/19/02 04:23 PM To: Jerry L
> Southard/SOUTJL/CC01/INEEL/US@INEL, D L Beidelman@Exchange cc: Geoffrey L
> Beausoleil@Exchange, Brian S Anderson@Exchange Fax to: Subject: FW:
> GIDEP Agency Action Notice Regarding Temperform USA
>
>

> Lee/Jerry-- I am forwarding the attached list of
> Temperform customers for your INFORMATION. I believe that our earlier
> research re/ potential INEEL exposure on this issue remains valid and
> conclusive: The only potential use of heat-treated aluminum at INEEL is

> in the Advanced Test Reactor, and the earlier research indicated that the
> ATR core supplier maintains very tight controls on materials, and found no
> potential problems. Additionally, I don't think there's any new
> information on the attachment that we haven't already seen and considered.

>
> However, I could be wrong; it happens about once
> every 20 years or so. Opposing views, etc.??
> RDD

>
> -----Original Message-----
> From: Beausoleil, Geoffrey L
> Sent: Thursday, December 19, 2002 1:43 PM
> To: Davis, Robert D
> Subject: FW: GIDEP Agency Action Notice Regarding
> Temperform USA
> Importance: High

>
> Looks like the Temperform issue is raising its head
> again. Can you please have someone take care of this?

>
> Geoffrey L. Beausoleil, DOE-ID
> Director, Quality Assurance Division
> 208-526-5558
> beausogl@id.doe.gov
> "Our processes, not our people, need to be the
> control point!"

>
> The Quality Assurance Working Group is sending out
> this information about potentially fraudulent heat treated aluminum parts
> from the Temperform Company once again. We are doing this to ensure that
> all of the DOE sites understand the nature of the situation and what
> should be done to ensure that inferior products are not installed in any
> application that is needed to ensure safe operations, be it in a system or
> an instrument or any other situation.

>
> Attached to this message is a list of companies who
> had parts processed at Temperform or who approved Temperform as a vendor.
> It is imperative that contractors

- >
> 1.) ascertain whether or not they did business
> with any of these companies;
>
> 2.) determine if that business involved
> purchasing of parts or products that contained heat treated aluminum parts
> from Temperform ;
>
> 3.) and determine if those parts or products are
> used to ensure safety.

>
> If affirmative answers exist for all three of these
> questions, the part in question should be evaluated by competent
> engineering personnel and removed from service or stock and destroyed if
> necessary. Please make an assessment
> regarding damages in these cases to our Agency.

>
> We ask that any instance of aluminum parts that may
> have been heat treated at Temperform you find during this effort be
> reported to the Quality Assurance Working Group.

>
> Please contact me at 301-903-2649 or Matt Cole at
> 301-903-8388 if you have any questions.

>
> Tom Rotella,
>
> QAWG Chairman
> << File: Temperform - Companies Associated.pdf >>

Vaughan, Larry

From: Rotella, Thomas
Sent: Thursday, August 15, 2002 7:56 AM
To: Davis, Robert D
Cc: Beidelman, D L; Kay, Randolph T; Mooney, Lance A; Anderson, Brian S; Southard, Jerry L; Beausoleil, Geoffrey L; Elvin Dumas (E-mail); Cole, Matt; Milam, Yvette; Winter, James
Subject: RE: DOE-ID and INEEL Response Regarding Heat Treated Aluminum Issue

Bob, thank you very much. You did a great job running this down..

Tom Rotella, NA-53
DOE/NNSA QAWG Chairman

-----Original Message-----

From: Davis, Robert D [mailto:davisrd@id.doe.gov]
Sent: Wednesday, August 14, 2002 6:36 PM
To: 'Thomas.Rotella@nnsa.doe.gov'
Cc: Beidelman, D L; Kay, Randolph T; Mooney, Lance; Anderson, Brian S; Southard, Jerry L; Beausoleil, Geoffrey L; Elvin Dumas (E-mail)
Subject: DOE-ID and INEEL Response Regarding Heat Treated Aluminum Issue

Dear Tom,

DOE-ID and our INEEL M&O contractor (BBWI) have researched the potential vulnerability at INEEL stemming from the allegedly fraudulent heat treatment of aluminum by Temperform. BBWI has not procured any potentially suspect item from the companies listed on the abbreviated Temperform customer list. Additionally, a site-wide review found little application for heat-treated aluminum at INEEL. INEEL occasionally fabricates (by welding) structural items from standard aluminum shapes such as plate, angle, and square tubing. We could find no evidence that any of the stock material was heat treated by Temperform. Additionally, our engineers are confident that our design specifications are sufficiently conservative that for welded aluminum structures, loads are calculated using the strength of annealed aluminum; credit is not taken for the elevated strength gained through heat treatment.

One potential application for heat treated aluminum items is in our Advanced Test Reactor (ATR). The ATR uses aluminum clad fuel, with cast aluminum fuel element end boxes. Our supplier, BWXT, Lynchburg, VA, has advised us that based on their search of procurement records, it appears that NONE of the aluminum materials used in the fabrication of ATR and University fuels was heat treated by the company in question.

For your information, I received some additional information from the DoD point of contact. DoD stated that Temperform did process aluminum shapes in bulk. Additionally, DoD confirmed that Temperform processed only aluminum items; they were not in the business of heat treating steel or stainless steel items.

I have also informed BNFL, Inc., our contractor for the privatized Advanced Mixed Waste Treatment Project (AMWTP), of the issue. Preliminary feedback from BNFL indicates that AMWTP has no application for heat treated aluminum.

DOE-ID concludes that the allegedly fraudulent heat treatment of aluminum by Temperform poses no safety vulnerability for INEEL facilities. Please call me at (208) 526-4244 should you need additional information.

Bob Davis
DOE-ID

Vaughan, Larry

From: Rotella, Thomas
Sent: Thursday, August 15, 2002 7:56 AM
To: Davis, Robert D
Cc: Beidelman, D L; Kay, Randolph T; Mooney, Lance A; Anderson, Brian S; Southard, Jerry L; Beausoleil, Geoffrey L; Elvin Dumas (E-mail); Cole, Matt; Milam, Yvette; Winter, James
Subject: RE: DOE-ID and INEEL Response Regarding Heat Treated Aluminum Issue

Bob, thank you very much. You did a great job running this down..

Tom Rotella, NA-53
DOE/NNSA QAWG Chairman

-----Original Message-----

From: Davis, Robert D [mailto:davisrd@id.doe.gov]
Sent: Wednesday, August 14, 2002 6:36 PM
To: 'Thomas.Rotella@nnsa.doe.gov'
Cc: Beidelman, D L; Kay, Randolph T; Mooney, Lance; Anderson, Brian S; Southard, Jerry L; Beausoleil, Geoffrey L; Elvin Dumas (E-mail)
Subject: DOE-ID and INEEL Response Regarding Heat Treated Aluminum Issue

Dear Tom,

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Bob Davis
DOE-ID

SEPARATION

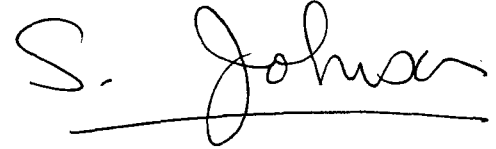
PAGE

OHIO FIELD OFFICE

Response to Temperform Investigation

memorandum

Ohio Field Office



DATE: MAR 18 2003

REPLY TO OH:ORRISON

OH-0332-03

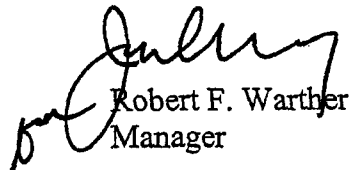
ATTN OF:

SUBJECT: INVESTIGATION OF THE USE OF IMPROPERLY HEAT TREATED
ALUMINUM SUPPLIED BY TEMPERFORM COMPANY

TO: Jessie Hill Roberson, Assistance Secretary for Environmental Management, EM-1

In response to a Quality Assurance Working Group notification on December 19, 2002, and a request from Larry Vaughan, HLW QA Program Manager on January 21, 2003, the Ohio Field Office conducted the subject investigation during January of this year. The results of this investigation were documented in a series of e-mails between the DOE Ohio Field Office Project Offices and their contractors. Followup effort was taken to ensure that subcontractors were included in the investigation. The investigation determined that the Ohio Field Office had not procured or used heat treated aluminum supplied by Temperform. In addition, it was determined that minimal time and effort was expended on the subject investigations. These results were sent by e-mail to Larry Vaughan on January 30, 2003.

If you have any questions, please contact Ward Best at (937) 865-3137.



Robert F. Warther
Manager



memorandum

Ohio Field Office
West Valley Demonstration Project

DATE:

SUBJECT: Submittal of the West Valley Demonstration Project (WVDP) Response to Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company

TO: **[J. Orrison's Address Block]**

- Reference:
- 1) Memorandum (86499), J. H. Roberson to Distribution, "Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company," dated February 11, 2003
 - 2) Letter (86726), R. A. Carter to A. C. Williams, "Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company," dated February 11, 2003

Reference 1 formally requested an investigation into the use of improperly heat-treated aluminum parts/materials supplied by Temperform Company. The Ohio Field Office West Valley Demonstration Project (OH/WVDP) requested that the site contractor, West Valley Nuclear Services Company (WVNSCO), conduct the investigation. The WVNSCO response is provided in Reference 2.

As stated in Reference 2, WVNSCO is confident that aluminum materials/parts or equipment heat treated, supplied, and/or tested by Temperform or Temperform vendors have not been used or procured for use at the WVDP. This determination was made by searching procurement databases for comparisons to Temeperform and to any of the other names of vendors/suppliers identified in Reference 1.

WVNSCO also determined, based on operations and the types of activities performed at the WVDP, that it is unlikely that heat treated aluminum materials/parts or equipment would have been installed in any site system, including the Remote Waste Handling Facility now being constructed. The vitrification cell structure, constructed prior to May 1998, is the only safety class systems, structures, and components (SSC) identified at the WVDP and does not contain heat treated aluminum. WVNSCO Engineering is currently evaluating other areas on site where there may be potential use of heat treated aluminum materials/parts or equipment. It has been determined that if any heat treated materials/parts or equipment are found, however, it would not likely be in a system performing a safety function. WVNSCO will complete this evaluation by March 28, 2003 and the results will be provided to you at that time.

Costs associated with this investigation have been minimal. WVNSCO, performing primarily database queries and document reviews, has estimated 8 hours of work for a total amount of \$824. OH/WVDP has provided notification and review and has performed approximately 4 hours of work at \$35.20 per hour (GS-810-13 Step 4) for a total amount of \$141. Any additional costs incurred by WVNSCO for the engineering evaluation will be provided in the subsequent report.

Finally, WVDP has in place a robust program that precludes the introduction of Suspect/Counterfeit Items (S/CI) on to the site. As stated in Reference 2, WVNSCO employees whose duties and responsibilities are involved with S/CI have received formal training on the principles of S/CI and how to identify suspicious items. This initial training is sublimented with required reading to address changes to requirements and S/CI updates. WVNSCO also ensures that S/CI booklets and charts are distributed to personnel as necessary.

My staff and I have reviewed the WVNSCO response and have determined that it is adequate.

If you have any questions or require additional information, please contact David L. Gray at (716) 942-4780.

[ALICE'S SIGNATURE BLOCK]

Attachment: Reference 2

cc: **[J. Craig's Address]**, w/att.
[R. F. Warther's Address], w/att.
[E. Lowes' Address], w/att.
[B. Bower's Address], w/att.
[M. J. Scouten's Address], w/att.
[R. A. Carter's Address], wo/att.

OHIO

Orrison, John

From: Vaughan, Larry [Larry.Vaughan@em.doe.gov]
Sent: Tuesday, January 21, 2003 10:49 AM
To: 'Avaholland@wipp.ws'; 'Joe.neyer@fernald.gov'; 'Beausogl@id.doe.gov';
'John.saluke@ohio.doe.gov'; 'John.orrison@ohio.doe.gov'; 'Samuel_A_Vega@rl.gov';
'James.jeffries@rf.doe.gov'; 'Keith_A_Benguiat@rl.gov'; 'Bill.rowland@srs.gov';
'David.l.gray@wv.doe.gov'; 'SmithMC@oro.doe.gov'; 'Smythrc@oro.doe.gov'
Cc: Rotella, Thomas; Cole, Matt; Hardwick, Raymond
Subject: Recover Cost to Perform Investigation on Temperform

ALL EM Sites,

Defense Criminal Investigation Service (DCIS) is attempting to determine what cost was accrued by government agencies to investigate whether or not their sites/projects had procured or used heat treated aluminum parts from Temperform or one of their suppliers/vendors. DCIS will try to recover the cost of this investigation during the trial/sentencing.

Please provide the cost of your investigation of heat treated aluminum parts from Temperform or one of their suppliers/vendors to me by February 1, 2003. The cost should be broken into categories: 1) total cost for man-hours; 2) total cost for travel (if any); and 3) total cost for testing (if any). Backup documentation is not necessary, but should be maintained by your respective sites in case the costs are challenged later.

If you have any questions please give me a call.

Larry D. Vaughan
(202) 586-2523

This email has been scanned for viruses.

Orrison, John

From: Neyer, Joe [Joe.Neyer@fernald.gov]
Sent: Friday, January 24, 2003 10:47 AM
To: Orrison, John
Cc: Kozlowski, David
Subject: RE: Recover Cost to Perform Investigation on Temperform

John,

I talked with Larry. Apparently the original correspondence to go look for Temperform products was never sent to anyone at Ohio. If Larry doesn't send you the original request you need to contract him because there is a 4 page attachment that lists all the vendors that use Temperform's products. The original request was to investigate if there were any Temperform products on site and to evaluate their use vs. risk. The second step was to either replace or track the maintenance of these products and report back to HQ on your actions. At a recent meeting with the defense board they noted that there was no response from Ohio. This e-mail is an attempt to catalogue costs for a potential court case at an undetermined future date.

Joe

-----Original Message-----

From: Orrison, John [mailto:John.Orrison@ohio.doe.gov]
Sent: Wednesday, January 22, 2003 5:28 PM
To: Gray, David; Neyer, Joe; Saluke, John
Cc: Best, Ward; Grandfield, Robert; Everson, Bob
Subject: FW: Recover Cost to Perform Investigation on Temperform

I do not remember Ohio responding formally to this issue, but please verify with your site contacts and reply back. Thanks, John Orrison

PS - Thanks, John Saluke, for your reply.

-----Original Message-----

From: Vaughan, Larry [mailto:Larry.Vaughan@em.doe.gov]
Sent: Tuesday, January 21, 2003 10:49 AM
To: 'Avaholland@wipp.ws'; 'Joe.neyer@fernald.gov'; 'Beausogl@id.doe.gov'; 'John.saluke@ohio.doe.gov'; 'John.orrison@ohio.doe.gov'; 'Samuel_A_Vega@rl.gov'; 'James.jeffries@rf.doe.gov'; 'Keith_A_Benguiat@rl.gov'; 'Bill.rowland@srs.gov'; 'David.l.gray@wv.doe.gov'; 'SmithMC@oro.doe.gov'; 'Smythrc@oro.doe.gov'
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<http://www.maximizeit.net>

Orrison, John

From: Orrison, John
Sent: Thursday, January 30, 2003 4:42 PM
To: 'Vaughan, Larry'
Cc: Best, Ward; Grandfield, Robert; Everson, Bob
Subject: RE: Recover Cost to Perform Investigation on Temperform

David Gray, DOE WVDP; Joe Neyer, DOE Fernald; and John Saluke, DOE Mound; have all checked with their respective contractors and responded back that minimal time and effort was expended on the subject investigations.

Thanks,
John Orrison, DOE Ohio Field Office

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(202) 586-2523

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Orrison, John

From: Vaughan, Larry [Larry.Vaughan@em.doe.gov]
Sent: Monday, February 03, 2003 9:36 AM
To: 'Orrison, John'
Cc: Best, Ward; Grandfield, Robert; Everson, Bob
Subject: RE: Recover Cost to Perform Investigation on Temperform

John,

We don't have record that OHIO responded to the request to investigate the Temperform issue. It sounds like you did. Who did you send the response to and can you e-mail or fax me a copy also?

thanks
lv

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Larry D. Vaughan
(202) 586-2523

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FERNALD

Orrison, John

From: Neyer, Joe [Joe.Neyer@fernald.gov]
Sent: Thursday, January 30, 2003 4:26 PM
To: Orrison, John
Subject: FW: Verification GIDEP Notice

> -----Original Message-----

> From: Sparks, Diana
> Sent: Thursday, January 30, 2003 3:27 PM
> To: Capelle, David; Malone, Michael; Neyer, Joe; Varchol, Brinley
> Cc: Thompson, Harold
> Subject: Verification GIDEP Notice

>
> Surveillance report 2016192 "Verification of GIDEP Agency Action Notice Regarding Temperform" has been completed. You can view or print the report by clicking on the hyperlink below.

> <http://keymaster/qas/2016192.pdf>

> If you have any questions call Harold Thompson @4416
> Thanks
> Diana

>
>
>
>
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Orrison, John

From: Neyer, Joe [Joe.Neyer@fernald.gov]
Sent: Thursday, February 06, 2003 7:38 AM
To: Orrison, John
Subject: RE: Recover Cost to Perform Investigation on Temperform

John,
I sent you a copy of the surveillance FFI performed.
Joe

-----Original Message-----

From: Orrison, John [mailto:John.Orrison@ohio.doe.gov]
Sent: Tuesday, February 04, 2003 2:36 PM
To: Gray, David; Neyer, Joe; Saluke, John
Cc: 'Larry.Vaughan@em.doe.gov'; Best, Ward; Grandfield, Robert; Everson, Bob
Subject: FW: Recover Cost to Perform Investigation on Temperform

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Cc: Best, Ward; Grandfield, Robert; Everson, Bob
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John Orrison, DOE Ohio Field Office

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Larry D. Vaughan
(202) 586-2523

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Orrison, John

From: Neyer, Joe [Joe.Neyer@fernald.gov]
Sent: Wednesday, February 19, 2003 8:04 AM
To: Orrison, John
Subject: FW: Temperform

FYI Joe

> -----Original Message-----

> From: Varchol, Brinley
> Sent: Tuesday, February 18, 2003 10:54 AM
> To: Neyer, Joe
> Cc: Malone, Michael; Thompson, Harold; Capelle, David
> Subject: Temperform

>

> Joe,

>

> Per your request, Fluor Fernald reviewed the assessment associated with the evaluation of our vendor list to see if purchasing of parts or products contained heat treated aluminum parts from Temperform USA. No heat treated aluminum parts were purchased by any of the Fluor Fernald subcontractors or suppliers. We have satisfied the elements of the letter from HQ associated with this company.

>

>

> Thanks,

> Brinley

> > <<...OLE_Obj...>>

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SURVEILLANCE REPORT

TITLE/ACTIVITY: Verification of GIDEP Agency Action Notice Regarding Temperform USA		SURVEILLANCE I.D. NO: 2016192	
DIVISION: Safety Health and Quality	DEPARTMENT: N/A	SUPPLIER: Temperform USA.	START DATE: 1/28/2003
PROJECT (If applicable): N/A		PROJECT NO.: N/A	COMPLETION DATE: 1/29/2003

MINIMUM DISTRIBUTION:
 Dave Capella Brinley Varchol
 Michael Malone
 Joe Neyer
 Diana Sparks

SUMMARY:

Surveillance was conducted on 1/28/2003 of GIDEP Agency Action Notice Regarding Temperform USA in order to verify whether Fluor Fernald did business with any of the vendors listed on the attached vendor list. The surveillance included a review of the vendor list to see if purchasing of parts or products contained heat treated aluminum parts from Temperform USA. No heat treated aluminum parts were purchased by any of the Fluor Fernald Vendors.

From this review this Surveillance was found to be acceptable.

See attached Surveillance Checklist for Item surveyed and results

NONCONFORMANCE TYPES AND NUMBERS ISSUED: N/A	DATE: N/A
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SURVEILLANCE PERSONNEL

SURVEILLANCE PERSONNEL SIGNATURE(S): Harold L Thompson <i>Harold L Thompson</i>	DATE: 1/29/2003
DEPARTMENT PERFORMING THE SURVEILLANCE Quality Control	

MANAGEMENT REVIEW

MANAGEMENT REVIEW SIGNATURE: Michael A Malone <i>Michael A Malone</i>	DATE: 1/29/2002
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RECORD

SURVEILLANCE CHECKLIST

TITLE / ACTIVITY Verification of GIDEP Agency Action Notice Regarding Temperform USA			SURVEILLANCE I.D. NO. 2018182-	
DIVISION: Safety Health and Quality	DEPARTMENT: N/A	SUPPLIER: Temperform USA	PROJECT/PROJECT NO. (If applicable). N/A	
SURVEILLANCE PERSONNEL: Harold L. Thompson			DATE: 1/28/2003	

ITEM	ITEMS CHECKED	RESULTS <small>INITIAL AND DATE EACH ITEM RESULT</small>	Sat	Unsat
			(✓)	(✓)
1.	Verify whether Fluor Fernald Vendors did business with any of the attached list of vendors	Verified Fluor Fernald 's Vendor list to companies who had parts processed at Temperform and / or who approved Temperform as a vendor (Please see attached lists)	✓ HLT 1-29-03	
2.	Determine if that business involved purchasing of parts or products that contained heat treated aluminum parts from Temperform	Fluor Fernald Vendors did not do any business with any of the companies or approve Temperform as a vendor (Please see attached lists)	✓ HLT 1-29-03	

RECORD

Malone, Michael

From: Varchol, Brinley
Sent: Monday, January 27, 2003 8:42 AM
To: Capelle, David; Malone, Michael
Subject: FW: GIDEP Agency Action Notice Regarding Temperform USA

Importance: High



Temperform -
Companies Associa. FYI

Thanks,
Brinley

-----Original Message-----

From: Neyer, Joe
Sent: Monday, January 27, 2003 8:08 AM
To: Varchol, Brinley
Subject: FW: GIDEP Agency Action Notice Regarding Temperform USA
Importance: High

Brinley,
FYI
Joe

-----Original Message-----

From: Orrison, John [mailto:John.Orrison@ohio.doe.gov]
Sent: Friday, January 24, 2003 6:41 PM
To: Gray, David; Neyer, Joe; Saluke, John
Subject: FW: GIDEP Agency Action Notice Regarding Temperform USA
Importance: High

Joe Neyer informed me there was more information regarding the
Temperform
USA subject. Here is an e-mail from the QAWG with an attachment listing
of
vendors.

John O.

-----Original Message-----

From: Rotella, Thomas [mailto:Thomas.Rotella@nnsa.doe.gov]
Sent: Thursday, December 19, 2002 1:32 PM
To: Lawrence, Steven J. (NEV); 'bill.rowland@srs.gov';
'Krishna_M_Vadlamani@rl.gov'; Zweifel, Daniel (SRS);
'david_h_doe_brown@rl.gov'; Pellegrino, Daniel (ALB);
'beausogl@id.doe.gov'; 'Charles_K_Kasch@rl.gov'; Chimah, Paul (ALB);
'wayne.burch@rf.doe.gov'; 'john.orrison@ohio.doe.gov'; Capshaw, Roy D.
(ALB); 'ricks@dnfsb.gov'; Niemann, Victoria E. (NEV); Leivo, Anita B.
(ALB); Zamuda, Craig; White, Alfred; Burkhardt, James; Cowan, Gwendolyn;
Cordis, Adeliza (OAK); Danielson, Bud; Gervas, Paul; Witmer, Fred;

'GlasmanMM@yao.doe.gov'; Jamali, Kamiar; Harlow, Scott;
'jon.cooper@ch.doe.gov'; 'Roger_F_Christensen@rl.gov';
'Cesar_E_Collantes@rl.gov'; 'smithmc@oro.doe.gov';
'perrytc@oro.doe.gov'; Green, Rick; Crowe, Richard; Dever, Leah;
'gary.morgan@rf.doe.gov'; 'elver.robins@rf.doe.gov'; 'LNELSON@BNL.GOV';
'John.Adachi@ch.doe.gov'; Sharpley, Chris; Read, Jacques; Staffo, Gary;
Rodger, Ron (ALB); Gervas, Paul; Vaughan, Larry; Cole, Matt; Milam,
Yvette; Johnson, Sandra; Nguyen, Van; Murray, Robert; Hardwick, Raymond;
Sohinki, Stephen; Wilchins, Howard; Day, Richard; Adamovitz, Susan;
Bright, Annette; Hurley, Sharon; Rodrik, Peter; Weadock, Tony; Zobel,
Steve; Ascanio, Xavier; Hoopes, Patrick; Pizzariello, Philip;
'mjones@kcp.com'; 'gbetzen@kcp.com'; Morrow, Emil;
'ralph.erickson@ns.doe.gov'; Johnson, Samuel D (NNSA); Barker, William;
'Justin.zamirowsky@ch.doe.gov'; Miotla, Dennis; Crandall, David; Lewis,
Roger; Harlow, Scott; Jamali, Kamiar; Witmer, Fred; Beck, David;
Landers, James; Hensley, Willie; Worthington, Pat;
'james.jeffries@rf.doe.gov'; 'Burton_E_Burt_Hill@rl.gov';
'John_D_Long@rl.gov'; Gears, Gerald; Stadler, David; McCabe, Larry;
Campbell, Charles; Snell, Jim; Scott, Randal; Johnson, Milton; Turi,
James; Matarrese, Mark; Klee, Carl; Tourigny, Edmond;
'dick.spence@ymp.gov'; Bryant, William D (ALB); Brown, Dennis;
'harkerws@id.doe.gov'; Kapoor, Ashok K (ALB); Kunich, Mitch P. (NEV);
've@ornl.gov'; Christensen, Deborah (ISR) (ALB); 'lkirkman@DOEAL.GOV';
'CRESCENZ@BNL.GOV'; 'greg.collette@nrel.gov'; 'bohrerha@id.doe.gov';
'BEIDELDL@ID.DOE.GOV'; Rush, Thomas (ALB); 'dick.nolan@oak.doe.gov';
'john.muhlestein@oak.doe.gov'; osugi, dave (OAK); 'krivera@lbl.gov';
'nat.brown@ohio.doe.gov'; 'ron.claverie@oak.doe.gov'; Yee, Danny (OAK);
'monroehj@oro.doe.gov'; 'PoerRW@oro.doe.gov'; 'greg.collette@nrel.gov';
Eichorst, Bradley (ALB); 'berline.moore@ch.doe.gov'; Mullen, William T.
(ALB); 'brian_a_fiscus@rl.gov'; 'bryan.c.bower@wv.doe.gov'; Carter,
Charlotte V. (NEV); 'chuan-fu.wu@wipp.ws'; 'creig.zook@ch.doe.gov';
Michlewicz, David; 'david.kozlowski@fernald.gov'; 'dcaughey@kcp.com';
'dennis.riley@fernald.gov'; Minnema, Douglas; Russo, Frank; Schlapper,
Gerald A. (ALB); 'hawksbl@oro.doe.gov'; Himpler, Henry; Hoar, Kenneth A.
(NEV); Edwards, James L (OAK); 'james.geringer@anlw.anl.gov';
'jeffrey.crenshaw@srs.gov'; Roberson, Jeffry; 'john.simak@ohio.doe.gov';
'john_m_clark@rl.gov'; 'joseph.drago@ch.doe.gov';
'kerry.grooms@anlw.anl.gov'; Miller, Lawrence; 'ldietrich@pppl.gov';
'lisa.bressler@rf.doe.gov'; 'mallette@bnl.gov'; Gavrilas-Guinn, Maria;
'mcbriidmh@oro.doe.gov'; 'michael.reker@ohio.doe.gov';
'michael.saar@ch.doe.gov'; cornell, mike (OAK); Morley, Nathan A (ALB);
'patrick_p_carier@rl.gov'; 'pjones@bnl.gov'; 'richard.farrell@wipp.ws';
Purucker, Roxanne; Spagnolo, Sarah (OAK); 'scott_wade@notes.ymp.gov';
'SOMERSWS@ID.DOE.GOV'; 'stanley_o_branch@rl.gov'; lasell, steve (OAK);
Wheeler, David L. (NEV); Hawk, Jeff; Schwartz, Ray
Subject: GIDEP Agency Action Notice Regarding Temperform USA
Importance: High

The Quality Assurance Working Group is sending out this information about potentially fraudulent heat treated aluminum parts from the Temperform Company once again. We are doing this to ensure that all of the DOE sites understand the nature of the situation and what should be done to ensure that inferior products are not installed in any application that is needed to ensure safe operations, be it in a system or an instrument or any other situation.

Attached to this message is a list of companies who had parts processed at

COMPANIES WHO HAD PARTS PROCESSED AT TEMPERFORM and/or WHO APPROVED TEMPERFORM AS A VENDOR

4/26/02

CUSTOMER	ADDRESS	CITY	ST	ZIP CODE	COUNTRY	TELEPHONE
... Development Co., Inc.	16626 Gramercy Place	Gardena	CA	90247	USA	(310) 532-7708
... ducts	4040 Del Rey Ave., # 68	Marina Del Rey	CA	90282	USA	(310) 822-0417
... rial Company	5940 Dale Street	Buena Park	CA	90621	USA	(714) 621-9211
	2321 S Pullman St	Santa Ana	CA	92705	USA	(714) 261-7533
... aler Enterprise	19815 Magellan Dr	Torrance	CA	90502	USA	(310) 538-2137
... o., Inc.	1430 West 135 th Street	Gardena	CA	90248	USA	(310) 323-7246
... ooling, Inc.	315 East 157 th Street	Gardena	CA	90248	USA	(310) 324-3214
... Rending	14 Journey	Aliso Viejo	CA	92656	USA	
	558-6 Birch Street	Lake Elsinore	CA	92530	USA	(909) 471-1197
... Machining Co.	4620 N. Ronald Street	Hardwood Heights	IL	60656	USA	(708) 867-4374
... Components Manufacturing) Co.	7807 Industry Ave.	Pico Rivera	CA	90660	USA	(562) 948-3335
... rprises, Inc.	5740 Thornwood Dr.	Costa Mesa	CA	93117	USA	(805) 964-4757
... Corporation	5920 Dale Street	Buena Park	CA	90621	USA	(714) 522-8767
... Aerodynamics & Structures	3205 Lakewood Blvd	Long Beach Airport	CA	90808	USA	(562) 938-8618
... Metal Fab	3020 Las Hermanas Drive	Rancho Dominguez	CA	90221	USA	(310) 639-2000
... Metalforming Technologies	5215 S. Boyle Ave.	Los Angeles	CA	90058	USA	(323) 277-1070
... Ground System Engineering Corporation	1265 N. Kraemer Blvd.	Anaheim	CA	92806	USA	(714) 632-9095
... Precision Sheetmetal, Inc.	140 East 182 nd Street	Gardena	CA	90248	USA	(310) 324-4956
... Tube Engineering, Inc.	18211 Enterprise Lane, Unit C	Huntington Beach	CA	92648	USA	(714) 847-7868
	2555 W. 237th St	Torrance	CA	90505	USA	(310) 534-8765
... ing Co.	43328 N. Division Street	Lancaster	CA	93535-4844	USA	(661) 948-2363
	2150 N. Lark Drive	Fenton	MO	63026	USA	
... Division of AISC, Inc. (Kennedy Space Center)	PO Box 5069, 7065 Challenger Ave.	Titusville	FL	32783-5069	USA	(407) 269-1100
... Metal	43328 N. Division Street	Lancaster	CA	93535-4844	USA	(661) 948-8057
... Metal	11602 Dehogue St	North Hollywood	CA	91605-8189	USA	
... and Brake Service Corp.	6900 Acce Street	Montebello	CA	90640	USA	(213) 727-6000
... Inc.						
... Pipe	2020 E. Slauson Ave.	Huntington Park	CA	90255	USA	
... Engineering Corp.	1235 N. Knollywood Circle	Anaheim	CA	92801	USA	(714) 896-8313
... Machine	1879 West Commonwealth	Fullerton	CA	92833	USA	(714) 441-1481
... Common	PO Box 2310	Gardena	CA	90247-2310	USA	(310) 380-5390
		Paris			France	
... rming (aka: Ron's Metal Spinning)	17293 Derwin Ave. #12	Hesperia	CA	92345	USA	(760) 956-1050
... nes, Inc.	1841 East Gertrude Street	Santa Ana	CA	92705	USA	(714) 850-9133
... rping Co. (aka: Quality Metal Stamping & Fabricating)	10801 Lower Azusa Road	El Monte	CA	91731	USA	(800) 877-7775
... Manufacturing C.	13141 Molete Street	Santa Fe Springs	CA	90670-0140	USA	(562) 802-2540
... Precision Sheet Metal, Inc.	2950 East Imperial Hwy	Brea	CA	92621	USA	(714) 996-6170
... onal		Torrance	CA			
... onal		Phoenix	AZ			
... and	12075 East Clark Street	Santa Fe Springs	CA	90670	USA	
... ons	848 Rancheros Drive	San Marcos	CA	92069	USA	(760) 746-3545
... National Controls Corp.	1725 Western Drive	West Chicago	IL	60186	USA	(630) 231-8335
... Racing Custom Wheels	19200 South Reyes Ave	Rancho Dominguez	CA	90221	USA	(310) 635-7806
... narch	23531 Ridge Route	Laguna Hills	CA	92653	USA	(949) 461-5990
	15547 Garfield Ave	Paramount	CA	90723	USA	
... Medical Resources	25081 Merit Circle, Building 101	Laguna Hills	CA	92653	USA	(714) 582-6120
... sion, Inc.	425 N. Fox Street	San Fernando	CA	91340	USA	(818) 361-5434
... g Mfg. Co., Inc.	13930 Shoemaker Ave.	Norwalk	CA	90650	USA	(562) 621-8741
... rcraft Spares	3431 E. Hemisphere Loop	Tucson	AZ	85705	USA	(520) 806-0666
... rvi Products	4411 Katella Ave	Los Alamitos	CA	90720	USA	(714) 828-7770
... pspace, Inc.	9612 Lurline Ave. #L	Chatsworth	CA	91311	USA	
... and Machine Technology, Inc.	890 Mariner Street	Brea	CA	92621	USA	(714) 990-8178
... pco Rotoflow	540 E. Rosecrans Ave	Gardena	CA	90248	USA	(310) 529-8163
... Street Performance	18239 S. Figueroa St.	Gardena	CA	90248	USA	(310) 532-4589
... orporation	PO Box 3090, One Rockwell Ave	Albany	NY	31708	USA	(912) 883-1440
... fic Light Metals, Corp.	15300 Valley View Ave	La Mirada	CA	90638	USA	(310) 404-7474
... s, Inc.	6346 Industry Way	Westminster	CA	92883	USA	(714) 692-9306
... Metal Company	14000 S. Figueroa Street	Los Angeles	CA	90059	USA	(323) 321-1700
... rich Aerospace	850 Lagoon Drive	Chula Vista	CA	91910	USA	(619) 691-2249
... nch Aerospace	Bay Blvd at G Street, Bldg 79	Chula Vista	CA	91910	USA	(619) 691-2249
... stries	2113 Border Ave	Torrance	CA	90501	USA	(310) 533-1081
... on-Melton Manufacturing Co.	7525 Wynlia	Houston	TX	77081	USA	(713) 644-2386
... rcraft and Missile Systems	PO Box 66742	St. Louis	MO	63166-6742	USA	
... rcraft and Missile Systems	8900 Frost Ave, Bldg 245	Berkeley	MO	63134	USA	
... Commercial Airplane Group	PO Box 3707	Seattle	WA	98124-2207	USA	(206) 662-6771
... Commercial Airplane Group	Congrat Passings, Box 443, Logan & North Sun Street	Renton	WA	98055	USA	
... Douglas Products Division	PO Box 2731	Long Beach	CA	90801	USA	
... Douglas Products Division	1412 S. Harborgate Way	Torrance	CA	90502	USA	
... Douglas Products Division	1215 North 2200 West McDowell Douglas Way	Salt Lake City	UT	84116	USA	
... ight Helicopter Division	5000 East McDowell Road	Mesa	AZ	85215	USA	(602) 691-2710
... ppace Systems	5301 Bolsa Ave	Huntington Beach	CA	92647	USA	
... ppace Systems	5222 Rancho Road	Huntington Beach	CA	92647	USA	
... echnology, Inc.	14 Alcap Ridge Road	Cromwell	CT	06416	USA	(860) 635-1150
... otals	15090 Northam Street	La Mirada	CA	90638	USA	(714) 736-4800
... kstrines, Inc.	101 Evans Ave	Dayton	NV	89403	USA	(702) 246-0461
... Manufacturing & Machining	395 Vernon Way	El Cajon	CA	92020	USA	(619) 588-9707
	15521 Vermont Ave	Paramount	CA	90723	USA	(562) 531-1615
... Space Facility	12031 E. Philadelphia St	Wentzler	CA	90601	USA	(310) 945-1661
... e Avi-Tron Corp	1973 Via Anado	Rancho Dominguez	CA	90220	USA	(310) 886-8800
... e Furniture Components, Inc.	6790 Central Ave	Riverside	CA	92504-1420	USA	(909) 687-9255
... Metal Shaping	1704 Hooper Ave	Los Angeles	CA	90021	USA	(213) 749-5542
... e Pipe & Bending	515 East 88 th Place	Los Angeles	CA	90003	USA	
... Machine Products, Inc.	17000 Keegan Ave	Carson	CA	90746	USA	(310) 884-3400
... Pool & Machine Co.	6960 Hermosa Circle	Buena Park	CA	90620	USA	(714) 739-0715

COMPANY	ADDRESS	CITY	ST	ZIP CODE	PHONE	COUNTRY	TELEPHONE
Centerline Wheel Corporation	13521 Freeway Drive	Santa Fe Springs	CA	90670		USA	(562) 921-9637
Centerline Tool Corporation	13521 Freeway Drive	Santa Fe Springs	CA	90670		USA	(562) 921-9637
Central Machine & Tool, Inc.	805 Paso Robles Street	Paso Robles	CA	93448		USA	(805) 239-1585
Central Tool Corporation	13521 Freeway Drive	Santa Fe Springs	CA	90670		USA	(562) 921-9637
Centric Machine	12260 Race Track Road	Tampa	FL	33621		USA	
Century Parts, Inc.	913 West 223rd Street	Torrance	CA	90502		USA	(310) 328-0281
Certified Aviation Services	3198-H Airport Loop	Costa Mesa	CA	92626		USA	(714) 662-2441
Certified Aviation Services (DBA Orbital Sciences Corporation)	1301 Skyway Drive	Bakersfield	CA	93308		USA	(805) 391-4988
Chemtronics							
Clay, LLC	1739 S. Clemantine Street	Anaheim	CA	92802		USA	(714) 691-1950
C.M. Gordon Industries, Inc.	13750 Rosecrans Ave.	Santa Fe Springs	CA	90670		USA	(562) 483-7378
CNC Manufacturing	42158 Sarah Way	Tamucula	CA	92590		USA	(909) 693-0098
Coast Aluminum & Architectural	687 Sandoval Way	Hayward	CA	94544		USA	(510) 441-6600
Coast Aluminum & Architectural (Processing)	10430 Slusher Drive	Santa Fe Springs	CA	90670		USA	
Coast Metal Craft Inc	18518 Susana Road	Rancho Dominguez	CA	90221		USA	(310) 537-0570
Conquest Industries	9915 Bell Ranch Drive	Santa Fe Springs	CA	90670		USA	(562) 906-1111
Consolidated Trading Co. (dba Olympic Aviation)	PO Box 2425, 612 E. Franklin Ave.	El Segundo	CA	90245		USA	(310) 640-2247
Continental Forge Co.	512 E. Carlin Street	Compton	CA	90222		USA	(213) 774-3220
Couller Steel & Forge Co.	1494 87th Street	Emeryville	CA	94608		USA	(510) 420-3500
Craft Metal Forming	241000-E Water Street	Peris	CA	92570		USA	(909) 940-8444
Craft Engineering Company	11110 Greenstone Ave	Santa Fe Springs	CA	90670		USA	(562) 903-5558
Craft Engineering Company	11110 Greenstone Ave	Santa Fe Springs	CA	90670		USA	(562) 903-5558
Craft Pathways, Inc.	3121 Fujita Street	Torrance	CA	90505		USA	(310) 530-1985
Craft Metal Shapes	18209 1/2 Eucalyptus Ave	Bellflower	CA	90706		USA	
Craft Metal Spinning	12157-C Slauson Ave	Santa Fe Springs	CA	90670		USA	
Craft Services, Inc.	810 West Hyde Park Blvd	Inglewood	CA	90302		USA	(310) 670-7918
Craft Services	190 Bossick Blvd	San Marcos	CA	92609		USA	(760) 598-4270
Craft Services (dba SE Racing)	190 Bossick Blvd	San Marcos	CA	92609		USA	(760) 598-4270
Craft, Inc	Emerald Ind. Park, POBox 456	Ponderay	ID	83852		USA	(208) 263-4761
Davison Aluminum & Metal Corp.	100 West Industry Court	Deer Park	NY	11729		USA	(516) 588-8000
Delaflor Corporation	1520 Flower Ave.	Duarte	CA	91010		USA	(626) 303-0740
Delta Fabrication, Inc.	9600 De Soto Ave	Chatsworth	CA	91311		USA	(818) 407-4000
Designing Specialties III	307 N. Euclid Way, Bldg G-3	Anaheim	CA	92801		USA	(714) 778-4350
Diamond National Glass Co. (Div. Of Diamond Worldwide Ind.)	6800 De Bie Drive	Paramount	CA	90723		USA	(562) 634-2100
Dirtmaster	848 Rancheros Drive	San Marcos	CA	92089		USA	(760) 746-3545
D.M. Precision	5852 Adams Blvd.	Culver City	CA	90230		USA	(213) 938-7895
Downey Centerless Grinding	12323 Bellflower Blvd.	Downey	CA	90241		USA	
Duplicate Parts Company	168 Pacific Street	San Marcos	CA	92089		USA	
Dura Plastic Products, Inc.	PO Box 2097, 533 East 3rd Street	Beaumont	CA	92223		USA	(909) 845-3161
Dynamic Enterprises, Inc.	10015 Greenleaf Ave	Santa Fe Springs	CA	90670		USA	(682) 944-0271
ECI Water Ski Products, Inc.	2060 Chicago Ave., Suite C-3	Riverside	CA	92507		USA	
Empire Screw Manufacturing Co.	747 N. Yale	Villa Park	IL	60181		USA	(630) 833-7060
Estelina TA Mfg. Company	PO Box 2500, 375 West Arden Ave.	Glendale	CA	91209-2500		USA	(818) 240-1600
Estelina TA Mfg. Company	PO Box 0831, 28065 W. Franklin Parkway	Valencia	CA	91355		USA	(805) 775-1100
E.R.C. Company	2970 E. Maria St., Unit #8	Rancho Dominguez	CA	90221		USA	(310) 603-2970
Euro Engineering	23180 Del Lago Dr.	Laguna Hills	CA	92653		USA	(949) 770-0107
Evergreen Systems International	4740 Calle Quetzal	Camarillo	CA	90638		USA	(805) 445-6492
Express Metal Aerospace, Inc.	2908 West Pendleton	Santa Ana	CA	90274		USA	
EZTech Manufacturing	1200 Howard Drive	West Chicago	IL	60185		USA	(830) 293-0010
F.D. Countours	176 Paulano Ave	Costa Mesa	CA	92626		USA	(714) 546-3030
Fairchild Fasteners	600 State College	Fullerton	CA	92831		USA	
Farr Wheel Concepts, Inc.	735 North Georgia Ave	Azusa	CA	91702		USA	
Foam Molders & Specialties	20004 State Road	Cerritos	CA	90703		USA	(562) 924-7757
Firth Rixson Viking	1 Erk Circle	Vero	NV	89439		USA	
Forged Metals Inc	10685 Beech Ave	Fontana	CA	92337		USA	(909) 350-9260
Forrest Machining, Inc.	25544 Stanford Ave	Valencia	CA	91355		USA	
Frontier Technologies	18408 S. Figueroa St.	Gardena	CA	90248		USA	(310) 767-1227
Full-Bore Race Products	424 W. Roland Ave.	Santa Ana	CA	92707		USA	(714) 436-0822
Furon Seats	3340 East La Palma	Anaheim	CA	92806		USA	(714) 630-5818
Furon Shared Service A/P	PO Box 190	Aurora	IL	44202		USA	
Gary Platt Manufacturing	PO Box 368, 24195 Crane Ave, Dock #6	Perris	CA	92570		USA	(800) 969-0999
Gary's Tees	617 Ocean Front Walk	Venice	CA	90291		USA	(310) 392-3135
General Kinetics, Incorporated	110 Sunray Drive	Johnstown	PA	15905		USA	(814) 255-6891
General Veneer Manufacturing Co.	PO Box 1607, 8652 Otis St	South Gate	CA	90260		USA	(213) 564-2661
Gilmora Metal	Pk 4, Box 98	Bishop	CA	93514		USA	(760) 873-4972
Giroux Glass, Inc.	850 West Washington Blvd	Los Angeles	CA	90015		USA	(213) 747-7406
Glen Sander Engineering	3155 Kashiwa St.	Torrance	CA	90505		USA	(310) 634-1210
Globe Tool & Manufacturing Co., Inc.	730 24th Ave SE	Minneapolis	MN	55414		USA	(612) 331-8750
GST Industries, Inc.	3601 West Central Ave.	Santa Ana	CA	92704		USA	(714) 556-0444
Hammar Corporation (Hammer's Metal Spinning Co.)	520 State Street	Glendale	CA	91203		USA	(818) 240-0170
Hardill Associates, Ltd.	15505 Minnesota Ave.	Paramount	CA	90723		USA	(562) 631-1451
Harrinton Mold	1906 Quaker Ridge Road	Ontario	CA	91716		USA	(909) 923-2767
Hayes Wessels International, Inc. (aka Hayes Luminex International, Inc.)	14500 Firestone Blvd	La Mirada	CA	90638		USA	
Herrera Machining	5812 Clara Street	Bell Gardens	CA	90201		USA	(662) 928-0209
Hi-Craft Metal Products	606 E. 184th Street	Gardena	CA	90248		USA	(213) 321-9683
Hi-Quality Alloys	12329 Telegraph Road	Santa Fe Springs	CA	90670		USA	(562) 941-3264
Hi-Tech Curving, Inc.	13211 Florence Ave	Santa Fe Springs	CA	90670		USA	(562) 941-6688
Hoover Glass, Inc.	1309 S. Eastern Ave.	Los Angeles	CA	90022		USA	(213) 526-1390
Howe Welding & Fabrication	41218 Nick Lane	Murrieta	CA	92582		USA	(909) 698-6997
Hydroform USA	2848 East 208th St	Long Beach	CA	90810		USA	(310) 622-0832
Hydrospin, Inc.	5281 Research Blvd	Huntington Beach	CA	92649		USA	(714) 898-8041
Hy-Tech Spinning Inc	115 W. Hyde Park Blvd	Inglewood	CA	90302		USA	(310) 673-4488
Iico Industries	1308 Mahaio Place	Rancho Dominguez	CA	90220		USA	(310) 631-8655
Image Casting	6665 Perkins Road	Orange	CA	92633		USA	(805) 986-1106
Intense Cycles	18273 Grand Ave.	Lake Elsinore	CA	92530		USA	(909) 678-4578
Independent Forge Co	692 N Batavia St	Orange	CA	92668		USA	(714) 997-7337
International Architectural Metal Works	577 E. Edna Pkce	Covina	CA	91723		USA	(626) 332-5800

CUSTOMER	ADDRESS	CITY	ST	ZIP CODE	PROVINCE	COUNTRY	TELEPHONE
J & M Metal Spinning	4345 Conquista Ave.	Lakewood	CA	90713		USA	
J & M Metal Spinning	1433 1/2 Daisy Ave.	Long Beach	CA	90813		USA	
JC Carr							
J.D. Welding & Fabrication	1420 S. Carmenta Road	Norwalk	CA	90850		USA	(310) 404-0060
Jeram's Tool & Mfg.	9356 Abraham Way	Santee	CA	92701		USA	(619) 448-1220
J.S. Screw Mfg. Co.	7040 Laurel Canyon Blvd.	North Hollywood	CA	91615		USA	(818) 983-1715
J.W. Lytle Co., Inc.	1885 Sampson	Corona	CA	91719		USA	(909) 971-5794
Earl M. Jorgensen Co. (aka Jorgensen Steel & Aluminum)	PO Box 840, 1926 Martin Luther King Jr. Blvd	Lynwood	CA	90262		USA	(213) 563-5584
K & E Manufacturing, Inc.	1986 Freeman Ave	Signal Hill	CA	90804		USA	(562) 454-7570
Kapco							
Ken Huff Racing Wheels	10827 Carylyn Drive	Whittier	CA	90603		USA	(562) 943-6877
Kepner Plastics Fabricators, Inc.	3131 Lomita Blvd.	Torrance	CA	90505-5158		USA	(310) 325-3182
Kern Engineering & Mfg. Corp.	1148 East Ash Ave.	Fullerton	CA	92831		USA	(714) 992-9630
Kit Part Co.	286 East Thorpe Road	Las Cruces	NM	89005		USA	(505) 525-2120
KMC Wheel Co.	1455 Columbia Ave	Riverside	CA	92507		USA	(909) 784-4562
Kryler Corporation	1217 E. Ash Ave	Fullerton	CA	92831		USA	
Kuyper's Machine Co., Inc.	16842 Halo Ave	Irvine	CA	92714		USA	(714) 863-0847
Lane & Roderick, Inc.	12640 Altard Street	Santa Fe Springs	CA	90870		USA	(562) 868-3465
Latch Mfg. Co. Benton Machine Works	8100 US 1 North	St. Augustine	FL	32085		USA	
Llaga International Corp.	650 Via Alondra	Camarillo	CA	91310		USA	
Ling Electronics	4890 E. La Palma Ave	Anaheim	CA	92807		USA	(714) 779-1900
Lockheed Martin Aerospace, Inc.	221 Industrial Park Rd.	Johnstown	PA	15904-1981		USA	(814) 282-3000
Marvin Engineering Co	290 W Beach Ave	Inglewood	CA	90302		USA	(310) 674-5000
Matco Forge Inc	16443 Minnesota Ave	Paramount	CA	90723		USA	(562) 634-8636
McStarnie Company	1531 W. 240th Street	Harbor City	CA	90710		USA	(310) 325-2063
Mechanical Metal Finishing Co.	15220 Broadway	Gardena	CA	90248		USA	(310) 321-1071
Metal Center	12034 Greenstone Ave	Santa Fe Springs	CA	90670		USA	(562) 944-3322
Metal Forming Machines, Inc.	5215 S. Boyle Ave.	Los Angeles	CA	90058		USA	(323) 588-5000
MetalPro Industries, Inc.	28064 Ave. Stanford, Unit 4	Valencia	CA	91355		USA	
Metroline (A Division of Metro-Line Ind., Inc.)	251 Corporate Terrace	Corona	CA	91719		USA	(909) 371-2500
MFM Electrologic, Inc.	5215 S. Boyle Ave.	Los Angeles	CA	90058		USA	(213) 598-5000
Miladin Ind.	6821 Suva Street	Bel Gardens	CA	90201		USA	(562) 928-0658
Milenaum Alloy Wheels	400 S. Lemon Street	Anaheim	CA	92805		USA	(714) 533-0715
Mustang Engineering Co.	12141 Riviera Road	Whittier	CA	90606		USA	(562) 698-0734
North Specialty Products (A Division of Siebe North, Inc.)	2664-B Saturn Street	Brea	CA	92621		USA	(714) 524-1655
North Safety Products (A Division of Siebe North, Inc.)	2664-B Saturn Street	Brea	CA	92621		USA	(714) 524-1655
Northrup Grumman Commercial		Hawthorne					
Northrup Grumman Commercial		Dallas					
Northrup Grumman Military		Melbourne					
Northrup Grumman Military Tactical Fighter Division		El Segundo					
Oasis Alloy Wheels	400 S. Lemon Street	Anaheim	CA	92805		USA	(714) 533-0175
Olympic Aviation	PO Box 2425, 612 E. Franklin Ave.	El Segundo	CA	90245		USA	(310) 640-2247
Olympic Aviation (dba Consolidated Trading Co.)	PO Box 2425, 612 E. Franklin Ave.	El Segundo	CA	90245		USA	(310) 640-2247
Omega Manufacturing, Inc.	1517 West 130th Street	Gardena	CA	90249		USA	(310) 532-6974
Optima Wheels, Inc.	16300 Valley View Ave	La Mirada	CA	90638		USA	(562) 404-7474
Orbital Aircraft Operation Base	1301 Skyway Drive	Bakersfield	CA	93308		USA	(805) 391-4888
Orbital Sciences Corporation	1301 Skyway Drive	Bakersfield	CA	93308		USA	(805) 391-4888
Orbital Sciences Corporation (dba Certified Aviation Service)	1301 Skyway Drive	Bakersfield	CA	93308		USA	(805) 391-4888
P & P Fabrication	15112 Leffingwell Road	La Mirada	CA	90638		USA	
P & P Manufacturing, Inc.	13130 Arctic Circle	Santa Fe Springs	CA	90670		USA	(562) 921-3640
Pacific Coast Alloy, LLC	1618 E. Rosalynn Ave.	Fullerton	CA	92631		USA	(714) 871-2490
Pacific Defense Products	817 S. Lakeview Ave., Suite G	Pico Rivera	CA	92870		USA	(714) 777-1636
Paramount Roll & Forming, Inc.	12120 E. Florence Ave.	Santa Fe Springs	CA	90670		USA	(310) 944-4232
Paramount Spring Engineering Co., Inc.	13721 Bora Drive	Santa Fe Springs	CA	90670		USA	(562) 921-2785
Paragon Sports Products, LLC	1284 South Lyon Street	Santa Ana	CA	92705		USA	(714) 835-8131
Performance Forged Products	7401 Telegraph Road	Mortebello	CA	90640		USA	(213) 722-3460
Pervan Industries	1716 Kona Drive	Compton	CA	90220		USA	(310) 639-6331
Philips	13659 Rosecrans Ave., Units B & C	Santa Fe Springs	CA	90670		USA	(310) 921-4112
Philips Metal Spinning, Inc.	13659 Rosecrans Ave., Units B & C	Santa Fe Springs	CA	90670		USA	(310) 921-4112
Philips Steel Co.	1366 W. Anaheim Street	Long Beach	CA	90813		USA	(562) 435-7571
Plastic Tech Intl, Inc.	15791-N Rockfield	Irvine	CA	92718		USA	(714) 458-1880
Precision Machining Sheetmetal	2250 n. Forbes, Suite 101	Tucson	AZ	85745		USA	(520) 822-0060
Precision Resource, California Division	5803 Engineer Drive	Huntington Beach	CA	92649		USA	(714) 891-4439
Precision Tube Bending	13626 Talc St	Santa Fe Springs	CA	90670		USA	(310) 921-6723
ProLine Industries	154 S. Valencia Street	Glandora	CA	91741		USA	(818) 335-3836
Pro-Mil, Inc.	1509 N. Kramer Blvd, Unit N	Anaheim	CA	92806		USA	(714) 830-2082
Process Fab, Inc.	15644 Clanton Circle	Santa Fe Springs	CA	90670		USA	(528) 921-1979
Pyrotek, Inc.	9740 Jordan Circle	Santa Fe Springs	CA	90670		USA	(562) 948-2402
Quack Draw & Machining, Inc.	4869 McGrath Street	Ventura	CA	93003		USA	(805) 644-7884
Racing Sports Akimoto Co., Inc.	3829 E. Gussati Road, Unit A	Ontario	CA	91761		USA	(909) 605-0668
Ray's Aircraft Service	1893 S. Newcomb	Porterville	CA	93257		USA	(209) 784-9110
R & F Machine	5178 Brooks, Unit A	Montclair	CA	91763		USA	(909) 621-2193
RC Fluid Engineering, Inc.	1815 West 205th Street, Suite 203	Torrance	CA	90501		USA	(310) 782-8025
RD Fabricators, Inc.	640 North Eckhoff	Orange	CA	92668		USA	(714) 834-2078
Regent Mfg., Inc.	11905 Regentview Ave.	Downey	CA	90241		USA	(562) 862-1174
Reliance Metal Center	6718 Jefferson Street, N.E.	Albuquerque	NM	81109		USA	(505) 346-0959
Rao Metal Fabricators, Inc.	1221 E. Warner Ave	Santa Ana	CA	92705		USA	(714) 542-2104
Research Metal Industries	6050 S. Westam Ave., PO Box 47630	Los Angeles	CA	90047-0630		USA	(213) 753-3771
Rines Nacionales, S.A.	Carretera Tecate-Ensenada KM 4	Tecate B.C.				Mexico	011 52 685
Roband International, Inc.	1450 Hill street	El Cajon	CA	92020		USA	(619) 447-3638
Rohr, Inc (Acquired by BF Goodrich)	850 Lagoon Drive	Chula Vista	CA	91910		USA	(619) 691-2248
Rohr, Inc (Acquired by BF Goodrich)	Bay Blvd at G Street, Bldg 79	Chula Vista	CA	91910		USA	(619) 691-2249
Robirhaux Cycles	1317 Fairwood Ave	Clearwater	FL	34819		USA	(813) 725-5116
Robinson Helicopter	2901 Airport Drive	Torrance	CA	90505		USA	(310) 539-0508
Rolla Royce							
Ron's Metal Spinning (aka: Airport Forming)	17293 Darwin Ave, #12	Hesperia	CA	92345		USA	(760) 956-1050
Rony Manufacturing, Inc.	PO Box 1038	Blue Lake	CA	95626		USA	(707) 688-1667
Santa Fe Roll & Forming Co.	12120 Florence Ave.	Santa Fe Springs	CA	90670		USA	(562) 844-7655

CUSTOMER	ADDRESS	CITY	ST	ZIP CODE	PROVINCE	COUNTRY	TELEPHONE
Sergeant Fletcher Inc	9400 E Flair Ave	El Monte	CA	91731-2909		USA	(626) 402-2000
Salco	1601 E. El Segundo Blvd.	El Segundo	CA	90245		USA	(310) 322-4719
Satellite Mfg. Co.	13151 E. Florence Ave.	Santa Fe Springs	CA	90670		USA	(714) 739-4405
Schultz Engineering Corp.	5785 Thornwood Drive	Goleta	CA	93117-3801		USA	(805) 964-2264
Scepter Tube Swaging & Machining	17000 S. Western Ave, #17	Gardena	CA	90247		USA	(310) 515-5767
S.E. Paring	190 Bossick Blvd	San Marcos	CA	92069		USA	(619) 598-9270
S.E. Paring (dba Cycle Science)	190 Bossick Blvd	San Marcos	CA	92069		USA	(619) 598-9270
Savor Ferrous, Inc. Stainless Steel Products Division	2980-N San Fernando Blvd	Burbank	CA	91504-2566		USA	(818) 841-9190
Sky Rider Equipment Co., Inc.	2851 E. White Star Ave., Suite B	Anaheim	CA	92806		USA	(714) 832-6890
Skyspace Parts, Inc.	15700 Figueroa	Gardena	CA	90248		USA	(909) 351-0770
SMS Technologies Co.	9711 Mason Ave	Chatsworth	CA	91311		USA	(818) 898-0733
Sorlam, Inc.	3000-3100 La Jolla	Anaheim	CA	92806		USA	(714) 630-7280
Southwest United Industries	422 South Saint Louis	Tulsa	OK	74120		USA	
Southern California Metals	9970 Bell Ranch Drive	Santa Fe Springs	CA	90670		USA	(562) 941-1616
Specialty Fabrications, Inc.	2221 Madera Road	Simi Valley	CA	93065		USA	(805) 579-8730
Spin-Vac, Inc.	10628 Dolores Ave	South Gate	CA	90280		USA	
Square Tool & Machine Co., Inc.	9730 Factorial Way	So. El Monte	CA	91733		USA	(626) 442-4457
Standard Industries, Inc.	1440 S. Allec Street	Anaheim	CA	92805		USA	(714) 956-7110
Stein Industries, Inc.	4005 West Artesia Ave.	Fullerton	CA	92833		USA	(714) 522-4560
Superior Engineering	10794 Los Vaqueros Circle	Los Alamitos	CA	90720		USA	(714) 995-8422
Supreme Castings & Pattern Co. Inc.	1165 Kraemer Place	Anaheim	CA	92806		USA	
Swift-Cov	344 W 157th St	Gardena	CA	90248		USA	(310) 354-1200
T-D Materials	2068 E. 37th Street	Los Angeles	CA	90058		USA	(323) 232-6171
Techni-Cast Corp.	11220 South Garfield	South Gate	CA	90280		USA	(626) 523-4585
Techniform Metal Curving, Inc.	375 S. Cactus Ave	Rialto	CA	92378		USA	(909) 677-6886
Teledyne Ryan							
The Tactant Company	1430 E. Walnut Ave.	Fullerton	CA	92631		USA	(714) 441-2796
Threaded Fastener Engineering	1714 S. Grove Ave, Unit B	Ontario	CA	91762		USA	(909) 923-8787
Tiernay Metals	2600 Marine Ave	Redondo Beach	CA	90278		USA	(310) 676-0184
Tomic Golf & Ski Co. Mfg. Inc.	23102 Mariposa Ave	Torrance	CA	90502		USA	(213) 775-5162
Tricross	4450 A Dupont Court	Ventura	CA	93003		USA	
Troy Lighting, Inc., Custom Division	14825 East Clark Ave.	Industry	CA	91745		USA	(626) 336-4511
True Form (TFI Acquisition Inc dba)	12120 Park St	Cerritos	CA	90703		USA	(310) 926-9519
Trident Products							
Trio Metal Stamping	15318 East Proctor Ave.	Industry	CA	91745		USA	(626) 336-1228
Tube Technologies, Inc.	1555 Consumer Circle	Corone	CA	91720		USA	(909) 371-4878
Trio Tool & Die Co., Inc.	3340 West El Segundo Blvd.	Hawthorne	CA	90250-4892		USA	(213) 772-1335
University Corporation for Atmospheric Research	PO Box 3000, 1850 Table Mesa Drive	Boulder	CO	80307-3000		USA	(303) 497-8787
University of California at Irvine, Physical Sciences Dept.	Reines Hall, Room B003	Irvine	CA	92697-4675		USA	(949) 824-6048
Vesco Threading Co.	14002 Anton Ave	Santa Fe Springs	CA	90670		USA	(562) 802-1868
Warring, Inc.	6511 Whitaker Ave.	Buena Park	CA	90621		USA	(714) 523-5055
Weber Metals & Supply Co., Inc.	PO Box 318, 16706 Garfield Ave.	Paramount	CA	90723-0318		USA	(562) 602-0260
Wells Manufacturing Co.	PO Box 280, 2 Erik Circle	Verdi	NV	89439		USA	(775) 345-0444
Western Machining Company, Inc.	1370 Acacia Ave	Fullerton	CA	92831-5316		USA	(714) 502-9066
Western Metal Spinning & Mfg. Co.	5055 Western Way	Perris	CA	92572		USA	(909) 657-0711
Willis Machine, Inc.	1445 Donjon Street, Suite 3	Ventura	CA	93003		USA	(805) 644-0807

Report for Pete Thompson

Include all records where PO_COMMI.COMMITMENT_YYYYMMDD is in the range
'19981001','20021231' and (PO_COMMI.AWARD_RECIPIENT is equal to '0' or
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Purchase Order Release CO

Supplier

2-J SUPPLY COMPANY
3 COM
3-PHASE ELECTRIC COMPANY, INC.
A & A SAFETY, INC.
A&A SAFETY
A-1 SPRINKLER COMPANY, INC.
A-76 INSTITUTE
A. B. Plastics, Inc.
A. DAIGGER & COMPANY
A. M. LEONARD, INC.
A.B. DICK COMPANY
A.J. NIEMAN NURSERY
A.P. BUCK, INCORPORATED
A.R.M.S., INCORPORATED
AAA CORPORATE TRAVEL SERVICES
AAA PORTABLE JON
AB PLASTICS, INC.
AB&J MACHINING & FABRICATION
ABATEMENT COOPERATIVES
ABB AUTOMATION, INC.
ABB COMBUSTION ENGINEERING INC
ABB, Inc.
ABLECARE MEDICAL, INCORPORATED
ABR CORPORATION
ABSG CONSULTING, INC.
ABSOLUTE STANDARDS, INC.
ACADEMY OF INDUSTRIAL TRAINING
ACCESS INDIANA INFORMATION
ACCULABS, INCORPORATED
ACE REPORTING SERVICES
ACKERMAN-CHACCO COMPANY, INC.
ACOPIAN TECHNICAL COMPANY
ACORN FARMS
ACOUSTICAL SYSTEMS, INC.
ACRP (ASSOCIATION OF CRANE &
ADDRESSED FOR SUCCESS
ADOW PROFESSIONALS, INC.
ADVANCE MEASUREMENT TECHNOLOGY
ADVANCE VIDEO SYSTEM
ADVANCED CONTAINMENT SYSTEMS
ADVANCED FACILITIES, INC.
ADVANCED POLYMER SYSTEMS
ADVANCED STEEL AND
ADVANCED TECHNOLOGY SYSTEMS
ADVANTAGE SIGN SUPPLY, INC.
AEA TECHNOLOGY QSA, INC.
AEROCANVAS PRODUCTS
AEROCRETE PRECAST CORPORATION
AGA GAS INCORPORATION
AGILENT TECHNOLOGIES, INC.
AGRO CHEM
AIHA, INCORPORATION
AIR MONITOR CORPORATION
AIR PRO, INC.
AIR SYSTEMS INTERNATIONAL INC.
AIR TECHNIQUES, INC.
AIRGUARD INDUSTRIES
AIRGUARD, CINCINNATI OHIO
AL SMITH-PAINT DECORATING CTR.
ALARON CORPORATION
ALDRICH CHEMICAL COMPANY, INC.
ALEXANDER VACUUM RESEARCH
ALFA WASSERMANN
ALICIA HANSON
ALL ABOUT GRAPHIX

Report for Pete Thompson

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ALL CRANE RENTAL CORPORATION
ALL STAR CONTAINER CO., INC.
ALLEN DIEHL
ALLEN THOMPSON
ALLIANCE LABORATORY SERVICES
ALLIED GLASS
ALLIED TECHNICAL SERVICES INC.
ALLTRONICS EQUIPMENT COMPANY
ALLYN L. BOLDT
ALPHA SPECTRA, INCORPORATED
ALPHANUCLEAR COMPANY
AM SHIPPING SUPPLIES COMPANY
AMBASSADOR STEEL
AMERICAN HEAT
AMERICAN LABELMARK COMPANY INC
AMERICAN MERCHANDISING SERVICE
AMERICAN PACKAGING SUPPLY CO.
AMERICAN RED CROSS
AMERICAN SCAFFOLDING
AMERICAN TECHNOLOGIES, INC.
AMERICAN THERMAL PRODUCTS, INC
AMERICLEAN
ANALYTICAL PRODUCTS GROUP, INC
ANALYTICAL SERVICES
ANALYTICS, INCORPORATED
ANCHOR FENCES INC.
ANCHOR RUBBER
ANDERSEN INSTRUMENTS INC.
ANDERSON TOOL & DIE COMPANY
ANDREW C. RYMER
ANIXTER - CINCINNATI
ANNEX RAILROAD BUILDERS, INC.
ANSI
APCO EXTRUDERS, INCORPORATED
APPLICATION OBJECTS, INC.
APPLIED BIOSYSTEMS
APTEC INSTRUMENTS, INC.
APTEC-NRC, INC.
AQUA COOL BOTTLED WATER
AQUA MEASURE INSTRUMENT CO.
AQUA PURE BOTTLE WATER COMPANY
AQUA PURE TECHNOLOGIES
ARC SECOND, INC.
ARCH WIRELESS
ARIZONA INSTRUMENTS
ARK Enterprises, Inc.
ARROW-TECH, INCORPORATED
ARSLAN UNIFORMS
ART IRON, INC.
ARTS MANUFACTURING & SUPPLY
ARTS RENTAL EQUIPMENT COMPANY
ASAP SOFTWARE EXPRESS, INC.
ASHLAND CHEMICAL, INCORPORATED
ASME
ASPEN PUBLISHERS, INC.
ASSOCIATED WESTERN
ASSURED MICRO-SERVICES
ASTORIA-PACIFIC
ASTRO CONTAINER CO.
ATC ASSOCIATES, INCORPORATED
ATL International, Inc.
ATLAS REPORTING
ATTACHMATE
AUCTION TRANSPORT, INC.
AUTO ZONE

Report for Pete Thompson

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Supplier

AVATECH SOLUTIONS
Advanced Measurement Technolog
Advanced Radio Technology
Alacrity
Aldon Company
American Air Filter
American Railcar Industries
Ampersand Precision, LLC
Apparel Care II Cleaners
Aspery Products
Audrey J. Beach, LLC
B & J JACOBS
B&B TRANSPORTATION FREIGHT INC
B&J ELECTRICAL COMPANY, INC.
B&W SERVICES, INCORPORATED
B. L. PAYNE & ASSOCIATES, INC.
BAILEY CONTROLS
BAILEY, FISCHER & PORTER
BAKER EQUIPMENT COMPANY
BARCODE SOURCE, INCORPORATED
BARRETT PAVING MATERIALS, INC.
BARTLETT SERVICES, INC.
BATELLE PACIFIC NORTHWEST DIVI
BAUMANN ENGINEERING
BAXTER PRECAST
BBN SALES, INC.
BC ENGINEERING
BECKER ELECTRIC SUPPLY COMPANY
BECKER LABORATORIES
BECKMAN COULTER, INCORPORATED
BELCAN TECHNICAL SERVICES
BELPRE SAND AND GRAVEL
BÉN MEADOWS COMPANY
BENDATA MANAGEMENT SYSTEMS
BENEDICT ENTERPRISES, INC.
BENTLEY SYSTEMS, INC.
BERNARD GESSINESS
BEST POWER TECHNOLOGY
BEST SAND COMPANY
BEST SAND CORPORATION
BESTMAN GREEN SYSTEMS
BETHESDA HEALTHCARE, INC.
BEYERS TREE SERVICE
BHG COPYWRITING
BILL W. CROSS COMPANY
BIND VIEW
BIO-RAD LABORATORIES
BIOS-INTERNATIONAL
BIOWORKS
BLACK TECHNOLOGY CORPORATION
BLACKMORE AND GLUNT
BNFL URANIUM ASSET MANAGEMENT
BOBCAT ENTERPRISES
BOBTOWN NURSERY
BOC GASES
BORDERS BOOKS & MUSIC
BOWE MACHINE COMPANY
BOWSER MORNER, INCORPORATED
BRAINARD ASSOCIATES, INC.
BRAY PRODUCTION SERVICES
BREATHING AIR SYSTEMS
BRESCO
BRIAN O'DONNELL
BRINKMANN INSTRUMENTS, INC.
BRIO TECHNOLOGY, INC

Report for Pete Thompson

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Supplier

BROADWING
BROWNSTOWN ELECTRIC SUPPLY
BRUEL AND KJAER INSTRUMENTS
BRYAN S. DEHOFF
BUCHANAN'S POWER EQUIPMENT
BUCK CONSULTANTS, INCORPORATED
BUCKEYE ELECTRONICS, INC.
BUCKEYE POWER SALES COMPANY
BUCKEYE PUMPS INCORPORATED
BUILDCO, INC.
BUILDING FASTENERS
BULL RUN METAL FABRICATORS
BUSINESS ENGINE SOFTWARE CORP.
BUTLER COUNTY INDUSTRIAL SUPPL
BUTLER COUNTY LUMBER
BWXT Y-12 LLC
Baker Concrete Construction, I
Barnbey & Sutcliffe Corporati
Barringer Instruments, Inc.
Beckman Communications
Benness Gardens, Inc.
Bertekamp Automation Inc.
Big Top Manufacturing
Boston Transit
Bristol Equipment Company
Buckeye Concrete
C&L TRAVEL
C-FORCE GENERAL CONTRACTORS
C-TECH DEVELOPMENT CORPORATION
C. D. BRADY COMPANY
C.L. ZIMMERMAN COMPANY
C.N. ASSOCIATES, INCORPORATED
C/S SOLUTIONS
CADDO DESIGN & OFFICE PRODUCTS
CADILLAC PLASTIC & CHEMICAL
CAFCO FILTER SALES & SERVICE
CAFCO-
CAL-WEST BUSINESS FORMS
CAMCO MOBILE MODULAR
CAMPBELL SCIENTIFIC, INC.
CANBERRA INDUSTRIES, INC.
CANTER BATTERY COMPANY
CANTWELL MACHINERY
CAPOZZOLO PRINTERS, INC.
CAPSTONE CONSULTING COMPANY
CAR CORNER FINANCIAL CORP.
CARGILL SALT INC.
CARLISLE CONSTRUCTION
CARR CONCRETE
CARTER MANUFACTURING COMPANY
CDF CORPORATION
CDI ENGINEERING GROUP, INC.
CDS ASSOCIATES, INCORPORATED
CDW GOVERNMENT/EDUCATION SALES
CELS-CORNING LABORATORY
CEM Corporation
CENTER FOR OCCUPATIONAL HEALTH
CENTER FOR ORTHOPADIC CENTER
CENTRAL ACOUSTICAL
CENTRAL BUSINESS GROUP
CENTRAL JANITORIAL SUPPLY
CENTRAL TOOL RENTAL
CENTURY EQUIPMENT
CERTIFIED ENVIRONMENTAL
CETCO

Report for Pete Thompson

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CINCINNATI PRECISION INSTRUMEN
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CLEVELAND TANK AND SUPPLY
CLIENT SPECIFIC SYSTEMS
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COLE PARMER INSTRUMENT COMPANY
COLE VISION CORPORATION
COLEMAN RESEARCH CORPORATION
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COLERAIN TRAILER CENTER, INC.
COLLEGE OF AM. PATHOLOGISTS
COLLINS-SADDLER & ASSOCIATES
COLORADO STEEL SASH CO., INC.
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COMPLETE FASTENING SYSTEMS
COMPLETE LASER PRODUCTS, INC.
COMPLIANCE SOFTWARE
COMPLIANCE TECHNOLOGY, INC.
COMPUCOM, INCORPORATED
COMPUSERVE INCORPORATED
COMPUTER HORIZONS
COMPUTERLAND OF WOODBRIDGE
COMTEQ FEDERAL, INCORPORATED
CONCORD ASSOCIATES, INC.
CONCRETE SEALANTS INC.
CONCURRENT TECHNOLOGIES
CONDATA, INCORPORATED
CONNER TECHNOLOGIES
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Report for Pete Thompson

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DALCO INTERNATIONAL, INC.
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DAYTON STENCIL WORKS COMPANY
DAYTON WATER SYSTEMS
DAYTON/RICHMOND CONCRETE
DECISIONEERING SOFTWARE
DEER PARK SPRING WATER
DELTA STEEL
DELTA TEMAX, INCORPORATED
DENNIS C. PAYNE TRUCKING
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DETAILED SERVICES
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DIEBOLD CORPORATION
DIGITAL STREAMS
DIONEX CORPORATION
DIRIGO, INCORPORATED
DISCOUNT DRAINAGE SUPPLY
DLP Technologies, Inc.
DLT SOLUTIONS

Report for Pete Thompson

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DRAEGER SAFETY, INC.
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DUKE ENGINEERING & SERVICES
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DUPONT SAFETY RESOURCES
DURATEK FEDERAL SERVICES, INC.
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DYWIDAG SYSTEMS INTERNATIONAL
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EBERLINE SERVICES
EBSCO SUBSCRIPTION SERVICES
ECCLES SAW & TOOL COMPANY
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ECOMM SUPPLY LOGISTICS
ECONOMY ADVERTISING COMPANY
EDR SYSTEMS
EDWARD HIGH VACUUM INT'L
EDWARDS PRODUCTS, INCORPORATED
EDWARDS SUPPLY COMPANY, INC.
EES
EG&G INSTRUMENTS
EG&G ORTEC
ELEVATOR SERVICE, INCORPORATED
ELLERBUSCH INSTRUMENT COMPANY
ELRON SOFTWARE, INCORPORATED
EM ELECTRIC SUPPLY, INC.
EMERGENCY EQUIPMENT
EMILCOTT-DGA, INC.
ENERCON SERVICES, INCORPORATED
ENGELHARDT LANDSCAPING
ENGINEERED SYNTHETIC PRODUCTS
ENVIROCARE OF UTAH, INC.
ENVIRONMENTAL CHEMICAL CORP.
ENVIRONMENTAL DIMENSIONS, INC.
ENVIRONMENTAL MEASUREMENTS LAB
ENVIRONMENTAL PHYSICS, INC.
ENVIRONMENTAL QUALITY

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Report for Pete Thompson

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ERNST CONSERVATION SEEDS
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ESI ACQUISITION, INC.
ESSCO CALIBRATION CO.
ESSCO, LLC
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EVEREST - VIT
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EXPERITEMPS
EXTEC USA
EXTECH INSTRUMENT CORPORATION
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FERGUSON PLUMBING
FETN
FIBER INSTRUMENT SALES, INC.
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FINN CORPORATION
FIRE EXTINGUISHER SAFETY, INC.
FIRESTONE
FIRST INDUSTRIAL REALITY TRUST
FIRSTCOM MUSIC, INCORPORATED
FISCHER-ROBERTSON, INC.
FISHER QUALITY MANUFACTURING,
FISHER SCIENTIFIC
FLANDERS FILTERS, INC.
FLOOR CARE SYSTEMS
FLUID COMPONENTS INTL.
FLUID TECH
FLUKE ELECTRONICS CORPORATION
FMSM ENGINEERS, INCORPORATED
FORESTRY SUPPLIERS, INC.
FORT HAMILTON-HUGHES MEMORIAL
FORTRESS SAFE & LOCK COMPANY
FOSTER SAFETY
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FOSTER WHEELER ENVIRONMENTAL
FOSTER WHEELER ENVIRONMENTAL C
FOSTER'S TRUCK SALES, INC.
FOX ART STUDIO
FOX RIVER GRAPHICS
FRANK MOTZ AUTO BODY
FREDERICK STEEL COMPANY

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Report for Pete Thompson

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GOVERNMENT ACQUISITIONS, INC.
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GRAHAM WHITE SALES DIVISION
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GRANT THORNTON, LLP
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GRAY & PAPE INCORPORATED
GREAT MIAMI AUTO PARTS
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GREAT OAKS INSTITUTE OF
GREATER HAMILTON
GREATER HAMILTON SAFETY
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GREENWOOD NURSERY
GREIF BROTHERS CORPORATION
GRIEF BROTHERS CORPORATION
GRINDLE'S PHOTOGRAPHY & COLOR
GRÖW & ASSOCIATES, INC - *
GRUMMAN EXPLORATION, INC.
GSE LINING TECHNOLOGY, INC.
GTE ELECTRONIC REPAIR SERVICE
GTS DURATEK

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Gamco, Inc.
Geotechnical Software Solution
Gerspacher Sales Company
Groth Corporation C/O Temco, I
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HAMILTON COUNTY PARK DISTRICT
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HEWLETT-PACKARD COMPANY
HEYMAN TALENT
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HIGH VOLTAGE MAINTENANCE CORP.
HIGH-PURITY STANDARDS
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HILTI, INCORPORATED
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HOLT COMPANY OF OHIO
HOLT RENTAL SERVICES
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HORIZON ENVIRONMENTAL GROUP
HOUCK CARS CLASSICS AND
HOWARD OFFICE EQUIPMENT
HUB MANUFACTURING COMPANY
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HYATTS-ALL THINGS CREATIVE
HYDRO-PURE SYSTEMS COMPANY
HYDROGEOLOGIC, INCORPORATED

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Report for Pete Thompson

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HammerTek Corporation
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ICES, LIMITED
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IMAGE CONCEPTS TECHNICAL
IMAGISTICS INTERNATIONAL INC
IMATION
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INDUSTRIAL ENVIRONMENTAL
INDUSTRIAL PAINT & SUPPLY
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INDUSTRIAL SUPPLY AND
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INGERSOLL RAND
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INSTANT TREES
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INTERCONTINENTAL
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ITA PRESENTATION SERVICES
ITS MEDICAL TRANSCRIPTION
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Integrated Environmental Servi
Intrepid USA
Irfan Dahar, M.D. & Associates

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Report for Pete Thompson

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KNOLLMAN FARM, INC.
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KOKER DRILLING COMPANY
KOPPENHOEFER & WUNDER, MD'S
KRAMIG COMPANY

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LL NATIONAL, SUB. OF LLC INTL.
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MACHINE WORKS OF CINCINNATI
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MAFCO EQUIPMENT COMPANY
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MAJOR SUPPLY CORPORATION
MANAGEMENT & TECHNICAL
MANAGEMENT CONCEPTS, INC.
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MANTA CORPORATION
MARCONI MEDICAL SYSTEMS
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MARIETTA STRUCTURES CORP.
MARSH USA, INCORPORATED
MARSH, INC.

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MATERIAL FLOW & CONVEYOR
MATRIX SERVICE MID CONTINENT,
MAXIM CRANE
MAXIMUM COMMUNICATIONS
MAZZELLA WIRE ROPE & SLING COM
MCGRAW HILL ENGINEERING
MCMASTER CARR SUPPLY COMPANY
MDM SERVICES CORPORATION
MED RAD
MEDIA CONSULTANT
MEDIA LIBRARY
MEDIA SERVICES
MEDICAL X-RAY INCORPORATED
MEDTRONIC PHYSIO-CONTROL CORP.
MENDELSON SMOLIN & ASSOCIATES
MERCHANDISING SERVICES, INC.
MERRILEES TRUSTWORTHY SUPPLY
METERS & CONTROL COMPANY, INC.
METTLER-TOLEDO
MEYER ROOFING CO.
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MHF LOGISTICAL SOLUTIONS
MIAMI VALLEY READY MIX
MICHAEL MILLER, MD
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MICRODESIGNS, INCORPORATED
MID AMERICA CONTRACTING, INC.
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MILLIKEN VALVE
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MONARCH CONSTRUCTION COMPANY
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MOODY'S OF DAYTON, INC.
MOORE BINDING SYSTEMS, INC.
MOORE MEDICAL
MORAINÉ MATERIALS
MOSLER SAFE COMPANY
MOTOROLA TEST
MOTOROLA, INCORPORATED
MOUND METROLOGY, INCORPORATED
MPS Engineering & Construction
MR. CHARLIE BATCHELOR
MR. RUDY CRAWFORD
MSE, TECHNOLOGY APPLICATIONS
MTI INSULATED PRODUCTS
MTR
MUNRO ECOLOGICAL SERVICES, INC
MURPHY'S ELECTRIC SUPPLY CO.
MUTUAL MANUFACTURING & SUPPLY
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Mobility Concepts
Morgan, Lewis & Bockius LLP
Mr. Delbert F. Bunch
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NATIONAL AIRCRAFT SUPPLY
NATIONAL ARCHIVES & RECORDS
NATIONAL ELEVATOR INSPECTION
NATIONAL FIRE
NATIONAL FLAG COMPANY
NATIONAL INSTITUTE OF STANDARD
NATIONAL JEWISH MEDICAL AND
NATIONAL METAL ABRASIVE, INC.
NATIONAL PROPERTY MANAGEMENT
NATIONAL SAFETY COUNCIL
NATIONAL SAFETY SUPPLY COMPANY
NATIONAL SEAL COMPANY
NATIONAL TECHNOLOGY TRANSFER
NATIONAL TESTING
NATIONAL UNION FIRE INSURANCE
NATIONS RENT
NATIONS RENT, INC
NCMA/Cincinnati Chapter
NCS CORPORATION
NEENAH FOUNDRY COMPANY
NESBIT SYSTEMS, INCORPORATED
NETEGRATION, INCORPORATED
NETHERLAND RUBBER COMPANY
NEW HORIZONS
NEW PIG CORPORATION
NEW POINT STONE COMPANY, INC.
NEW YORK UNIVERSITY SCHOOL
NEWARK ELECTRONICS
NEWBERRY CONSTRUCTION COMPANY
NEWMAN TRACTOR
NEWPOINT STONE COMPANY
NFS - RADIATION PROTECTION
NILFISK OF AMERICA, INC.
NIST/NVLAP ACCOUNTS
NITON CORPORATION
NORCO
NORTH AMERICAN SCIENTIFIC
NORTH CAROLINA A&T STATE
NORTHEAST INDUSTRIAL MFG. INC.
NORTHERN KENTUCKY
NORTHSTAR HELICOPTERS
NORWOOD HARDWARE & SUPPLY CO.
NOVELL, INCORPORATED
NSC ENERGY SERVICES, INC.
NUCLEAR FILTER TECHNOLOGY, INC
NUCOR STEEL
NUISANCE ANIMAL CONTROL
NURRE BUILDING
NWT, INCORPORATED
Neurology and Sleep Sciences P
New Keibler-Thompson Company
Nucon International, Inc.
O.K. Fasteners
O.P. PLUS RESOURCES, INC.
OAK RIDGE NATIONAL LABS
OAKLEY PAINT & GLASS CORP.
OARNET, INCORPORATED
OCCNET
OCE-BRUNING, INCORPORATED
OCE-USA, INCORPORATED

Report for Pete Thompson

Include all records where PO_COMMITMENT_COMMITMENT_TTTTMMDD is in the range '19981001','20021231' and (PO_COMMITMENT_AWARD_RECIPIENT is equal to '0' or PO_COMMITMENT_AWARD_RECIPIENT is equal to '1')

Printed: 01/27/2003 14:08

Purchase Order Release CO

Supplier

OCTAGON, INC.
OCTORARO NATIVE PLANT NURSERY
OHA INSTRUMENTS
OHIO OFFICE EQUIPMENT
OHIO TRUCK EQUIPMENT, INC.
OHIO VALLEY GASKET
OKD THREE, LIMITED
OKI SYSTEMS
OKI Systems, Inc.
OLDFIELD EQUIPMENT COMPANY
OMEGA BALANCE SERVICE, INC.
OMEGA ENGINEERING, INC.
OMI
OMNISTAR, INCORPORATED
ON LOCATION VIDEO PRODUCTIONS
ON-LINE POWER, INC.
ONLINE PROFESSIONAL ELECTRONIC
ONSITE ENGINEERING AND
OPERATOR TRAINING COMMITTEE
ORACLE CORPORATION
ORACLE FEDERAL DIVISION
ORBIT MOVERS & ERECTORS, INC.
ORION RESEARCH INC
ORR SAFETY EQUIPMENT COMPANY
ORTH SPRINKLER SUPPLY, INC.
OSENBAUGH GRASS SEEDS
OXFORD INSTRUMENTS, INC.
Oak Ridge Tool - Engineering,
Ohio Valley Gasket
P&K MICROBIOLOGY SERVICES, INC
PAC-VAN LEASING AND SALES
PACIFIC NORTHWEST NATIONAL
PACKAGING SPECIALISTS COMPANY
PADIA ENVIRONMENTAL, INC.
PAHRUMP VALLEY TIMES
PAI CORPORATION
PAIGE COMPANY, INCORPORATED
PALINDROME PRODUCTIONS, INC.
PANASONIC
PARALLAX, INCORPORATED
PARR EMERGENCY PRODUCTS SALES
PARSONS INFRASTRUCTURE AND
PATIENT CARE PHARMACY
PAUL A. KROEGER
PAUL GOODMAN GRAPHIC DESIGN
PAYMENTECH
PC Mall Government Solutions
PC SOLUTIONS, INCORPORATED
PCI SCIENTIFIC SUPPLY, INC.
PCMAIL
PDMA CORPORATION
PEGASUS TECHNICAL SERVICE, INC
PENNINGTON RUBBER COMPANY
PERFECTION MECHANICAL SERVICES
PERKIN ELMER INSTRUMENTS
PERKIN ELMER INSTRUMENTS/EG&G
PERMA-FIX ENVIRONMENTAL
PERSONAL SAFETY EQUIPMENT CO.
PERSONNEL SEARCH
PETE'S PHOTO WORLD
PETRO ENVIRONMENTAL
PETROGEN INTERNATIONAL, INC.
PFI, INC.
PFLUM KLAUFMEIER GEHRUM
PHC RECLAMATION, INC,

Report for Pete Thompson

Include all records where PO_COMMI.COMMITMENT_YYYYMMDD is in the range '19981001','20021231' and (PO_COMMI.AWARD_RECIPIENT is equal to '0' or PO_COMMI.AWARD_RECIPIENT is equal to '1')

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Base Order Release CO

Supplier

PHILADELPHIA MIXERS
PHILIP ST. INC.
PHILLIPS CHEMICAL COMPANY
PHILLIPS SUPPLY COMPANY
PHILOTECHNICS, LTD.
PHOENIX CONTROLS CORPORATION
PHOENIX ENVIRONMENTAL CORPORAT
PHYSICIAN NETWORK, INC.
PHYSICIAN SALES & SERVICES PSS
PICTURETEL CORPORATION
PINELANDS NURSERY
PIPE PRODUCTS, INC.
PITNEY BOWES COPIER/FAX SUPPLY
PJ HILTON & COMPANY, INC.
PLANES MOVING & STORAGE, INC
PLANT EQUIPMENT COMPANY
PLAS-TANKS INDUSTRIES, INC.
PLASTIC FUSION FABRICATORS, IN
PLS INTERNATIONAL
POLLUTION PREVENTION
PORTMAN EQUIPMENT COMPANY
PORTMAN TRAINING CENTER
POWELL GRAVEL & TOPSOIL, INC.
POWER LINE SUPPLY COMPANY
POWER PRODUCTS & SERVICES CO.
POWER SERVICES, INCORPORATED
POWERWARE GLOBAL SERVICES
PRAIRIE NURSERY, INC.
PRAXAIR CORPORATION
PRECISION AIR
PREMA-SERVICE GmbH Industriemo
PREMIER SAFETY & SERVICE, INC.
PRIMAVERA SYSTEMS, INC.
PRIME EQUIPMENT RENTAL
PRINCETON GAMMA-TECH, INC.
PRIORITY DISPATCH, INC.
PRO-CHEM, INCORPORATED
PRO-COAT, INC.
PRO-LIFT INDUSTRIAL SERVICES
PRO-QUIP C/O WIKEL & CORNELIUS
PROBE-LEASE
PROFESSIONAL DATA RESOURCES
PROFESSIONAL SYSTEMS
PROFESSOR DAVID E. DANIEL
PROGRESSIVE TECHNOLOGY GROUP
PROJECT TIME AND COST
PROLIFT INDUSTRIAL EQUIPMENT
PROTECTIVE LINING CORP.
PROVIDENT CAMERA SHOP, INC.
PSYCHIATRIC PROFESSIONA
PTC TRANSPORT LTD.
PUMP PRO'S INCORPORATED
PURESTREAM, INCORPORATED
PYLON ELECTRONICS COMPANY, LTD
Packaging Technology, Inc.
Pangea Group
Perfection Services
Perspectives Group
Philips Medical Systems
Pieczonka Unlimited, Inc.
Prairie Moon Nursery
Pricewaterhouse Coopers, LLP
Pro-tect Plastic & Supply, In
Production Components, LLC
Protocol Communications, Inc.

Report for Pete Thompson

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'19981001','20021231' and (PO_COMM1.AWARD_RECIPIENT is equal to '0' or
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End: 01/27/2003 14:08

Base Order Release CO

Supplier

Pumptek
Q Systems, Inc.
QED ENVIRONMENTAL SYSTEMS
QUALITY CONSULTANTS AND
QUALITY CRAFT SYSTEMS
QUALITY INSTITUTE INTERNAT'L
QUANTERRA, INCORPORATED
QUEEN CITY AWNING
QUEST ENVIRONMENTAL & SAFETY
QUEST TECHNOLOGIES, INC.
QUICK WRAP PRODUCTIONS
R&B MANAGEMENT CONSULTING, LLC
R&M WELDING PRODUCTS
R. L. BOLINO CO.
R. W. WIESENER, INC.
R.A. MUELLER, INCORPORATED
R.E. KRAMIG & COMPANY, INC.
R.E. SCHWEITZER CONSTRUCTION
R.J. ELECTRONICS
R.P. CARGILLE LABORATORIES INC
R.S. KRAVETZ MD & ASSOCIATES
R.S.V.P.
R.T. REIMAN
RADCAL CORPORATION
RADECO, LLC
RADIATION SAFETY & CONTROL
RAE SYSTEMS
RAIL SCALE, INC.
RAILWORKS TRACK SERVICES, INC.
RAININ INSTRUMENT COMPANY, INC
RAITZ SERVICES, INCORPORATED
RANDUSTRIAL
RAPIDIGM
RAPTOR'S PERCH ENGINEERING
RAWDON MYERS, INCORPORATED
RAY HAMILTON MOVERS
READMORE
RECYCLED TECHNOLOGY, INC.
RED BIRD SERVICE
RED ROCKS COMMUNITY COLLEGE
REDZONE ROBOTICS, INCORPORATED
REEF INDUSTRIES
REESEVILLE RIDGE NURSERY
REIDLER DECAL CORPORATION
RELIABLE LETTER & BULK MAIL
RENCKS LANSCAPING CENTER
RESEARCH SOFTWARE CONSULTING
RESPONSE RENTALS
RESTORATION SYSTEMS, INC.
RHINOWORKS
RICE ELECTRICAL SALES
RICHARDSON ELECTRONICS, LTD.
RICWEL CORPORATION
RIEMEIER LUMBER
RIS PAPER COMPANY
RIVERFRONT STEEL, INC.
ROACH MACHINE WORKS
ROBBINS ASSOCIATES, INC.
ROBERT ROAL
ROBINSON GLASS
ROCKY MOUNTAIN REMEDIATION SCV
ROD RODRIGUEZ, INCORPORATED
RON KOCH TRUCKING
ROOFING WHOLESALE
ROSCOR- CINCINNATI

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Report for Pete Thompson

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01/27/2003 14:08

Phase Order Release CO

Supplier

ROSS HARDWARE
ROSS TOWNSHIP
ROTO-ROOTER SEWER SERVICES
ROY TAILORS UNIFORM
RUZ SYSTEMS
RUMPKE BEAR NECESSITIES
RUMPKE CONTAINER SERVICE
RUMPKE GLASS INC.
RUMPKE HYDRAULIC, INCORPORATED
RUMPKE NPK COMPOST FARM
RURAL NATURAL GAS COMPANY
RYDER TRANSPORTATION SERVICES
RYDER TRUCK RENTAL, INC.
RYERSON & SON, INC.
RYZEX RE-MARKETING USA, INC.
Rebar Express of Cincinnati
Rexel
Robohand, Inc.
Russell Brewer
Ruth F. Welner
SAA SOLUTIONS
SAFE MARK, LLC
SAFETY & ECOLOGY CORPORATION
SAFETY KLEEN CORPORATION
SAFETY SHOE DISTRIBUTORS
SAFETY TODAY
SAIC
SAIGA SYSTEMS
SAINT-GOBAIN
SANGER & EBY DESIGN
SANWILL, INCORPORATED
SARCOM
SARCOM COMPUTER RENTALS
SARCOM, INCORPORATED
SATELLITE CENTER, INC.
SATELLITE SHELTERS, INC.
SAVAGE AUTO SUPPLY COMPANY
SCHAAF TARP COMPANY
SCHAEFER BOX AND PALLET
SCHAERGES & VOSSLER PUMP COM.
SCHLEMMER ASSOCIATES
SCHULHOFF EQUIPMENT RENTAL
SCIENCE APPLICATIONS
SCIENTECH, INCORPORATED
SCIENTIFIC AND TECHNICAL
SCIENTIFIC ECOLOGY GROUP, INC.
SCIENTIFIC SALES, INCORPORATED
SCINTREX, LIMITED
SCOTT INDUSTRIAL
SCOTT SPECIALTY GASES
SCOTTISSUE
SCRUB-A-TRUCK
SD ACQUISITION, INC.
SEC-TRON, INC.
SECURITY FENCE COMPANY
SEEGOTT, INCORPORATED
SELF INDUSTRIES, INCORPORATED
SENSIDYNE, INCORPORATED
SEVENSON ENVIRONMENTAL SERVICE
SEVERN TRENT LABORATORIES, INC.
SHADA ENVIRONMENTAL SPECIALIST
SHARONVILLE ELECTRIC
SHERIDAN SAFETY SUPPLY, INC.
SHERWIN-WILLIAMS
SHERWIN-WILLIAMS COMPANY

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Report for Pete Thompson

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01/27/2003 14:08

Phase Order Release CO

Supplier

SHIPPERS SUPPLY COMPANY
SHRED-IT MOBILE PAPER
SHRINERS HOSPITAL FOR CHILDREN
SIEGLE & SONS
SILCO FIRE PROTECTION
SILCOTT RAILWAY COMPANY
SIMLABS INTERNATIONAL
SIMCO CONTROLS
SIMPLEX TIME RECORDER COMPANY
SIMPSON & SON, INCORPORATED
SKC, INCORPORATED
SKOLNIK INDUSTRIES, INC.
SKYLINE DISPLAYS
SMALL'S PRO HARDWARE
SNAP-ON INDUSTRIAL
SOLIDSTATE CONTROLS, INC.
SOURCE, THE
SOUTHEASTERN EQUIPMENT COMPANY
SOUTHERN OHIO FABRICATORS INC
SOUTHWEST LABORATORY
SOUTHWEST RESEARCH
SPANGLER REPORTING SERVICES
SPARTAN CONSTRUCTION
SPECTRA-PRECISION
SPECTRUM ANALYTIC, INC.
SPENCE RESTORATION NURSERY
SPENCER PRODUCTS CO.
SPER SCINETIFIC
SPRAYLAT
SQRIBE TECHNOLOGIES
STAN A. HUBER CONSULTANTS, INC
STATE INDUSTRIAL PRODUCTS
STAVER GROUP, INCORPORATED
STEFFEN TOOL CRIB
STEPHANIE HOOPER
STERICYCLE, INCORPORATED
STITES SCALES
STOERMER-ANDERSON, INC.
STONE CENTER
STOREY MACHINE COMPANY
STORNET, INCORPORATED
STULZ AIR TECHNOLOGY SYSTEMS,
SUBURBAN CLEANERS
SUBURBAN DOOR & HARDWARE
SUBURBAN OIL COMPANY, INC.
SUMMIT FIRE APPARATUS
SUN GRO HORTICULTURAL INC.
SUN MICRO SYSTEMS, INC.
SUN MICROSYSTEMS - DAYTON
SUNBELT RENTALS, INCORPORATED
SUPER PRODUCTS CORPORATION
SUPERIOR LAB SYSTEMS, INC.
SUPERIOR RUBBER COMPANY
SUPERIOR SIGNAL COMPANY
SUPERIOR SPECIAL SERVICES, INC
SUR-SEAL
SURKAMP & ROWE, INCORPORATED
SW SERVICES
SWORD & SHIELD ENTERPRISE
SYLVA NATIVE NURSERY & SEED CO
SYSTEM SALES, INC.
SYTEX SYSTEMS
Safety Today
Safway Steel Products
Schlemmer's

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Report for Pete Thompson

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Purchase Order Release CO

Supplier

Shinoak Software
Siemens Westinghouse Technical
Site Supply, Inc.
Softmart
Solidstate Control, Inc.
Spot Coolers
Swissshade & Security, Inc.
T & G CONTROLS
TARGET SOLUTIONS, INC.
TARGET VISION
TEAM MARKETING COMPANY, INC.
TEASDALE-FENTON
TECH PAC, INC.
TECHNI-TOOL
TECHNICAL AND PROFESSIONAL
TECHNIDISC, INCORPORATED
TECHNIMEDIA SERVICES
TED GARDNER & ASSOCIATES, INC.
TED'S TOYS & TRAINS
TEKMAR-DOHRMANN
TELE-VAC ENVIRONMENTAL
TELEDYNE ELECTRONIC
TELEDYNE ENVIRONMENTAL, INC.
TELEWELD, INCORPORATED
TEMCO INSTRUMENTS & CONTROLS
TENKOTTE TOPS INC.
TENNANT COMPANY
TETRA TECH NUS, INCORPORATED
TEXAS SOUTHERN UNIVERSITY
THAMAN RUBBER COMPANY
THARP TREE SERVICE
THE COLLINITE CHEMICAL CO.
THE ISTRE COMPANY
THE PLASTIC LUMBER CO., INC.
THE WATERWORKS
THE WIND CLIP COMPANY
THERMO ANDERSON - MIE
THERMO ENVIRONMENTAL
THERMO MEASURETECH
THERMO NUTECH
THERMO OPTEK CORPORATION
THETA ENGINEERING, INC.
THETA SYSTEMS, INCORPORATED
TIGER MACHINERY COMPANY, INC.
TIME MOTION TOOLS
TISCH ENVIRONMENTAL, INC.
TISCOR
TITMUS OPTICAL INCORPORATED
TN TECHNOLOGIES, INCORPORATED
TNS ADVANCED TECHNOLOGIES
TODAY'S TEMPS
TODD M. MARTIN
TOM COX
TOM RATTERMAN
TOOL HOUSE, INCORPORATED
TOTAL FIRE GROUP
TOTAL SAFETY, INC.
TOUCH OF CLASS MONOGRAMS
TPG Applied Technology
TRANE COMPANY
TRANSCAT CAL-LABORATORY
TRANSPORT NATIONAL
TRANSPORT PLASTICS, INC.
TRANSETTLEMENTS, INC.
TRI CITY INDUSTRIAL POWER

Report for Pete Thompson

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Phase Order Release CO

Supplier

TRI-STAR COMPUTER
TRI-STATE ENVIRONMENTAL
TRI-STATE FORD TRUCK SALES
TRI-STATE OFFICE SUPPLIES
TRI-STATE VALVE & INSTRUMENT
TRI-STATE VISUAL PRODUCTS, INC
TRI-VECTOR CONSULTANTS, INC.
TRIAD FLUID POWER
TRIANGLE ASSOCIATION, INC.
TRICO EQUIPMENT, INC.
TRICON DISTRIBUTORS, INC.
TRIMBLE NAVIGATION
TRIMBLE NAVIGATION, INC.
TROEMNER, INCORPORATED
TSI, INCORPORATED
TURNKEY MATERIAL HANDLING, INC
TYLER'S TOWING COMPANY
Tawa Clearing Company
Tec-Fab, Inc.
The Istre Company
Thermal Solutions, Inc.
Thomas G. Pagan
Trivaco, Inc.
U.S. GOVERNMENT PRINT OFFICE
U.S. INDUSTRIAL LUBRICANTS
U.S.C. WASTE EQUIPMENT
UCR OF OHIO, INCORPORATED
ULTRAMAC CORPORATION
UNION PACIFIC RAILROAD COMPANY
UNIQUE SOFTWARE SOLUTIONS, INC
UNITECH SERVICES GROUP, INC.
UNITED BUILDING SUPPLY, INC.
UNITED COMMERCIAL FLOORING
UNITED FABRICATORS, INC.
UNITED PARCEL SERVICE
UNITRAC RAILROAD MATERIALS INC
UNIVERSAL FASTENERS SERVICE &
UNIVERSAL FITNESS
UNIVERSITY OF CINCINNATI
UNIVERSITY OF DAYTON
UNIVERSITY RADIOLOGY ASSOC OF
URETHANE UNLIMITED
US FLOW/MUTUAL MANUFACTURING &
US INSPECTION SERVICE
US WEST
USEC
Ultra Tech International, Inc.
United Refrigerator, Inc.
United Rentals
V. J. TECHNOLOGIES, INC.
V. N. DEVOU SUPPLY CO.
VALLEN SAFETY SUPPLY COMPANY
VALLEY ASPHALT CORPORATION
VALLEY JANITOR SUPPLY COMPANY
VALLEY NATIONAL GASES
VALLEY SAFETY SERVICES
VALVAX CORPORATION
VAUGHAN ASSOCIATES, INC.
VERIZON WIRELESS
VERMEER OF SOUTHERN OHIO
VHG LABS, INC.
VIADOR INC.
VIADOR, INC.
VIDATT ENERGY, INCORPORATED
VIKING ENVIRONMENTAL SUPPLY

Report for Pete Thompson

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Purchase Order Release CO

Supplier

VINTAGE JANITORIAL SUPPLIES
VOPAK
VORTEC CORPORATION
Versata, Inc.
W.C. STOREY & SONS, INC.
WAGNER SMITH
WAKEFIELD, PETER B.
WALKER MACHINERY CO., INC.
WALL DATA, INCORPORATED
WAREHOUSE EQUIPMENT &
WARREN ENVIRONMENT, INC.
WARREN FIRE EQUIPMENT, INC.
WARREN GORHAM LAMONT
WASTE CONTROL SPECIALIST
WASTREN, INCORPORATED
WATER SYSTEMS ENGINEERING, INC
WATSON GRAVEL, INCORPORATED
WEINGARTEN GALLERY
WEIRICH & ASSOCIATES, INC.
WELCH SAND & GRAVEL
WERRES CORPORATION
WEST SIDE PAVING & EXCAVATING
WESTBOUND COMMUNICATIONS
WESTCHESTER S.V.T.
WESTERN CHEMICAL INTERNATIONAL
WESTERN HILLS BUILDERS SUPPLY
WESTINGHOUSE SAFETY
WESTON, INC.
WESTWIND COMPUTER PRODUCTS INC
WEY VALUE, INCORPORATED
WHEATLEY ELECTRIC SERVICE CO
WHEELABRATOR ABRASIVES, INC.
WHITTAKER CLEANING SYSTEMS
WHOLESALE TIRE MART
WIESMAN, RUSSELL J & SANDRA K
WILLIAM CLARK
WILLIAM LANG & SONS
WILLIAM M. MERCER, INC.
WILLIAMS HAYWARD PROTECTIVE
WILLIAMS SCOTSMAN, INC.
WILSON CONCRETE PRODUCTS, INC
WILSON MANUFACTURING
WINDUSTRIAL COMPANY
WIRE ROPE & RIGGING CONSULTANT
WIRELESS COMMUNICATIONS
WISE SERVICES, INCORPORATED
WMG, INCORPORATED
WOLCOTT WATER SYSTEMS, INC.
WOOLPERT CONSULTANTS
WRAY'S ENTERPRISES, INC.
WRIGHT FARMS, LTD.
WRQ, INCORPORATED
WST, INCORPORATION
Waste Management
Watson-Marlow/Bredel
Webb-Stiles of Alabama
Wellington Services
West Publishing Company
Winrow Construction Company
World Data Products
X - COMMUNICATIONS
X-RAY ON CALL, INC.
XAVIER UNIVERSITY
XEROX BUSINESS SERVICES
XEROX CORPORATION

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Report for Pete Thompson

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Purchase Order Release CO

Supplier

XL SOURCE, INCORPORATED
XTRA LEASE
YAHOO BROADCAST
YARD TRUCKS OF OHIO
ZEFON INTERNATIONAL
ZELTEX, INC.
ZEMEX INDUSTRIAL MINERALS
ZIMMER TRACTOR, INCORPORATED

Records printed: 18302

MOUND

Orrison, John

From: Saluke, John
Sent: Tuesday, January 21, 2003 3:06 PM
To: Zeller, Shirley
Cc: Orrison, John
Subject: FW: Recover Cost to Perform Investigation on Temperform

Shirley,

Please call me if you have anything to provide in response to this request.

Thanks.

John Saluke

-----Original Message-----

From: Vaughan, Larry [mailto:Larry.Vaughan@em.doe.gov]
Sent: Tuesday, January 21, 2003 10:49 AM
To: 'Avaholland@wipp.ws'; 'Joe.neyer@fernald.gov';
'Beausogl@id.doe.gov'; 'John.saluke@ohio.doe.gov';
'John.orrison@ohio.doe.gov'; 'Samuel_A_Vega@rl.gov';
'James.jeffries@rf.doe.gov'; 'Keith_A_Benguiat@rl.gov';
'Bill.rowland@srs.gov'; 'David.l.gray@wv.doe.gov';
'SmithMC@oro.doe.gov'; 'Smythrc@oro.doe.gov'
Cc: Rotella, Thomas; Cole, Matt; Hardwick, Raymond
Subject: Recover Cost to Perform Investigation on Temperform

ALL EM Sites,

Defense Criminal Investigation Service (DCIS) is attempting to determine what cost was accrued by government agencies to investigate whether or not their sites/projects had procured or used heat treated aluminum parts from Temperform or one of their suppliers/vendors. DCIS will try to recover the cost of this investigation during the trial/sentencing.

Please provide the cost of your investigation of heat treated aluminum parts from Temperform or one of their suppliers/vendors to me by February 1, 2003. The cost should be broken into categories: 1) total cost for man-hours; 2) total cost for travel (if any); and 3) total cost for testing (if any). Backup documentation is not necessary, but should be maintained by your respective sites in case the costs are challenged later.

If you have any questions please give me a call.

Larry D. Vaughan
(202) 586-2523

This email has been scanned for viruses.

Orrison, John

From: Saluke, John
Sent: Tuesday, January 21, 2003 3:28 PM
To: Orrison, John
Subject: RE: Recover Cost to Perform Investigation on Temperform

John,

Shirley called to tell me they have nothing to report on this issue. They spent a very minimal amount of time, maybe 50 minutes, to determine that they do not use these materials.

John Saluke

-----Original Message-----

From: Vaughan, Larry [mailto:Larry.Vaughan@em.doe.gov]
Sent: Tuesday, January 21, 2003 10:49 AM
To: 'Avaholland@wipp.ws'; 'Joe.neyer@ferald.gov';
'Beausogl@id.doe.gov'; 'John.saluke@ohio.doe.gov';
'John.orrison@ohio.doe.gov'; 'Samuel_A_Vega@rl.gov';
'James.jeffries@rf.doe.gov'; 'Keith_A_Benguiat@rl.gov';
'Bill.rowland@srs.gov'; 'David.l.gray@wv.doe.gov';
'SmithMC@oro.doe.gov'; 'Smythrc@oro.doe.gov'
Cc: Rotella, Thomas; Cole, Matt; Hardwick, Raymond
Subject: Recover Cost to Perform Investigation on Temperform

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If you have any questions please give me a call.

Larry D. Vaughan
(202) 586-2523

This email has been scanned for viruses.

Orrison, John

From: Saluke, John
Sent: Wednesday, January 29, 2003 11:58 AM
To: Orrison, John
Subject: RE: GIDEP Agency Action Notice Regarding Temperform USA

John,

Shirley Zeller indicated she didn't think she needed the list. If she does she will give me a call.

John

-----Original Message-----

From: Orrison, John
Sent: Friday, January 24, 2003 6:41 PM
To: Gray, David; Neyer, Joe; Saluke, John
Subject: FW: GIDEP Agency Action Notice Regarding Temperform USA
Importance: High

Joe Neyer informed me there was more information regarding the Temperform USA subject. Here is an e-mail from the QAWG with an attachment listing of vendors.

John O.

-----Original Message-----

From: Rotella, Thomas [mailto:Thomas.Rotella@nnsa.doe.gov]
Sent: Thursday, December 19, 2002 1:32 PM
To: Lawrence, Steven J. (NEV); 'bill.rowland@srs.gov'; 'Krishna_M_Vadlamani@rl.gov'; Zweifel, Daniel (SRS); 'david_h_doe_brown@rl.gov'; Pellegrino, Daniel (ALB); 'beausogl@id.doe.gov'; 'Charles_K_Kasch@rl.gov'; Chimah, Paul (ALB); 'wayne.burch@rf.doe.gov'; 'john.orrison@ohio.doe.gov'; Capshaw, Roy D (ALB); 'ricks@dnfsb.gov'; Niemann, Victoria E. (NEV); Leivo, Anita B. (ALB); Zamuda, Craig; White, Alfred; Burkhardt, James; Cowan, Gwendolyn; Cordis, Adeliza (OAK); Danielson, Bud; Gervas, Paul; Witmer, Fred; 'GlasmanMM@yao.doe.gov'; Jamali, Kamiar; Harlow, Scott; 'jon.cooper@ch.doe.gov'; 'Roger_F_Christensen@rl.gov'; 'Cesar_E_Collantes@rl.gov'; 'smithmc@oro.doe.gov'; 'perrytc@oro.doe.gov'; Green, Rick; Crowe, Richard; Dever, Leah; 'gary.morgan@rf.doe.gov'; 'elver.robbins@rf.doe.gov'; 'LNELSON@BNL.GOV'; 'John.Adachi@ch.doe.gov'; Sharpley, Chris; Read, Jacques; Staffo, Gary; Rodger, Ron (ALB); Gervas, Paul; Vaughan, Larry; Cole, Matt; Milam, Yvette; Johnson, Sandra; Nguyen, Van; Murray, Robert; Hardwick, Raymond; Sohinki, Stephen; Wilchins, Howard; Day, Richard; Adamovitz, Susan; Bright, Annette; Hurley, Sharon; Rodrik, Peter; Weadock, Tony; Zobel, Steve; Ascanio, Xavier; Hoopes, Patrick; Pizzariello, Philip; 'mjones@kcp.com'; 'gbetzen@kcp.com'; Morrow, Emil; 'ralph.erickson@ns.doe.gov'; Johnson, Samuel D (NNSA); Barker, William; 'Justin.zamirowsky@ch.doe.gov'; Miotla, Dennis; Crandall, David; Lewis, Roger; Harlow, Scott; Jamali, Kamiar; Witmer, Fred; Beck, David; Landers, James; Hensley, Willie; Worthington, Pat; 'james.jeffries@rf.doe.gov'; 'Burton_E_Burt_Hill@rl.gov'; 'John_D_Long@rl.gov'; Gears, Gerald; Stadler, David; McCabe, Larry; Campbell, Charles; Snell, Jim; Scott, Randal; Johnson, Milton; Turi, James; Matarrese, Mark; Klee, Carl; Tourigny, Edmond; 'dick_spence@ymp.gov'; Bryant, William D (ALB); Brown, Dennis; 'harkerws@id.doe.gov'; Kapoor, Ashok K (ALB); Kunich, Mitch P. (NEV); 've8@ornl.gov'; Christensen, Deborah (ISRDL) (ALB); 'lkirkman@DOEAL.GOV'; 'CRESCENZ@BNL.GOV'; 'greg_collette@nrel.gov'; 'bohrerha@id.doe.gov'; 'BEIDELDL@ID.DOE.GOV'; Rush, Thomas (ALB); 'dick.nolan@oak.doe.gov';

'john.muhlestein@oak.doe.gov'; osugi, dave (OAK); 'krivera@lbl.gov';
'nat.brown@ohio.doe.gov'; 'ron.claverie@oak.doe.gov'; Yee, Danny (OAK);
'monroehj@oro.doe.gov'; 'PoerW@oro.doe.gov'; 'greg_collette@nrel.gov';
Eichorst, Bradley (ALB); 'berline.moore@ch.doe.gov'; Mullen, William T.
(ALB); 'brian_a_fiscus@rl.gov'; 'bryan.c.bower@wv.doe.gov'; Carter,
Charlotte V. (NEV); 'chuan-fu.wu@wipp.ws'; 'creig.zook@ch.doe.gov';
Michlewicz, David; 'david_kozlowski@fernald.gov'; 'dcaughey@kcp.com';
'dennis.riley@fernald.gov'; Minnema, Douglas; Russo, Frank; Schlapper,
Gerald A. (ALB); 'hawksbl@oro.doe.gov'; Himpler, Henry; Hoar, Kenneth A.
(NEV); Edwards, James L (OAK); 'james.geringer@anlw.anl.gov';
'jeffrey.crenshaw@srs.gov'; Roberson, Jeffry; 'john.simak@ohio.doe.gov';
'john_m_clark@rl.gov'; 'joseph.drago@ch.doe.gov';
'kerry.grooms@anlw.anl.gov'; Miller, Lawrence; 'ldietrich@pppl.gov';
'lisa.bressler@rf.doe.gov'; 'mallette@bnl.gov'; Gavrilas-Guinn, Maria;
'mcbriemh@oro.doe.gov'; 'michael.reker@ohio.doe.gov';
'michael.saar@ch.doe.gov'; cornell, mike (OAK); Morley, Nathan A (ALB);
'patrick_p_carier@rl.gov'; 'pjones@bnl.gov'; 'richard.farrell@wipp.ws';
Purucker, Roxanne; Spagnolo, Sarah (OAK); 'scott_wade@notes.ymp.gov';
'SOMERSWS@ID.DOE.GOV'; 'stanley_o_branch@rl.gov'; lasell, steve (OAK);
Wheeler, David L. (NEV); Hawk, Jeff; Schwartz, Ray
Subject: GIDEP Agency Action Notice Regarding Temperform USA
Importance: High

The Quality Assurance Working Group is sending out this information
about
potentially fraudulent heat treated aluminum parts from the Temperform
Company once again. We are doing this to ensure that all of the DOE
sites
understand the nature of the situation and what should be done to ensure
that inferior products are not installed in any application that is
needed
to ensure safe operations, be it in a system or an instrument or any
other
situation.

Attached to this message is a list of companies who had parts processed
at
Temperform or who approved Temperform as a vendor. It is imperative that
contractors

- 1.) ascertain whether or not they did business with any of these
companies;
- 2.) determine if that business involved purchasing of parts or
products
that contained heat treated aluminum parts from Temperform ;
- 3.) and determine if those parts or products are used to ensure
safety.

If affirmative answers exist for all three of these questions, the part
in
question should be evaluated by competent engineering personnel and
removed
from service or stock and destroyed if necessary. Please make an
assessment
regarding damages in these cases to our Agency.

We ask that any instance of aluminum parts that may have been heat treated at Temperform you find during this effort be reported to the Quality Assurance Working Group.

Please contact me at 301-903-2649 or Matt Cole at 301-903-8388 if you have any questions.

Tom Rotella,
QAWG Chairman

This email has been scanned for viruses.

Orrison, John

From: Saluke, John
Sent: Wednesday, February 05, 2003 1:41 PM
To: Orrison, John
Cc: Zimmerman, Jack
Subject: RE: Recover Cost to Perform Investigation on Temperform

John,

I reviewed the three questions in the Action Notice with the CH2MHill QA Manager.

With respect to the second question, i.e., purchase of parts or products that contained heat treated aluminum parts from Temperform), a preliminary review by the contractor indicated that no heat treated aluminum parts had been procured for the site activities looking back over the past year. No formal report was prepared by the contractor and the contractor is not claiming any investigation costs because they were able to make this determination in a relatively short period of time and the costs were negligible.

Is this satisfactory or do you wish to have this matter pursued further in a more detailed manner?

John Saluke

-----Original Message-----

From: Orrison, John
Sent: Tuesday, February 04, 2003 2:36 PM
To: Gray, David; Neyer, Joe; Saluke, John
Cc: 'Larry.Vaughan@em.doe.gov'; Best, Ward; Grandfield, Robert; Everson, Bob
Subject: FW: Recover Cost to Perform Investigation on Temperform

Please provide any reports or checklists used by you or your contractors to respond to the Temperform Investigation issue so that Ohio can send Larry Vaughan a report of our efforts on this issue. I understand that a formal action was never initiated to Ohio; however, we need to document and forward what effort we took.

Thanks, John O.

-----Original Message-----

From: Vaughan, Larry [mailto:Larry.Vaughan@em.doe.gov]
Sent: Monday, February 03, 2003 9:36 AM
To: 'Orrison, John'
Cc: Best, Ward; Grandfield, Robert; Everson, Bob
Subject: RE: Recover Cost to Perform Investigation on Temperform

John,

We don't have record that OHIO responded to the request to investigate the Temperform issue. It sounds like you did. Who did you send the response to and can you e-mail or fax me a copy also?

thanks

lv

-----Original Message-----

From: Orrison, John [mailto:John.Orrison@ohio.doe.gov]
Sent: Thursday, January 30, 2003 4:42 PM
To: 'Vaughan, Larry'
Cc: Best, Ward; Grandfield, Robert; Everson, Bob
Subject: RE: Recover Cost to Perform Investigation on Temperform

David Gray, DOE WVDP; Joe Neyer, DOE Fernald; and John Saluke, DOE Mound; have all checked with their respective contractors and responded back that minimal time and effort was expended on the subject investigations.

Thanks,
John Orrison, DOE Ohio Field Office

-----Original Message-----

From: Vaughan, Larry [mailto:Larry.Vaughan@em.doe.gov]
Sent: Tuesday, January 21, 2003 10:49 AM
To: 'Avaholland@wipp.ws'; 'Joe.neyer@fernald.gov'; 'Beausogl@id.doe.gov'; 'John.saluke@ohio.doe.gov'; 'John.orrison@ohio.doe.gov'; 'Samuel_A_Vega@rl.gov'; 'James.jeffries@rf.doe.gov'; 'Keith_A_Benguia@rl.gov'; 'Bill.rowland@srs.gov'; 'David.l.gray@wv.doe.gov'; 'SmithMC@oro.doe.gov'; 'Smythrc@oro.doe.gov'
Cc: Rotella, Thomas; Cole, Matt; Hardwick, Raymond
Subject: Recover Cost to Perform Investigation on Temperform

ALL EM Sites,

Defense Criminal Investigation Service (DCIS) is attempting to determine what cost was accrued by government agencies to investigate whether or not their sites/projects had procured or used heat treated aluminum parts from Temperform or one of their suppliers/vendors. DCIS will try to recover the cost of this investigation during the trial/sentencing.

Please provide the cost of your investigation of heat treated aluminum parts from Temperform or one of their suppliers/vendors to me by February 1, 2003. The cost should be broken into categories: 1) total cost for man-hours; 2) total cost for travel (if any); and 3) total cost for testing (if any). Backup documentation is not necessary, but should be maintained by your respective sites in case the costs are challenged later.

If you have any questions please give me a call.

Larry D. Vaughan
(202) 586-2523

This email has been scanned for viruses.

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Vaughan, Larry

From: Orrison, John [John.Orrison@ohio.doe.gov]
Sent: Thursday, May 29, 2003 1:49 PM
To: 'Larry.Vaughan@em.doe.gov'
Cc: Best, Ward; Gray, David; Neyer, Joe; Saluke, John; Grandfield, Robert
Subject: FW: Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company

Larry,

Per our phone conversation of today, I wish to clarify that reference to the Ohio Field Office (OH) in the subject e-mail includes specifically, Fernald Closure Project (FCP), Miamisburg Closure Project (MCP), and the West Valley Demonstration Project (WVDP).

Thanks, John Orrison

> -----Original Message-----

> From: Orrison, John
> Sent: Wednesday, May 07, 2003 10:34 AM
> To: 'Larry.Vaughan@em.doe.gov'
> Cc: Best, Ward; Gray, David; Neyer, Joe; Saluke, John
> Subject: Investigation of the Use of Improperly Heat Treated Aluminum
> Supplied by Temperform Company

>

> Larry,

>

> The scope of the subject investigation at the Ohio Field Office (OH)
> included the time frame May 1998 up until the date of the investigation
> which occurred during January 2003. The scope included the determination
> that OH sites had not procured and/or used heat-treated aluminum
> materials/parts or equipment supplied by Temperform or Temperform vendors.
> OH contractors have active Suspect/Counterfeit Items identification
> programs continuing. These programs are subject to periodic DOE oversight
> and assessment.

>

> As part of the subject investigation, WVNSCO Engineering initiated an
> evaluation of other areas on site (non SSC) where there may be potential
> use of heat-treated materials/parts or equipment. This evaluation is
> being finalized and will be provided to you as soon as it its completed.

>

> Thanks, John Orrison

>

>

This email has been scanned for viruses.

WEST VALLEY

Orrison, John

From: David Gray [David.L.Gray@wv.doe.gov]
Sent: Monday, January 27, 2003 4:51 PM
To: Larry.Vaughan@em.doe.gov
Cc: John.Orrison@ohio.doe.gov; Bob Carter
Subject: Re: Fwd: Recover Cost to Perform Investigation on

Larry,

WVDP has reviewed your request and determined that there was negligible costs associated with Temperform investigations. Bob Carter (WVNSCO QA) also stated that the initial investigation only looked at procurements listing Temperform and not all the aluminum onsite with respect to heat numbers. It was determined that there was no Temperform at WVDP.

Dave Gray

This email has been scanned for viruses.

Orrison, John

From: Joe Marek [Joe.Marek@wvnsco.com]
Sent: Wednesday, January 22, 2003 9:48 AM
To: Bob Carter
Cc: Gray, David; Jack Gerber
Subject: Re: Fwd: Recover Cost to Perform Investigation on Temperform

From the response, cost was determined negligible.

>>> Phil Weddle 01/22/03 09:22AM >>>

Joe,

I think you can conclude that the cost to come up with the response was negligible and not worth identifying. We are a small site with such information readily at hand.

Phil

>>> David Pritchard 01/22/03 08:50AM >>>

Joe,

The M&P Department did not incur any measurable cost associated with this investigation. It only took a few minutes to check warehouse stock for the material in question.

Dave

Orrison, John

From: David Gray [David.L.Gray@wv.doe.gov]
Sent: Wednesday, February 05, 2003 4:03 PM
To: John.Orrison@ohio.doe.gov
Subject: Fwd: NOTICE OF RECORD

John,

This is the first of five emails that I received form the WVNSCO QA Manager describing their investigation of Temperform. Let me know if you have any questions.

Dave Gray

>>> Bob Carter 02/05/03 11:16AM >>>
Temperform -The start.

This email has been scanned for viruses.

Orrison, John

From: Joe Marek [marekj@wv.doe.gov]
Sent: Friday, November 08, 2002 3:40 PM
To: Phil Weddle
Cc: Bob Carter; Dundas, Jennifer; David Pritchard
Subject: NOTICE OF RECORD FALSIFICATION



temperform.pdf

Could you please review to ensure we have not purchased high strength aluminum during the time frame noted in the attached notice. Chris has already sent a TA to Butler on the item. If we did, we will need to investigate.

Please reply to me the result of the review.

NOTICE

Performance Surety Division

October 4, 2002

Notice No. 0103

Report of Alleged Falsified Certifications of Heat Treat and Inspection Processes at Temperform USA

Background

Temperform USA (Temperform), a California based heat treat company, has been investigated for providing falsified certifications of heat treat and inspection processes to the United States Department of Defense (DoD), NASA contractors, commercial and civilian aircraft customers, and possibly DOE and DOE contractors.

The DoD has noted numerous part failures, investigated Temperform, and determined that the company, beginning in May 1998 through at least September 2001, falsified the heat treatment of numerous items. The investigation concerns the falsification of all aspects of the heat treat and quality inspection processes.

Temperform is a subsidiary of Hydroform USA (Hydroform).

Applicability

High strength aluminum alloys contract specifications, including MIL-H-6088 and AMS 2770.

Requirements/ Instructions

Procurement staff and material requestors that procure high strength aluminum alloys must identify if any Temperform processed parts are in inventory or in service. Query vendors if any of their product was processed at Temperform, and investigate past purchases, certifications, and any other supporting documentation for Temperform heat treated work that was performed between May 1998 through the present.

Contact PS-1 Institutional Quality Management, 665-5437 or 665-6377, by October 31, 2002 if Temperform processed parts have been located or identified.

Questions?

Contact Kenneth A. Brandt, PS-1 Institutional Quality Management. Phone: 665-6377; e-mail: kbrandt@lanl.gov



The OIC for this notice is (PS-1), and the responsible division Leader is (PS-DO). This notice will remain in effect for one year.

Orrison, John

From: Phil Weddle [Phil.Weddle@wvnsco.com]
Sent: Wednesday, November 13, 2002 2:56 PM
To: Joe Marek
Cc: Bob Carter; Dundas, Jennifer; David Pritchard
Subject: Re: NOTICE OF RECORD FALSIFICATION

Joe,
We have polled the Buyers and checked the warehouse. None of the specified items found or remembered.
Phil

>>> Joe Marek 11/08/02 03:40PM >>>
Could you please review to ensure we have not purchased high strength aluminum during the time frame noted in the attached notice. Chris has already sent a TA to Butler on the item. If we did, we will need to investigate.

Please reply to me the result of the review.

Orrison, John

From: Joe Marek [marekj@wv.doe.gov]
Sent: Wednesday, November 13, 2002 4:21 PM
To: Phil Weddle
Cc: Bob Carter; Dundas, Jennifer; David Pritchard
Subject: Re: NOTICE OF RECORD FALSIFICATION

As usual, once again, great job. Thanks for the info.

>>> Phil Weddle 11/13/02 02:55PM >>>

Joe,

We have polled the Buyers and checked the warehouse. None of the specified items found or remembered.

Phil

>>> Joe Marek 11/08/02 03:40PM >>>

Could you please review to ensure we have not purchased high strength aluminum during the time frame noted in the attached notice. Chris has already sent a TA to Butler on the item. If we did, we will need to investigate.

Please reply to me the result of the review.

Orrison, John

From: Phil Weddle [Phil.Weddle@wvnsco.com]
Sent: Wednesday, February 05, 2003 11:04 AM
To: Joe Marek
Cc: Bob Carter; David Pritchard; Dawn Milliman; Lynn Whiting; Mike Denzel
Subject: Re: More Temperform information needed

Joe,
The list is quite extensive. We will check the Walker database. Just be aware that we will use the name as given on the listing. If the company is known by a different version of the name, our automated matching will not catch it. If we have done business direct Purchase order business with any of the companies, as listed, we will be able to identify the direct Purchase Order. We have no database to check that would cover our direct subcontractors doing business with these companies and then providing us the material. Lynn Whiting will see what can be done in the case of credit card purchases. He thinks he can also do a matching.

I am not sure of the time, but given everything going on down here, I will shoot for the end of the week.

Phil

>>> Joe Marek 02/05/03 09:58AM >>>
Phil,

More Temperform stuff needed. Please check these suppliers to see if we purchase anything from them. If we did please identify and we will further check the PO. As you can see this was sent out in December and was not distributed. If you could do ASAP it would be appreciated.

Joe

Orrison, John

From: Joe Marek [marekj@wv.doe.gov]
Sent: Wednesday, February 05, 2003 9:59 AM
To: Phil Weddle
Cc: Bob Carter; David Pritchard; Mike Denzel
Subject: More Temperform information needed



Fwd: GIDEP Agency
Action Notic...

Phil,

More Temperform stuff needed. Please check these suppliers to see if we purchase anything from them. If we did please identify and we will further check the PO. As you can see this was sent out in December and was not distributed. If you could do ASAP it would be appreciated.

Joe

Orrison, John

From: Bryan Bower [bowerbc@wv.doe.gov]
Sent: Thursday, December 19, 2002 2:34 PM
To: Bob Carter; Lettie Chilson; Gray, David
Subject: Fwd: GIDEP Agency Action Notice Regarding Temperform
FYI.

This is more info on Temperform.

Bryan

>>> "Rotella, Thomas" <Thomas.Rotella@nnsa.doe.gov> 12/19/02 01:32PM >>>
The Quality Assurance Working Group is sending out this information about potentially fraudulent heat treated aluminum parts from the Temperform Company once again. We are doing this to ensure that all of the DOE sites understand the nature of the situation and what should be done to ensure that inferior products are not installed in any application that is needed to ensure safe operations, be it in a system or an instrument or any other situation.

Attached to this message is a list of companies who had parts processed at Temperform or who approved Temperform as a vendor. It is imperative that contractors

- 1.) ascertain whether or not they did business with any of these companies;
- 2.) determine if that business involved purchasing of parts or products that contained heat treated aluminum parts from Temperform ;
- 3.) and determine if those parts or products are used to ensure safety.

If affirmative answers exist for all three of these questions, the part in question should be evaluated by competent engineering personnel and removed from service or stock and destroyed if necessary. Please make an assessment regarding damages in these cases to our Agency.

We ask that any instance of aluminum parts that may have been heat treated at Temperform you find during this effort be reported to the Quality Assurance Working Group.

Please contact me at 301-903-2649 or Matt Cole at 301-903-8388 if you have any questions.

Tom Rotella,

QAWG Chairman

COMPANIES WHO HAD PARTS PROCESSED AT TEMPERFORM and/or WHO APPROVED TEMPERFORM AS A VENDOR

4/26/02

CUSTOMER	ADDRESS	CITY	ST	ZIP CODE	PROVENCE	COUNTRY	TELEPHONE
A & A Machine & Development Co., Inc.	16625 Gramercy Place	Gardena	CA	90247		USA	(310) 532-7706
A & R Products	4040 Del Rey Ave., # 68	Marina Del Rey	CA	90292		USA	(310) 822-0417
ABN Industrial Company	5940 Dale Street	Buena Park	CA	90621		USA	(714) 521-9211
ACD Inc	2321 S Pullman St	Santa Ana	CA	92705		USA	(714) 261-7533
Ace Clearwater Enterprise	19815 Magellan Dr	Torrance	CA	90502		USA	(310) 538-2137
Ace Air Mfg., Inc.	1430 West 135 th Street	Gardena	CA	90249		USA	(310) 323-7246
Ace Soft Tooling, Inc.	315 East 157 th Street	Gardena	CA	90248		USA	(310) 324-3214
Ace Tube Bending	14 Journey	Aliso Viejo	CA	92656		USA	*
Accu-Fab	558-6 Birch Street	Lake Elsinore	CA	92530		USA	(909) 471-1197
Accurate Machining Co.	4620 N. Ronald Street	Hardwood Heights	IL	60656		USA	(708) 867-4374
ACM (All Components Manufacturing) Co.	7607 Industry Ave.	Pico Rivera	CA	90660		USA	(562) 948-3335
Acra Enterprises, Inc.	5740 Thornwood Dr.	Goleta	CA	93117		USA	(805) 964-4757
Acro-Trace Corporation	5920 Dale Street	Buena Park	CA	90621		USA	(714) 522-8767
Advanced Aerodynamics & Structures	3205 Lakewood Blvd	Long Beach Airport	CA	90808		USA	(562) 938-8618
Advanced Metal Fab	3020 Las Hermanas Drive	Rancho Dominguez	CA	90221		USA	(310) 639-2000
Advanced Metalforming Technologies	5215 S. Boyle Ave.	Los Angeles	CA	90058		USA	(323) 277-1070
Advanced Ground System Engineering Corporation	1265 N. Kraemer Blvd.	Anaheim	CA	92806		USA	(714) 632-9095
Advanced Precision Sheemetal, Inc.	140 East 162 nd Street	Gardena	CA	90248		USA	(310) 324-4956
Advanced Tube Engineering, Inc.	18211 Enterprise Lane, Unit C	Huntington Beach	CA	92648		USA	(714) 847-7888
Aero Arc	2555 W. 237th St	Torrance	CA	90505		USA	(310) 534-8765
Aero Bending Co.	43328 N. Division Street	Lancaster	CA	93535-4644		USA	(661) 948-2363
Aero Metal	2150 N. Lark Drive	Fenton	MO	63026		USA	*
Aero Metals Division of AISC, Inc. (Kennedy Space Center)	PO Box 5069, 7065 Challenger Ave.	Titusville	FL	32783-5069		USA	(407) 269-1100
Aero Sheet Metal	43328 N. Division Street	Lancaster	CA	93535-4644		USA	(661) 948-8057
Aero Sheet Metal	11602 Dehogue St	North Hollywood	CA	91605-6189		USA	*
Aero Wheel and Brake Service Corp.	6900 Acco Street	Montebello	CA	90640		USA	(213) 727-6000
Aerochem, Inc.							
Advance Pipe	2020 E. Slauson Ave.	Huntington Park	CA	90255		USA	*
Aggressive Engineering Corp.	1235 N. Knollwood Circle	Anaheim	CA	92801		USA	(714) 995-8313
Aguire Machine	1879 West Commonwealth	Fullerton	CA	92833		USA	(714) 441-1481
AHF DUCOMmon	PO Box 2310	Gardena	CA	90247-2310		USA	(310) 380-5390
Airbus		Paris				France	*
Airport Forming (aka: Ron's Metal Spinning)	17293 Darwin Ave, #12	Hesperia	CA	92345		USA	(760) 956-1050
AL Industries, Inc.	1641 East Gertrude Street	Santa Ana	CA	92705		USA	(714) 850-9133
All-New Stamping Co. (aka: Quality Metal Stamping & Fabricating)	10801 Lower Azusa Road	El Monte	CA	91731		USA	(800) 877-7775
All Power Manufacturing C.	13141 Molette Street	Santa Fe Springs	CA	90670-0140		USA	(562) 802-2640
All-Pro Precision Sheet Metal, Inc.	2950 East Imperial Hwy	Brea	CA	92621		USA	(714) 996-6170
Allied Signal		Torrance	CA				
Allied Signal		Phoenix	AZ				
Allen United	12075 East Clark Street	Santa Fe Springs	CA	90670		USA	*
Alliant Bikes	848 Rancheros Drive	San Marcos	CA	92069		USA	(760) 746-3545
Ametek National Controls Corp.	1725 Western Drive	West Chicago	IL	60185		USA	(630) 231-8335
American Racing Custom Wheels	19200 South Reyes Ave	Rancho Dominguez	CA	90221		USA	(310) 635-7806
AMP Research	23531 Ridge Route	Laguna Hills	CA	92653		USA	(949) 461-5990
Anaplex	15547 Garfield Ave	Paramount	CA	90723		USA	*
Applied Medical Resources	26061 Merit Circle, Building 101	Laguna Hills	CA	92653		USA	(714) 582-6120
Arete Precision, Inc.	425 N. Fox Street	San Fernando	CA	91340		USA	(818) 361-5434
Argo Spring Mfg. Co., Inc.	13930 Shoemaker Ave.	Norwalk	CA	90650		USA	(562) 921-6741
Arizona Aircraft Spares	3431 E. Hemisphere Loop	Tucson	AZ	85705		USA	(520) 806-0666
Arrowhead Products	4411 Katella Ave	Los Alamitos	CA	90720		USA	(714) 828-7770
Asil Aerospace, Inc.	9612 Lurline Ave, #L	Chatsworth	CA	91311		USA	*
Associated Machine Technology, Inc.	890 Mariner Street	Brea	CA	92621		USA	(714) 990-8178
Atlas Copco Rotoflow	540 E. Rosecrans Ave	Gardena	CA	90248		USA	(310) 329-9163
Avanche Street Performance	18239 S. Figueroa St.	Gardena	CA	90248		USA	(310) 532-4588
Ayres Corporation	PO Box 3090, One Rockwell Ave	Albany	NY	31708		USA	(912) 883-1440
Baja Pacific Light Metals, Corp.	15300 Valley View Ave	La Mirada	CA	90638		USA	(310) 404-7474
Bend-Tek, Inc.	6346 Industry Way	Westminster	CA	92683		USA	(714) 892-9306
Benjamin Metal Company	14000 S. Figueroa Street	Los Angeles	CA	90059		USA	(323) 321-1700
BF Goodrich Aerospace	850 Lagoon Drive	Chula Vista	CA	91910		USA	(619) 691-2249
BF Goodrich Aerospace	Bay Blvd at G Street, Bldg 79	Chula Vista	CA	91910		USA	(619) 691-2249
BJS Industries	2113 Border Ave	Torrance	CA	90501		USA	(310) 533-1081
Blackburn-Melton Manufacturing Co.	7525 Wynlea	Houston	TX	77061		USA	(713) 644-2386
Boeing Aircraft and Missile Systems	PO Box 66742	St. Louis	MO	63166-6742		USA	*
Boeing Aircraft and Missile Systems	8900 Frost Ave, Bldg 245	Berkley	MO	63134		USA	*
Boeing Commercial Airplane Group		Wichita	KS				
Boeing Commercial Airplane Group	PO Box 3707	Seattle	WA	98124-2207		USA	(206) 662-6771
Boeing Commercial Airplane Group	Central Receiving, Bldg # 63, Logan & North Sixth Street	Renton	WA	98055		USA	*
Boeing Douglas Products Division	PO Box 2731	Long Beach	CA	90801		USA	*
Boeing Douglas Products Division	1412 S. Harborgate Way	Torrance	CA	90502		USA	*
Boeing Douglas Products Division	1215 North 2200 West McDonnell Douglas Way	Salt Lake City	UT	84116		USA	*
Boeing Light Helicopter Division	5000 East McDowell Road	Mesa	AZ	85215		USA	(602) 691-2710
Boeing Space Systems	5301 Bolsa Ave	Huntington Beach	CA	92647		USA	*
Boeing Space Systems	5222 Rancho Road	Huntington Beach	CA	92647		USA	*
Bonded Technology, Inc.	14 Alcap Ridge Road	Cromwell	CT	06416		USA	(860) 635-1150
Bralco Metals	15090 Northam Street	La Mirada	CA	90638		USA	(714) 736-4800
Bruce Industries, Inc.	101 Evans Ave	Dayton	NV	89403		USA	(702) 246-0451
Cal-Metal Manufacturing & Machining	395 Vernon Way	El Cajon	CA	92020		USA	(619) 588-9707
Cal Tex	15521 Vermont Ave	Paramount	CA	90723		USA	(562) 531-1615
Calcor Space Facility	12031 E. Philadelphia St	Whittier	CA	90601		USA	(310) 945-1661
California Avi-Tron Corp	1973 Via Arado	Rancho Dominguez	CA	90220		USA	(310) 886-8800
California Furniture Components, Inc.	6780 Central Ave	Riverside	CA	92504-1420		USA	(909) 687-9255
California Metal Shaping	1704 Hooper Ave	Los Angeles	CA	90021		USA	(213) 749-5542
California Pipe & Bending	515 East 88 th Place	Los Angeles	CA	90003		USA	*
Cardiac Machine Products, Inc.	17000 Keegan Ave	Carson	CA	90746		USA	(310) 884-3400
Center Tool & Machine Co.	6960 Hermosa Circle	Buena Park	CA	90620		USA	(714) 739-0715

CUSTOMER	ADDRESS	CITY	ST	ZIP CODE	PROVENCE	COUNTRY	TELEPHONE
Centerline Wheel Corporation	13521 Freeway Drive	Santa Fe Springs	CA	90670		USA	(562) 921-9637
Centerline Tool Corporation	13521 Freeway Drive	Santa Fe Springs	CA	90670		USA	(562) 921-9637
Central Machine & Tool, Inc.	805 Paso Robles Street	Paso Robles	CA	93446		USA	(805) 239-1585
Central Tool Corporation	13521 Freeway Drive	Santa Fe Springs	CA	90670		USA	(562) 921-9637
Centric Machine	12280 Race Track Road	Tampa	FL	33621		USA	*
Century Parts, Inc.	913 West 223 rd Street	Torrance	CA	90502		USA	(310) 328-0281
Certified Aviation Service	3198-H Airport Loop	Costa Mesa	CA	92826		USA	(714) 662-2441
Certified Aviation Service (DBA Orbital Sciences Corporation)	1301 Skyway Drive	Bakersfield	CA	93308		USA	(805) 391-4888
Chemtronics							
Clary, LLC	1739 S. Clemantine Street	Anaheim	CA	92802		USA	(714) 691-1950
C. M. Gordon Industries, Inc.	13750 Rosecrans Ave.	Santa Fe Springs	CA	90670		USA	(562) 483-7378
CNC Manufacturing	42158 Sarah Way	Temecula	CA	92590		USA	(909) 693-0098
Coast Aluminum & Architectural	687 Sandoval Way	Hayward	CA	94544		USA	(510) 441-6600
Coast Aluminum & Architectural (Processing)	10430 Slusher Drive	Santa Fe Springs	CA	90670		USA	*
Coast Metal Craft Inc	18518 Susana Road	Rancho Dominguez	CA	90221		USA	(310) 537-0570
Conquest Industries	9915 Bell Ranch Drive	Santa Fe Springs	CA	90670		USA	(562) 906-1111
Consolidated Trading Co.(dba Olympic Aviation)	PO Box 2425, 612 E. Franklin Ave.	El Segundo	CA	90245		USA	(310) 640-2247
Continental Forge Co.	512 E. Carlin Street	Compton	CA	90222		USA	(213) 774-3220
Coulter Steel & Forge Co.	1494 87 th Street	Emeryville	CA	94608		USA	(510) 420-3500
Craftech Metal Forming	241000-E Water Street	Perris	CA	92570		USA	(909) 940-6444
Cramer Engineering Company	11110 Greenstone Ave	Santa Fe Springs	CA	90670		USA	(562) 903-5556
Crames Engineering Company	11110 Greenstone Ave	Santa Fe Springs	CA	90670		USA	(562) 903-5556
Creative Pathways, Inc.	3121 Fujita Street	Torrance	CA	90505		USA	(310) 530-1965
Custom Metal Shapes	18209 1/2 Eucalyptus Ave	Bellflower	CA	90706		USA	*
Custom Metal Spinning	12157-C Slauson Ave	Santa Fe Springs	CA	90670		USA	*
Custom Services, Inc.	810 West Hyde Park Blvd	Inglewood	CA	90302		USA	(310) 670-7919
Cycle Science	190 Bosstick Blvd	San Marcos	CA	92609		USA	(760) 598-4270
Cycle Science (dba SE Racing)	190 Bosstick Blvd	San Marcos	CA	92609		USA	(760) 598-4270
Cygnus Inc	Emral Ind. Park, POBox 456	Ponderay	ID	83852		USA	(208) 263-4761
Davidson Aluminum & Metal Corp.	100 West Industry Court	Deer Park	NY	11729		USA	(516) 586-8000
Delafield Corporation	1520 Flower Ave.	Quarte	CA	91010		USA	(626) 303-0740
Delta Fabrication, Inc.	9600 De Soto Ave	Chatsworth	CA	91311		USA	(818) 407-4000
Designing Specialities III	307 N. Euclid Way, Bldg G-3	Anaheim	CA	92801		USA	(714) 778-4350
Diamond National Glass Co. (Div. Of Diamond Worldwide Ind.)	6800 De Bie Drive	Paramount	CA	90723		USA	(562) 634-2100
Dirtmaster	848 Rancheros Drive	San Marcos	CA	92069		USA	(760) 746-3545
D.M. Precision	5852 Adams Blvd.	Culver City	CA	90230		USA	(213) 938-7895
Downey Centerless Grinding	12323 Bellflower Blvd.	Downey	CA	90241		USA	*
Duplicate Parts Company	168 Pacific Street	San Marcos	CA	92069		USA	*
Dura Plastic Products, Inc.	PO Box 2097, 533 East 3 rd Street	Beaumont	CA	92223		USA	(909) 845-3161
Dynamic Enterprises, Inc.	10015 Greenleaf Ave	Santa Fe Springs	CA	90670		USA	(562) 944-0271
ECl Water Ski Products, Inc.	2060 Chicago Ave., Suite C-8	Riverside	CA	92507		USA	*
Empire Screw Manufacturing Co.	747 N. Yale	Villa Park	IL	60181		USA	(630) 833-7060
Esterline TA Mfg. Company	PO Box 2500, 375 West Arden Ave.	Glendale	CA	91209-2500		USA	(818) 240-1600
Esterline TA Mfg. Company	PO Box 0931, 28065 W. Franklin Parkway	Valencia	CA	91355		USA	(805) 775-1100
E.R.C. Company	2970 E. Maria St., Unit #8	Rancho Dominguez	CA	90221		USA	(310) 603-2970
Euro Engineering	23180 Del Lago Dr.	Laguna Hills	CA	92653		USA	(949) 770-0107
Evergreen Systems International	4740 Calle Quetzal	Camarillo	CA	90638		USA	(805) 445-6492
Express Metal Aerospace, Inc.	2908 West Pendleton	Santa Ana	CA	90274		USA	*
EZTech Manufacturing	1200 Howard Drive	West Chicago	IL	60185		USA	(630) 293-0010
F.D. Countours	175 Paularino Ave	Costa Mesa	CA	92626		USA	(714) 546-3030
Fairchild Fasteners	800 Slate College	Fullerton	CA	92831		USA	*
Farr Wheel Concepts, Inc.	735 North Georgia Ave	Azusa	CA	91702		USA	*
Foam Molders & Specialities	20004 State Road	Cerritos	CA	90703		USA	(562) 924-7757
Firth Rixson Viking	1 Erik Circle	Verdi	NV	89439		USA	*
Forged Metals Inc	10685 Beech Ave	Fontana	CA	92337		USA	(909) 350-9260
Forrest Machining, Inc.	25544 Stanford Ave	Valencia	CA	91355		USA	*
Frontier Technologies	16408 S. Figueroa St.	Gardena	CA	90248		USA	(310) 767-1227
Full-Bore Race Products	424 W. Roland Ave.	Santa Ana	CA	92707		USA	(714) 436-0822
Furon Seals	3340 East La Palma	Anaheim	CA	92806		USA	(714) 630-5818
Furon Shared Service A/P	PO Box 196	Aurora	IL	44202		USA	*
Gary Platt Manufacturing	PO Box 368, 24195 Orane Ave, Dock #6	Perris	CA	92570		USA	(800) 969-0999
Gary's Tees	617 Ocean Front Walk	Venice	CA	90291		USA	(310) 392-3135
General Kinetics, Incorporated	110 Sunray Drive	Johnstown	PA	15905		USA	(814) 255-6891
General Veneer Manufacturing Co.	PO Box 1607, 8652 Otis St	South Gate	CA	90280		USA	(213) 564-2661
Gilmore Metal	Pit 4, Box 98	Bishop	CA	93514		USA	(760) 873-4972
Giroux Glass, Inc.	850 West Washington Blvd	Los Angeles	CA	90015		USA	(213) 747-7406
Glen Sander Engineering	3155 Kashiwa St.	Torrance	CA	90505		USA	(310) 534-1210
Globe Tool & Manufacturing Co., Inc.	730 24 th Ave SE	Minneapolis	MN	55414		USA	(612) 331-6750
GST Industries, Inc.	3601 West Central Ave.	Santa Ana	CA	92704		USA	(714) 556-0444
Hannar Corporation (Herman's Metal Spinning Co.)	520 State Street	Glendale	CA	91203		USA	(818) 240-0170
Hardill Associates, Ltd.	15505 Minnesota Ave.	Paramount	CA	90723		USA	(562) 531-1491
Harrinton Mold	1906 Quaker Ridge Road	Ontario	CA	91716		USA	(909) 923-2767
Hayes Wheels International, Inc (aka Hayes Lemmerz International, Inc.)	14500 Firestone Blvd	La Mirada	CA	90638		USA	*
Herrera Machining	5912 Clara Street	Bell Gardens	CA	90201		USA	(562) 928-0209
Hi-Craft Metal Products	606 E. 184 th Street	Gardena	CA	90248		USA	(213) 321-9683
Hi-Quality Alloys	12329 Telegraph Road	Santa Fe Springs	CA	90670		USA	(562) 941-3264
Hi-Tech Curving, Inc.	13211 Florence Ave	Santa Fe Springs	CA	90670		USA	(562) 941-6688
Hoover Glass, Inc.	1309 S. Eastern Ave.	Los Angeles	CA	90022		USA	(213) 526-1390
Howe Welding & Fabrication	41218 Nick Lane	Murrieta	CA	92562		USA	(909) 698-6997
Hydroform USA	2848 East 208 th St	Long Beach	CA	90810		USA	(310) 622-0932
Hydrospin, Inc.	5281 Research Blvd	Huntington Beach	CA	92649		USA	(714) 898-8041
Hy-Tech Spinning Inc	115 W. Hyde Park Blvd	Inglewood	CA	90302		USA	(310) 673-4488
Iico Industries	1308 Mahalo Place	Rancho Dominguez	CA	90220		USA	(310) 631-8655
Image Casting	5655 Perkins Road	Oxnard	CA	93033		USA	(805) 986-1106
Intense Cycles	18273 Grand Ave.	Lake Elsinore	CA	92530		USA	(909) 678-4576
Independent Forge Co	692 N Balavia St	Orange	CA	92668		USA	(714) 997-7337
International Architectural Metal Works	577 E. Edna Place	Covina	CA	91723		USA	(626) 332-5600

CUSTOMER	ADDRESS	CITY	ST	ZIP CODE	PROVENCE	COUNTRY	TELEPHONE
J & M Metal Spinning	4345 Conquista Ave.	Lakewood	CA	90713		USA	*
J & M Metal Spinning	1433 1/2 Daisy Ave.	Long Beach	CA	90813		USA	*
JC Carter							
J.D. Welding & Fabrication	1420 S. Carmanita Road	Norwalk	CA	90650		USA	(310) 404-0050
Jerames Tool & Mfg.	9356 Abraham Way	Santee	CA	92701		USA	(619) 448-1220
J.S. Screw Mfg. Co.	7040 Laurel Canyon Blvd.	North Hollywood	CA	91615		USA	(818) 983-1715
J.W. Lytle Co., Inc.	1885 Sampson	Corona	CA	91719		USA	(909) 371-5794
Earl M. Jorgensen Co. (aka Jorgensen Steel & Aluminum)	PO Box 640, 1929 Martin Luther King Jr. Blvd.	Lynwood	CA	90262		USA	(213) 563-5584
K & E Manufacturing, Inc.	1966 Freeman Ave	Signal Hill	CA	90804		USA	(562) 494-7570
Kapco							
Ken Huff Racing Wheels	10827 Carrylyn Drive	Whittier	CA	90603		USA	(562) 943-6877
Kepner Plastics Fabricators, Inc.	3131 Lomita Blvd.	Torrance	CA	90505-5158		USA	(310) 325-3162
Kern Engineering & Mfg. Corp.	1146 East Ash Ave.	Fullerton	CA	92831		USA	(714) 992-9630
Kit Pack Co.	285 East Thorpe Road	Las Cruces	NM	88005		USA	(505) 525-2120
KMC Wheel Co.	1455 Columbia Ave	Riverside	CA	92507		USA	(909) 784-4562
Kryler Corporation	1217 E. Ash Ave	Fullerton	CA	92831		USA	*
Kuypers Machine Co., Inc.	16842 Hale Ave	Irvine	CA	92714		USA	(714) 863-0847
Lane & Rodenick, Inc.	12640 Allard Street	Santa Fe Springs	CA	90670		USA	(562) 868-3465
Latch Mfg. c/o Benton Machine Works	6100 US 1 North	St. Augustine	FL	32085		USA	*
Liage International Corp.	650 Via Alondra	Camarillo	CA	91310		USA	*
Ling Electronics	4890 E. La Palma Ave	Anaheim	CA	92807		USA	(714) 779-1900
Lockheed Martin Aeroparts, Inc.	221 Industrial Park Rd.	Johnstown	PA	15904-1961		USA	(814) 262-3000
Marvin Engineering Co	290 W Beach Ave	Inglewood	CA	90302		USA	(310)674-5000
Matco Forge Inc	16443 Minnesota Ave	Paramount	CA	90723		USA	(562) 634-8636
McStarlite Company	1531 W. 240th Street	Harbor City	CA	90710		USA	(310) 325-2063
Mechanical Metal Finishing Co.	15220 Broadway	Gardena	CA	90248		USA	(310) 321-1071
MetalCenter	12034 Greenstone Ave	Santa Fe Springs	CA	90670		USA	(562) 944-3322
Metal Forming Machnes, Inc.	5215 S. Boyle Ave.	Los Angeles	CA	90058		USA	(323) 588-5000
MetalPro Industries, Inc.	28064 Ave. Stanford, Unit 4	Valencia	CA	91355		USA	*
Metroline (A Division of Metro-Line Ind., Inc.)	251 Corporate Terrace	Corona	CA	91719		USA	(909) 371-2500
MFMElectrologic, Inc.	5215 S. Boyle Ave.	Los Angeles	CA	90058		USA	(213) 588-5000
Miladin Ind.	6821 Suva Street	Bell Gardens	CA	90201		USA	(562) 928-0658
Millenium Alloy Wheels	400 S. Lemon Street	Anaheim	CA	92805		USA	(714) 533-0715
Mustang Engineering Co.	12141 Riviera Road	Whittier	CA	90606		USA	(562) 696-0734
North Specialty Products (A Division of Siebe North, Inc.)	2664-B Saturn Street	Brea	CA	92621		USA	(714) 524-1655
North Safety Products (A Division of Siebe North, Inc.)	2664-B Saturn Street	Brea	CA	92621		USA	(714) 524-1655
Northrup Grumman Commercial		Hawthorne					
Northrup Grumman Commercial		Dallas					
Northrup Grumman Military		Melbourne					
Northrup Grumman Military Tactical Fighter Division		El Segundo					
Oasis Alloy Wheels	400 S. Lemon Street	Anaheim	CA	982805		USA	(714) 533-0175
Olympic Aviation	PO Box 2425, 612 E. Franklin Ave.	El Segundo	CA	90245		USA	(310) 640-2247
Olympic Aviation (dba Consolidated Trading Co.)	PO Box 2425, 612 E. Franklin Ave.	El Segundo	CA	90245		USA	(310) 640-2247
Omeg Manufacturing, Inc.	1517 West 130 th Street	Gardena	CA	90249		USA	(310) 532-6974
Optima Wheels, Inc.	15300 Valley View Ave	La Mirada	CA	90638		USA	(562) 404-7474
Orbital Aircraft Operation Base	1301 Skyway Drive	Bakersfield	CA	93308		USA	(805) 391-4888
Orbital Sciences Corporation	1301 Skyway Drive	Bakersfield	CA	93308		USA	(805) 391-4888
Orbital Sciences Corporation (dba Certified Aviation Service)	1301 Skyway Drive	Bakersfield	CA	93308		USA	(805) 391-4888
P & P Fabrication	15112 Leffingwell Road	La Mirada	CA	90638		USA	*
P P Manufacturing, Inc.	13130 Arctic Circle	Santa Fe Springs	CA	90670		USA	(562) 921-3640
Pacific Coast Alloy, LLC	1818 E. Roslynn Ave.	Fullerton	CA	92631		USA	(714) 871-2490
Pacific Defense Products	817 S. Lakeview Ave., Suite G	Placentia	CA	92870		USA	(714) 777-1636
Paramount Roll & Forming, Inc.	12120 E. Florence Ave.	Santa Fe Springs	CA	90670		USA	(310) 944-4232
Paramount Spring Engineering Co., Inc.	13721 Bora Drive	Santa Fe Springs	CA	90670		USA	(562) 921-2785
Paragon Sports Products, LLC	1264 South Lyon Street	Santa Ana	CA	92705		USA	(714) 835-6131
Performance Forged Products	7401 Telegraph Road	Montebello	CA	90640		USA	(213) 722-3460
Pervan Industries	1716 Kona Drive	Compton	CA	90220		USA	(310) 639-6331
Phillips	13659 Rosecrans Ave., Units B & C	Santa Fe Springs	CA	90670		USA	(310) 921-4112
Phillips Metal Spinning, Inc.	13659 Rosecrans Ave., Units B & C	Santa Fe Springs	CA	90670		USA	(310) 921-4112
Phillips Steel Co.	1368 W. Anaheim Street	Long Beach	CA	90813		USA	(562) 435-7571
Plasto Tech Intl, Inc.	15791-N Rockfield	Irvine	CA	92718		USA	(714) 458-1880
Precision Macining Sheetmetal	2250 n. Forbes, Suite 101	Tucson	AZ	85745		USA	(520) 622-0050
Precision Resource, California Division	5803 Engineer Drive	Huntington Beach	CA	92649		USA	(714) 891-4439
Precision Tube Bending	13626 Talc St	Santa Fe Springs	CA	90670		USA	(310) 921-6723
ProLane Industries	154 S. Valencia Street	Glendora	CA	91741		USA	(818) 335-3636
Pro-Mill, Inc.	1509 N. Kramer Blvd, Unit N	Anaheim	CA	92806		USA	(714) 630-2082
Process Fab, Inc.	15644 Clanton Circle	Santa Fe Springs	CA	90670		USA	(562) 921-1979
Pyrotek, Inc.	9740 Jordan Circle	Santa Fe Springs	CA	90670		USA	(562) 946-2402
Quick Draw & Machining, Inc.	4869 McGrath Street	Ventura	CA	93003		USA	(805) 644-7884
Racing Sports Akimoto Co., Inc.	3929 E. Guasti Road, Unit A	Ontario	CA	91761		USA	(909) 605-0688
Ray's Aircraft Service	1893 S. Newcomb	Porterville	CA	93257		USA	(209) 784-9110
R & B Machine	5179 Brooks, Unit A	Montclair	CA	91763		USA	(909) 621-2193
RC Fluid Engineering, Inc.	1815 West 205 th Street, Suite 203	Torrance	CA	90501		USA	(310) 782-6025
RD Fabricators, Inc.	640 North Eckhoff	Orange	CA	92668		USA	(714) 634-2078
Regent Mfg., Inc.	11905 Regentview Ave.	Downey	CA	90241		USA	(562) 862-1174
Reliance Metal Center	6718 Jefferson Street, N.E.	Albuquerque	NM	81109		USA	(505) 345-0959
Reo Metal Fabricators, Inc.	1221 E. Wamer Ave.	Santa Ana	CA	92705		USA	(714) 542-2104
Research Metal Industries	6050 S. Western Ave., PO Box 47630	Los Angeles	CA	90047-0630		USA	(213) 753-3771
Rines Nacionales, S.A.	Carretera Tecate-Ensenada KM 4	Tecate B.C.				Mexico	011 52 685
Roband International, Inc.	1450 Hill street	El Cajon	CA	92020		USA	(619) 447-3838
Rohr, Inc (Acquired by BF Goodrich)	850 Lagoon Drive	Chula Vista	CA	91910		USA	(619) 691-2249
Rohr, Inc (Acquired by BF Goodrich)	Bay Blvd at G Street, Bldg 79	Chula Vista	CA	91910		USA	(619) 691-2249
Robichaux Cycles	1317 Fairwood Ave	Clearwater	FL	34619		USA	(813) 725-5116
Robinson Helicopter	2901 Airport Drive	Torrance	CA	90505		USA	(310) 539-0508
Rolls Royce							
Ron's Metal Spinning (aka: Airport Forming)	17293 Darwin Ave, #12	Hesperia	CA	92345		USA	(760) 956-1050
Rony Manufacturing, Inc.	PO Box 1038	Blue Lake	CA	95525		USA	(707) 668-1667
Santa Fe Roll & Forming Co.	12120 Florence Ave.	Santa Fe Springs	CA	90670		USA	(562) 944-7655

CUSTOMER	ADDRESS	CITY	ST	ZIP CODE	PROVENCE	COUNTRY	TELEPHONE
Sargent Fletcher Inc	9400 E Flair Ave	El Monte	CA	91731-2909		USA	(626) 402-2000
Satco, Inc.	1601 E. El Segundo Blvd.	El Segundo	CA	90245		USA	(310) 322-4719
Satellite Mfg. Co.	13151 E. Florence Ave.	Santa Fe Springs	CA	90670		USA	(714) 739-4405
Schultz Engineering Corp.	5785 Thornwood Drive	Goleta	CA	93117-3801		USA	(805) 964-2294
Scepko Tube Swaging & Machining	17000 S. Western Ave, #17	Gardena	CA	90247		USA	(310) 515-5767
S.E. Racing	190 Bosstick Blvd	San Marcos	CA	92069		USA	(619) 598-9270
S.E. Racing (dba Cycle Science)	190 Bosstick Blvd	San Marcos	CA	92069		USA	(619) 598-9270
Senior Fexonics, Inc. Stainless Steel Products Division	2980-N San Fernando Blvd	Burbank	CA	91504-2566		USA	(818) 841-9190
Sky Rider Equipment Co., Inc.	2851 E. White Star Ave., Suite B	Anaheim	CA	92806		USA	(714) 632-6890
Skyspares Parts, Inc.	15700 Figueroa	Gardena	CA	90248		USA	(909) 351-0770
SMS Technologies Co.	9711 Mason Ave	Chatsworth	CA	91311		USA	(818) 998-0733
Sonfarrel, Inc.	3000-3100 La Jolla	Anaheim	CA	92806		USA	(714) 630-7280
Southwest United Industries	422 South Saint Louis	Tulsa	OK	74120		USA	*
Southern California Metals	9970 Bell Ranch Drive	Santa Fe Springs	CA	90670		USA	(562) 941-1616
Specialty Fabrications, Inc.	2221 Madera Road	Simi Valley	CA	93065		USA	(805) 579-9730
Spin-Mex, Inc.	10628 Dolores Ave	South Gate	CA	90280		USA	*
Square Tool & Machine Co., Inc.	9730 Factorial Way	So. El Monte	CA	91733		USA	(626) 442-4457
Standard Industries, Inc.	1440 S. Allec Street	Anaheim	CA	92805		USA	(714) 956-7110
Stein Industries, Inc.	4005 West Artesia Ave.	Fullerton	CA	92833		USA	(714) 522-4560
Superior Engineering	10794 Los Vaqueros Circle	Los Alamitos	CA	90720		USA	(714) 995-8422
Supreme Castings & Pattern Co. Inc.	1165 Kraemer Place	Anaheim	CA	92806		USA	*
Swift-Cor	344 W 157th St	Gardena	CA	90248		USA	(310) 354-1200
T-D Materials	2068 E. 37th Street	Los Angeles	CA	90058		USA	(323) 232-6171
Techni-Cast Corp.	11220 South Garfield	South Gate	CA	90280		USA	(562) 923-4585
Techniform Metal Curving, Inc.	375 S. Cacluss Ave	Rialto	CA	92376		USA	(909) 877-6886
Teledyne Ryan							
The Trident Company	1430 E. Walnut Ave.	Fullerton	CA	92631		USA	(714) 441-2796
Threaded Fastener Engineering	1714 S. Grove Ave, Unit B	Ontario	CA	91762		USA	(909) 923-8787
Tiernay Metals	2600 Marine Ave	Redondo Beach	CA	90278		USA	(310) 676-0184
Tomic Golf & Ski Co. Mfg. Inc.	23102 Mariposa Ave	Torrance	CA	90502		USA	(213) 775-8162
Tricross	4450 A Dupont Court	Ventura	CA	93003		USA	*
Troy Lighting, Inc., Custom Division	14625 East Clark Ave.	Industry	CA	91745		USA	(626) 336-4511
True Form (TFI Acquisition Inc dba)	12120 Park St	Cerritos	CA	90703		USA	(310) 926-9519
Trident Products							
Trio Metal Stamping	15318 East Proctor Ave.	Industry	CA	91745		USA	(626) 336-1228
Tube Technologies, Inc.	1555 Consumer Circle	Corona	CA	91720		USA	(909) 371-4878
Trio Tool & Die Co., Inc.	3340 West El Segundo Blvd.	Hawthorne	CA	90250-4892		USA	(213) 772-1335
University Corporation for Atmospheric Research	PO Box 3000, 1850 Table Mesa Drive	Boulder	CO	80307-3000		USA	(303) 497-8787
University of California at Irvine, Physical Sciences Dept.	Reines Hall, Room B003	Irvine	CA	92697-4675		USA	(949) 824-6046
Vesco Threading Co.	14002 Anson Ave	Santa Fe Springs	CA	90670		USA	(562) 802-1868
Warring, Inc.	8511 Whitaker Ave.	Buena Park	CA	90621		USA	(714) 523-5055
Weber Metals & Supply Co., Inc.	PO Box 318, 16706 Garfield Ave.	Paramount	CA	90723-0318		USA	(562) 602-0260
Wells Manufacturing Co.	PO Box 280, 2 Erik Circle	Verdi	NV	89439		USA	(775) 345-0444
Western Machining Company, Inc.	1370 Acacia Ave	Fullerton	CA	92831-5316		USA	(714) 502-9066
Western Metal Spinning & Mfg. Co.	5055 Western Way	Perris	CA	92572		USA	(909) 657-0711
Willis Machine, Inc.	1445 Donlon Street, Suite 3	Ventura	CA	93003		USA	(805) 644-0807

Orrison, John

From: Joe Marek [marekj@wv.doe.gov]
Sent: Wednesday, February 05, 2003 12:18 PM
To: Phil Weddle
Cc: Bob Carter; David Pritchard; Dawn Milliman; Lynn Whiting; Mike Denzel
Subject: Re: More Temperform information needed

That should be fine. Please remember to keep track of costs to do this.
It is still part of the previous requests made for the search.

>>> Phil Weddle 02/05/03 11:03AM >>>

Joe,
The list is quite extensive. We will check the Walker database. Just be aware that we will use the name as given on the listing. If the company is known by a different version of the name, our automated matching will not catch it. If we have done business direct Purchase order matching with any of the companies, as listed, we will be able to identify the direct Purchase Order. We have no database to check that would cover our direct subcontractors doing business with these companies and then providing us the material. Lynn Whiting will see what can be done in the case of credit card purchases. He thinks he can also do a matching.

I am not sure of the time, but given everything going on down here, I will shoot for the end of the week.

Phil

>>> Joe Marek 02/05/03 09:58AM >>>

Phil,

More Temperform stuff needed. Please check these suppliers to see if we purchase anything from them. If we did please identify and we will further check the PO. As you can see this was sent out in December and was not distributed. If you could do ASAP it would be appreciated.

Joe



U.S. DEPARTMENT OF ENERGY
WEST VALLEY DEMONSTRATION PROJECT
10282 ROCK SPRINGS ROAD
WEST VALLEY, NY 14171-9799

TELEFACSIMILE

Telefacsimile Number: 716-942-4703

Verification Number: 716-942-4313

Date 5-12-2003

Number of Pages 3
Including Cover Sheet

To: LARRY VAUGHAN

Organization: DOE EM-5

Telefacsimile Number: (202) 586-2974

From: DAVID GRAY

Telephone Number: (716) 942-4780

Subject: TEMPERFORM INVESTIGATION

Notes: LARRY

HERE IS THE INFO YOU REQUESTED. I HAVE
ASKED WVNSCO IF THERE WAS ANY MATERIAL
USED AFTER THE MAY 2002 TIMEFRAME
AND THEY INFORMED ME THAT THERE
WAS NOT. I WILL STATE THIS IN MY
MEMO TO JOHN ORRISON IN OH.

DAVE

WVNSCO
West Valley Nuclear Services Company

10282 Rock Springs Road
West Valley, New York USA 14171-9799
Phone: (716) 942-2410/Fax: (716) 942-4992

Alice C. Williams, Director
U. S. Department of Energy
West Valley Demonstration Project
10282 Rock Springs Road
West Valley, New York 14171-9799

MS- AA-3
WD:2002:0164
April 9, 2003

ATTENTION: David Gray

Dear Ms. Williams:

SUBJECT: Engineering Evaluation of Use of Heat Treated Aluminum Supplied by
Temperform Company

REFERENCE: Letter WD:2003:0116, R. A. Carter to A. C. Williams, "Investigation of the Use
of Improperly Heat Treated Aluminum Supplied by Temperform Company,"
dated March 6, 2003

As a follow-up, Engineering has completed actions identified by the reference memo. Evaluation has been made by engineering of other areas on site where there is potential use of the identified material/parts. The results were reported in the attached Memo which concluded that the relevant type of heat treated aluminum has not been used. As indicated in the memo an additional 8hrs was expended by engineering bringing the total cost to 16hrs (\$1648).

If there are any questions, please call the undersigned at x2410 or Joe Marek at x4370.

Very truly yours.

WEST VALLEY NUCLEAR SERVICES CO.

Approval Obtained Electronically

Robert A. Carter, Manager
Quality Assurance

JFM:jfm

Attachment

WVNSCO

West Valley Nuclear Services Company

Department : Chief Engineer

Ext/MS : 4275/WV-48

Memo # : JE:2003:0001

REISSUED

Date : March 28, 2003

Subject : Heat Treated Aluminum

To : R. A. Carter WV-AA3

cc :	R. E. Farchmin	WV-AA3	R. J. Reger	WV-52
	C. C. Gerwitz	WV-AA13	P. M. Vlad	WV-B1B
	J. F. Marek	WV-AA3	JE Letter Log	WV-48
	L. B. McGetrick	WV-201		

Reference : Letter WD:2003:0116, R. A. Carter to A. C. Williams, "Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company," dated March 6, 2003

This memorandum documents the evaluation requested in the reference and completes the action identified in J2 Commitment 0330033-E/AI.

The referenced letter provides the results of an investigation into the possible use of improperly heat treated aluminum supplied by the Temperform company. The letter clearly stated that the Vitrification cell structure is the only safety class SSC (structure, system or component) on site, and that aluminum was not a part of that structure.

It can also be concluded that it is not likely that other items containing heat treated aluminum will make their way into the Vitrification cell structure in the future. Although this is not an issue for existing safety SSCs at the WVDP, I will communicate the concern over the possibility of suspect high-strength aluminum for other SSCs at WVNSCO in the future.

Additional evaluation was performed to determine if heat treated aluminum might have been used in engineering designs during the time frame of concern to the Department of Energy, May 1998 through May 2002. Our Drafting Department Manager, Chris Gerwitz, concluded that the only engineering designs which might have included heat treated aluminum, would have been generated by Bob Reger of the Tank Farm Deactivation Engineering group. Bob Reger indicated he has not used the relevant type of heat treated aluminum in his designs.

Also at your request, Pete Vlad contacted PaR Systems to determine if aluminum was used as part of their robotic arms in use at our site, as the PaR arms can be considered a key piece of equipment for ongoing D&D activities. His communication with PaR determined that while PaR Systems uses some aluminum castings, those castings came from local foundries, not Temperform, and are not heat treated or high strength.

I estimate that between Chris Gerwitz, Bob Reger, Pete Vlad, and me that we have used an additional eight hours of engineering time in pursuing this evaluation.



T. F. Kocialski

TFK:KMG

Vaughan, Larry

From: Orrison, John [John.Orrison@ohio.doe.gov]
Sent: Wednesday, May 07, 2003 10:34 AM
To: 'Larry.Vaughan@em.doe.gov'
Cc: Best, Ward; Gray, David; Neyer, Joe; Saluke, John
Subject: Investigation of the Use of Improperly Heat Treated Aluminum Supp lied by Temperform Company

Larry,

The scope of the subject investigation at the Ohio Field Office (OH) included the time frame May 1998 up until the date of the investigation which occurred during January 2003. The scope included the determination that OH sites had not procured and/or used heat-treated aluminum materials/parts or equipment supplied by Temperform or Temperform vendors. OH contractors have active Suspect/Counterfeit Items identification programs continuing. These programs are subject to periodic DOE oversight and assessment.

As part of the subject investigation, WVNSCO Engineering initiated an evaluation of other areas on site (non SSC) where there may be potential use of heat-treated materials/parts or equipment. This evaluation is being finalized and will be provided to you as soon as it its completed.

Thanks, John Orrison

This email has been scanned for viruses.

INVESTIGATION OF THE USE OF IMPROPERLY HEAT TREATED ALUMINUM SUPPLIED BY TEMPERFORM COMPANY

Line of Inquiry 6)

Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.

Ohio Field Office Response

Fernald Closure Project (FCP): PL-3089, Suspect Counterfeit Items Implementation Plan, dated September 15, 2002, implements the S/CI program at the FCP in accordance with DOE Order 440.1A. This plan includes formal training requirements.

QP-11.11, Inspection Procedure for Suspect/Counterfeit Items, Dated September 15, 2002, provides instructions for the inspection, reporting and disposition of items to identify if they are Suspect/Counterfeit Items in facilities, structures, systems, equipment and components at the FCP.

Miamisburg Closure Project (MCP): The DOE course on suspect counterfeit parts has been provided at the site on two occasions, the last occurring in CY2001. The DOE training was conducted by Roger Moerman and was provided to managers, electricians, demolition technicians, etc.

In November 2002, the contractor used the DOE training materials in a suspect counterfeit parts awareness training session that was provided to affected employees who were not available or were not on board when the formal course was provided in CY2001. The contractor has also provided workers with badge size information cards identifying suspect head marks for fasteners.

West Valley Demonstration Project (WVDP): West Valley Nuclear Services Company (WVNSCO) employees whose duties and responsibilities are involved with S/CI initially receive formal training on the principles of S/CI and how to identify suspicious items. On going training by required reading is required when requirements, changes, and S/CI updates are disseminated. Additionally, S/CI booklets and charts are distributed to personnel as necessary.

**OFFICE OF RIVER
PROTECTION**

Response to Temperform Investigation

United States Government

Department of Energy
Office of River Protection

Memorandum

DATE: APR 10 2003
REPLY TO: TED:RCS 03-TED-049
ATTN OF:

SUBJECT: SUPPLEMENTAL RESPONSE REGARDING THE USE OF IMPROPERLY HEAT-TREATED ALUMINUM SUPPLIED BY TEMPERFORM COMPANY

TO: Jessie Hill Roberson, Assistant Secretary
for Environmental Management, EM-1, HQ

Reference: ORP memorandum from R. J. Schepens to J. H. Roberson, HQ, "Response to Memorandum of February 11, 2003, Regarding the Use of Improperly Heat-Treated Aluminum Supplied by Temperform Company," 03-TED-034, dated March 11, 2003.

This provides the supplemental response committed to in the Reference regarding heat-treated aluminum supplied by the Temperform Company.

Concerning CH2M HILL Hanford Group, Inc. (CHG), 30 of 35 subcontractors who may have supplied materials/parts have provided responses to CHG as of April 7, 2003 (Attachment 1). None of these subcontractors has supplied materials/parts from the Temperform Company or any of its vendors/suppliers to CHG. CHG expended an additional 25 person hours in this investigation. The results from the remaining subcontractors will be provided in future correspondence, as they are received.

As for Bechtel National, Inc. (BNI), Attachment 2 discusses the results of their further investigation into this matter. In summary, BNI has received responses from all of their subcontractors and all but eight of their suppliers who could have supplied Temperform materials/parts to BNI. Two subcontractors responded with a "yes" answer to their inquiry, in that they receive materials/parts from Temperform. However, BNI determined that no permanent plant equipment has been installed that could contain any of the questionable materials. BNI is continuing its investigation to determine whether any of these items have been used in any item or component procured from the two subcontractors, for future plant application. The results of the investigation will be provided in subsequent correspondence. Further results from the rest of BNI's suppliers will be provided, as the information becomes available.

Jessie Hill Roberson
03-TED-049

-2-

APR 10 2003

If you have any questions, please contact me, or your staff may contact John Swailes, Assistant Manager for Tank Farms, (509) 376-0933, regarding CHG or William Taylor, Assistant Manager for Waste Treatment and Immobilization Plant, (509) 376-7851, regarding BNI.

372-3864

Sincerely,


Roy J. Schepens
Manager

Attachments (2)



CH2MHILL
Hanford Group, Inc.

CH2M HILL
Hanford Group, Inc.
P.O. Box 1500
Richland, WA 99352

April 7, 2003

CH2M-0300489 R2

Mr. R. J. Schepens, Manager
Office of River Protection
U.S. Department of Energy
Post Office Box 450
Richland, Washington 99352-0450

Dear Mr. Schepens:

CONTRACT NUMBER DE-AC27-99RL14047; INVESTIGATION REPORT ON THE USE OF IMPROPERLY HEAT TREATED ALUMINUM SUPPLIED BY TEMPERFORM COMPANY

- References:
1. Letter, E. S. Aromi, CH2M HILL, to R. J. Schepens, ORP, "Contract Number DE-AC27-99RL14047; Investigation Report of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company," CH2M-0300489 R1, dated March 7, 2003.
 2. Letter, R. J. Schepens, ORP, to E. S. Aromi, CH2M HILL, "Contract No. DE-AC27-99RL14047 - Investigation of the Use of Improperly Heat Treated Aluminum Supplied by the Temperform Company," 03-TED-030/0300489, dated February 26, 2003.

In Reference 1 above, CH2M HILL Hanford Group, Inc. (CH2M HILL) committed to provide to the U.S. Department of Energy, Office of River Protection results of a request made to our subcontractors to conduct their own investigation of Temperform and Temperform vendors. CH2M HILL contacted subcontractors that may have supplied heat treated aluminum materials that have been or would be installed in the tank farms. Responses have been received to date from 30 of 35 subcontractors. Those subcontractors who have responded have not supplied CH2M HILL with any heat treated aluminum from Temperform or Temperform vendors. Attached is a synopsis (attachment) of the responses received from our subcontractors. As additional responses are received, they will be transmitted to you.

RECEIVED

APR 07 2003

DOE-ORP/ORPCC

98

Mr. R. J. Schepens

Page 2

April 7, 2003

CH2M-0300489 R2

If you have any questions or would like more information, please contact the technical lead for this subject, Ms. R. A. Finke, on 376-1155.

Very truly yours,



E. S. Aromi, President
and General Manager
CH2M HILL Hanford Group, Inc.

ck

Attachment

CORRESPONDENCE DISTRIBUTION COVERSHEET

Author
 R. A. Finke, 376-1155
 E. S. Aromi, 373-1677

Addressee
 R. J. Schepens, ORP

Correspondence No.
 CH2M-0300489 R2
 April 7, 2003

Subject: **CONTRACT NUMBER DE-AC27-99RL14047; INVESTIGATION REPORT OF THE USE OF IMPROPERLY HEAT TREATED ALUMINUM SUPPLIED BY TEMPERFORM COMPANY**

DISTRIBUTION

Approval	Date	Name
----------	------	------

CH2M HILL Correspondence Control

CH2M HILL Hanford Group, Inc.

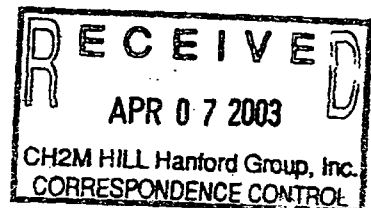
- K. B. Adamson
- D. I. Allen
- D. B. Amerine
- E. S. Aromi
- S. J. Bensussen
- D. B. Cartmell
- L. N. Cortez
- J. A. Eacker
- S. J. Eberlein
- R. A. Finke
- R. Higgins
- D. C. Lowe
- J. A. McDonald
- W. H. Pettigrew
- T. D. Taylor
- M. W. Wells

ABE 4/7/03
lmc 04/07/03

ROB 4-3-03
by
Red w/alicom 4-4-03
Det M - via 4/7/03
Exmail

MWW 4-5-03

U.S. Department of Energy
Office of River Protection
 ORP Correspondence Control
 J. S. O'Connor
 J. H. Swailes
 C. Sorensen



MT / 100

CH2M-0300489 R2

Attachment

TEMPERFORM INVESTIGATION VENDOR RESPONSE DATA

Consisting of 3 pages
including this cover page

Temperform Investigation Vendor Response Data

		Heat Treated Aluminum Supplied by		
Vendor	VENDOR CONTACT	Yes	No	Comments
ACCUTECH LLC	JOHN PARKER			Unable to reach vendor - has closed or moved with no forwarding information. Letter returned unable to deliver on 3/30/03.
AMERICAN BOILER WORKS INC	AIMEE DURA		X	Response received by mail.
APOLLO SHEET METAL INC	Connie GILLISPIE		X	Response received by mail.
B & J INDUSTRIAL SUPPLY	BILL HERR		X	Per Bill Herr his company does not buy heat treated aluminum in bulk or raw form for manufacturing.
BEAVER HEAT TREATING CORP	CORI MORRISON		X	Response received by mail.
BELHAVEN APPLIED TECHNOLOGIES	W THOMAS BAYHA		X	Response received by mail.
BRANOM INSTRUMENTS			X	Response received by mail.
CEDAR MOUNTAIN SUPPLY INC	JIM BAKER		X	Response received by mail.
COLUMBIA RIGGING CORP			X	Per Telecon with Kyle, only supplied steel products
DIVERSIFIED METAL PRODUCTS INC	SHARON HAMMOND		X	Response received by mail.
ELLIS & WATTS				Awaiting confirmation from Carol.
FLANDERS/CSC CORPORATION	AL DUNBAR			Investigation will be complete 4/7/03, per letter received March 26, 2003. Follow-up call placed to vendor 4/7/03, awaiting response.
FLUOR FEDERAL SERVICES INC	JIM DYER		X	Response received by mail.
G&M MACHINE INC	WELDON L GORHAM		X	Response received by mail.
GEORGE A GRANT INC	RICHARD W RICHTER		X	Response received by mail.
HILINE ENG & FABRICATION			X	Response received by mail.
HOLMES & NARVER INC	Michael J. Wiemers		X	Response received by mail.
IDEAL MACHINE & MANUFACTURING			X	Response received by mail.
MID COLUMBIA ENGINEERING INC	BOB WILLARD		X	Response received by mail.
MONARCH MACHINE & TOOL CO INC			X	Response received by mail.

Temperform Investigation Vendor Response Data

Vendor	VENDOR CONTACT	Heat Treated Aluminum Supplied by		Comments
		Yes	No	
MORRISON CONSTRUCTION SERVICES	PAUL MILES			Mr. Ben Lindholm is reviewing and will be back in the office Monday 4/7/03. Follow-up call placed to vendor 4/7/03, awaiting response.
NOVA MACHINE PRODUCTS	JIM SKUFCA		X	Response received by mail.
NUCLEAR FILTER TECHNOLOGY	TERRY WICKLAND		X	Response received by mail.
OLYMPIC TOOL & ENGINEERING INC			X	Response received by mail.
ORBIT INDUSTRIES INC	TOM WELINSKI		X	Response received by mail.
OREGON IRON WORKS			X	Received by mail.
PACIFIC NORTHWEST NATIONAL LAB			X	Response received by mail.
PACKAGING TECHNOLOGY INC	ROBERT A JOHNSON		X	Response received by mail.
PICATTI BROTHERS INC			X	Response received by mail.
RICHLAND INDUSTRIAL INC	JACKIE STOUT		X	Received confirmation via fax 4/3/03.
RIVER BEND HOSE SPECIALTY	JIM BETZ		X	Response received by mail.
RJ ELECTRONICS	ROY R BENNETT		X	Response received by mail.
SAFETY & SUPPLY CO	RON RICCETTI		X	Response received by mail.
SULZER BINGHAM PUMPS INC				Awaiting confirmation from Regional Manager Bob McCain 4/2/03 (562)903-1128
WESTINGHOUSE ENGINEERED PROD	TOM HALVERSON		X	Response received by mail.
Total # of Responses Received to Date		0	30	



U.S. Department of Energy
Office of River Protection
Mr. R. J. Schepens
Manager
P.O. Box 450, MSIN H6-60
Richland, Washington 99352

CCN: 054322

APR 01 2003

Dear Mr. Schepens:

CONTRACT NO. DE-AC27-01RV14136 – SECOND RESPONSE TO INVESTIGATION OF THE USE OF IMPROPERLY HEAT TREATED ALUMINUM SUPPLIED BY TEMPERFORM COMPANY

- References: 1) CCN: 052964; Letter; R. F. Naventi, BNI; to R. J. Schepens, OSR; "Response To Investigation Of The Use Of Improperly Heat Treated Aluminum Supplied By Temperform Company", dated March 10, 2003
- 2) CCN: 052948; Letter; R. J. Schepens, OSR; to R. F. Naventi, BNI; "Investigation Of The Use Of Improperly Heat Treated Aluminum Supplied By Temperform Company"; 03-ESQ-012; dated February 28, 2003

This letter is to provide our response, as committed in Reference 1, regarding the potential procurement and use of raw material that may have been heat treated, supplied, or tested by Temperform Company from vendors/suppliers identified in the attachment to Reference 2, between May 1998 and May 2002.

- Item 1 "Has site contractor(s) (including their subs) procured or used raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May 2002."

Our previous response of March 10, 2003 completes this action.

- Item 2 "Has site contractor(s) (including their subs) procured or used raw material that may have been heat treated, supplied or tested by Temperform from vendors/suppliers identified on the attached list, between May 1998 and May 2002."

BNI sent inquires to all subcontractors and suppliers who would have the potential to supply the products in this question.

To date, we have responses from all but eight suppliers. All responding suppliers have indicated that neither they, nor their sub-suppliers, have procured any of the items in

RECEIVED

question from Temperform Company. The eight suppliers who have not responded were contacted and they informed Bechtel National, Inc. (BNI) that they are still pursuing answers from their sub-suppliers. The response results from those suppliers will be provided in future correspondence, as the information becomes available. BNI has received responses from all subcontractors. Two of the subcontractors, ROTEC Industries, and Control Technologies have responded with a "YES" answer to our inquiry.

- Item 3 "If you discover that site contractor(s) (or subs) have or use materials/parts or equipment heat treated, supplied or tested by Temperform or Temperform vendors:
- a. Determine whether these parts are installed in any system performing a safety function (i.e. safety class of safety significant system); or if they are intended for use in a safety system but are still in inventory. If you do discover parts in safety systems, please perform engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.
 - b. Collect and track information on procurement and use of Temperform parts or materials for non-safety related systems. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety applications."

There has not been any permanent plant equipment installed to date that could contain any of the questionable materials. The BNI procurement organization is in the process of further investigation to determine whether any of these items have actually been used in any item or component procured from ROTEC Industries or Control Technologies for permanent plant application. The results of that investigation will be provided in subsequent correspondence.

- Item 4 "Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information such as part number or model number and application/systems may be useful information to share with other Department of Energy (DOE) sites."

The specific information relating to this question will be determined as part of the investigation to Item 3 above.

- Item 5 "Determine the cost associated with this investigation. The office of Inspector General will attempt to recover the cost associated with the investigation. The cost should be broken into categories: total cost for man-hours; total cost for disposition of material (i.e., replacement cost, scrap cost etc.); total cost for travel (if any) and total cost for testing (if any). Backup documentation is not necessary to be submitted, but should be maintained by your respective sites in case the costs are challenged later."

Costs associated with this effort will be tracked and reported as part of our final analysis to answer this request.

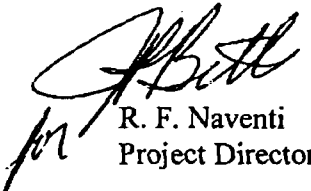
- Item 6 "Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees."

A review of personnel training records was performed for those individuals associated with inspecting and accepting procured items. This included Procurement Supplier Quality representatives who perform surveillance/inspection in the manufacturing facilities, Quality Control representatives and Procurement Warehouse personnel responsible for receipt inspection, and Field Engineers who are responsible for receipt inspection of permanent plant items not designated for safety related functions. Personnel assigned receipt inspection functions have attended training that addresses DOE Order 440.1A. Procurement Supplier Quality representatives have this training through their Project Required Reading assignments. The records for these personnel are available for review at your request.

The actions noted above should close items 1, 2, and 6. Investigations for items 3 and 4 will continue until specifics can be provided. Costs (Item 5) of this investigation and any resulting required actions will be compiled and provided with our final response.

Please call Bill Klinger at 371-2398 with any questions.

Very truly yours,


R. F. Naventi
Project Director

WRK/clw

cc:

Barrett, M. K.	ORP	H6-60
Beranek, R.	WTP	MS4-A1
Chalmers, K.	WTP	MS14-3B
DOE Correspondence Control	ORP	H6-60
Ensign, K. R.	ORP	H6-60
Erickson, L.	ORP	H6-60
Hamel, W. F.	ORP	H6-60
Hanson, A. J.	ORP	H6-60
Horst, T.	WTP	MS4-A1
PDC	WTP	MS11-B
Rasmussen, J. E.	ORP	H6-60
Taylor, W. J.	ORP	H6-60
Tosetti, R. J.	WTP	MS14-3B
Veirup, A. R.	WTP	MS14-3B

United States Government

Department of Energy
Office of River Protection

Memorandum

DATE: **MAR 11 2003**

REPLY TO
ATTN OF: TED:RCS 03-TED-034

SUBJECT: RESPONSE TO MEMORANDUM OF FEBRUARY 11, 2003, REGARDING THE USE OF IMPROPERLY HEAT-TREATED ALUMINUM SUPPLIED BY TEMPERFORM COMPANY

TO: Jessie Hill Roberson, Assistant Secretary
for Environmental Management, EM-1, HQ

Reference: HQ memorandum from J. H. Roberson to Distribution, ORP, "Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company," dated February 11, 2003.

This responds to the Reference, received by the U.S. Department of Energy, Office of River Protection (ORP) on February 21, 2003, that requested within 30 days from issuance of the memorandum, information associated with procurement of heat-treated aluminum supplied by the Temperform Company. The attachments to this memorandum provide a partial response to the requested information.

CH2M HILL Hanford Group, Inc. (CHG) or Bechtel National, Inc. (BNI), the two prime contractors for ORP, have procured no heat-treated aluminum materials/parts or raw materials from Temperform or any of its suppliers/vendors named in Attachment 2 of the Reference. CHG and BNI also have entered into no contracts with Temperform or any of its suppliers/vendors from May 1998 to May 2002. The ORP prime contractors conducted this research using the Hanford Site procurement database. Additional time is required, however, to properly evaluate this issue for subcontractors to BNI and CHG, who may have been supplied materials/parts. As there are potentially dozens of subcontractors involved, ORP commits to providing a supplemental response to the Reference that will address the remainder of this issue by April 15, 2003.

Jessie Hill Roberson
03-TED-034

-2-

MAR 11 2003

If you have any questions, please contact me, or your staff may contact John Swailes, Assistant Manager for Tank Farms, (509) 376-0933, regarding CHG or William Taylor, Assistant Manager for Waste Treatment and Immobilization Plant, (509) 372-3864, regarding BNI.


Roy J. Scheperis
Manager

Attachments (2):

1. CHG Report, Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company
2. BNI Report, Response to the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company

**INVESTIGATION OF THE USE OF IMPROPERLY
HEAT TREATED ALUMINUM SUPPLIED BY TEMPERFORM COMPANY**

Following are the results of the Temperform Company investigation conducted by CH2M HILL Hanford Group, Inc. (CH2M HILL).

1. Has site contractor(s) (including their subcontractors) procured or used raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May 2002?

RESPONSE: CH2M HILL has not procured or used raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May 2002. The following searches and queries were made:

- Searched the electronic procurement system (PassPort) for Temperform vendor; no contracts were found dating from present back to May 1998. The PassPort system requires a vendor number in order to award a contract. The names of Temperform and the Temperform vendors (all of the companies on the list attached to the referenced letter), were input into the vendor information panel and searched against "active" and "obsolete" statuses. None of the companies were found against either criterion. Known, active CH2M HILL subcontractors were searched, and found, to verify the accuracy of the PassPort system.
 - Searched the Purchasing Card system for Temperform and Temperform vendors; no transactions with those companies were found.
 - System Engineers were polled. None of them are aware of any specification of heat-treated aluminum, from Temperform in the time frame prescribed.
 - CH2M HILL has not specified any heat treated aluminum or credited it in any of our tank farm designs, during this period.
 - Confirmed that Fluor Hanford, Inc. Fabrication Services has not procured any heat treated aluminum for equipment destined for the tank farms.
2. Has site contractor(s) (including their subcontractors) procured or used raw material that may have been heat treated, supplied or tested by Temperform from vendors/suppliers identified on the attached list, between May 1998 and May 2002?

RESPONSE: A thorough search of our electronic procurement system was conducted on Temperform, as well as for all of the companies listed who had parts processed at Temperform and/or who approved Temperform as a vendor, and no contracts were found. Please refer to bulleted items above for searches/queries conducted.

3. If you discover that site contractor(s) (or their subcontractors) have or use materials/parts or equipment heat treated, supplied or tested by Temperform or Temperform vendors:
 - a. Determine whether these parts are installed in any system performing a safety function (i.e., safety class or safety significant system); or if they are intended for use in a safety system but are still in inventory. If you do discover parts in safety systems, please perform engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.

RESPONSE: No heat treated aluminum parts supplied or tested by Temperform or the Temperform vendors, are installed in any system performing a safety function (i.e., safety class or safety significant system). Nor are any heat treated aluminum parts supplied or tested by Temperform or Temperform vendors held in inventory.

- b. Collect and track information on procurement and use of Temperform parts or materials for non-safety related systems. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety applications.

RESPONSE: No heat treated aluminum parts supplied or tested by Temperform or Temperform vendors are installed in any safety or non-safety system at the Tank Farms.

4. Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information such as part number or model number and application/systems may be useful information to share with other U.S. Department of Energy (DOE) sites.

RESPONSE: There are no heat treated aluminum parts supplied or tested by Temperform or Temperform vendors in use in the Tank Farms or held in inventory.

5. Determine the cost associated with this investigation. The Office of Inspector General will attempt to recover the cost associated with the investigation. The cost should be broken into categories: total cost for man-hours; total cost for disposition of material (i.e., replacement cost, scrap cost etc.); total cost for travel (if any) and total cost for testing (if any). Backup documentation is not necessary to be submitted, but should be maintained by your respective sites in case the costs are challenged later.

RESPONSE: The investigation to date, to determine if CH2M HILL holds any direct contracts with Temperform or the Temperform vendors, has resulted in an expenditure of approximately 60 man-hours. At the conclusion of the investigation of CH2M HILL subcontractors, CH2M HILL will provide additional cost information to the U.S. Department of Energy, Office of River Protection if applicable.

6. Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.

RESPONSE: CH2M HILL uses the DOE Order 440.1A-compliant, site-wide course number 170720 Suspect/Counterfeit items Module 1 for certain positions. This course is identified as required training for the following Tank Farms positions: Material Coordinator, System Engineer, Quality Assurance Engineer, Project Engineer, Component Engineer, Design Agent, Limited System Engineer, Quality Assurance Lead Auditor, Operations Person-In-Charge, and Maintenance Person-In-Charge.



U.S. Department of Energy
Office of River Protection
Mr. R. J. Schepens
Manager
P.O. Box 450, MSIN H6-60
Richland, Washington 99352

CCN: 052964

Dear Mr. Schepens:

CONTRACT NO. DE-AC27-01RV14136 – RESPONSE TO INVESTIGATION OF THE USE OF IMPROPERLY HEAT TREATED ALUMINUM SUPPLIED BY TEMPERFORM COMPANY

Reference: CCN: 052948; Letter; R. J. Schepens, OSR; to R. J. Naventi, BNI; "Investigation Of The Use Of Improperly Heat Treated Aluminum Supplied By Temperform Company"; 03-ESQ-012; dated February 28, 2003

In response to the referenced letter, the following actions have been addressed specific to each of the inquiries contained in the letter.

Item 1) "Has site contractor(s) (including their subs) procured or used raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May 2002."

Response to Item 1:

Bechtel National, Inc. issued a letter of inquiry (Attachment 1) to the subcontractors identified in Attachment 2 requesting their review and response by March 12, 2003.

A search has been completed of the Bechtel Procurement System data base to determine if the Hanford Tank Waste Treatment and Immobilization Plant (WTP) project has procured any of the items in question directly from any supplier on the U.S. Department of Energy's (DOE) list referenced in the subject letter. The results of the search determined that no direct procurement has occurred from the suppliers noted in subject letter.

Additionally, a search of our Approved Supplier List (Attachment 3) for "Q" level procurements was completed. It concluded that we have not procured any of the items in question directly from the suppliers noted in the subject letter.

Item 2) "Has site contractor(s) (including their subs) procured or used raw material that may have been heat treated, supplied or tested by Temperform from vendors/suppliers identified on the attached list, between May 1998 and May 2002".

Response to Item 2:

BNI's vendors/suppliers have been requested to determine if they have procured or used raw material that may have been heat treated, supplied, or tested by Temperform. The results of this inquiry will be complete and reported by March 30, 2003.

Suppliers of items procured via purchase orders will be screened to determine whether heat treated aluminum items could have been procured as a functional item. For example, suppliers of carbon steel pipe or reinforcing bar would be excluded from the list. The suppliers who could have potentially supplied a suspect item will be contacted in a similar manner as our subcontractors with the results reported by March 30, 2003

- Item 3) "If you discover that site contractor(s) (or subs) have or use materials/parts or equipment heat treated, supplied or tested by Temperform or Temperform vendors:
- a. Determine whether these parts are installed in any system performing a safety function (i.e. safety class of safety significant system); or if they are intended for use in a safety system but are still in inventory. If you do discover parts in safety systems, please perform engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.
 - b. "Collect and track information on procurement and use of Temperform parts or materials for non-safety related systems. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety applications".

Response to Item 3, a:

Currently, the WTP project has not installed any permanent plant parts that have the potential to contain or use materials/parts or equipment which has been heat treated, supplied or tested by Temperform or Temperform vendors. The project is in its early stage and installed equipment is primarily rebar, concrete, embeds, metal ventilation duct.

Response to Item 3, b:

Tracking of any identified subject parts will be performed per our established methods to prevent inadvertent use in safety systems or components.

- Item 4) "Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information such as part number or model number and application/systems may be useful information to share with other Department of Energy (DOE) sites."

Response to Item 4:

If, at any time, parts or material are identified that meet the above criteria all recommended information will be collected and transmitted to the Department of Energy.

- Item 5) "Determine the cost associated with this investigation. The office of Inspector General will attempt to recover the cost associated with the investigation. The cost should be broken into categories: total cost for man-hours; total cost for disposition of material (i.e., replacement cost, scrap cost etc.); total cost for travel (if any) and total cost for testing (if any). Backup documentation is not necessary to be submitted, but should be maintained by your respective sites in case the costs are challenged later."

Response to Item 5:

Costs associated with this investigation and any resulting costs of other actions described in your request will tracked and reported.

- Item 6) "Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees."

Response to Item 6:

Records of training to meet the requirements of DOE Order 440.1A for personnel employed at the WTP project will be collected and provided in our March 30, 2003 response.

The above completed actions, proposed actions, and subsequent response date should fully answer this inquiry.

Please contact Bill Klinger at (509) 371-2398 with any questions.

Very truly yours,



R. F. Naventi
Project Director

WRK/clw

- Attachments 1) Letter of Inquiry to Subcontractors
2) Subcontractor List
3) Approved Supplier List

cc:

Barrett, M. K. w/o	ORP	H6-60
Beranek, F. w/o	WTP	MS4-A1
Betts, J. P. w/o	WTP	MS14-3C
Chalmers, K. w/o	WTP	MS14-3B
DOE Correspondence Control w/a	ORP	H6-60
Ensign, K. R. w/o	ORP	H6-60
Erickson, L. w/o	ORP	H6-60
Hamel, W. F. w/o	ORP	H6-60
Hanson, A. J. w/o	ORP	H6-60
Horst, T. w/o	WTP	MS4-A1
Naventi, R. F. w/o	WTP	MS14-3C
PDC w/a	WTP	MS11-B
Rasmussen, J. E. w/a	ORP	H6-60
Taylor, W. J. w/a	ORP	H6-60
Tosetti, R. w/o	WTP	MS4-A2
Veirup, A. R. w/a	WTP	MS14-3B

United States Government

Department of Energy
Office of River Protection**memorandum**

MAY 15 2003

DATE:

REPLY TO
ATTN OF:

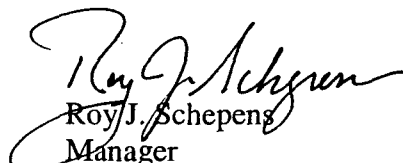
AMWTP:ARH 03-AMWPT-035

SUBJECT: FINAL RESPONSE REGARDING THE USE OF IMPROPERLY HEAT-TREATED
ALUMINUM SUPPLIED BY TEMPERFORM COMPANYTO: Jessie Hill Roberson, Assistant Secretary
for Environmental Management, EM-1, HQReference: ORP memorandum from R. J. Schepens to J. H. Roberson, HQ,
"Supplemental Response Regarding the Use of Improperly Heat-Treated
Aluminum Supplied by Temperform Company," 03-TED-049, dated
April 10, 2003.

This memorandum meets the commitment in the reference to provide the final results of the Bechtel National, Inc. (BNI) investigation into use of Temperform parts and materials by its subcontractors. As noted in the attached BNI letter, CCN:056899, dated May 13, 2003, BNI reports:

- Neither BNI nor any of its subcontractors procured or used raw material heat treated, supplied, or tested by Temperform.
- Because its work is construction and early in procurement, BNI did not incur any significant costs associated with the investigation.
- All affected BNI personnel are trained to the requirements of DOE O 440.1A, and the assigned managers have verified this by review of training records.

If you have any questions, please contact me, or your staff may contact William Taylor, Assistant Manager for Waste Treatment and Immobilization Plant, (509) 372-3864.



Roy J. Schepens
Manager

Attachment

cc w/attach:

R. F. Naventi, BNI

L. D. Vaughan, EM-5

116A



U.S. Department of Energy
Office of River Protection
Mr. R. J. Schepens
Manager
P.O. Box 450, MSIN H6-60
Richland, Washington 99352

CCN: 056899

MAY 13 2003

Dear Mr. Schepens:

CONTRACT NO. DE-AC27-01RV14136 – FINAL RESPONSE TO INVESTIGATION OF THE USE OF IMPROPERLY HEAT TREATED ALUMINUM SUPPLIED BY TEMPERFORM COMPANY

- References:
- 1) CCN 054322; Letter; R. F. Naventi, BNI; to R. J. Schepens, ORP; "Second Response to Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company"; dated April 1, 2003.
 - 2) CCN 052964; Letter; R. F. Naventi, BNI; to R. J. Schepens, ORP; "Response to Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company"; dated March 10, 2003.
 - 3) CCN 052948; Letter; R. J. Schepens, ORP; to R. F. Naventi, BNI; "Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company"; 03-ESQ-012; dated February 28, 2003.

As requested in Reference 3, this letter provides Bechtel National, Inc's (BNI) final response to investigations and records review of the potential procurement and use of raw material that may have been heat treated, supplied, or tested by Temperform Company between May 1998 and May 2002.

BNI's final responses are as follows.

- Item 1 "Has the contractor(s) (including their subs) procured or used raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May, 2002."

Complete per Reference 2.

Mr. R. J. Schepens
Page 2 of 3

CCN: 056899

- Item 2 "Has site contractor(s) (including their subs) procured or used raw material that may have been heat treated, supplied or tested by Temperform from vendors/suppliers identified on the attached list, between May 1998 and May, 2002."

We now have responses from all suppliers and they have answered "NO" to the questions. The two subcontractors who initially answered "YES", ROTEC Industries and Control Technologies, have now completed further investigations and also provided a "NO" answer.

These responses close this item.

- Item 3 "If you discover that site contractor(s) (or subs) have or use materials/parts or equipment heat treated, supplied or tested by Temperform or Temperform vendors."

We have not received any "YES" responses to our inquiries and, therefore, have no further actions under this item.

- Item 4 "Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information such as part number or model number and application/systems may be useful information to share with other Department of Energy (DOE) sites."

We have not received any "YES" responses from our procurement sources and, therefore, have no information to collect or share.

- Item 5 "Determine the cost associated with this investigation. The office of Inspector General will attempt to recover the cost associated with the investigation."

Our efforts to answer this inquiry was minimal and any cost associated was minimal and will not be tracked or submitted.

- Item 6 "Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees."

All appropriate personnel have been trained to the requirements of DOE Order 440.1A and their training records reviewed by the assigned managers.

The actions above, in conjunction with our previous responses (References 1 and 2), should close items 1 through 6 as noted in the original request for action.

Mr. R. J. Schepens
Page 3 of 3

CCN: 056899

Please call Bill Klinger at 509-371-2398 with any questions.

Very truly yours,



R. F. Naventi
Project Director

WRK/clw

cc:

Barrett, M. K.
Beranek, R. F. ^{copy} 6/11/03
Chalmers, K.
DOE Correspondence Control
Ensign, K. R.
Erickson, L.
Hamel, W. F.
Hanson, A. J.
Horst, T.
PDC
Taylor, W. J.
Veirup, A. R.

ORP	H6-60
WTP	MS4-A1
WTP	MS14-3B
ORP	H6-60
ORP	H6-60
ORP	H6-60
ORP	H6-60
ORP	H6-60
WTP	MS4-A1
WTP	MS11-B
ORP	H6-60
WTP	MS14-3B

Vaughan, Larry

From: Bosted, C J (Chris) [C_J_Chris_Bosted@RL.gov]
Sent: Friday, May 30, 2003 2:00 PM
To: 'Vaughan, Larry'
Subject: FW: Temperform - Vendor Accutech
Importance: High

Larry,

Here is the latest on the last supplier for Temperform.

This should close us out for all accounts.

-----Original Message-----

From: Sorensen, R C (Chris)
Sent: Friday, May 30, 2003 10:37 AM
To: Bosted, C J (Chris)
Subject: FW: Temperform - Vendor Accutech
Importance: High

Chris,

I took the extra step regarding Temperform, per Dana's direction. Here is what CHG found out about the company that went out of business. It shouldn't have been on our list of subcontractors/suppliers; FH procured everything from them.

Chris

-----Original Message-----

From: Wiberg, Leslie D
Sent: Friday, May 30, 2003 8:26 AM
To: Sorensen, R C (Chris)
Subject: Temperform - Vendor Accutech
Importance: High

Chris,

Here is the information on Accutech:

They went out of business in approximately May of 2001. We have historical information in PassPort regarding their close of business. All equipment/material purchased from Accutech was not for Tank Farms, procured by other than Tank Farm Buyers; most was purchased by SNF project buyers. There were 7 purchase orders on file and none contained any equipment/materials that looked to be aluminum (as follows): PO# 10722 Snap-in Tungsten pin subassembly - PO#10522 Steel cutter assembly bearings/washers - PO#8699 Heavy duty coiled spring - PO#7576 Steel alloy grooved pin - PO# 6419 Stainless bars 10" in length - PO#6218 Type F Square drive self tapping screws - PO#5788 Hex socket screws.

I think this puts us in the clear for Accutech.

Vaughan, Larry

From: Bosted, C J (Chris) [C_J_Chris_Bosted@RL.gov]
Sent: Thursday, May 29, 2003 1:45 PM
To: 'larry.vaughan@em.doe.gov'
Subject: FW: Information on Procurement of Temperform products covered procurements in the period of May 1998 to Present

-----Original Message-----

From: Bosted, C J (Chris)
Sent: Wednesday, May 28, 2003 9:33 AM
To: 'Vaughan, Larry'; Bosted, C J (Chris)
Cc: Swailes, John H; Bryson, Dana C; Sorensen, R C (Chris)
Subject: RE: Information on Procurement of Temperform products covered procurements in the period of May 1998 to Present

Actually, they have 34 "no" answers. CHG is unable to contact one of the 35 and assume that they have moved with no forwarding address, or have gone out of business. The name of the outfit is Accutech, and they were last located in Las Vegas.

-----Original Message-----

From: Vaughan, Larry [mailto:Larry.Vaughan@em.doe.gov]
Sent: Friday, May 23, 2003 10:07 AM
To: 'Bosted, C J (Chris)'
Cc: Swailes, John H; Bryson, Dana C; Sorensen, R C (Chris)
Subject: RE: Information on Procurement of Temperform products covered procurements in the period of May 1998 to Present

Chris,

I just have two minor clarification questions for you regarding CHG response on Temperform. The ORP April 10th memo to EM-1, states that CHG had received responses from 30 of 35 subcontractors. How they received responses from the remaining five subcontractors? Does the April 30th Email from you to me cover CHG and its subcontractors, including the five outstanding subcontractors that had not responded at the time of the April 10th memo?

lv

-----Original Message-----

From: Bosted, C J (Chris) [mailto:C_J_Chris_Bosted@RL.gov]
Sent: Wednesday, April 30, 2003 2:50 PM
To: 'larry.vaughan@em.doe.gov'
Cc: Swailes, John H; Bryson, Dana C; Sorensen, R C (Chris)
Subject: Information on Procurement of Temperform products covered procurements in the period of May 1998 to Present

The ORP Tank Farm Contractor has performed a review of their procurements for the period of May 1998 to present for Temperform products. No procurements were found.

If you have any questions please contact me at (509) 376-2223.

Vaughan, Larry

From: Hawkins, Albert R (AI) [Albert_R_AI_Hawkins@RL.gov]
Sent: Thursday, May 08, 2003 4:04 PM
To: 'larry.vaughan@em.doe.gov'
Cc: Taylor, William J; Barr, Robert C; Hunemuller, Neal K; Barrett, Michael K
Subject: WTP Final Response to Improperly Heat Treated Aluminum

Larry -

Per our earlier conversation, WTP provides the following additional information regarding the requested items:

Item 2, regarding procurement and use of Temperform material

We now have responses from all suppliers and they answered "No" to the questions. The two subcontractors who initially answered "Yes" completed their investigations and provided a "No" answer.

Item 5, regarding the cost associated with the investigation

Because this is a construction job and early in its procurement, BNI did not incur any significant costs associated with the investigation. The investigation was handled as an adjunct duty not significantly outside normal business activities.

Item 6, regarding training

All affected personnel are trained to the requirements of DOE Order 440.1A, and the assigned managers have verified this by review of their training records.

We expect to have the signed letter from BNI covering these topics no later than Monday. Please call me (509 544-8393) on my cell if there are any problems with this response, or if we have missed an input.

AI

Vaughan, Larry

From: Bosted, C J (Chris) [C_J_Chris_Bosted@RL.gov]
Sent: Friday, May 02, 2003 2:52 PM
To: 'larry.vaughan@em.doe.gov'
Subject: Cost of ORP Tank Farm Contractor Temperform Investigation

Our TFC tells us the cost for the Temperform investigation is \$3800.00 = 60 MAN-HOURS \approx \$63.90/hr
CH2MHILL

ADDITION 25 PERSON HOURS IDENTIFIED IN 4/16/03 MEMO
25 HRS \approx \$1,583.00

TOTAL = \$5,383.00

Vaughan, Larry

Subject: FW: Temperform

-----Original Message-----

From: Barr, Robert C [mailto:Robert_C_Barr@RL.gov]
Sent: Thursday, May 01, 2003 12:41 PM
To: 'larry.vaughan@em.doe.gov'
Cc: Poynor, C D (Cathy); Schepens, Roy J
Subject: Temperform

Larry:

Per our telephone conversation of 5/1/03. The two Office of River protection contractors, CH2M Hill (Tank Farm contractor) and Bechtel National, Inc. (the Waste Treatment Plant contractor) have not procured materials or components from Temperform. The following are E-mails I received that confirm this:

If you have any further questions, please contact me at (509) 376-7851.

Rob Barr

-----Original Message-----

From: Bosted, C J (Chris)
Sent: Wednesday, April 30, 2003 11:50 AM
To: 'larry.vaughan@em.doe.gov'
Cc: Swailes, John H; Bryson, Dana C; Sorensen, R C (Chris)
Subject: Information on Procurement of Temperform products covered procurements in the period of May 1998 to Present

The ORP Tank Farm Contractor has performed a review of their procurements for the period of May 1998 to present for Temperform products. No procurements were found.

If you have any questions please contact me at (509) 376-2223.

Rob

The updated status from BNI is as follows:

The BNI review did cover procurements from May 1998 to present.
 BNI did cover all permanent plant equipment (that is, BNI covered those cases where the issue clearly did not arise - e.g., bulk materials and other consumables)
 BNI will as document all suppliers indicating the amount or used cost material that was procured to BNI's suppliers

Please let me know if you need additional information from WTP.

Al Hawkins

Vaughan, Larry

From: Taylor, William J [William_J_Taylor@RL.gov]
Sent: Thursday, May 01, 2003 5:14 PM
To: Vaughan, Larry
Subject: FW: EM Request Regarding Temperform Product Procurement

Larry: Rob has indicated that he responded to you for me. I read his e:mail to you and consider it as an adequate response to the two questions you asked me. Should you have any questions, please call me. Thanks, Bill

> -----Original Message-----

> From: Barr, Robert C
> Sent: Thursday, May 01, 2003 10:01 AM
> To: Taylor, William J
> Subject: RE: EM Request Regarding Temperform Product Procurement

> Bill:

> I responded to Larry this morning for both Contractors of ORP. I hope this meets your needs.

> Rob

> -----Original Message-----

> From: Taylor, William J
> Sent: Wednesday, April 30, 2003 9:18 AM
> To: Hawkins, Albert R (Al); Barr, Robert C
> Subject: RE: EM Request Regarding Temperform Product Procurement

> Rob: I got a call from Larry Vaughan in HQ yesterday and he asked that I e:mail him with a response to the two questions. Do you intend to respond to Larry or do you want me to. Bill

> -----Original Message-----

> From: Hawkins, Albert R (Al)
> Sent: Tuesday, April 29, 2003 4:26 PM
> To: Barr, Robert C
> Cc: Taylor, William J
> Subject: EM Request Regarding Temperform Product Procurement

> Rob -

> The updated status from BNI is as follows:

> * The BNI review did cover procurements from May 1998 to present.

> * BNI did cover all permanent plant equipment (that is, BNI covered all suppliers, except in those cases where the issue clearly did not pertain - e.g., bulk materials such as rebar)

> * BNI now has documentation from all suppliers indicating none procured or used raw material that was heat treated, supplied, or tested by Temperform - this includes the suppliers to BNI's suppliers

> Please let me know if you need additional information from WTP.

> Al

Vaughan, Larry

From: Bosted, C J (Chris) [C_J_Chris_Bosted@RL.gov]
Sent: Wednesday, April 30, 2003 2:50 PM
To: 'larry.vaughan@em.doe.gov'
Cc: Swailes, John H; Bryson, Dana C; Sorensen, R C (Chris)
Subject: Information on Procurement of Temperform products covered procure ments in the period of May 1998 to Present

The ORP Tank Farm Contractor has performed a review of their procurements for the period of May 1998 to present for Temperform products. No procurements were found.

If you have any questions please contact tme at (509) 376-2223.

CH2M HILL

ROCKY FLATS FIELD OFFICE

Response to Temperform Investigation

United States Government

Department of Energy

memorandum

Rocky Flats Field Office

DATE: **MAR 05 2003**

REPLY TO:
ATTN OF: SP:QPD:WDB:03-00261

SUBJECT: Investigation of the Use of Improperly Heat Treated Aluminum Supplied
by Temperform Company

TO: Jessie Hill Roberson, Assistant Secretary for Environmental Management, EM-1, HQ

Attached are the results of the investigation of the use of heat-treated aluminum supplied by the Temperform Company as requested. The Kaiser-Hill Company, LLC (K-H), has addressed the lines of inquiry. They have determined that neither K-H nor any Rocky Flats Environmental Technology Site subcontractor has procured or used raw material heat-treated, supplied or tested by the Temperform Company between May 1998 and May 2002.

As requested, the costs associated with the investigation will be determined. The costs are currently being tabulated by K-H, and will be provided no later than March 31, 2003. The cost is estimated to be less than 100 hours of research. If you have any questions, please contact me at 303-966-2025, or my point of contact on this matter, Gary Morgan at 303-966-6003.



Eugene C. Schmitt
Manager

Attachment

cc w/Att:
G. Morgan, QPD, RFFO
W. Burch, QPD, RFFO



February 25, 2003

03-RF-00340

Charles A. Dan, Jr.
Contracting Officer
DOE, RFFO

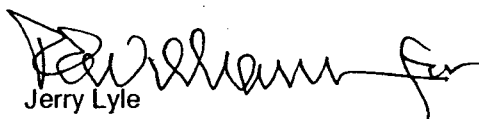
INVESTIGATION OF THE USE OF IMPROPERLY HEAT TREATED ALUMINUM SUPPLIED BY
TEMPERFORM COMPANY – JLL-014-03

Ref: Charles A. Dan memo, (00212), to Jerry Lyle, Same Subject, February 19, 2003

This correspondence responds to your February 19, 2003 memorandum. Our response is keyed to the six lines of inquiry provided in the Jesse L. Roberson memorandum (same subject) of February 11, 2003 provided as an attachment to your memorandum.

1. Neither Kaiser-Hill (K-H) nor any of our subcontractors has procured or used raw material heat-treated, supplied, or tested by Temperform during the indicated period.
2. Neither K-H nor any of our subcontractors has procured or used raw material heat-treated, supplied, or tested by Temperform from vendors on the list provided.
3. Based on (1) and (2) above, this line of inquiry is not applicable.
4. Based on (1) and (2) above, this line of inquiry is not applicable.
5. A unique charge number was established and costs associated with this investigation are being collected and will be provided in later correspondence.
6. The training used to ensure worker safety in the area of suspect counterfeit parts provided by K-H is DOE Headquarters-sanctioned training. Mantech Security Technologies last conducted on-site training on June 27-28, 2001 for a varied audience of workers, technical support staff, and management. K-H has also used the DOE QA Working Group-produced S/CI video for training; the last session was held March 12, 2002 for certification inspectors and other QA personnel.

K-H provides this response as requested. If you have any questions, please call Frank Casella, Quality Program Manager at (303) 966-5609 or (303) 994-2368 (cell).


Jerry Lyle
Vice President
Safety, Engineering, & Quality Programs

FAC:pjh

Original and 1 cc - Charles A. Dan

cc:
Gary Morgan
Wayne Burch

Vaughan, Larry

From: Robbins, Elver [Elver.Robbins@rf.doe.gov]
Sent: Tuesday, April 29, 2003 6:08 PM
To: larry.vaughan@em.doe.gov
Cc: Morgan, Gary; Gillespie, Doyle
Subject: FW: Temperform Aluminum Clarification

Larry,

This following information from Doyle Gillespie with K-H's Quality Programs should address your questions.

Wayne Burch hasn't seen this information, but I don't see why he would have a problem with anything that's discussed.

Take care,

Elver

-----Original Message-----

From: Gillespie, Doyle
Sent: Tuesday, April 29, 2003 4:01 PM
To: Robbins, Elver
Cc: Casella, Frank
Subject: FW: Temperform Aluminum Clarification

Sent this afternoon.

Doyle

-----Original Message-----

From: Gillespie, Doyle
Sent: Tuesday, April 29, 2003 4:00 PM
To: Burch, Wayne
Cc: Casella, Frank
Subject: Temperform Aluminum Clarification

Wayne,

1. We researched all procurement information for the requested period (May 1998 to present). The search actually extended further back (into 1996), with negative results
2. The investigation included all purchases and inventories for the requested period, including raw materials, parts and components that may have been manufactured by Temperform, or contained materials, parts or components that had been processed by Temperform. The investigation used the DOE-provided information on potentially suspect vendors as well as reviewing specific uses of aluminum for connections to Temperform. Again, the results were negative.

Please contact me with any questions.

Vaughan, Larry

From: Burch, Wayne [Wayne.Burch@rf.doe.gov]
Sent: Wednesday, April 30, 2003 10:36 AM
To: Larry.Vaughan@em.doe.gov
Subject: FW: Temperform Aluminum Clarification

Larry,
I hope this answers your questions concerning the Temperform Aluminum investigation conducted at the Rocky Flats Environmental Site. If you have any additional questions please contact me at 303-966 2529.

Thanks,

Wayne Burch

-----Original Message-----

From: Gillespie, Doyle
Sent: Tuesday, April 29, 2003 4:00 PM
To: Burch, Wayne
Cc: Casella, Frank
Subject: Temperform Aluminum Clarification

Wayne,

1. We researched all procurement information for the requested period (May 1998 to present). The search actually extended further back (into 1996), with negative results

2. The investigation included all purchases and inventories for the requested period, including raw materials, parts and components that may have been manufactured by Temperform, or contained materials, parts or components that had been processed by Temperform. The investigation used the DOE-provided information on potentially suspect vendors as well as reviewing specific uses of aluminum for connections to Temperform. Again, the results were negative.

Please contact me with any questions.

**RICHLAND OPERATIONS
OFFICE**

Response to Temperform Investigation

United States Government

Department of Energy

Richland Operations Office

memorandum

DATE: **MAR 11 2003**

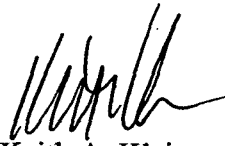
REPLY TO
ATTN OF: SHQ:CKK/03-SHQ-0030

SUBJECT: INVESTIGATION OF THE USE OF IMPROPERLY HEAT TREATED ALUMINUM
SUPPLIED BY TEMPERFORM COMPANY

TO: Jessie Hill Roberson, Assistant Secretary
for Environmental Management, EM-1, HQ

This letter is in response to your memorandum to Field Office Managers, "Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company," dated February 11, 2003. Please find enclosed the investigative information relative to heat treated aluminum supplied by Temperform from Hanford prime contractors, Bechtel Hanford Inc., Fluor Hanford Inc., and Pacific Northwest National Laboratory (Attachments 1, 2 & 3). As requested, please also find enclosed DOE Federal employee awareness training relative to suspect/counterfeit items (Attachment 4).

If you have any questions, please contact me, or your staff may contact Doug S. Shoop, Director, Safety, Health and Quality Assurance Division, on (509) 376-0108.



Keith A. Klein
Manager

Attachments:

1. BHI Temperform Response
2. FHI Temperform Response
3. PNNL Temperform Response
4. DOE/RL S/CI Training

cc w/attachs:

S. L. Johnson, EM-5
M.T. Sautman, DNFSB



106396

Job No. 22192
 Written Response Required: NO
 Due Date: N/A
 Action: N/A
 Closes CCN: 106115
 OU: N/A
 TSD: N/A
 FRA: N/A
 Subject Code: 5606

MAR - 5 2003

U.S. Department of Energy
 Richland Operations Office
 R. O. Puthoff, Contracting Officer
 Procurement Services Division
 P.O. Box 550, MSIN A7-80
 Richland, Washington 99352

Subject: Contract No. DE-AC06-93RL12367
**INVESTIGATION OF THE USE OF IMPROPERLY HEAT-TREATED
 ALUMINUM SUPPLIED BY TEMPERFORM COMPANY**

Reference: Letter, R. O. Puthoff, RL, to M. C. Hughes, BHI, same subject, CCN 106115, dated February 19, 2003

Dear Mr. Puthoff:

In accordance with the instructions contained in the referenced letter, Bechtel Hanford, Inc. (BHI) investigated the potential for use of improperly heat-treated aluminum parts/materials supplied by Temperform Company to the Environmental Restoration Contractor (ERC) between May 1998 and May 2002. The investigation addressed the lines of inquiry as shown below in order to determine whether the ERC procured and/or used heat-treated aluminum materials, parts or equipment supplied by Temperform Company or its vendors.

- 1) BHI conducted a search of its Purchase Card and Procurement Tracking Systems to determine if there were any procurements with Temperform Company or any of the suppliers/vendors listed on the attachment to your letter. The search showed that BHI did not place purchase orders of any type with Temperform Company or any of the suppliers/vendors listed in the attachment to the referenced letter between May 1998 and May 2002.
- 2) BHI contacted those subcontractors who installed systems potentially performing a safety function (i.e., safety class or safety significant system) for the ERC between May 1998 and May 2002. No procurements for heat-treated aluminum from Temperform Company or any of the suppliers/vendors listed in the referenced letter were discovered. A review of parts/materials and services obtained under the Work Order Program from other Hanford Prime Contractors was also conducted with no findings.

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MAR 07 2003

DOE-RL/RLCC

R. O. Puthoff
Page 2
MAR - 5 2003

106396

- 3) The ERC maintains awareness of suspect/counterfeit items (S/CI) by providing classroom training (conducted by Roger Moerman of Mantech) for selected staff. Additional ERC employee awareness is maintained by periodic required reading of the pertinent ERC procedure, BHI-MA-02, *ERC Project Procedures*, Procedure 2.23, "Suspect/Counterfeit Item Control." The BHI S/CI program incorporates the requirements and guidance contained in U.S. Department of Energy (DOE) documents, Contractor Requirements Document (CRD) DOE O 440.1A, "Worker Protection Management for DOE Federal and Contractor Employees," CRD DOE O 414.1A, "Quality Assurance," and DOE G 440.1-6, "Implementation Guides for Use with Suspect/Counterfeit Items Requirements of DOE O 440.1, Worker Protection Management, 10 Code of Federal Regulation (CFR) 830.120, Nuclear Safety Management, and DOE 5700.6C, Quality Assurance."

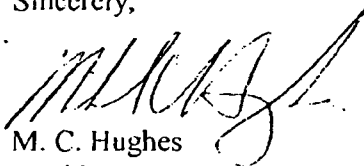
The following BHI Functional Groups participate in these training methods: Field Support [including Hanford Atomic Metal Trades Council (HAMTC) represented employees and Subcontractor Technical Representatives], Procurement and Property Management (including material control), Engineering and Technology (including Environmental Technology), Safety and Health (including Radiological Control), Facilities and Office Services, and Assessments and Regulatory Programs (including Quality Assurance and Quality Services). This list represents those organizations that participate in the procurement chain as well as the receiving, handling and installation of materials for the ERC.

The requirements for S/CIs invoked on ERC subcontractors are included, using the graded approach, in subcontract language. Subcontractors are required to submit Quality Assurance and Safety and Health Plans for review and approval by the ERC that address all requirements contained in the subcontract. The preparation of subcontracts and the review and approval of the subcontractor prepared and submitted plans are performed by ERC personnel knowledgeable of S/CI requirements.

The estimated cost for conducting the investigation is \$2,500.

Should you have any questions, please contact Mr. Dennis Houston of my staff at (509) 375-4670.

Sincerely,



M. C. Hughes
President

DHH:aje

cc: C. K. Kasch (RL) A5-17
M. T. Sautman (DNFSB) A5-17
D. S. Shoop (RL) A5-17

Fluor Hanford
P.O. Box 1000
Richland, Washington 99352

FLUOR

MAR 07 2003

FH-0300861A R1
Contract No. DE-AC06-96RL13200

Ms. Sally A. Sieracki, Contracting Officer
Procurement Services Division
U.S. Department of Energy A7-80
Richland Operations Office
P. O. Box 550
Richland, WA 99352

Dear Ms. Sieracki:

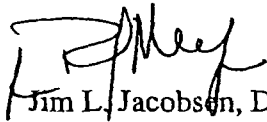
**INVESTIGATION OF THE USE OF IMPROPERLY HEAT-TREATED ALUMINUM
SUPPLIED BY TEMPERFORM COMPANY**

Reference: Letter, Sally A. Sieracki, RL, to D. B. Van Leuven, FH, same subject, 03-SHQ-0023, 0300861A, dated February 19, 2003.

As requested, we have conducted an investigation regarding the possible use of heat-treated aluminum supplied by Temperform Company. The results of the investigation as to whether or not FH or FH subcontractors procured and/or used heat-treated aluminum materials or equipment supplied by Temperform or Temperform vendors during the period May 1998 to May 2002 are outlined in the attachment.

If you need additional information in this regard, please advise us accordingly.

Respectfully,



Jim L. Jacobsen, Director
Contracts

ecu

Attachment

RL - A. E. Hopko
J. F. Schwier, w/o att

Attachment A

1. Did FHI, (including and subcontractors), procure or use raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May 2002?
 - a. FH conducted an inquiry of Project and facility Representatives on the use of heat-treated aluminum for project or facility activities. The results of the inquiry indicate that FH did not procure or use raw material that may have been heat-treated, supplied or tested by Temperform between May 1998 and May 2002.
 - b. FH completed a review of Passport procurements, the suppliers on the FH Evaluated Suppliers List (ESL), and P Card procurements. Results indicate that FHI did not procure or use raw material that may have been heat-treated, supplied or tested by Temperform between May 1998 and May 2002.
 - c. FH sent inquiries to major subcontractors. Results of the inquiry to our major subcontractors (Cogema, Fluor Federal Services (FFS), MacTec, Parsons, and DMJM (Holmes and Narver) indicate that they did not provide heat-treated aluminum products to Project Hanford between May 1998 and May 2002.

2. Did FHI, including any subcontractors, procure or use raw material that may have been heat treated, supplied or tested by Temperform from vendors/suppliers identified on the attached list between May 1998 and May 2002?
 - a. FH reviewed the list of suppliers on the attachment provided with the referenced letter. The list was compared against suppliers listed in Passport, the P card procurement databases, and the FH ESL. The names and addresses on the list did not match any suppliers on the FH PassPort and the P Card procurement databases, or the FH ESL for the designated period.

The inquiry by Project And Facility Representatives did reveal that FH received a welded aluminum structure as a general service component from Westinghouse Savannah River Company (WSRC). The primary use of the structure is to support a load of 25 pounds and keep it level. Since all DOE sites have been tasked with a similar investigation request it is expected that WSRC will provide the necessary information as part of the WSRC response to the DOE request.

3. If you discover that you or your subcontractors have or use materials/parts or equipment heat-treated, supplied or tested by Temperform or Temperform vendors:
 - a. Determine whether these parts are installed in any system performing a safety function – safety class or safety significant; or if they are intended for

use in a safety system by are still in inventory. If you do discover parts in safety systems, please perform an engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance and perform an engineering evaluation to qualify items that can be left in place including technical justification for doing so.

- b. Collect and track information on procurement and use of Temperform parts or materials for non-safety related systems. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety applications.
 - A. FH investigation did not confirm that FH or FH subcontractors (listed above) have or use materials/parts or equipment heat-treated, supplied or tested by Temperform or Temperform vendors.
 - B. FH investigation did reveal that FH received a welded aluminum structure as a general service component from Westinghouse Savannah River Company (WSRC). The primary use of the structure is to support a load of 25 pounds and keep it level. FHI will follow up with WSRC to obtain additional information.
4. Information collected should include the contractor/supplier/vendor information, type or materials, and quantity. Other information such as part number or model number and application/systems may be useful information to share with other Department of Energy sites.
 - a. Westinghouse Savannah River company
 - b. Welded aluminum structure
 - c. Quantity – One
 - d. Material callout – AI 6061-T5. WSRC drawing EES 22726-R3-061
 - e. Application supports the BTS weld heads. Supports a load of 25 lbs.
 - f. Type – General Service component.
5. Determine the cost associated with this investigation. The cost should be broken into categories:
 - a. Total cost for man-hours
 - b. Total cost for disposition of material (i.e. replacement cost, scrap cost etc)
 - c. Total cost for travel
 - d. Total cost for testing
 - e. Retain backup documentation in case challenged later
- A. FH will establish a cost center to collect the cost as requested and submit to DOE at a later date.

6. Identify training provided by FHI including that of your subcontractors to ensure worker safety in the area of suspect counterfeit parts per DOE 440.1A, Worker Protection Management for DOE Federal and Contractor Employees.
 - a. FH provides two classes pertaining to counterfeit items;
"Suspect/Counterfeit Fasteners in Cranes" Course # 170735 and
"Suspect/Counterfeit Items" Course # 170720. Both classes are 4 hours long
and are provided by Energx.

Pacific Northwest National Laboratory

Operated by Battelle for the
U.S. Department of Energy

March 5, 2003

Mr. Peter E. Rasmussen, Contracting Officer
Procurement Services Division
U.S. Department of Energy
Richland Operations Office
P.O. Box 550, A7-80
Richland, Washington 99352

Dear Mr. Rasmussen:

CONTRACT NO. DE-AC06-76RL01830 - INVESTIGATION OF THE USE OF IMPROPERLY HEAT-TREATED ALUMINUM SUPPLIED BY TEMPERFORM COMPANY

In response to the subject letter dated February 19, 2003, Pacific Northwest National Laboratory (PNNL) has conducted an investigation of the use of Temperform USA, and the identified affiliated vendors/suppliers to procure heat-treated aluminum parts or materials during the period May 1998 to May 2002. The investigation included PNNL subcontractors' acquisition records.

The six investigative points outlined in the subject letter above are addressed individually below:

- 1) PNNL (including PNNL's subcontractors) did not procure or use raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May 2002.
- 2) PNNL (including PNNL's subcontractors) did not procure or use raw material that may have been heat treated, supplied or tested by Temperform from vendors/suppliers listed between May 1998 and May 2002.
- 3) Not applicable due to negative responses to Items 1 & 2.
- 4) Not applicable due to negative responses to Items 1 & 2.
- 5) The cost of the investigation is \$3650. This dollar figure represents the sum of man-hours required to complete a review of PNNL and subcontractor procurement transactions processed during the targeted time period from May 1998 to May 2002. There were no costs accrued by PNNL or PNNL subcontractors for material disposition, travel or testing in association with the discovery of defective aluminum raw material or parts originating from Temperform or the list of vendors/suppliers.

907 Battelle Boulevard • P.O. Box 999 • Richland, WA 99352

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MAR 06 2003

Telephone (509) 376-1187 ■ Email roby.enge@pnl.gov ■ Fax (509) 376-1660

DOE-RL/RLCC

Mr. Peter E. Rasmussen
March 5, 2003
Page 2

- 6) PNNL and subcontractor staff receive training in the area of suspect/counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE Federal and Contractor Employees. Within the PNNL organizational infrastructure, targeted staff members from the Quality, Contracts, and Facility Operations have received training. Construction contract specifications, Division 1, states "As requested, PNNL will provide S/CI information to Contractor after award. Information will include: general screening criteria and detection information and suspect component and fastener listings."

If you have any questions, please contact Mr. Larry V. Kimmel on 376-9203.

Sincerely,



Roby D. Enge, Director
Environment, Safety, Health and Quality

RDE:LVK;jlw

cc: CK Kasch, RL
RF Christensen, RL
TL Davis, RL
MT Sautman, DNFSB
DS Shoop, RL

DOE/RL Employee Training on S/CI

At RL, the Hanford Prime contractors are responsible for the design, engineering, procurement, inspection, installation, testing, acceptance, operations, maintenance, deactivation, decontamination and decommissioning of Hanford facilities. RL staff does not perform first line inspections or acceptance of activities where detection of suspect/counterfeit items (S/CI) occurs. RL manages the contracted work related programs and operations, and performs oversight of contractor compliance with DOE contract requirements.

RL promotes federal staff awareness of S/CI issues by various means including classroom training. Awareness training relative to S/CI is provided as part of the computer based Hanford General Employee Training (HGET). RL employees responsible for oversight of contractor activities take HGET annually. Some RL staff also received classroom training in S/CI, Suspect/Counterfeit Items-Procurement Prevention and Suspect/Counterfeit Fasteners in Cranes, through the Hazardous Materials Management and Emergency Response (HAMMER) Center at Hanford. In August 1998, the RL Facility Representatives received Hanford Site S/CI information and a video presentation regarding S/CI. RL staff also received S/CI information as part of the RL Safety Awareness Week in September 1996.

Vaughan, Larry

Subject: FW: SRS Reponses on Temperform

-----Original Message-----

From: Olinger, Shirley J [mailto:Shirley_J_Olinger@RL.gov]
Sent: Monday, May 12, 2003 4:46 PM
To: Johnson, Sandra
Subject: FW: SRS Reponses on Temperform

Hi Sandy,
It was not temperform and does not serve a safety function.
txs, sjo

-----Original Message-----

From: Kasch, Charles K
Sent: Monday, May 12, 2003 1:41 PM
To: Olinger, Shirley J
Subject: FW: SRS Reponses on Temperform

Please forward this message to Sandy Johnson.

-----Original Message-----

From: Dahlberg, Curt
Sent: Monday, May 12, 2003 1:22 PM
To: Kasch, Charles K
Cc: Burk, Robert A (Robb); Turner, Shelby J; Cooper, Audrey Y (AY); Marmo, Patrick M
Subject: SRS Reponse on Temperform

Charlie,

Please see following response from Lane Rogers at SRS. This is Lane Roger's response for the following equipment for bagless transfer:

Welded aluminum structure that supports the BTS weld heads. It is considered a general service component. WSRC drawing EES-22726-R3-061. Material callout is Al 6061-T5. Its primary use is to support a load of 25 lbs. and keep it level.

If you need any additional information, please advise.
Curt

-----Original Message-----

From: lane.rogers@srs.gov [mailto:lane.rogers@srs.gov]
Sent: Monday, May 12, 2003 9:36 AM
To: Dahlberg, Curt
Subject: Re: Temperform

Curt,

I checked with our vendor, and he said that they did not use any aluminum from Temperform on the bagless transfer projects.

Thanks,
Lane

05/13/2003

141

Vaughan, Larry

From: Kasch, Charles K [Charles_K_Kasch@RL.gov]

Sent: Wednesday, May 07, 2003 4:18 PM

To: 'larry.vaughan@em.doe.gov'

Subject: Temperform

In response to your questions and confirming our telephone conversation of 5/7/03:

- With regard to FHI's costs: FHI responded by e-mail as follows "However, it appears our contracts folks decided the costs were not significant enough to warrant tracking and reporting." They indicated that it had taken less than two hours to search the database.
- With regard to the FHI's response (Attachment A to FHI letter number FH-0300861A R1 Section 3.b.A) that reads "FH investigations did not confirm that FH or FH subcontractors have or use materials/parts or equipment heat treated....." FH representatives have confirmed that they did not find evidence that they or their subs had obtained materials from Temperform or their vendors.
- With regard to FH following up with WSRC on the heat treated aluminum part provided by WSRC, they provided the following information by e-mail "I telephoned and email our contact at WSRC (Mr. Lane Rogers) on March 10 and notified him of the Temperform investigation. I provided him with several documents that provided background and purpose of the investigation, as well as the specifics of the aluminum structure at PFP that WSRC furnished to FH. Mr. Rogers agreed to contact his supplier to see if any materials were provided by Temperform, and then contact me when a response was received. To date I have not received any additional information. I will contact him again to verify if any additional information was received." Based on FH's response letter and the use of this item, I do not plan on pursuing this further.

Vaughan, Larry

From: Kasch, Charles K [Charles_K_Kasch@RL.gov]

Sent: Tuesday, May 06, 2003 3:22 PM

To: 'larry.vaughan@em.doe.gov'

Subject: Temperform

Our three site contractors have confirmed that their investigation regarding aluminum heat treated by Temperform did not just cover the requested period (5/1998 - 5/2002) but covered the period from 5/1998 until their research was completed..

**SAVANNAH RIVER
OPERATIONS OFFICE**

Response to Temperform Investigation

Westinghouse
Savannah River Company
Aiken, SC 29808



MAY 15 2003

FSS-2003-00004

Mr. Charles A. Hansen, Deputy Manager
Department of Energy
P.O. Box A
Aiken, SC 29802

Dear Mr. Hansen:

RESPONSE TO EM-1 LETTER

The purpose of this letter is to respond to your questions regarding the 3/25/2003 Memorandum from the Manager SR to EM-1. WSRC has verified that Temperform aluminum parts have not been purchased or used at Savannah River Site during the period May 1998 to May 2002. The following pertains:

1. WSRC has confirmed that it has never made a purchase from Temperform.
2. WSRC reviewed the 2/11/2003 letter attachment and confirmed that WSRC had never received any aluminum parts or material from any of these suppliers. WSRC did receive one stainless steel item from a supplier (Delafield) who was identified by EM as having received material from Temperform. This is documented in the DOE Memorandum to EM-1 dated 3/25/2003.
3. WSRC confirmed that it has records for all safety class (and the majority of safety significant materials) and that no purchases from Temperform occurred. WSRC maintains control of such purchases by declaring them Level 1 in accordance with our purchase system. WSRC has contacted its level 1 suppliers and has verified that none of them have procured from or been involved with Temperform.
4. WSRC has had in place since 1997 a Strategic Sourcing agreement for purchase of all aluminum materials from a single vendor, Cherokee. This includes all purchases other than Level 1 and Cherokee has confirmed to WSRC that they have not purchased any material from Temperform.

WSRC considers that this information can be backed up satisfactorily and that EM-1 can report closure for SR with regard to the 2/11/2003 request for action.

Sincerely yours,

Laurie J. Hollick
Acting Business Unit Manager

GRR:mks

memorandum

Savannah River Operations Office (SR)

DATE: MAR 25 2003

REPLY TO:
ATTN OF: CMD (W. Painter, 803-725-8536)

SUBJECT: Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company (Your memo, 02/11/03)

TO: Jessie Hill Roberson, Assistant Secretary for Environmental Management (EM-1), HQ

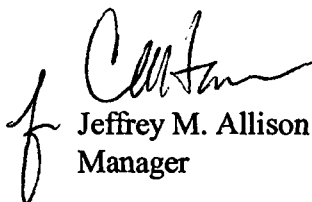
Pursuant to your direction of February 11, 2003, we have completed a thorough investigation aimed at determining whether or not suspect aluminum parts/materials from Temperform Company have ever been purchased and used at the Savannah River Site. Our investigation disclosed that no prime contracts or subcontracts have been issued to Temperform Company for aluminum parts or materials. One purchase order for six 5-1/2 foot stainless steel flexible hoses (\$504) was issued in February 2002 by Westinghouse Savannah River Company (WSRC) to Delafield Corporation (a contractor on the list provided by HQ). We have determined that these parts, as installed, do not present a safety or quality hazard to the Site.

The estimated cost of conducting our investigation is \$750.00. This cost is broken down as follows: DOE Labor - \$300.00; WSRC Labor - \$450.00.

WSRC has a suspect/counterfeit parts training program that meets DOE Order 440.1A as outlined in WSRC 1B, MRP 5.19. Training has been provided to over 1,000 employees over the past several years. Training typically includes personnel involved in specifying, purchasing, inspecting, maintaining, storing, and testing materials and equipment.

Any questions may be addressed to me or your staff may contact Wes Painter of my staff at (803) 725-8536.

CMD:DWH:lpk



Jeffrey M. Allison
Manager

SB-03-0040

cc:
P. Golan, (EM-3), HQ
M. Frei, (EM-30), HQ
S. Johnson (EM-5), HQ

Johnson, Sandra

From: charles.hansen@srs.gov
Sent: Wednesday, May 14, 2003 5:26 PM
To: Sandra.Johnson@em.doe.gov
Cc: jeffrey.allison@srs.gov; marvin.garcia@srs.gov; ronald02.simpson@srs.gov; dennis02.godbee@srs.gov; charles.anderson@srs.gov
Subject: Temperform Aluminum Parts

The purpose of this email is to respond to your questions regarding the 3/25 Manager SR reply to EM-1 letter of 2/11/2003. The backup information provided to you by Mr. Painter of our staff was not complete. I have verified that Temperform aluminum parts have not been purchased or used at Savannah River Site during the period May 1998 to May 2002. The following pertains:

1. WSRC has confirmed that it has never made a purchase from Temperform.
2. WSRC reviewed the 2/11/2003 letter attachment and confirmed that WSRC had never received any aluminum parts or material from any of these suppliers. WSRC did receive one stainless steel item from a supplier (Delafield) who was identified by EM as having received material from Temperform, but WSRC could not contact Delafield as their phone number has changed. This is documented in our letter to EM-1 of 3/25/2003.
3. WSRC confirmed that it has records for all safety class (and the majority of safety significant materials) and that no purchases from Temperform occurred. WSRC maintains control of such purchases by declaring them Level 1 in accordance with their purchase system and this requires suppliers to list subtier vendors.
4. WSRC has had in place since 1997 a Strategic Sourcing Agreement for purchase of all aluminum materials from a single vendor, Cherokee. This includes all purchases other than Level 1, and Cherokee has confirmed to WSRC that they have not purchased any material from Temperform.

SR considers this information can be backed up satisfactorily by WSRC and that EM-1 can report closure for SR with regard to the 2/11/2003 request for action. I am sending separately two emails from WSRC responsible procurement managers who have reviewed the above and concur with the content.

Johnson, Sandra

From: charles.hansen@srs.gov
Sent: Wednesday, May 14, 2003 5:29 PM
To: Sandra.Johnson@em.doe.gov
Cc: ronald02.simpson@srs.gov; marvin.garcia@srs.gov; charles.anderson@srs.gov
Subject: Re: Temperform Aluminum Parts

Sandy- This is the change to the certification that Laurie Hollick advised me would be made. Tom Robinson is the WSRC procurement manager and Greg Ryan is his subordinate. I confirmed all this orally with Robinson earlier today.

Charlie

----- Forwarded by Charles Hansen/DOE/Srs on 05/14/03 05:15 PM -----

Gregory Ryan

To: Charles Hansen/DOE/Srs@Srs
 05/14/03 05:15 PM cc: Thomas05 Robinson/WSRC/Srs@Srs, Laurie Hollick/WSRC/Srs@srs, William Shingler/WSRC/Srs@Srs
 Subject: Re: Temperform Aluminum Parts [Link](#)

Charlie,

I have review your memo and have reviewed it with Tom. We agree with all of it, but have only minor clarification concerning your item #2. That clarification is that the one supplier that was on the list that we did procure the \$502 item was Delafield Corp. We never confirmed that Delafield used Temperform as a source. The phone number we had for Delafield was out of service and we could not reach Delafield. Therefore, we can not say for sure that they used Temperform as a source.

Any questions, please give us a call.

Thanks,
 Greg

Charles Hansen

To: Thomas05 Robinson/WSRC/Srs@Srs, Gregory Ryan/WSRC/Srs@Srs
 05/14/2003 04:50 PM cc:
 Subject: Temperform Aluminum Parts

PLS FORWARD YOUR CONCURRENCE. THIS IS BASED ON EMAILS FROM TOM ROBINSON TODAY

----- Forwarded by Charles Hansen/DOE/Srs on 05/14/03 04:47 PM -----

05/15/2003

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Charles Hansen

To: Sandra.Johnson@em.doe.gov

05/14/03 04:20

cc: Jeffrey Allison/DOE/Srs, Marvin Garcia/DOE/Srs, Ronald02 Simpson/DOE/Srs, Dennis02 Godbee/DOE/Srs, Charles

PM

Anderson/DOE/Srs

bcc:

Subject: Temperform Aluminum Parts

The purpose of this email is to respond to your questions regarding the 3/25 Manager SR reply to Em-1 letter of 2/11/2003. The backup information provided to you by Mr Painter of our staff was not complete. I have verified that Temperform aluminum parts have not been purchased or used at Savannah River Site during the period May 1998 to May 2002. The following pertains:

1. WSRC has confirmed that it has never made a purchase from Temperform.
2. WSRC reviewed the 2/11/2003 letter attachment and confirmed that WSRC had never received any aluminum parts or material from any of these suppliers. WSRC did receive one stainless steel item from a supplier who used Temperform as a source and this is documented in our letter to EM-1 of 3/25/2003.
3. WSRC confirmed that it has records for all safety class (and the majority of safety significant materials) and that no purchases from Temperform occurred. WSRC maintains control of such purchases by declaring them Level 1 in accordance with their purchase system and this requires suppliers to list subtier vendors.
4. WSRC has had in place since 1997 a Strategic Sourcing agreement for purchase of all aluminum materials from a single vendor, Cherokee. This includes all purchases other than Level 1 and Cherokee has confirmed to WSRC that they have not purchased any material from Temperform.

SR considers this information can be backed up satisfactorily by WSRC and that EM-1 can report closure for SR with regard to the 2/11/2003 request for action.

05/15/2003

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Johnson, Sandra

From: charles.hansen@srs.gov
Sent: Wednesday, May 14, 2003 5:28 PM
To: Sandra.Johnson@em.doe.gov
Cc: ronald02.simpson@srs.gov; marvin.garcia@srs.gov; charles.anderson@srs.gov
Subject: Re: Temperform Aluminum Parts

Sandy- Laurie Hollick is the WSRC vice President accountable for procurement. She told me orally that she concurs with this memo I am sending you with a minor clarification (to be submitted to me by Greg Ryan of her staff). That change is that WSRC could never confirm that the stainless steel item procured from Delafield did have Temperform as its source. Delafield appears to be out of business. My certification to you includes this correction.

Charlie

----- Forwarded by Charles Hansen/DOE/Srs on 05/14/03 05:10 PM -----

Laurie Hollick

Sent by: Terri Bridgers
05/14/03 05:04 PM
To: Charles Hansen/DOE/Srs@Srs
cc:
Subject: Re: Temperform Aluminum Parts [Link](#)

Charlie,

I concur.

Laurie

Charles Hansen

05/14/03 04:42 PM
To: Laurie Hollick/WSRC/Srs@srs
cc:
Subject: Temperform Aluminum Parts

Based on reports from Tom Robinson I am providing the following certification to EM-1 regarding use of Temperform materials. If you disagree pls let me know.

Charlie

----- Forwarded by Charles Hansen/DOE/Srs on 05/14/03 04:40 PM -----

Charles Hansen

05/14/03 04:20 PM
To: Sandra.Johnson@em.doe.gov
cc: Jeffrey Allison/DOE/Srs, Marvin Garcia/DOE/Srs, Ronald02 Simpson/DOE/Srs, Dennis02 Godbee/DOE/Srs, Charles Anderson/DOE/Srs
bcc:
Subject: Temperform Aluminum Parts

The purpose of this email is to respond to your questions regarding the 3/25 Manager SR reply to EM-1 letter of

05/15/2003

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2/11/2003. The backup information provided to you by Mr Painter of our staff was not complete. I have verified that Temperform aluminum parts have not been purchased or used at Savannah River Site during the period May 1998 to May 2002. The following pertains:

1. WSRC has confirmed that it has never made a purchase from Temperform.
2. WSRC reviewed the 2/11/2003 letter attachment and confirmed that WSRC had never received any aluminum parts or material from any of these suppliers. WSRC did receive one stainless steel item from a supplier who used Temperform as a source and this is documented in our letter to EM-1 of 3/25/2003.
3. WSRC confirmed that it has records for all safety class (and the majority of safety significant materials) and that no purchases from Temperform occurred. WSRC maintains control of such purchases by declaring them Level 1 in accordance with their purchase system and this requires suppliers to list subtier vendors.
4. WSRC has had in place since 1997 a Strategic Sourcing agreement for purchase of all aluminum materials from a single vendor, Cherokee. This includes all purchases other than Level 1 and Cherokee has confirmed to WSRC that they have not purchased any material from Temperform.

SR considers this information can be backed up satisfactorily by WSRC and that EM-1 can report closure for SR with regard to the 2/11/2003 request for action.

—

Vaughan, Larry

From: g.painter@srs.gov
Sent: Tuesday, May 13, 2003 2:58 PM
To: larry.vaughan@em.doe.gov
Cc: ronald02.simpson@srs.gov
Subject: Re: INVESTIGATION IN THE USE OF IMPROPERLY HEAT TREATED ALUMINUM

Larry,

Per your request, here is the WSRC response that we based our reply to HQ on.

Wes

----- Forwarded by G Painter/DOE/Srs on 05/13/2003 02:56 PM -----

Gregory Ryan
 To: G Painter/DOE/Srs@Srs
 cc:
 05/13/2003 01:40 PM Subject: Re: INVESTIGATION IN THE USE OF IMPROPERLY HEAT TREATED ALUMINUM

as requested

----- Forwarded by Gregory Ryan/WSRC/Srs on 05/13/2003 01:39 PM -----

Gregory Ryan
 To: G Painter/DOE/Srs@Srs
 cc: James Detwiler/DOE/Srs@Srs, Ronald02 Simpson/DOE/Srs@Srs, Thomas05 Robinson/WSRC/Srs@Srs,
 03/06/2003 05:19 PM William Hull/WSRC/Srs@Srs, James Bukovitz/WSRC/Srs@Srs
 Subject: Re: INVESTIGATION IN THE USE OF IMPROPERLY HEAT TREATED ALUMINUM [Link](#)

Wes,

We have completed our investigation concerning the attached. Our investigation has determined:

1) WSRC has no records of any orders being placed with Temperform Company at any time. In regard to our subcontractors' use of Temperform or the suppliers identified in your attachment, we have no real method, without very extensive efforts, to check our subcontractors' suppliers to determine where they bought their finished products or raw materials that went into the components/systems they supplied to WSRC.

2) We have checked all suppliers listed on your attachment. The results are that we have placed only one order with one firm on the attached list. That firm is Delafield Corp.. Our records show that we placed one order (AC30278) for a total of \$502.14. The order was for a quantity of six, 1/2" dia. x 5'6" in length, ISO 10380, 321S.S. flexible metal hoses (see attached for a brief description as contained in PCS). The order was place on 2/8/02. Because the material of the product was stainless steel, our investigation did not go any further. If you believe we must continue to check into the details as defined in para. 3.a and 3.b below. please let me know.

3) The total number of hours used to gather the above information is approx. 4.

4) In regard to your question 6, WSRC has a suspect/counterfeit parts training program that meets DOE O 440.1A as outlined in WSRC 1B, MRP 5.19. Training has been provided to over 1000 employes over the past several years. Training typically includes personnel involved in specifying, procuring, inspecting, maintaining, storing, and testing materials and equipment.

05/13/2003

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If upon your review of the above you have any question or need additional information please give me a call.

Thanks,
Greg

G Painter

02/25/2003 02:32 PM

To: Gregory Ryan/WSRC/Srs@Srs
cc: Thomas05 Robinson/WSRC/Srs@Srs, Ronald02 Simpson/DOE/Srs@Srs, James Detwiler/DOE/Srs@Srs
Subject: INVESTIGATION IN THE USE OF IMPROPERLY HEAT TREATED ALUMINUM

SUBJECT: INVESTIGATION IN THE USE OF IMPROPERLY HEAT TREATED ALUMINUM SUPPLIED BY TEMPERFORM COMPANY

THIS REQUEST PERTAINS TO A DOE HQ SECRETARIAL INQUIRY AND IS BEING TRACKED BY THE SR MANAGER'S OFFICE!!!

DOE HQ has requested that all M&O contractors investigate whether improperly heat-treated aluminum parts/materials supplied by Temperform Company have been procured and used on DOE sites.

Your investigation should address the following lines of inquiry in order to determine whether such parts/materials have ever been procured from Temperform or Temperform vendors for use at SR:

- 1) Has WSRC (including subcontractors) procured or used raw material that may have been heat-treated, supplied or tested by Temperform between May 1998 and May 2002?
- 2) Has WSRC (including subcontractors) procured or used raw material that may have been heat-treated, supplied or tested by Temperform from vendors/suppliers identified on the attached list between May 1998 and May 2002?
- 3) If you discover that WSRC or its subcontractors have or use materials/parts or equipment heat-treated, supplied or tested by Temperform of Temperform vendors:
 - a) Determine whether these parts are installed in any system performing a safety function (i.e., safety class or safety significant system); or if they are intended for use in a safety system but are still in inventory. If you do discover parts in safety systems, please cause an engineering evaluation to be performed for the purpose of determining any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.
 - b) Collect and track information on procurement and use of Temperform parts or materials for non-safety related systems. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety applications.
- 4) Information reported pursuant to this investigation shall include the subcontractor/supplier/vendor, type of material, and quantity. Other information such as part number or model number and application/systems may be useful information to share with other DOE sites.
- 5) You are hereby directed to keep track of all costs associated with your inquiry into these matters. The OIG will attempt to recover costs associated with the investigation. Costs should be broken into categories: total cost for man-hours; total cost for disposition of material (i.e., replacement cost, scrap cost, etc.); total cost for travel (if any) and total cost for testing (if any). Do not submit backup documentation; however, such supporting documentation must be maintained in case such costs are challenged later.

05/13/2003

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6) Identify any training provided by WSRC to its employees aimed at ensuring worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.

Time is of the essence regarding your inquiry into and your response to these issues. Please provide your response to this office no later than close of business March 10, 2003.

If you have any questions, please contact me at your convenience.

G. W. Painter
Contracting Officer
Contracts Management Division

PCS00051A

PROCUREMENT CYCLE SYSTEM
CLOSED PO DESCRIPTION SEARCH

Feb 26 04:54

AX NUMBER.... AC30278

ITM	DESCRIPTION
1	HOSE, METAL FLEXIBLE; (SALIENT FEATURES) ISO 10380 CONSTRUCTION, 321 SS HOSE, 304 SS BRAID, ONE END EQUIPPED WITH CS MALE PIPE (THREADED), OTHER END EQUIPPED WITH 150# CS SLIP-ON FLANGE. HOSE SHALL BE 1/2" DIAMETER X 5'6" IN LENGTH. - DELAFIELD FLUID TECHNOLOGIES P/N# BA1B0165-008-0660 (OR ENGINEERING APPROVED EQUAL). SUPPLIER SHALL TAG EACH HOSE WITH MANUFACTURER AND MANUFACTURER PART NUMBER.

ATTENATION PQA/RI:

ACTION: 1_____ (ENTER AN ACTION CODE OR A FASTPATH)
1) CONTINUE 2) QA DATA 3) CM DATA 13) END 99) PCS MAIN MENU

MORE
PCS00051A

PROCUREMENT CYCLE SYSTEM
CLOSED PO DESCRIPTION SEARCH

Feb 26 04:54

AX NUMBER.... AC30278

ITM	DESCRIPTION
1	TRACEABILITY (LEVEL B) TO THE PURCHASE ORDER OR MANUFACTURING INSTRUCTIONS OF THE ITEM. - NOTE: NO CMTR'S ARE REQUIRED. -

Vaughan, Larry

From: g.painter@srs.gov
Sent: Tuesday, April 29, 2003 8:52 AM
To: larry.vaughan@em.doe.gov
Cc: gregory.ryan@srs.gov; ronald02.simpson@srs.gov
Subject: TEMPERFORM INQUIRY - SUSPECT PARTS

Mr. Larry Vaughan,

Regarding your inquiry this morning as to the dates bounding the recent WSRC investigation into the Suspect Parts issue with Temperform:

WSRC's investigation covered its entire historical data base of subcontract awards, up to and including early March 2003. If you have any additional questions, please do not hesitate to contact me.

**G. W. Painter
Contracting Officer
Contracts Management Division**

OAK RIDGE OPERATIONS OFFICE

Response to Temperform Investigation

OGE F 1325.8
(302)

United States Government

Department of Energy

Oak Ridge Operations Office

memorandum

DATE: May 7, 2003

REPLY TO

ATTN OF: SE-32:Smith

SUBJECT: **INVESTIGATION OF THE USE OF POTENTIALLY SUSPECT HEAT TREATED ALUMINUM SUPPLIED BY TEMPERFORM**TO: Raymond L. Orbach, Director, Office of Science, SC-1, HQ/FORS
Jessie Hill Roberson, Assistant Secretary for Environmental Management, EM-1, HQ/FORS

References: (1) Memorandum from Jessie Hill Roberson, dated February 11, 2003, subject: Investigation of the Use of Potentially Suspect Heat Treated Aluminum Supplied by Temperform Company

(2) Memorandum from Milton D. Johnson, dated April 11, 2003, subject: Investigation of the Use of Potentially Suspect Heat Treated Aluminum Supplied by Temperform USA

This memorandum documents the Oak Ridge Operations Office (ORO) response to the subject investigation regarding Temperform.

Bechtel Jacobs Company LLC (BJC) has completed its investigation of the possible use of suspect heat treated aluminum from Temperform. BJC has determined that no heat treating services have been performed by Temperform on items purchased by them or their subcontractors. This investigation included contractors in Oak Ridge and in Portsmouth, Ohio, and Paducah, Kentucky. Documentation of the investigation is provided in Attachment 1. This information was provided to Larry Vaughan by e-mail on January 8, 2003.

BNFL Inc. (BNFL) has completed its investigation of the possible use of suspect heat treated aluminum from Temperform. BNFL has determined that no heat treating services have been performed by Temperform on items purchased by them or their subcontractors. Documentation of the investigation is provided in Attachment 2. This information was provided to Larry Vaughan by e-mail on January 8, 2003.

UT-Battelle, LLC, has completed its investigation for Oak Ridge National Laboratory (ORNL) of the possible use of suspect heat treated aluminum from Temperform. ORNL has determined that no heat treating services have been performed by Temperform on items purchased by ORNL. Documentation of the investigation regarding the protocol in Attachment 1 of the EH-1 memorandum dated March 25, 2003, is as follows:

Raymond L. Orbach
Jessie Hill Roberson

-2-

May 7, 2003

1. Has site contractor(s) (including their subs) procured or used material/parts, components or equipment that may have been heat-treated, supplied or tested by Temperform after May 1998? Answer: No
2. Has site contractor(s) (including their subs) procured or used material/parts, components or equipment that may have been heat-treated, supplied or tested by Temperform from vendors/suppliers identified on the attached list (Attachment 2), after May 1998? Answer: No
- 3-6. Since the answers to questions 1 and 2 are no, questions 3-6 do not apply.
7. Identify training provided by the DOE and the contractor in the area of suspect counterfeit parts per DOE Order 440.1A, *Worker Protection Management for DOE and Federal Contract Employees*. Answer: Suspect/counterfeit items training was provided in Oak Ridge by Roger Moerman of Technical Services Associates on April 30, 2001. Documentation of training is on file with the ORO Training and Development Group.

The training discussed in item seven was made available to both ORO contractor and federal employees.

If you have questions or need more assistance in this matter, please contact me at (865) 576-4444, or Robert W. Poe at (865) 576-0891.



Gerald G. Boyd
Manager

Attachments

cc w/attachments:

Steven Liedle, Bechtel Jacobs Company LLC
Paul Clay, Bechtel Jacobs Company LLC
Cindy Daugherty, Bechtel Jacobs Company LLC
Beverly Cook, EH-1, HQ/FORS
Milton Johnson, SC-1, HQ/FORS
Larry Vaughan, EM-5, HQ/FORS
Van Nguyen, SC-83, HQ/GTN
Matt Cole, SC-83, HQ/GTN
George Malosh, M-2, ORO
Robert Brown, M-3, ORO
Johnny Moore, LM-10, ORO
Randy Smyth, EM-90, ORO
Dennis Boggs, EM-90, ORO
Jack Howard, AU-60, ORO
Mike Smith, SE-32, ORO

Attachment 1

Howard, Jack
From: Howard, Jack L
Sent: Friday, March 07, 2003 3:33 PM
To: Smyth, Randy C
Cc: 'jstevens@bnfl-ettp.com'; 'pwhittingham@bnfl-ettp.com'; Brown, Robert J; Poe, Robert W; Stroud, Robert L
Subject: Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform Company

Randy: Below is the result of the ETTP Three-Bldg. D&D and Recycle Project Investigation into the subject material use by BNFL on the project.

BNFL conducted a review, at the request of Jack L. Howard, DOE Project Manager/COR, into the use on the ETTP Three-Bldg. D&D and Recycle Project of the Temperform Heat Treated Aluminum material identified in the February 11, 2003 Memorandum from Jesse Roberson, Assistant Secretary for Environmental Management. I have conferred with BNFL on the process utilized in the investigation of this issue and I am satisfied that they conducted a thorough search of their procurement records into products purchased and utilized on the project. The ETTP Three-Bldg. D&D and Recycle Project has only one safety system and that is the RCAAS. These products were not utilized on that system. BNFL has constructed three major facilities for the execution of the project: the K-33 D&D Workshop, K-761 NDA Facility, and the Supercompactor. Neither of these structures utilized any of the subject material. This is a dismantlement, disassembly, waste disposal, and decontamination project and the use of this material would be easily identified, if it had been procured by BNFL. There has not or will not be much opportunity to utilize this type material on any of BNFL's operations for the future, since most if not all facilities are already built and the material was not used. BNFL took over the K-33, K-31, & K-29 buildings in January 1998. The only major work outside of the D&D Workshop, K-761 NDA Facility, and Supercompactor that required the procurement of significant parts and material has been the buildings Bridge Crane Upgrades and Electrical System upgrades. This suspect material was not used on that work either. BNFL has procured or leased significant dismantlement, disassembly, and material handling equipment for use on the project, and none of this suspect material has been used on that equipment. The following are responses to the specific questions within EM-1's letter:

- 1.) Has site contractor (including their subs) procured or used raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May 2002.

Response: BNFL nor their subcontractors have not procured or used raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May 2002.

- 2.) Has site contractor (including their subs) procured or used raw material that may have been heat treated, supplied or tested by Temperform from vendors/suppliers identified on the attached list, between May 1998 and May 2002.

Response: BNFL nor their subcontractors have not procured or used raw material that may have been heat treated, supplied or tested by Temperform from vendors/suppliers identified on the list attached to EM-1's February 11 Memorandum between May 1998 and May 2002.

- 3.) If you discover that site contractor or subs have or use materials/parts or equipment heat treated, supplied or tested by Temperform or Temperform vendors:

- a. Determine whether these parts are installed in any system performing a safety function (i.e., safety class or safety significant system); or if they are intended for

FILE CODE
 (43 F.A. 9.8)

use in a safety system but are still in inventory. If you do discover parts in safety systems, please perform engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.

Response: BNFL has not utilized, procured, or has no plans to procure materials/parts utilizing the subject material on the one safety significant system (RCAAS) on the project. Therefore, BNFL nor DOE ORO has further action relative to this question on this project.

- b. Collect and track information on procurement and use of Temperform parts or materials for non-safety related systems. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety applications.

Response: BNFL has not utilized, procured, or has plans to procure materials/parts utilizing the subject material on non-safety related systems on the project. Therefore, BNFL nor DOE ORO has further action relative to this question on this project.

- 4.) Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information such as part number or model number and application/systems may be useful information to share with other DOE sites.

Response: BNFL did not identify any materials/parts from the subject materials on the project. Therefore, BNFL nor DOE ORO has information to be shared with other DOE sites from this project.

- 5.) Determine the cost associated with this investigation. The Office of Inspector General will attempt to recover the cost associated with the investigation. The cost should be broken into categories: total cost for man-hours; total cost for disposition of material (i.e., replacement cost, scrap cost etc.); total cost for travel (if any) and total cost for testing (if any). Backup documentation is not necessary to be submitted, but should be maintained by your respective sites in case the costs are challenged later.

Response: BNFL has not submitted a Request for Equitable Adjustment for performing this investigation. However, the cost should be minimal, since it only involved a documentation/record search for proof of material purchased/installed. Since, no material use was identified, there will be no testing or replacement. If BNFL submits a Request for Equitable Adjustment (REA) for performing this investigation, it will be evaluated and dispositioned. All records relative to any REA and subsequent evaluation and disposition will be documented and filed within the DOE ORO Project files for future reference.

- 6.) Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.

Response: In the area of "Suspect and counterfeit (S/C) Item controls," BNFL, as part of their quality assurance program and procurement program, train the workers involved in procurement, quality assurance verification, and engineering to be aware of counterfeit item issues and apply that in specifying materials on engineering documents, ordering materials, and verifying documentation upon receipt, as part of the workers daily duties. This training is part of their general training of expectations for performing their assignments. BNFL does not have a specific training course for Suspect and counterfeit Item Controls.

DOE ORO has conducted training on this issue in the past seven years, because I took the training when I was a member of the old DOE ORO Project Management Division, but I am not aware of the official title.

An example of how the issue of suspect and counterfeit parts was applied on the project, and proof that it has already been applied was on the repair and upgrades of the building Bridge Cranes. During that repair by both BNFL and BJC, the issue of counterfeit bolts being utilized was applied. This was instituted as part of the repair program through discussions and planning activities involving DOE ORO, BNFL, BJC, and their subcontractors as a item that should be addressed. During inspection of the cranes, since they were so old, connections were inspected to assure that no counterfeit bolts were in place and replace them. This was a hold point on completing the crane repairs.

Jack L. Howard, DOE Project Manager/COR
ETTP Three-Bldg. D&D and Recycle Project

Attachment 2



DOE Contract No. DE-AC05-98OR22700
Job No. 23900
March 20, 2003

U. S. Department of Energy
Oak Ridge Operations Office
Post Office Box 2001
Oak Ridge, Tennessee 37831

Attention: Mr. Gerald G. Boyd, Contracting Officer's Representative
for Bechtel Jacobs Company LLC

Subject: Investigation of the Use of Improperly Heat-Treated Aluminum Supplied by Temperform
Company

Reference: Letter to Steven D. Liedle, Bechtel Jacobs Company LLC, President and General Manager from
Dennis L. Boggs, Alternate Contracting Officer's Representative dated March 6, 2003.

Dear Mr. Boyd:

This letter is to inform you that Bechtel Jacobs Company LLC (BJC) has concluded our investigation into the use of improperly heat-treated aluminum supplied by Temperform Company.

BJC Procurement organization performed a review of procurement records for the company since the inception of the contract with the Department of Energy. We were able to determine that no heat-treated aluminum material or components were purchased from Temperform or one of the companies distributing products manufactured using Temperform material attached to the reference letter.

In addition, our Contracts and Procurement organization performed an initial screening of BJC sub-contractors and eliminated those companies that would not have performed any tasks associated with the installation of aluminum components. Thirty-three (33) sub-contracts were identified as having the potential to have used heat-treated aluminum in tasks assigned to them. A questionnaire was sent to each of the potential contractors asking them to investigate this potential. In all cases, each sub-contractor certified that they had not procured or used heat-treated aluminum supplied by Temperform Company or the referenced list of suppliers.

As a result of this investigation, we have concluded that neither BJC nor our sub-contractors have procured or installed any heat-treated aluminum supplied by Temperform Company and that no further investigation into this matter is required.

The report documenting this review is available upon request. If there are any questions, please contact Gary Tippen at 241-1164 or Cindy Daugherty at 574-8248 of the Performance/Quality Assurance organization.

Sincerely,

Paul F. Clay
Vice President and Deputy General Manager

PFC:CED:tjv
LTR-PQA-020

03 MAR 20 PM 12:25

PO Box 4699 Oak Ridge, Tennessee 37831

Mr. Gerald G. Boyd
Page 2
March 20, 2003

- c:
- M. L. Allen
 - T. B. Allen, DOE-ORO
 - L. D. Boggs, DOE-ORO
 - R. J. Brown, DOE-ORO
 - P. C. Caswell
 - M. C. Clark, DOE-ORO
 - C. E. Daugherty
 - G. L. Dover
 - G. D. Drexel
 - J. H. Dunkirk
 - G. R. Eidam
 - R. D. Ferguson
 - C. E. Fryc
 - S. M. Houser
 - S. D. Liedle
 - R. E. Lynch
 - J. R. Lyons
 - M. L. McKee
 - B. C. Money
 - M. P. Noe, DOE-ORO
 - T. D. Noe, DOE-ORO
 - G. A. Parkhurst
 - R. Smyth, DOE-ORO
 - D. A. Stevenson
 - G. V. Tippens
 - EMEF - DMC
 - File - PFC

Vaughan, Larry

From: Smyth, Randy C [Smythrc@oro.doe.gov]
Sent: Friday, May 02, 2003 4:16 PM
To: Smyth, Randy C; 'Vaughan, Larry'; Smith, Mike C
Cc: Poe, Robert W
Subject: RE: ORO Response to the Temperform Investigation

Larry - Now that I read your 'entire' e-mail

For EM ORO BJC & BNFL:

Yes, we covered Ports and PAD

Yes, reviews covered 5/98 to current.

Yes, investigation covered all that you state.

Bottom line for us - none of our folks used, installed, or contracted for Temperform products or from their subs. Neither BJC nor BNFL estimated burden for investigation; neither indicated this was overly burdensome.

As I think Mike Smith told you, ORO had suspect parts, etc training in 2001.

If you need more in the short-term, let me know.

RS

-----Original Message-----

From: Smyth, Randy C
Sent: Friday, May 02, 2003 3:08 PM
To: 'Vaughan, Larry'; Smith, Mike C
Subject: RE: ORO Response to the Temperform Investigation

Yes - I'm sorry for the delay of a formal negative reply. OA is here, an ISMS pre-verif. was just completed, and we've had a variety of "issues" (Type B's, etc)

You will have a formal reply next week - PROMISE !

RS

-----Original Message-----

From: Vaughan, Larry [mailto:Larry.Vaughan@em.doe.gov]
Sent: Friday, May 02, 2003 3:00 PM
To: 'Smythrc@oro.doe.gov'; 'SmithMC@oro.doe.gov'
Subject: ORO Response to the Temperform Investigation

Randy & Mike,

We can we expect the ORO response on the Temperform Investigation???

Please make sure the response addresses:

- * Whether it covers Portsmouth and Paducah.
- * Procurement review covers May 1998 to present.
- * Investigation covers raw materials, parts, components and equipment.

ORO is the only one left that we have not received a formal response.

lv

Vaughan, Larry

From: Johnson, Sandra
Sent: Friday, March 21, 2003 11:10 AM
To: Vaughan, Larry
Subject: FW: Preliminary Response to the Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform

fyi

-----Original Message-----

From: Noe, Timothy D [mailto:NoeTD@oro.doe.gov]
Sent: Wednesday, March 19, 2003 8:25 AM
To: 'Sandra.Johnson@em.doe.gov'
Cc: Boggs, L Dennis; Smyth, Randy C
Subject: FW: Preliminary Response to the Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform

I am forwarding this to you for Randy Smyth.

-----Original Message-----

From: Daugherty, Cynthia E. (CED) [mailto:daughertyce@bechteljacobs.org]
Sent: Tuesday, March 18, 2003 6:03 PM
To: Boggs, Dennis (ORO_DOE)
Cc: Noe, Tim (ORO_DOE); Smyth, Randy (ORO_DOE); Daugherty, Cynthia E. (CED); Clay, Paul F. (O6P); Tippens, Gary V. (OF4); Stevenson, Dennis (O9N); Lyons, John R., II (L9Y)
Subject: Preliminary Response to the Investigation of the Use of Improperly Heat Treated Aluminum Supplied by Temperform

This is a preliminary notification to inform you that Bechtel Jacobs Company LLC has concluded our investigation into the use of improperly heat-treated aluminum supplied by Temperform Company. A final letter from Paul Clay now in preparation will follow.

The BJC Procurement organization performed a review of procurement records for the company since the inception of the contract with DOE. We were able to determine that no heat-treated aluminum material or components were purchased from Temperform or one of the companies distributing products manufactured using Temperform material attached to the reference letter. In addition, our Contracts and Procurement organizations performed an initial screening of BJC sub-contractors and eliminated those companies that would not have performed any tasks associated with the installation of aluminum components. Thirty-three (33) sub-contracts were identified as having the potential to have used heat-treated aluminum in tasks assigned to them. A questionnaire was sent to each of the potential contractors asking them to investigate this potential. In all cases, each sub-contractor certified that they had not procured or used heat-treated aluminum supplied by Temperform Company or the referenced list of suppliers.

As a result of this investigation, we have concluded that neither BJC nor our sub-contractors have procured or installed any heat-treated aluminum supplied by Temperform Company and that no further investigation into this matter is required.

The report documenting this review is available upon request. If there are any questions, please contact Gary Tippens at 241-1164 or Cindy Daugherty at 574-8248 of the Performance/Quality Assurance organization.

Cindy Daugherty

Phone (865) 574-8248
Pager (865) 873-7945
Fax (865) 574-5398

Vaughan, Larry

From: Smyth, Randy C [Smythrc@oro.doe.gov]
Sent: Monday, February 24, 2003 4:10 PM
To: 'Vaughan, Larry'
Cc: 'Johnson, Sandra'
Subject: FW: INVESTIGATION OF TEMPERFORM HEAT TREATED ALUMINUM

-----Original Message-----

From: Howard, Jack L
Sent: Friday, February 21, 2003 9:03 AM
To: Smyth, Randy C
Cc: Kelly, Larry C; Lang, Kimberly A; Brown, Robert J
Subject: FW: INVESTIGATION OF TEMPERFORM HEAT TREATED ALUMINUM

Randy: I had BNFL check into the use on the ETTP Three-Bldg. D&D and Recycle Project of the Temperform Heat Treated Aluminum material raised in your e-mail dated February 11, 2003. Your e-mail was in response to an EM-1 request for this information on the use of this material. Below is BNFL's response to me that they have not used this material and as a follow-up, Jeff Stevens, BNFL General Manager, has assured me that they will not utilize this material in the future as well. Do you need me to formally provide this information to you in a letter or is this good enough for now? Let me know. Thanks.

Jack L. Howard, DOE Project Manager/COR
ETTP Three-Building D&D and Recycle Project

-----Original Message-----

From: pwhittingham@bnfl-ettp.com [mailto:pwhittingham@bnfl-ettp.com]
Sent: Friday, February 21, 2003 8:29 AM
To: HowardJL@oro.doe.gov
Cc: jstevens@bnfl-ettp.com; mfindley@bnfl-ettp.com; RMiles@bnfl-ettp.com
Subject: INVESTIGATION OF TEMPERFORM HEAT TREATED ALUMINUM

In response to your request, the following information is provided regarding use of the subject firm. This information is being provided in an order and format consistent with that of your request to expedite your report preparation.

- 1). BNFL has not procured or used raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May 2002.
- 2). BNFL has not procured or used raw material that may have been heat treated, supplied or tested by Temperform from vendors/suppliers identified on the list attached to Jessie Hill Roberson's February 11 Memorandum, between May 1998 and May 2002.

If you need any additional information please contact the undersigned.

Paul Whittingham
865-241-0260

Bechtel Jacobs LLC
Performance/Quality Assurance Manager
K 1007, MS 7056
Oak Ridge, TN 37831-7056

Vaughan, Larry

From: Smyth, Randy C [Smythrc@oro.doe.gov]
Sent: Thursday, January 09, 2003 10:52 AM
To: 'Vaughan, Larry'
Subject: RE: Potential QA issue requiring your attention re: Temperform US A

I have deleted all related e-mails - don't keep stuff long, sorry.

Yes, I put the responsibility on the line Directors.

Fishing GREAT !!!!!!!!!!! Weather ain't too bad either.

Take care my friend.

RS

-----Original Message-----

From: Vaughan, Larry [mailto:Larry.Vaughan@em.doe.gov]
Sent: Thursday, January 09, 2003 10:23 AM
To: Smyth, Randy C
Subject: RE: Potential QA issue requiring your attention re: Temperform US A

Randy,

Is this your way of saying that ETPP did a search and did not find evidence of Temperform aluminum heat treated parts/products? Could you email or fax (202) 586-2974 me a copy of the November request the was sent out to all EM ORO Division Directors?

Nice hearing from you, hope all is well with you and your family. Have a great year of success. Oh, by the way - How is the fishing?

thanks
lv

-----Original Message-----

From: Smyth, Randy C [mailto:Smythrc@oro.doe.gov]
Sent: Wednesday, January 08, 2003 2:24 PM
To: 'Vaughan, Larry'; Smith, Mike C
Cc: Davis, Bobby J; Boyd, Gerald; Perez, Donna M; Morrow, Margaret K; Poe, Robert W
Subject: RE: Potential QA issue requiring your attention re: Temperform US A

Larry:

The incoming messages were forwarded to all EM ORO Division Directors back in November with a request for positive replies only.

No responses were or have been received and, accordingly, EM ORO has no experience with this vendor and the subject issue. This fact had already been communicated to the local ORO POC.

I trust this tables the inquiry.

RS (hope all is well w/ you at HQ)

-----Original Message-----

From: Vaughan, Larry [mailto:Larry.Vaughan@em.doe.gov]
Sent: Wednesday, January 08, 2003 2:16 PM
To: Smith, Mike C; Smyth, Randy C
Cc: Davis, Bobby J
Subject: RE: Potential QA issue requiring your attention re: Temperform US A

Gentlemen,

What the status of ETTP's response to this issue?? Please give me a call tomorrow morning, (202) 586-2523.

thanks
lv

-----Original Message-----

From: Smith, Mike C [mailto:SmithMC@oro.doe.gov]
Sent: Thursday, December 12, 2002 4:55 PM
To: Smyth, Randy C
Cc: Davis, Bobby J
Subject: FW: Potential QA issue requiring your attention re: Temperform US A

Randy,

Here's the information you asked for. What Larry Vaughn needs is this:

1. Have you procured anything directly from Temperform that is heat treated aluminum or has heat treated aluminum components?
2. Have you procured items from other vendors with heat treated aluminum components that might have been manufactured by Temperform?

Larry will be briefing the DNFSB at 2:00 p.m. Monday, December 15, 2002 and would like as much information on this subject as possible for that briefing.

My thanks in advance.

Mike

-----Original Message-----

From: Smyth, Randy C
Sent: Wednesday, November 27, 2002 11:29 AM
To: Smith, Mike C
Cc: Poe, Robert W; Monroe III, Harold J; Boyd, Gerald; Boggs, L Dennis
Subject: RE: Potential QA issue requiring your attention re: Temperform US A

Part of this message states this is not to be shared beyond Federal - the 'path forward' states that contractors should be involved. We can't do it both ways.

Since this is a QA Working Group activity, I would expect the EM HQ representative, Larry Vaughan, to formally solicit input via EM-1 if a 'data call' is truly merited.

I will not take any additional actions..

RS

-----Original Message-----

From: Smith, Mike C
Sent: Wednesday, November 27, 2002 11:22 AM
To: Smyth, Randy C
Subject: FW: Potential QA issue requiring your attention re: Temperform US A

Randy,

Here's the original message.

Mike

-----Original Message-----

From: Monroe III, Harold J
Sent: Wednesday, November 27, 2002 10:13 AM
To: Smith, Mike C
Subject: FW: Potential QA issue requiring your attention re: Temperform US A

FYI

-----Original Message-----

From: Monroe III, Harold J
Sent: Wednesday, November 20, 2002 12:27 PM
To: MANTHEY, G C.; Moore, John O (ORNL ADDRESS)
Cc: Branton, Michele
Subject: FW: Potential QA issue requiring your attention re: Temperform US A

George/Johnny,

Matt Cole requested I get this to you ASAP. He needs a reply.

Harold

-----Original Message-----

From: Cole, Matt [mailto:Matt.Cole@science.doe.gov]
Sent: Wednesday, November 20, 2002 9:23 AM
To: Monroe III, Harold J
Subject: FW: Potential QA issue requiring your attention re: Temperform US A

Hi Harold:

We're not sure if this message got to you. The DOE Quality Assurance Working Group is trying to see if any of our sites may have purchased aluminum parts that may have been improperly heat treated at this Temperform USA company. Could you let me know if you did receive this and if ORNL found anything? If you haven't received it, would you please pass it along to ORNL and ask if they could ascertain if they may have any parts from this company or its suppliers? Thanks.

Matt Cole

Office of Science ES&H Division

-----Original Message-----

From: Rotella, Thomas
Sent: Monday, July 29, 2002 4:59 PM
To: Pellegrino, Daniel (ALB); Ellenwood, Glen C. (ALB);
'mailto:bohrerha@id.doe.gov'; 'jacques.read@eh.doe.gov';
'mailto:jacques.read@eh.doe.gov'; Zweifel, Daniel (SRS);

'mailto:beausogl@id.doe.gov'; 'mailto:Charles_K_Kasch@rl.gov';
'mailto:bruce.garrow@srs.gov'; Zamuda, Craig;
'mailto:craig.zamuda@hq.doe.gov'; White, Alfred;
'mailto:alfred.white@hq.doe.gov'; Coblenz, Brenda;
'mailto:brenda.coblenz@hq.doe.gov'; Billups, Charles;
'mailto:charles.billups@science.doe.gov'; Sharpley, Chris;
'mailto:christopher.sharpley@hq.doe.gov'; Staffo, Gary; Richardson, Herb;
'mailto:herbert.richardson@hq.doe.gov'; Vaughan, Larry;
'mailto:Larry.Vaughan@EM.DOE.GOV'; Cole, Matt;
'mailto:matt.cole@science.doe.gov'; Gervas, Paul; Morrison, Paul;
'mailto:paul.morrison@dp.doe.gov'; Harlow, Scott;
'mailto:scott.harlow@hq.doe.gov'; 'mailto:aleivo@pantex.com'; Harlow, Scott;
'mailto:scott.harlow@hq.doe.gov'; Jamali, Kamiar;
'mailto:KAMIAR.JAMALI@nnsa.doe.gov'; Witmer, Fred;
'mailto:fred.witmer@nnsa.doe.gov'; Cowan, Gwendolyn;
'mailto:Gwendolyn.Cowan@hq.doe.gov'; Burkhardt, James;
'mailto:James.Burkhardt@nnsa.doe.gov'; Capshaw, Roy D. (ALB);
'david_h_doe_brown@rl.gov'; 'mailto:david_h_doe_brown@rl.gov'; Cordis,
Adeliza (OAK); 'mailto:adeliza.cordis@oak.doe.gov';
'mailto:gary.morgan@rf.doe.gov'; 'mailto:wayne.burch@rf.doe.gov';
'elver.robbins@rf.doe.gov'; 'mailto:elver.robbins@rf.doe.gov'; Crowe,
Richard; 'mailto:Richard.Crowe@nnsa.doe.gov'; Dever, Leah;
'mailto:leah.dever@science.doe.gov'; 'mailto:GlasmanMM@yao.doe.gov';
Slawski, James; 'mailto:JAMES.SLAWSKI@nnsa.doe.gov'; Chimah, Paul (ALB);
'mailto:vincent.grosso@srs.gov'; 'mailto:rick.green@eh.doe.gov'; Rodger, Ron
(ALB); Milam, Yvette; 'mailto:yvette.milam@hq.doe.gov'; Johnson, Sandra;
'mailto:Sandra.Johnson@em.doe.gov'; Nguyen, Van;
'mailto:van.nguyen@science.doe.gov'; Murray, Robert;
'mailto:robert.murray@em.doe.gov'; Hardwick, Raymond;
'mailto:Raymond.Hardwick@hq.doe.gov'; Morrow, Emil;
'mailto:Emil.Morrow@nnsa.doe.gov'; Erickson, Ralph;
'mailto:ralph.erickson@ns.doe.gov'; Barker, William;
'mailto:William.Barker@nnsa.doe.gov'; Miotla, Dennis;
'mailto:DENNIS.MIOTLA@nnsa.doe.gov'; Crandall, David;
'mailto:David.Crandall@nnsa.doe.gov'; Lewis, Roger;
'mailto:ROGER.LEWIS@nnsa.doe.gov'; Beck, David;
'mailto:David.Beck@nnsa.doe.gov'; Landers, James;
'mailto:JAMES.LANDERS@nnsa.doe.gov'; Hensley, Willie;
'mailto:Willie.Hensley@nnsa.doe.gov'; 'Pat.Worthington@OA.doe.gov';
'mailto:Pat.Worthington@OA.doe.gov'; 'james.jeffries@rf.doe.gov';
'mailto:james.jeffries@rf.doe.gov'; 'Burton_E_Burt_Hill@rl.gov';
'mailto:Burton_E_Burt_Hill@rl.gov'; 'mailto:John_D_Long@rl.gov'; Gears,
Gerald; 'mailto:Gerald.Gears@nnsa.doe.gov'; Stadler, David;
'mailto:David.Stadler@eh.doe.gov'; McCabe, Larry;
'mailto:Larry.McCabe@hq.doe.gov'; 'Charles.Campbell@oa.doe.gov';
'mailto:Charles.Campbell@oa.doe.gov'; Russo, Frank; Snell, Jim; Scott,
Randal; 'mailto:randal.scott@em.doe.gov'; Johnson, Milton;
'mailto:MILTON.JOHNSON@science.doe.gov'; Turi, James;
'mailto:JAMES.TURI@science.doe.gov'; Matarrese, Mark;
'mailto:Mark.Matarrese@hq.doe.gov'; Klee, Carl; Tourigny, Edmond;
'mailto:EDMOND.TOURIGNY@hq.doe.gov'; 'mailto:dick_spence@ymp.gov'; Bryant,
William D (ALB); Christensen, Deborah (ISRDL) (ALB);
'mailto:dschristensen@DOEAL.GOV'; 'mailto:lkirkman@DOEAL.GOV';
'mailto:Justin.zamirowski@ch.doe.gov'; 'mailto:Justin.zamirowski@ch.doe.gov';
'mailto:CRESCENZ@BNL.GOV'; 'mailto:greg_collette@nrel.gov';
'mailto:BEIDELDL@ID.DOE.GOV'; Rush, Thomas (ALB); Nolan, Dick; Muhlestein,
John; 'mailto:john.muhlestein@oak.doe.gov'; Osugi, Dave (OAK);
'mailto:krivera@lbl.gov'; 'mailto:nat.brown@ohio.doe.gov'; Claverie, Ron
(OAK); 'mailto:ron.claverie@oak.doe.gov'; Yee, Danny (OAK);
'mailto:monroehj@oro.doe.gov'; 'mailto:PoerW@oro.doe.gov'
Cc: Winter, James; Crowe, Richard; Mangeno, James; Hardwick, Raymond;
'ricks@dnfsb.gov'; Green, Rick; Guidice, Carl; Ascanio, Xavier; Miotla,
Dennis; Cole, Matt; Danielson, Bud; Vaughan, Larry; Milam, Yvette
Subject: Potential QA issue requiring your attention re: Temperform USA

Attention DOE/NNSA QA Professionals:

The MS-Word and pdf file documents attached below are being transmitted to Federal Employees only. They are for Official Use Only and are not to be provided to our Contractors. The information provided in part, it is part of an on-going Defense Criminal Investigative Service (DCIS) investigation.

It may not be distributed to Non-federal employees without permission from the DCIS (see the GIDEP Alert below for the POC). The DOE Inspector General's Office has been provided this information and is currently evaluating appropriate actions. The situation we have can be summarized as follows:

A company called Temperform (much like West Coast Aluminum, as you may recall) has allegedly been selling improperly heat treated aluminum alloy with false certifications to government Agencies and their contractors. The partial list of known programs affected is unbelievable in scope and is summarized at the end of the document according to agency/military service and Program/Platform. Neither DOE/NNSA nor our Programs do not appear on this list. However, the vendor/customer list from Temperform is large and our labs and/or M&O contractors may have bought non-conforming aluminum alloy materials from one of them. As you may recall, this was the case last time as BNL reported 900+ related Purchase Orders had to be evaluated as well as certain support devices at Pantex. Unfortunately, the list attached is exhaustive and will require the U.S. Military and other agencies to spend millions of dollars checking flight critical hardware, etc. In summary, we need your help in attempting to identify the extent to which the DOE/NNSA may be impacted if at all.

Suggested path forward:

1) Request information from DOE/NNSA M&O contractors (including their subs) to determine if any weapons systems, support devices or any other Programs have had parts or raw material that may have been heat treated, material supplied or tested by Temperform between 1998 and May 2002.

2) If you discover that your contractors have had parts or materials heat treated or tested at Temperform:

a) Determine whether these parts are installed in any sort of system performing a safety function (i.e., vital safety system); or, if they are intended for use in a safety system but are still in inventory. If you do discover parts in safety applications, please estimate any program impact, if possible (The IG can attempt recovery of costs via legal avenues, DCIS, etc.) Obviously, we can either evaluate and qualify them as items that can be left in place (in situ as is, for whatever appropriate technical reason), or we change them out on a scheduled maintenance, etc.

b) The procurement and use of these nonconforming parts or materials for non-safety related systems is of lesser concern, but if you discover parts/materials in these applications, we would like to collect that information as well. Tracking of the use of nonconforming or suspect parts may be an issue because these can and have later ended up in safety applications.

Information collected should include the contractor/supplier by site/contractor/vendor for type and quantity. Other information such as part or model number and application at the site may be of use to others in the complex.

Please electronically transmit this information by COB August 19, 2002 to Tom Rotella, NA-53, QAWG Chairman, thomas.rotella@nnsa.doe.gov <<mailto:thomas.rotella@nnsa.doe.gov>> (301-903-2649) or Matt Cole, SC, QAWG Vice-Chairman, at colem@sc.doe.gov <<mailto:colem@sc.doe.gov>> (301-903-8388). If you should have any questions regarding this request, please contact either of us at our GTN phone numbers above. If you should need additional technical information regarding the GIDEP Alert, please contact Mr. Fred Cosby, DCIS, 909-726-6809.

Vaughan, Larry

From: Smith, Mike C [SmithMC@oro.doe.gov]
Sent: Thursday, December 12, 2002 4:55 PM
To: Smyth, Randy C
Cc: Davis, Bobby J
Subject: FW: Potential QA issue requiring your attention re: Temperform US A

Randy,

Here's the information you asked for. What Larry Vaughn needs is this:

1. Have you procured anything directly from Temperform that is heat treated aluminum or has heat treated aluminum components?
2. Have you procured items from other vendors with heat treated aluminum components that might have been manufactured by Temperform?

Larry will be briefing the DNFSB at 2:00 p.m. Monday, December 15, 2002 and would like as much information on this subject as possible for that briefing.

My thanks in advance.

Mike

-----Original Message-----

From: Smyth, Randy C
Sent: Wednesday, November 27, 2002 11:29 AM
To: Smith, Mike C
Cc: Poe, Robert W; Monroe III, Harold J; Boyd, Gerald; Boggs, L Dennis
Subject: RE: Potential QA issue requiring your attention re: Temperform US A

Part of this message states this is not to be shared beyond Federal - the 'path forward' states that contractors should be involved. We can't do it both ways.

Since this is a QA Working Group activity, I would expect the EM HQ representative, Larry Vaughan, to formally solicit input via EM-1 if a 'data call' is truly merited.

I will not take any additional actions..

RS

-----Original Message-----

From: Smith, Mike C
Sent: Wednesday, November 27, 2002 11:22 AM
To: Smyth, Randy C
Subject: FW: Potential QA issue requiring your attention re: Temperform US A

Randy,

Here's the original message.

Mike

-----Original Message-----

From: Monroe III, Harold J

Sent: Wednesday, November 27, 2002 10:13 AM
To: Smith, Mike C
Subject: FW: Potential QA issue requiring your attention re: Temperform US A

FYI

-----Original Message-----

From: Monroe III, Harold J
Sent: Wednesday, November 20, 2002 12:27 PM
To: MANTHEY, G C.; Moore, John O (ORNL ADDRESS)
Cc: Branton, Michele
Subject: FW: Potential QA issue requiring your attention re: Temperform US A

George/Johnny,
Matt Cole requested I get this to you ASAP. He needs a reply.
Harold

-----Original Message-----

From: Cole, Matt [mailto:Matt.Cole@science.doe.gov]
Sent: Wednesday, November 20, 2002 9:23 AM
To: Monroe III, Harold J
Subject: FW: Potential QA issue requiring your attention re: Temperform US A

Hi Harold:

We're not sure if this message got to you. The DOE Quality Assurance Working Group is trying to see if any of our sites may have purchased aluminum parts that may have been improperly heat treated at this Temperform USA company. Could you let me know if you did receive this and if ORNL found anything? If you haven't received it, would you please pass it along to ORNL and ask if they could ascertain if they may have any parts from this company or its suppliers? Thanks.

Matt Cole
Office of Science ES&H Division

-----Original Message-----

From: Rotella, Thomas
Sent: Monday, July 29, 2002 4:59 PM
To: Pellegrino, Daniel (ALB); Ellenwood, Glen C. (ALB); 'mailto:bohrrerha@id.doe.gov'; 'jacques.read@eh.doe.gov'; 'mailto:jacques.read@eh.doe.gov'; Zweifel, Daniel (SRS); 'mailto:beausogl@id.doe.gov'; 'mailto:Charles_K_Kasch@rl.gov'; 'mailto:bruce.garrow@srs.gov'; Zamuda, Craig; 'mailto:craig.zamuda@hq.doe.gov'; White, Alfred; 'mailto:alfred.white@hq.doe.gov'; Coblantz, Brenda; 'mailto:brenda.coblantz@hq.doe.gov'; Billups, Charles; 'mailto:charles.billups@science.doe.gov'; Sharpley, Chris; 'mailto:christopher.sharpley@hq.doe.gov'; Staffo, Gary; Richardson, Herb; 'mailto:herbert.richardson@hq.doe.gov'; Vaughan, Larry; 'mailto:Larry.Vaughan@EM.DOE.GOV'; Cole, Matt; 'mailto:matt.cole@science.doe.gov'; Gervas, Paul; Morrison, Paul; 'mailto:paul.morrison@dp.doe.gov'; Harlow, Scott; 'mailto:scott.harlow@hq.doe.gov'; 'mailto:aleivo@pantex.com'; Harlow, Scott; 'mailto:scott.harlow@hq.doe.gov'; Jamali, Kamiar; 'mailto:KAMIAR.JAMALI@nnsa.doe.gov'; Witmer, Fred; 'mailto:fred.witmer@nnsa.doe.gov'; Cowan, Gwendolyn; 'mailto:Gwendolyn.Cowan@hq.doe.gov'; Burkhardt, James; 'mailto:James.Burkhardt@nnsa.doe.gov'; Capshaw, Roy D. (ALB); 'david_h_doe_brown@rl.gov'; 'mailto:david_h_doe_brown@rl.gov'; Cordis, Adeliza (OAK); 'mailto:adeliza.cordis@oak.doe.gov'; 'mailto:gary.morgan@rf.doe.gov'; 'mailto:wayne.burch@rf.doe.gov'; 'elver.robbs@rf.doe.gov'; 'mailto:elver.robbs@rf.doe.gov'; Crowe, Richard; 'mailto:Richard.Crowe@nnsa.doe.gov'; Dever, Leah; 'mailto:leah.dever@science.doe.gov'; 'mailto:GlasmanMM@yao.doe.gov'; Slawski, James; 'mailto:JAMES.SLAWSKI@nnsa.doe.gov'; Chimah, Paul (ALB); 'mailto:vincent.grosso@srs.gov'; 'mailto:rick.green@eh.doe.gov'; Rodger, Ron (ALB); Milam, Yvette; 'mailto:yvette.milam@hq.doe.gov'; Johnson, Sandra; 'mailto:Sandra.Johnson@em.doe.gov'; Nguyen, Van; 'mailto:van.nguyen@science.doe.gov'; Murray, Robert; 'mailto:robert.murray@em.doe.gov'; Hardwick, Raymond; 'mailto:Raymond.Hardwick@hq.doe.gov'; Morrow, Emil;

'mailto:Emil.Morrow@nnsa.doe.gov'; Erickson, Ralph; 'mailto:ralph.erickson@ns.doe.gov'; Barker, William; 'mailto:William.Barker@nnsa.doe.gov'; Miotla, Dennis; 'mailto:DENNIS.MIOTLA@nnsa.doe.gov'; Crandall, David; 'mailto:David.Crandall@nnsa.doe.gov'; Lewis, Roger; 'mailto:ROGER.LEWIS@nnsa.doe.gov'; Beck, David; 'mailto:David.Beck@nnsa.doe.gov'; Landers, James; 'mailto:JAMES.LANDERS@nnsa.doe.gov'; Hensley, Willie; 'mailto:Willie.Hensley@nnsa.doe.gov'; 'Pat.Worthington@OA.doe.gov'; 'mailto:Pat.Worthington@OA.doe.gov'; 'james.jeffries@rf.doe.gov'; 'mailto:james.jeffries@rf.doe.gov'; 'Burton_E_Burt_Hill@rl.gov'; 'mailto:Burton_E_Burt_Hill@rl.gov'; 'mailto:John_D_Long@rl.gov'; Gears, Gerald; 'mailto:Gerald.Gears@nnsa.doe.gov'; Stadler, David; 'mailto:David.Stadler@eh.doe.gov'; McCabe, Larry; 'mailto:Larry.McCabe@hq.doe.gov'; 'Charles.Campbell@oa.doe.gov'; 'mailto:Charles.Campbell@oa.doe.gov'; Russo, Frank; Snell, Jim; Scott, Randal; 'mailto:randal.scott@em.doe.gov'; Johnson, Milton; 'mailto:MILTON.JOHNSON@science.doe.gov'; Turi, James; 'mailto:JAMES.TURI@science.doe.gov'; Matarrese, Mark; 'mailto:Mark.Matarrese@hq.doe.gov'; Klee, Carl; Tourigny, Edmond; 'mailto:EDMOND.TOURIGNY@hq.doe.gov'; 'mailto:dick_spence@ymp.gov'; Bryant, William D (ALB); Christensen, Deborah (ISRDL) (ALB); 'mailto:dschristensen@DOEAL.GOV'; 'mailto:lkirkman@DOEAL.GOV'; 'Justin.zamirowski@ch.doe.gov'; 'mailto:Justin.zamirowski@ch.doe.gov'; 'mailto:CRESCENZ@BNL.GOV'; 'mailto:greg_collette@nrel.gov'; 'mailto:BEIDELDL@ID.DOE.GOV'; Rush, Thomas (ALB); Nolan, Dick; Muhlestein, John; 'mailto:john.muhlestein@oak.doe.gov'; Osugi, Dave (OAK); 'mailto:krivera@lbl.gov'; 'mailto:nat.brown@ohio.doe.gov'; Claverie, Ron (OAK); 'mailto:ron.claverie@oak.doe.gov'; Yee, Danny (OAK); 'mailto:monroehj@oro.doe.gov'; 'mailto:PoeRW@oro.doe.gov'

Cc: Winter, James; Crowe, Richard; Mangeno, James; Hardwick, Raymond; 'ricks@dnfsb.gov'; Green, Rick; Guidice, Carl; Ascanio, Xavier; Miotla, Dennis; Cole, Matt; Danielson, Bud; Vaughan, Larry; Milam, Yvette

Subject: Potential QA issue requiring your attention re: Temperform USA

Attention DOE/NNSA QA Professionals:

The MS-Word and pdf file documents attached below are being transmitted to **Federal Employees only**. They are for **Official Use Only** and are not to be provided to our Contractors. The information provided in part, it is part of an on-going Defense Criminal Investigative Service (DCIS) investigation. It may not be distributed to Non-federal employees without permission from the DCIS (see the GIDEP Alert below for the POC). The DOE Inspector General's Office has been provided this information and is currently evaluating appropriate actions. The situation we have can be summarized as follows:

A company called Temperform (much like West Coast Aluminum, as you may recall) has allegedly been selling improperly heat treated aluminum alloy with false certifications to government Agencies and their contractors. The partial list of known programs affected is unbelievable in scope and is summarized at the end of the document according to agency/military service and Program/Platform. Neither DOE/NNSA nor our Programs do not appear on this list. However, the vendor/customer list from Temperform is large and our labs and/or M&O contractors may have bought non-conforming aluminum alloy materials from one of them. As you may recall, this was the case last time as BNL reported 900+ related Purchase Orders had to be evaluated as well as certain support devices at Pantex. Unfortunately, the list attached is exhaustive and will require the U.S. Military and other agencies to spend millions of dollars checking flight critical hardware, etc. In summary, we need your help in attempting to identify the extent to which the DOE/NNSA may be impacted if at all.

Suggested path forward:

1) Request information from DOE/NNSA M&O contractors (including their subs) to determine if any weapons systems, support devices or any other Programs have had parts or raw material that may have been heat treated, material supplied or tested by **Temperform** between 1998 and May 2002.

2) If you discover that your contractors have had parts or materials heat treated or tested at Temperform:

a) Determine whether these parts are installed in any sort of system performing a safety function (i.e., vital safety system); or, if they are intended for use in a safety system but are still in inventory. If you do discover parts in safety applications, please estimate any program impact, if possible (The IG can attempt recovery of costs via legal avenues, DCIS, etc.) Obviously, we can either evaluate and qualify them as items that can be left in place (in situ as is, for whatever appropriate technical reason), or we change them out on a scheduled maintenance, etc.

b) The procurement and use of these nonconforming parts or materials for non-safety related systems is of lesser concern, but if you discover parts/materials in these applications, we would like to collect that information as well. Tracking of the use of nonconforming or suspect parts may be an issue because these can and have later ended up in safety applications.

Information collected should include the contractor/supplier by site/contractor/vendor for type and quantity. Other information such as part or model number and application at the site may be of use to others in the complex.

Please electronically transmit this information by COB August 19, 2002 to Tom Rotella, NA-53, QAWG Chairman, thomas.rotella@nnsa.doe.gov (301-903-2649) or Matt Cole, SC, QAWG Vice-Chairman, at colem@sc.doe.gov (301-903-8388). If you should have any questions regarding this request, please contact either of us at our GTN phone numbers above. If you should need additional technical information regarding the GIDEP Alert, please contact Mr. Fred Cosby, DCIS, 909-726-6809.

SEPARATION

PAGE

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APPENDIX 2 - NNSA Field
Reports on Temperform

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DNF SAFETY BOARD



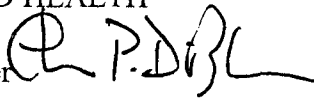
Department of Energy
National Nuclear Security Administration
Washington, DC 20585

June 2, 2003

RECEIVED
2003 AUG 26 AM 8:42
DNF SAFETY BOARD

MEMORANDUM FOR THE ASSISTANT SECRETARY FOR ENVIRONMENT,
SAFETY AND HEALTH

FROM:

For Everet H. Beckner 
Deputy Administrator
for Defense Programs

SUBJECT:

INFORMATION: Defense Programs Final Report on the
Investigation of Use of Improperly Heat-Treated Aluminum
Supplied by Temperform

This memorandum transmits the Defense Programs final report on the investigation of the use of improperly heat-treated aluminum materials/parts, components, or equipment supplied by Temperform USA or Temperform USA vendors in safety-related or mission-sensitive applications. In response to my memorandum of April 4, 2003, our eight sites have conducted thorough investigations and provided detailed reports. The investigations identified that some materials and parts had been procured from Temperform USA or Temperform USA vendors. However, these investigations confirmed that these materials/parts were not used in any safety-related or mission-sensitive application at any site.

Our final report is attached that includes the status of investigations and a summary table. The site specific reports are also attached. The attached information has been previously provided to Raymond Harwick of your staff.

If you have any questions or need further assistance, please contact Xavier Ascanio at 3-3757.

Attachments



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63

**NATIONAL NUCLEAR SECURITY ADMINISTRATION
STATUS OF TEMPERFORM INVESTIGATION**

BACKGROUND

In a memorandum, dated April 4, 2003, Dr. Everet H. Beckner, Deputy Administrator for Defense Programs and C.S. Przybylek, Chief Operating Officer requested the NNSA Site Managers to investigate whether aluminum parts supplied by Temperform USA were in use in safety-related or mission-sensitive applications. The investigations were to be conducted based on the lines of inquiry of Attachment 1 and the results reported within 30 days.

STATUS

The eight NNSA sites have completed their investigations and provided written reports. Copies of the site-specific reports are provided in Attachment 2 and the results of the investigations are summarized in Attachment 3.

CONCLUSION

The investigations identified some materials and parts procured from Temperform or vendors listed in Attachment 4. However, the investigations confirmed that these materials/parts were not used in any safety-related or mission-sensitive application at any site.

Based on the results of these investigations, Defense Programs considers the Temperform issue resolved and plans no further action. However, Defense Programs remains committed to improve Quality Assurance including suspect/counterfeit parts program in the Nuclear Weapons Complex in an expeditious manner.

Attachments

Temperform USA Lines of Inquiry

The investigation should address the following lines of inquiry to determine if your site has procured and/or used heat-treated aluminum materials/parts, components, or equipment supplied by Temperform USA or Temperform USA vendors.

- 1) Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated, supplied, or tested by Temperform USA after May 1998?
- 2) Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated, supplied, or tested by Temperform USA from vendors/suppliers identified on Attachment 2 after May 1998?
- 3) If materials/parts, components or equipment heat-treated, supplied or tested by Temperform or Temperform vendors were procured, were they identified as nonconforming and either removed or technically justified for use?
- 4) If you discover that site contractor(s) (or subcontractors) have or use material/parts, components, or equipment heat-treated, supplied, or tested by Temperform USA or Temperform USA vendors:
 - a) Determine whether these materials/parts, components or equipment are installed in any system performing a safety function (i.e., safety class or safety significant system), or if they are intended for use in a safety system but are still in inventory; or if installed or intended for use in mission-sensitive application. If you discover parts in safety systems, please perform an engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance, and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.
 - b) Collect and track information on procurement and use of Temperform USA materials/parts, components or equipment for non-safety related systems or other mission-sensitive applications. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety and other applications.
- 5) Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information, such as part number or model number and application/systems, may be useful information to share with other Department of Energy (DOE) sites.
- 6) Determine the cost associated with this investigation. The Office of the Inspector General will attempt to recover the cost associated with the investigation. The cost

should be broken into categories: total cost for man hours, total cost for disposition of material (i.e., replacement cost, scrap cost, etc.), total cost for travel (if any), and total cost for testing (if any). Backup documentation is not necessary to be submitted, but should be maintained by your respective sites in case the costs are changed later.

- 7) Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.

APPENDIX TWO

**NATIONAL NUCLEAR SECURITY ADMINISTRATION FIELD
REPORTS ON TEMPERFORM**



Department of Energy
National Nuclear Security Administration
Livermore Site Office
PO Box 808, L-293
7000 East Avenue
Livermore, California 94561-0808

MAY 5 2003

MEMORANDUM FOR DR. EVERET H. BECKNER
DEPUTY ADMINISTRATOR FOR DEFENSE PROGRAMS

FROM:

Camille Yuan-Soo Hoo
CAMILLE YUAN-SOO HOO, MANAGER

SUBJECT:

Investigation of the Use of Improperly Heat Treated Aluminum
supplied by Temperform USA

The Temperform Company is currently under investigation for improperly heat-treating aluminum materials/parts between May 1998 and May 2002. An investigation was performed by Lawrence Livermore National Laboratory (LLNL) and their sub-contractors to determine if the laboratory had procured and/or used heat-treated aluminum materials/parts or equipment supplied by Temperform or Temperform customers/vendors from May 1998 to the present. The results of this investigation were provided to you in a memorandum, dated March 3, 2003.

On April 4, 2003, additional information regarding the same subject was formally requested (Lines of Inquiry for Items Nos. 4) b), 6) and 7)). An additional investigation was performed and the following was determined:

- 4) b) LLNL has a Procurement and Materiel tracking system called Purchasing And Receiving Information System (PARIS) that allows tracking of all purchased and received items regardless of end use application.
- 6) Man-hours associated with this investigation are estimated to be 85 man-hours for LLNL and 40 man-hours for LSO.
- 7) LLNL has conducted training for Suspect and Counterfeit (S/C) Parts per DOE Order 440.1A in March 2001 and has scheduled refresher training for May 6, 2003. LSO has not conducted separate training in S/C parts, but attends the LLNL training as appropriate.

Attached is a copy of the previous memorandum, dated March 3, 2003, same subject, for your reference. Should you have any questions, please contact Steve Lasell at (925) 423-3778 or Adeliza Cordis at (925) 422-9585.

Attachment: Copy Memo to Dr. E. H. Beckner, dated March 3, 2003



Department of Energy
National Nuclear Security Administration
Livermore Site Office
PO Box 808, L-293
7000 East Avenue
Livermore, California 94551-0808

MAR 03 2003

MEMORANDUM FOR DR. EVERET H. BECKNER
DEPUTY ADMINISTRATOR FOR DEFENSE PROGRAMS

FROM:

Camille Yuan-Soo Hoo
CAMILLE YUAN-SOO HOO, MANAGER
LIVERMORE SITE OFFICE

SUBJECT:

Investigation of the Use of Improperly Heat Treated Aluminum
supplied by Temperform Company

The Temperform Company is currently under investigation for improperly heat-treating aluminum materials/parts between May 1998 and May 2002. An investigation was performed by Lawrence Livermore National Laboratory (LLNL) and their sub-contractors to determine if the laboratory had procured and/or used heat-treated aluminum materials/parts or equipment supplied by Temperform or Temperform customers/vendors.

The investigation (see attachment for specific results) determined that LLNL has done business with nine (9) of the businesses on the Temperform customer list. Of the nine only one supplier, Dynamic Enterprises, Inc. of Santa Fe Springs, CA, has provided aluminum fabrications (for the National Ignition Facility (NIF)) to the laboratory within the last four years. It was further determined that Dynamic Enterprises has not used Temperform for any parts that have been supplied to LLNL. It should be noted that none of the supplied components required heat-treatment or were used in a safety related application. While LLNL has not purchased any material that may have been heat-treated or processed in any form by Temperform, USA or by West Coast Heat Treating Company, it can not be determined if some material processed by Temperform may be embedded in a commercial component which was purchased by LLNL or a subcontractor through distribution channels. LLNL issued a lessons learned (LL-2003-LLNL-03) concerning Temperform to make sure that all Lab employees were alerted to the specific issues.

Should you have any questions or comments, please contact Steve Lasell at (925) 423-3778 or Adeliza Cordis at (925) 422-9585.

Attachment

Dr. Everet H. Beckner

-2-

cc: (w/attachment)
P. Hill, LSOD
S. Johnson, EM-5
LSOD Rdg. File
LSO Copy
File Code

Mail Station L-650

Ext: 3-1210



20 February 2003

MEMORANDUM

To: Adeliza Cordis, USDOE/NNSA-LSO
From: Gary Ream, Procurement and Material Quality Engineer, LLNL
Subject: Temperform USA (AKA West Coast Heat Treating Company)

Background

On 19 February 2003 I received a faxed request from Adeliza Cordis, USDOE/NNSA which had enclosed a request from the Assistant Secretary for Environmental Management (USDOE-HQ) to investigate the following:

1. Has Lawrence Livermore National Laboratory (including our subcontractors) procured or used raw material that may have been heat treated, supplied or tested by Temperform between May 1998 and May 2002?

Answer: No.

2. Has Lawrence Livermore National Laboratory (including our subcontractors) procured or used raw material that may have been heat treated, supplied or tested by Temperform from vendors/suppliers identified on the attached list, between May 1998 and May 2002?

Answer: No.

3. If it is discovered that Lawrence Livermore National Laboratory (including our subcontractors) have or used materials/parts or equipment heat treated, supplied, or tested by Temperform or Temperform vendors (sic) [*this should read customers not vendors*]

- a. Determine whether these parts are installed in any system performing a safety function (i.e. safety class or safety significant system); or if they are intended for use in a safety system but are still in inventory. If you do discover parts in safety systems, please perform engineering evaluation to determine any reliability impact, if possible remove these items from service immediately or during regular scheduled maintenance and perform an engineering evaluation to quality items that can be left in place, including technical justification for doing so.

Answer: N/A see answers to questions 1 & 2.

University of California



Name Gary Ream
Date 2/20/2003
Page 2

- b. Collect and track information on procurement and use of Temperform parts or materials for non-safety related systems. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety applications.

Answer: N/A see answers to questions 1 & 2.

4. Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information such as part number or model number and application/system may be useful information to share with other Department of Energy (DOE) sites.

Answer: See list of suppliers following.

5. Determine the costs associated with this investigation. The Office of Inspector General will attempt to recover the cost associated with the investigation. The costs should be broken into categories; total cost for man-hours; total cost for disposition of material (i.e., replacement cost, scrap cost etc.); total cost for travel (if any) and total cost for testing (if any). Backup documentation is not necessary to be submitted, but should be maintained by your respective sites in case the costs are challenged later.

Answer: Cost data is available and will be submitted to the Inspector General upon request.

6. Identify training provided by the DOE and Lawrence Livermore National Laboratory to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.

Answer: LLNL ES&H Manual Volume IV, Part 41, document 41.3 covers Suspect/Counterfeit Item training at Lawrence Livermore National Laboratory.

Discussion

The results of my investigation are as follows:

1. Lawrence Livermore has done business with 9 of the businesses on the Temperform customer list.
2. None of the suppliers, with one exception has ever provided aluminum fabrications to LLNL. The exception is Dynamic Enterprises, Inc. of Santa Fe Springs, CA.
3. With one exception, we have not used any of those suppliers for at least 4 years. The exception is Dynamic Enterprises, Inc. of Santa Fe Springs, CA.
4. Dynamic Enterprises, Inc. is fabricating components for the National Ignition Facility. The senior subcontract administrator at NIF and I called Dynamic Enterprises. The owner assures us that he has not used Temperform (or West Coast Aluminum Heat Treating) for any parts he has produced for LLNL or NIF. He further assured us that he has not used Temperform for any parts for at least 4 years. We also verified that none of the components Dynamic Enterprises manufactures for NIF require heat treating, nor are they used in a safety related application. Review of the purchases orders to Dynamic Enterprises confirms that the Suspect/Counterfeit Items requirements were included, and in most cases NIF quality assurance personnel source inspected the items at the supplier's facility prior to shipment. The inspections included review of all material test reports as required by the purchase order and design specifications.

The supplier databases searched included purchase orders, subcontracts and credit card purchases made by all directorates over the last 10 years.

Name Gary Ream
 Date 2/20/2003
 Page 3

The list of supplier matches, their location, and when they were last used by LLNL is as follows:

LLNL

Supplier

<u>Number</u>	<u>Supplier Name</u>	<u>Supplier Location</u>	<u>Last Used (Used For)</u>
59238	Allied Signal	Phoenix, AZ	1998 (Test Only)
61091	Boeing Company	Renton, WA	1998 (Test and Cal)
44035	Coast Aluminum	Hayward, CA	1997 (Aluminum Bar/Plate)
16567	Coulter Steel	Emeryville, CA	1996 (Steel Sheet)
59790	Dynamic Enterprises	Santa Fe Springs, CA	Currently being used by NIF
2552	Ling Electronics	Anahcim, CA	1998 (Rework only)
54052	Process Fab, Inc.	Santa Fe Springs, CA	1998 (Rework only)
60588	Square Tool	South El Monte, CA	No Activity
49434	University Corp.	Boulder, CO	1995

Conclusion

We can report to DOE-HQ, with very high confidence, that we have not purchased any material that may have been heat treated or processed in any form by Temperform, USA or by West Coast Heat Treating Company. We cannot assure DOE-HQ that some material processed by Temperform is not embedded in a commercial component which was purchased by LLNL or a subcontractor through distribution channels. We would rely on a manufacturer to issue recalls or alerts for these types of products. To date we have not received any recalls or product alerts regarding suspected commercial items containing Temperform processed materials. LLNL issued a lessons learned (LL-2003-LLNL-03) concerning Temperform to make sure that all Lab employees were alerted to the specific issues.

Cc

John Palmer, LLNL Quality Assurance Manager
 Eloise Moffet, LLNL Deputy for Subcontracts, Procurement and Materiel
 Robert Schumacher, LLNL Deputy for Operations, Procurement and Materiel

MAY -01' 03 (THU) 11:09

U. S. DOE KAO/SCBM

TEL:505 845 4915

P. 002

FORM 1320-A

United States Government

Department of Energy
National Nuclear Security Administration
Sandia Site Office

memorandum

DATE: MAY 1 2003
REPLY TO:
ATTN OF: SSO:PQA:DGP
SUBJECT: Investigation of the Use of Improperly Heat-Treated Aluminum Parts Supplied by Temperform USA

TO: Everett H. Beckner, Deputy Administrator for Defense Programs, NA-10, NNSA
Charles S. Przybylak, Chief Operating Officer, NA-1, NNSA

The Sandia Site Office (SSO) and Sandia National Laboratories (SNL) have completed the investigation using the lines of inquiry provided in your memo of April 4, 2003. The results of the investigation are attached.

The man-hours associated with the investigation for NNSA is approximately 40 man-hours for the Service Center and approximately 20 man-hours for the SSO. There was no cost incurred for disposition of material, travel, or testing.

If you have any questions or need additional information, please contact Dan Pellegrino at 845-5398.

Karen L. Boardman
Karen L. Boardman
Manager

Attachment

cc w/attachment:
R. Singh, NA-124, HQ
X. Arcanio, NA-124, HQ
T. Rotella, NA-53, HQ
P. China, ESHD, DOE/AL
B. Fleming, 10262/MS 1120, SNL/NM
K. Zamora, O&A, SSO/NNSA
B. Mullen, NF, SSO/NNSA
M. Hamilton, NF, SSO/NNSA

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U. S. DOE KAO/SCBM

TEL: 505 845 4915

P. 003

**Sandia National Laboratories**

Energy by

Operating for the U.S. Department of

Sandia CorporationP.O. Box 8009
Albuquerque, NM 87185-1120Phone: (505) 845-9988
Fax: (505) 844-8818
Internet: sandia@snl.govName: Betty Fleming
Title: Quality Assurance Specialist

April 24, 2003

Paul Chimah, ESHD
U.S. Department of Energy
NNSA
P.O. Box 5400
Albuquerque, NM 87185-5400

Subject: Temperform USA of La Mirada, CA

Dear Mr. Chimah:

This is in response to the memorandum dated April 4, 2003 from Everett H. Beckner, Deputy Administrator for Defense Programs, regarding the investigation of the use of improperly heat-treated aluminum parts supplied by Temperform, USA. Sandia National Laboratories (SNL) has made a determination on whether or not SNL has procured items from Temperform USA or any vendors that had parts processed at Temperform and/or were approved as vendors to Temperform.

The list supplied by you contained names of over 300 companies. I communicated with our Procurement Department requesting that they conduct a search of the Procurement database to determine whether SNL conducted business with any of these companies. From December 1998 to July 2002, we found that SNL had conducted business with seven of the companies listed and that SNL did not directly conduct business with Temperform.

Since our investigation included a number of secondary vendors, we reviewed the product descriptions of over 10,500 line items to determine if any product procured necessitated heat treatment and therefore, could have the potential to negatively impact SNL programs or projects. From this review, we determined that six of the vendors on our list did not supply product that would necessitate heat-treating. In addition, the requesters contacted confirmed that their purchases did not require heat-treating. For example, one of the orders was for stainless steel and the other was for plastics. Letters were also sent to several of the secondary vendors and the responses, with the exception of one J-I-T vendor, confirm that these vendors did not supply SNL with product that was heat-treated by Temperform during the above time period.

Regarding SNL's J-I-T vendor, they advised that they used Temperform to heat-treat two of their aluminum products. This J-I-T vendor is an ISO 9002 certified company and expressed concern that Temperform's heat-treating process may not have met quality levels. They advised that they sent

Exceptional Service in the National Interest

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U. S. DOE KAO/SCBM

TEL: 505 845 4915

P. 004

Paul Chimah

February 20, 2003

samples of their stock to an independent laboratory for analysis. The results of that analysis indicate that the aluminum stock tested was reliable. In addition, I reviewed the sales history supplied by this vendor and requested a search of the Procurement records for specific requester names. Most of the orders under this J-T contract were placed prior to Oracle becoming Sandia's management database and this information was not available. Post-Oracle records revealed three orders being placed and, upon further investigation, these orders were outside of the date range noted above, and were not intended for a safety-significant application. SNL has not installed any material heat-treated by Temperform USA in a safety-significant or non-safety significant application.

Regarding the costs to investigate this matter, the total cost for man-hours amounted to approximately \$3500. There were no costs incurred by SNL for disposition, travel or testing.

Ongoing S/C training is conducted on an annual basis and in previous years, DOE personnel have joined SNL in attending this training.

In addition to our investigation, SNL has implemented a quality-significant procurement process that mitigates the risks involved when purchasing items that could affect safety significant systems or components. This process allows the requester to use a graded approach in determining the rigor involved when procuring quality-significant items.

Please do not hesitate to contact me if you would like to discuss this further.

Very truly yours,

Betty Fleming
Suspect/Counterfeit Items Program Lead
Logistics Risk Management Office 10282

Copy to:
Kenneth E. Zamora, DOE/SSO

MS0189 D. Palmer (10200)
MS1120 C. Schmeberger (10260)
MS1120 M. Riley (10252)
MS1120 L. Carson (10262)
MS1120 B. Fleming (File)



National Nuclear Security Administration
Sandia Site Office
P.O. Box 5400
Albuquerque, New Mexico 87185-5400



AUG 13 2003

MEMORANDUM FOR: Everet Beckner, NA-10
FROM: Karen L. Boardman, Manager *Karen L. Boardman*
SUBJECT: Temperform

Reference the SSO memorandum to you dated May 1, 2003, Subject: Investigation of the Use of Improperly Heat-Treated Aluminum Parts Supplied by Temperform USA

In the attachment to the referenced memo, SNL acknowledged that they did procure aluminum from a vendor listed in your April 4, 2003, memorandum. This Just-In-Time (J-I-T) vendor, Reliance, advised SNL that they used Temperform to heat-treat two of their aluminum products. Reliance also advised SNL that samples of their stock were sent to an independent laboratory for analysis. The results of that analysis indicate the aluminum stock tested was reliable. However, it was later determined that these samples weren't fully representative of the material in question.

From 1998 to present, SNL procured aluminum from Reliance on 18 invoices. Material from four of the invoices were determined to be acceptable. SNL shops began maintaining a database approximately a year ago, and they do not have means of tracing the remaining 14 invoice numbers through end use. The 14 invoices were for various applications; however, none were for weapon use.

Sandia Site Office (SSO) asked managers at SNL nuclear facilities to review work records from 1998 and determine if any heat-treated aluminum was installed in any safety-related applications. Negative responses were provided for all SNL nuclear facilities.

Therefore, SSO believes no Temperform heat-treated aluminum is used in any safety-related or mission sensitive applications at SNL. A copy of the SNL report summarizing the additional investigation is attached.

If you have any questions, please contact Dan Pellegrino at 505-845-5398.

Attachment

cc w/attachment:

Xavier Ascanio, NA-124, HQ
Rabi Singh, NA-124, HQ
Tom Rotella, NA-53, HQ
Bill Mullen, SSO, MS0184
Dan Pellegrino, SSO, MS0184
Matt Riley, SNL, MS1120
Betty Fleming, SNL, MS1120
Jack Loye, SNL, MS1145
Jim Bryson, SNL, MS1142
Paul Chimha, NNSA Service Center

**Sandia National Laboratories**Operated for the U.S. Department of Energy by
Sandia CorporationAlbuquerque, NM 87186-1120
Livermore, CA 94551-0969Phone: (505) 846-8060
Fax: (505) 844-5013
Internet: jmriley@sandia.gov**James Matthew Riley**
Manager 10262 - Risk Management

August 12, 2003

Dear Mr. Pellegrino,

Betty Fleming has met with Sandia's Manufacturing & Services Department personnel to discuss Temperform and how they could assist in tracing the 18 invoices covering product purchased from Reliance and heat-treated by Temperform. The team leader was only able to trace three of the service orders. One order, intended for end-use in weapons, will undergo a second heat-treating process at Sandia. The machine shops had three remaining specimens from a second order, which they tested and passed. Regarding the third service order, Betty was able to contact the end user and he indicated that this did not go into a safety system or critical application and that there was no impact to his program. Betty did also speak to another end user pertaining to a fourth invoice and was advised that the items made for them would not go into any critical safety systems.

Of the remaining 14 invoices, we have been advised that the shops only began maintaining a database approximately a year ago and they do not have any means of tracing the remaining invoice numbers.

Since we could not determine the end use for the 14 invoices, we asked SNL management at our Nuclear Facilities whether any heat treated aluminum components were installed in any safety related systems from 1998 to present. Negative replies were received.

Due to the above results from our investigation, we believe no heat treated aluminum from Temperform (or associated vendors) have been installed in safety related or mission sensitive applications at SNL. SNL would like to officially close out this investigation.

Sincerely,


Matt Riley

Manager

Logistics Risk Management
Sandia National Laboratories

DOE F 1325 8

United States Government**National Nuclear Security Administration (NNSA)
Savannah River Site Office (SRSO)**

Memorandum

DATE: MAY 01 2003

REPLY TO

ATTN OF: SV (Richardson, 803-208-1195)

SUBJECT: Investigation of the Use of Improperly Heat-Treated Aluminum Parts Supplied by
Temperform USA

TO: Dr. Everet Beckner, Deputy Administrator for Defense Programs, NA-10

As requested in your April 4, 2003, memorandum, we have completed an investigation to determine whether aluminum parts supplied by Temperform USA are in use in safety related or mission sensitive applications. At the Savannah River Site both the National Nuclear Security Administration and Environmental Management completed a thorough investigation to determine if parts or material from Temperform USA, or companies who may have used this material, have been purchased and used at the site. Our review disclosed that no purchases for heat-treated aluminum or aluminum parts were made from Temperform USA or any of the companies who approved Temperform as a supplier. The attachment specifically addresses the lines of inquiry used to make that determination.

If you have questions or comments, please contact me or Wayne Richardson of my staff.



Edwin L. Wilmot, Manager
National Nuclear Security Administration
Savannah River Site Office

SV:WAR:jh

RB-03-0066

Attachment:
Temperform USA Lines of Inquiry

cc w/o attachment:

D. Crandall, NA-11
D. Miotla, NA-117
M. Thompson, NA-117
D. Beck, NA-12
Col E. Schmidt, NA-121
M. Schoenbauer, NA-122
X. Ascanio, NA-124
M. Clausen, NA-125
T. D'Agostino, NA-13

K. Baker, NA-20
G. Rudy, NA-50
J. Mangano, NA-3.6
R. Crowe, NA-3.6
T. Rotella, NA-53
A. Lane, NA-60
R. Hardwick, EH-2
M. Whitaker, S-3.1

Beckner

- 2 -

MAY 01 2003

bc w/o attachment
SV Reading File

Temperform USA Lines of Inquiry

1. Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated, supplied, or tested by Temperform USA after May 1988?

The site contractor, including subcontractors, has not purchased material/parts, components, or equipment from Temperform USA.

2. Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated supplied, or tested by Temperform USA from vendors/suppliers identified on Attachment 2 after May 1998?

The site did purchase flexible stainless hose from Delafield Corporation. The material is not heat-treated.

3. If materials/parts, components or equipment heat-treated, supplied or tested by Temperform or Temperform vendors were procured, were they identified as nonconforming and either removed or technically justified for use?

Not applicable to the material purchased.

4. If you discover that site contractor(s) (or subcontractors) have or use material/parts, components, or equipment heat-treated, supplied, or tested by Temperform USA or Temperform USA vendors:

The material purchased from Delafield Corporation was not heat-treated aluminum, it was stainless steel.

5. Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information, such as part number or model number and application/systems, may be useful information to share with other Department of Energy (DOE) sites.

Not applicable for the material purchased.

6. Determine the cost associated with this investigation.

Contractor - \$2175
NNSA SRSO - \$2475

7. Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.

Attachment
Page 2 of 2

SR Human Resources Management and Development Division (HRM&DD), Office of Training (OT) provided a course called Suspect/Counterfeit Items: Vendor Development and Evaluation. The course was attended by Westinghouse Savannah River Company and Federal employees.

United States Government

memorandumDepartment of Energy
National Nuclear Security Administration
Kansas City Site Office
Kansas City, Missouri 64141-0202

DATE: May 2, 2003
REPLY TO: KCSO/OQA
SUBJECT: Investigation of the Use of Improperly Heat-Treated Aluminum Parts Supplied by
Temperform USA
TO: Rabi Singh, NA-124

In response to Dr. Beckner and Mr. Przyblek's April 4, 2003 letter on this subject, we are providing a response from the Kansas City Plant. The Kansas City Site Office has worked on this issue with Honeywell FM&T since last summer when we first became aware of the issue. We have validated there are no issues concerning Temperform at the Kansas City Plant.

The attached memorandum from Robert Jensen, Honeywell FM&T, provides the information requested in the April 4th request. Please contact me at 816-997-3352 if you need further information. I am the point of contact for this issue.



Gregory Beizen
Assistant Manager
Kansas City Site Office
Office of Quality Assurance

Attachment
Honeywell April 30, 2003 memo

Honeywell

Memorandum

Federal Manufacturing & Technologies
Kansas City, Missouri

Date: April 30, 2003

To: Gregory Betzen, Assistant Manager, KCSO

From: Robert M. Jensen

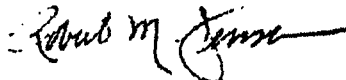
Subject: COR Program Direction RE: Investigation of the Use of Improperly Heat-Treated Aluminum Parts
Supplied by Temperform USA

Attached is the Honeywell FM&T response to the Temperform USA Lines of Inquiry requested by Gregory Betzen in his memo of April 23, 2003.

During the period in question, Honeywell FM&T did not use Temperform as a direct supplier. We did procure one item from Matco Forge and two items from Reliance Metal Center that were listed as Temperform suppliers. We have determined through technical investigation that none of these items were heat treated by Temperform.

The costs listed for this investigation include only those incurred by Honeywell FM&T and do not include any expenses that may have been incurred by the NNSA site office.

If you have any other questions, or would like more information, please contact me.



cc: D. G. McCrary
J. A. Fitzpatrick
R. L. Lavelock

Attachment 1
Answers to Lines of Inquiry from EM Memo

- 1) Has site contractor(s) (including their subs) procured or used material/parts, components or equipment that may have been heat-treated, supplied or tested by Temperform between May 1998 and May 2002.

No, Temperform has not been a direct supplier to Honeywell FM&T during this time frame.

- 2) Has site contractor(s) (including their subs) procured or used material/parts, components or equipment that may have been heat-treated, supplied or tested by Temperform from vendors/suppliers identified on Attachment 2 after May 1998.

Yes, since May, 1998, Honeywell FM&T has purchased material from two companies listed on Attachment 2. They are:

Mattco Forge, Paramount, CA
Reliance Metal Center, Albuquerque, NM

- 3) If materials/parts, components or equipment heat-treated, supplied or tested by Temperform or Temperform vendors were procured, were they identified as nonconforming and either removed or technically justified for use?

Yes, a total of three aluminum items were procured, all of them were technically justified for use.

From Mattco Forge the item was used in production as described below:

PN 7440326-01 Raw Forging Aluminum 6061-F

This item was procured in an annealed (non-heat treated) state. It was then machined and heat-treated to final temper at our facility.

From Reliance Metal Center the two items procured were for non-production use and described as follows:

Aluminum Bar and Square Tubing 6061-T6 (11 bars and 23 tubes total)
Aluminum Tube - Welded 6061 Alloy (24" OD, 72" long)

Since these were bulk materials, they would have been in a mill shipped condition and would not have had processing by a secondary heat treatment facility. In addition, these two items were not purchased under production material identification and therefore were not used in a production application.

- 4) If you discover that site contractor(s) (or subs) have or use material/parts, components or equipment heat-treated, supplied or tested by Temperform or Temperform vendors:
- a. Determine whether these material/parts, components or equipment are installed in any system performing a safety function (i.e., safety class or safety significant system); or if they are intended for use in a safety system but are still in inventory; or if installed or intended for use in mission-sensitive application. If you discover parts in safety systems, please perform an engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance, and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.

Not Applicable - Parts were not heat-treated by Temperform, and were not used in a safety application.

- b. Collect and track information on procurement and use of Temperform USA material/parts, components or equipment for non-safety related systems or other mission-sensitive applications. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later end up in safety applications.

Not Applicable – Parts were not heat-treated by Temperform.

- 5) Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information, such as part number or model number and application/systems, may be useful information to share with other Department of Energy (DOE) sites.

See response to Question 3 above for details.

- 6) Determine the cost associated with this investigation. The Office of the Inspector General will attempt to recover the cost associated with the investigation. The cost should be broken into categories: total cost for man-hours; total cost for disposition of material (i.e., replacement cost, scrap cost, etc.); total cost for travel (if any) and total cost for testing (if any). It is not necessary to submit backup documentation, but your respective sites should maintain it in case the costs are challenged later.

Since no discrepant materials were identified, all of the Honeywell FM&T costs were labor costs associated with the investigation itself. Total Honeywell FM&T labor costs were \$3,562.

- 7) Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.

Not applicable because no discrepant material was discovered.

Day, Nancy

From: Singh, Rabindra
Sent: Monday, May 05, 2003 4:28 PM
To: Day, Nancy
Subject: FW: Temperform Questions

-----Original Message-----

From: mholecsek@kcp.com [mailto:mholecsek@kcp.com]
Sent: Monday, May 05, 2003 2:50 PM
To: Singh, Rabindra
Cc: thomas.rotella@nnsa.doe.gov; staylor@kcp.com; rlavelock@kcp.com;
dmccrary@kcp.com; gbetzen@kcp.com
Subject: Temperform Questions

Rabi, to answer your questions on federal costs of the Temperform investigation, I would estimate it at about \$600.00. (12 hours at \$50 per hour)

In response to the question on suspect/counterfeit parts training, Introduction to Suspect Counterfeit Parts (Course 2293) training was provided at KCP a number of times in the 1990s. This course was given to a fairly wide audience of Honeywell and KCSO associates. Another round of training is planned for this summer.

Hope this answers all your questions. If not feel free to call me at the number below.

Thanks,
Mark Holecsek
NNSA/KCAO
816-997-3920

United States Government

Department of Energy

Memorandum

National Nuclear Security Administration
Pantex Site Office

DATE: MAY -1 2003

REPLY TO: PXSO:WQS:MLU

SUBJECT: Investigation of the Use of Improperly Heat-Treated Aluminum Parts Supplied by
Temperform USATO: E. H. Beckner, Deputy Administrator for Defense Programs, NNSA, HQ
C. S. Przybylek, Chief Operating Officer, NNSA, HQ

Attached is BWXT Pantex's response to the "Temperform USA Lines of Inquiry" included in your memorandum of April 4, 2003, same subject. We have reviewed BWXT's response and concur.

Michael L. Ulshafer of my staff is the point of contact for this issue. He may be reached at 806-477-3145.



Daniel E. Glenn
Manager

Attachment

cc:

E. Schmidt, NA-121, HQ
T. Rotella, NA-53, HQ
D. Beck, NA-12, HQ
R. Singh, NA-124, HQ
P. Chimah, WQP, AL
F. Gregory, NA-121.3, AL
J. Kirby, AMO, PXSO, 12-36
J. Tedrow, SET, PXSO, 12-36A
M. Reaka, PWT, Ltd., 12-36A
S. Baker, PACD, BWXT, 12-6F
V. Hughes, QAD, BWXT, 12-6D
B. Barringer, QA, BWXT, 12-107A
K. Brack, QAD, 12-107A



P.O. Box 30020 Amarillo, Texas 79120 806/477-3000

APR 26 2003

Mr. Michael L. Ulshafer
Weapons Quality Staff
U.S. Department of Energy
National Nuclear Security Administration
Pantex Site Office
P.O. Box 30030
Amarillo, TX 79120-0030

Subject: Temperform Lines of Inquiry

Reference: Temperform Letter to Board - NNSA Enclosure

Dear Mr. Ulshafer:

In response to your request, BWXT Pantex has reviewed the Lines of Inquiry that were extracted from the Temperform Letter to Board - NNSA Enclosure. The following table lists the response and status of each Line of Inquiry:

	Temperform Lines of Inquiry	Response	Status
1.	Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have be heat-treated, supplied or tested by Temperform USA after May 1998?	BWXT Pantex did not do business directly with Temperform. Attached letter BWXT Pantex to Michael L. Ulshafer, dated September 27, 2002, first paragraph	Complete
2.	Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have be heat-treated, supplied or tested by Temperform USA after May 1998 (The, "Temperform Lines of Inquiry" correspondence BWXT Pantex received reads exactly as number 1.)	BWXT Pantex did not do business directly with Temperform. Attached letter BWXT Pantex to Michael L. Ulshafer, dated September 27, 2002, first paragraph	Complete
3.	If materials/parts, components or equipment heat-treated, supplied or tested by Temperform or Temperform vendors were procured, were they identified as nonconforming and either removed or technically justified for use?	Materials procured from Reliance Metal Center, a supplier BWXT Pantex used, were destroyed or the applications where used were evaluated and a determination was made that these tempered materials were not required.	Complete

4.	If you discover that site contractor(s) (or subcontractors) have or use material/parts, components or equipment heat-treated supplied, or tested by Temperform USA or Temperform USA vendors:	This Cell left blank intentionally	This Cell left blank intentionally
4.a.	Determine whether these materials/parts, components or equipment are installed in any system performing a safety function (i.e., safety class or safety significant system); or if they are intended for use in a safety system but are still in inventory; or if installed or intended for use in mission-sensitive application. If you discover parts in safety systems, please perform engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance, and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.	Materials procured from Reliance Metal Center, a supplier BWXT Pantex used, were destroyed or the applications where used were evaluated and a determination was made that tempered materials were not required. Also items refurbished by North Safety Products were destroyed and replaced. Attached letter BWXT Pantex to Michael L. Ulshafer, dated September 27, 2002	Complete
4.b.	Collect and track information on procurement and use of Temperform USA material/parts, components or equipment for non-safety related systems or other mission-sensitive applications. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety applications.	Suspect materials procured from Reliance Metal Center, a supplier BWXT Pantex used, were destroyed or the applications where this material was used were evaluated and a determination was made that tempered materials were not required. BWXT Pantex did not do business directly with Temperform. Attached letter BWXT Pantex to Michael L. Ulshafer, dated September 27, 2002	Complete
5.	Information collected should include the contractor/supplier/vendor by site, type of materials and quantity. Other information, such as part number or model number and application/systems, may be useful information to share with other Department of Energy (DOE) sites.	Attached letter BWXT Pantex to Michael L. Ulshafer, dated September 27, 2002	Complete
6.	Determine the cost associated with this investigation. The Office of Inspector General will attempt to recover the cost associated with the investigation. The cost should be broken into categories: total cost for man-hours; total cost for disposition	Attached memorandum, Bob Barringer to Kathy Brack dated April 23, 2003	Complete

Temperform Letter to Board - NNSA Enclosure

Actions Taken In Response to QAWG: All NNSA sites have investigated the Temperform issue based on the information available in QAWG Emails of July 22, 2002, and December 19, 2002. The status of the investigations, based on the responses to QAWG, is summarized below.

Status Based on Response to QAWG

NNSA SITES	Temperform or Tmperform Vendor	Safety	Disposition
SNL/Non Weapons Program	Yes	No	Action Completed-all applicable purchase orders have been reviewed
SNL/Weapons Programs	No	Not Applicable	Not Applicable
Pantex	Yes	No	Action completed - Aluminum Bar Stock Removed or verified not in use in vital safety systems
Savannah River	No	Not Applicable	Not Applicable
Los Alamos National Lab	Yes	Potentially - Yes	Still investigating - Aluminum Removed/Engineering Analysis in Progress, tooling affected. Awaiting Supplier responses
Y-12	No	Not Applicable	Not Applicable
Lawrence Livermore National Lab	Yes	No	Yes. Vendor visited - No Other Action Required
Kansas City	Yes	No	Yes. Verified no vital safety systems affected - No other Action Required
Nevada Test Site	Yes	No	Yes

Path Forward: In response to the concerns expressed by DNFSB, NNSA has initiated a more formal and comprehensive investigation. All NNSA site managers have been asked to complete or verify that the investigation has been completed for their site based on the lines of enquiry provided below. The site managers have been also asked to provide a report documenting their investigation within 30 days. After a review of the site reports, NNSA will take further action if necessary, to fully resolve the temperform issue.

	of material (i.e., replacement cost, scrap cost, etc.), total cost for travel (if any), and total cost for testing (if any). Backup documentation is not necessary to be submitted, but should be maintained by your respective sites in case the costs are changed later.		
7.	Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.	Personnel performing receiving inspection activities, equipment maintenance, inspection, or engineering activities must successfully complete Training Course 84.11, Suspect/Counterfeit Parts Training. Attached Plan of Instruction (POI)	Complete

Questions or concerns should be directed to Bob Barringer at (806) 477-4356 or Kathy Brack at (806) 477-4099

Sincerely,

Katherine J. Brack
 for Scott Baker, Manager
 Product Assurance & Certification

ess

Attachment: As stated

PAC-03-17334-192-PAC

Temperform Lines of Inquiry

The investigation should address the following lines of inquiry to determine if your site has procured and/or used heat-treated aluminum materials/parts, components, or equipment supplied by Temperform USA or Temperform USA vendors.

- 1) Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated, supplied or tested by Temperform USA after May 1998?
- 2) Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated, supplied, or tested by Temperform USA after May 1998?
- 3) If materials/parts, components or equipment heat-treated, supplied or tested by Temperform or Temperform vendors were procured, were they identified as nonconforming and either removed or technically justified for use?
- 4) If you discover that site contractor(s) (or subcontractors) have or use materials/parts, components, or equipment heat-treated, supplied, or tested by Temperform USA or Temperform USA vendors:
 - 1) Determine whether these materials/parts, components or equipment are installed in any system performing a safety function (i.e., safety class or safety significant system); or if they are intended for use in a safety system but are still in inventory; or if installed or intended for use in mission-sensitive application. If you discover parts in safety systems, please perform engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance, and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.
 - 2) Collect and track information on procurement and use of Temperform USA materials/parts, components or equipment for non-safety related systems or other mission-sensitive applications. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety applications.
- 5) Information collected should include the contractor/supplier/vendor by site, type of materials, and quantity. Other information, such as part number or model number and application/systems, may be useful information to share with other Department of Energy (DOE) sites.

- 6) Determine the cost associated with this investigation. The Office of Inspector General will attempt to recover the cost associated with the investigation. The cost should be broken into categories: total cost for man-hours; total cost for disposition of material (i.e., replacement cost, scrap cost, etc.), total cost for travel (if any), and total cost for testing (if any). Backup documentation is not necessary to be submitted, but should be maintained by your respective sites in case the costs are changed later.
- 7) Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.

BWXT Pantex

P.O. Box 30020 Amarillo, Texas 79120 806/477-3000

SEP 27 2002

Mr. Michael L. Ulshafer
Weapons Quality Staff
U.S. Department of Energy
National Nuclear Security Administration
Office of Amarillo Site Operations
P.O. Box 30030
Amarillo, Texas 79120-0030

Subject: Determination of Pantex Dealings with Temperform USA or Temperform's Customers

Reference: Memorandum Michael L. Ulshafer, WQS/NNSA/DOE/OASO, to Scott W. Baker, PA&C Division, BWXT Pantex and Virgil T. Hughes, Quality Assurance Division, BWXT Pantex dated July 30, 2002.

Dear Mr. Ulshafer:

In response to your request, BWXT Pantex has reviewed records for the period from 1998 to May 2002 and we have not done business directly with Temperform. During the same time period, we used three of the vendors listed on the attachment to the aforementioned memorandum:

Metroline
251 Corporate Terrace
Corona, CA 91719

North Safety Products
2664-B Saturn Street
Brea, CA 92621

Reliance Metal Center
6718 Jefferson St. N. E.
Albuquerque, NM 81109

Metroline:

Three Turbo Pumps, "TURBO MOLECULAR PUMP ALCATE," were sent in for repair. These pumps are used on non-destructive evaluation (NDE) equipment and would be deemed weapons related. We requested and received a fax from TePla America Inc., formally Metroline Industries Inc., stating, "We have reviewed the work orders of the three pumps that were sent to us for repair per Purchase Order 13623. None of these pumps had any work performed by Temperform".

North Safety Products:

Two Saf-T-Lok sleeves were sent in for refurbishment and were currently being used on ladders in two particular places within the plant. Currently BWXT Pantex is unable to obtain sufficient information from the vendor that Temperform did not participate in any aspect of the refurbishment. BWXT Pantex has removed the two Saf-T-Lok sleeves from service and will dispose of these items. BWXT Pantex has four additional sleeves that had previously been taken out of service and are currently awaiting refurbishment. These sleeves will also be disposed of. These items can be replaced with minimal impact.

Reliance Metal Center

For the period of time mentioned, sheet aluminum, round aluminum bar stock, round brass bar stock, round stainless steel bar stock, carbon flat strip and aluminum angle bar were stock metals procured from Reliance Metal Center. Except for the T6 1 1/2" round aluminum bar stock and T6 .125" sheet aluminum, all other metals purchased from Reliance Metal Center were screened from further review. This was based on information obtained from the aforementioned memorandum and the DOD Inspector General's Report of "Alleged Falsified Heat Treat and Inspection Processes at Temperform USA" which indicate that Temperform specialized in heat treatment and inspection of aluminum components. A determination was made that the two previously mentioned components are the only heat-treated or tempered aluminum parts with a grade of T6 that could have been used in safety systems or weapons-related material applications. The following are the purchase orders and the actual descriptions used to procure these items:

- 1.) PO11328, Bar, Round 1 1/2", 12' LG, Aluminum, 2.080 LBS/FT, QQ-A-225/8, 6061-T651 GRD, and
- 2.) PO8760 and PO11328, Sheet, Metallic, .125" Thick X 4' Wide X 12' Long, Aluminum 1.760, QQ-A-250/11, 6061-T651 GRD

BWXT records indicate that nine special tooling items had work orders with these materials issued to them. Tooling and Tester Design Engineering has evaluated the design of these tools and determined that:

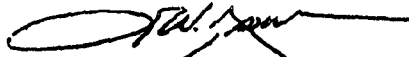
- 1.) T6 aluminum would not have been required for these designs, and
- 2.) Aluminum used to fabricate these designs is not in the load path.

The tempered aluminum materials acquired from Reliance Metal Center and used in these designs causes no impact to the operation and safety of these tools.

Also, records indicate that 30 work orders had these stock materials issued for minor maintenance. These projects did not require certified or tested metals and were not used for Safety Class or Safety Significant Critical Systems. The materials required for this work would not have had to be T6 tempered aluminum. The materials acquired from Reliance Metal Center and used for this work causes no impact to the operation or safety of the Plant.

Questions or concerns should be directed to Bob Barringer at 806-477-4356 or Kathy Brack at 806-477-4099.

Sincerely,



Scott W. Baker
Manager, Product Assurance & Certification

cc: Paul Chimah, ES&H Division, AL
Scott Baker, 12-6D
Cheri Moore, 12-5G
Carl Durham, 12-6F
Bob Wieck, 12-6G
Dale Stapp, 12-5E
Mike Kelly, 12-102B
Kathy Brack, 12-107A
Bob Barringer, 12-107A
Linell Carter, 12-69C



Date: April 25, 2003

From: Bob O. Barringer *RB* Location: Quality Engineering 12-107A

To: Kathy Brack Location: Quality Engineering 12-107A

Subject: Cost Associated to Investigation conducted on Temperform Issue

Investigation of the Temperform Issue incurred cost as follows:

Item No.	Activity	Cost
1.	Quality Engineering time for Investigation, 60 hrs. @ \$82.03	\$4.92K
2.	Design Engineering time for Evaluation, 16 hrs. @ \$82.03	\$1.31K
3.	Analysis on 1.5 in Aluminum Bar Stock, 2 hrs. @ \$38.26	\$.077K
4.	Destroy 1.5 in. Aluminum Bar Stock, 5 ft. @\$7.10	\$.036K
5.	Destroy Saf-t-lok devices, 6 ea. @ \$200.00	\$1.2K
6.	Total:	\$7.54K

Questions or Concerns should be directed to Bob Barringer at (806) 477-5356.

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APPROVAL DATE: April 18, 2003

TRAINEE

PREREQUISITES: None

TIME REQUIRED: Four Hours

REFERENCES: DOE Order 4330.4B, "Maintenance Management Program".
DOE Order 5480.20A, "Personnel Selection , Qualification and Training Requirements..."
DOE Order 5480.19, "Conduct of Operations".
DOE Order 440.1
Revision 1, "Suspect Parts Plan."
DOE Albuquerque, "Quality Criteria", (QC-1),
March 30, 1992.
ASME/ANSI, B18.18 1M-1987, "Inspection and Quality Assurance for General Purpose Fasteners",
March 31, 1987.
ASME/ANSI, B18.18 3M-1987, "Inspection and Quality Assurance for Special Purpose Fasteners",
March 31, 1987.
Plant Standard: STD-6241, "Suspect/Counterfeit Fasteners."
Plant Standard: STD-1804 (PMS), "General Stores Receiving Inspection."
IOP-FO-3133, "Suspect/Counterfeit Electrical Components Identification"
IOP-FO-3140, "Control of High Strength Fasteners Installation During Maintenance"
IOP-FO-3151, "Suspect/Counterfeit Fasteners Installation During Maintenance"
Department of Commerce Federal Register, 15 CFR Part 280, "Procedures for Implementation of the Fastener Quality Act; Proposed Rule", August 17, 1992.
Public Law #101-592, of the 101st Congress, "Fastener

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Quality Act", November 16, 1990
Vendor's Manual: "Suspect/Counterfeit Items", United
States Department of Energy, Quality Training and Resource
Center; Richland, Washington. Revision 2, April 1994.

ASSOCIATED TASKS: #28381

DRIVER(S): Task identified by DOE Albuquerque in the "Quality Criteria" (QC-1) document, and the DOE Order 440.1A as requiring training for all plant personnel who are involved in any aspect of work with fasteners that could be identified as Suspect/Counterfeit. Added to all crafts Job/Task Analysis as a "train" item, with a three year refresher course (also per DOE).

Further, Plant Standard, STD-6241 clearly states: "Personnel designated to perform inspection, replacement, or evaluation activities regarding suspect/counterfeit fasteners, (must) successfully complete Suspect/Counterfeit Parts Training, Course #84.11. [Section 3.1.1]"

OBJECTIVES:**Terminal Objective:**

(T.O.1.0) Using the Suspect/Counterfeit Head Mark list displayed on the Operator's Aid, **SEGREGATE** the acceptable fasteners from the unacceptable fasteners given to you in a box by the instructor, and **DEFEND** your decision in accordance with ANSI B-18.2.1 and the DOE Suspect/Counterfeit Head Mark list.

NOTE: The conditions and standards of the Enabling Objectives are the same as the Terminal Objective, unless otherwise stated.

Enabling Objectives:

(E.O.1.1) **DISCUSS** the Pantex Suspect/Counterfeit Items Program utilized at the plant.

(E.O.1.2) **DISCUSS** the hazards associated with the use of Suspect/Counterfeit fasteners and some Lessons Learned.

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(E.O.1.3) **STATE** the definitions of some of the most frequently used "terms" when dealing with suspect/Counterfeit Items.

(E.O.1.4) **STATE** the procedure for identifying and removing Suspect/Counterfeit items as they relate to the Identifier, the Facility/Building Managers & PLC's, the Maintenance Department and the craft supervisors, and Construction Activities, according to STD-6241.

(E.O.1.5) **STATE** the procedure for the Control of removed Suspect/Counterfeit Fasteners and the procedure used to destroy them.

(E.O.1.6) **SEPARATE** acceptable fasteners from unacceptable fasteners and **DEFEND** your decision.

SAFETY PRECAUTIONS AND PROCEDURAL LIMITATIONS:

The Instructor/Evaluator on this POI MUST be an SME in order to instruct with it. OJT and BIT alone are NOT sufficient to qualify an Instructor/Evaluator on this POI. Insufficient knowledge of fasteners and other Suspect/Counterfeit Items may cause an incredible amount of paperwork and lost revenue.

INSTRUCTIONAL AIDS:

POI #84.11, Operator's Aid with Counterfeit items, Video on Suspect Fasteners, flip cards, trainee handout.

TRAINEE PREPARATION:

None.

INSTRUCTOR PREPARATION:

Ensure classroom is available and video equipment is in working order. Set up Operator's Aid for the exercise and display the package of fasteners for use

I. INTRODUCTION**A. Preliminaries**

1. Lesson Title: "Suspect/Counterfeit Items Initial"
2. Trainee Materials:
3. Introduce yourself
 - a. State name: "Hello, my name is....."
 - b. Brief background
4. Trainee comfort
 - a. Mustering station location: (Location will depend upon the location of the training area).
 - b. Bathrooms
 - c. Coffee, etc.
5. Solicit participation
 - a. Class welcome
 - b. Ask questions at any time

B. Motivator (What's in it for me "WIIFM")

Every year many overseas companies are costing the American Industry millions of dollars in lost revenue. Counterfeit bolts (fasteners) in our aircraft carriers is perhaps one of the most dangerous of all places. The US Army has found some Suspect/Counterfeit Fasteners in the M1 And M60 tanks.

The auto industry recalls thousands of cars and trucks each year because they are finding more and more Suspect/Counterfeit fasteners being supplied to this industry. Nuclear Reactors are another area of real concern for these fasteners. These are not, by far, the only places a suspect/counterfeit fastener is dangerous.

3. Integrated Safety Management [ISM] Summary

Any place where a counterfeit item puts a life in danger is serious. The construction business, for instance, has experienced deaths due to substandard fasteners. Education is our best defense against these kinds of accidents happening.

Throughout this training ISM will be mentioned numerous times and it is hoped that this training will help you to spot these items at a glance and you could be very instrumental in preventing a serious injury or DEATH.....possibly your own!!!

D. Learning Objectives

1. State terminal objective:

(T.O.1.0) Using the Suspect/Counterfeit Head Mark list displayed on the Operator's Aid, **SEGREGATE** the acceptable fasteners from the unacceptable fasteners given to you in a box by the instructor, and **DEFEND** your decision in accordance with ANSI B-18.2.1 and the DOE Suspect/Counterfeit Head Mark list.

NOTE: The conditions and standards of the Enabling Objectives are the same as the Terminal Objective, unless otherwise stated.

2. State enabling objectives:

(E.O.1.1) **DISCUSS** the Pantex Suspect/Counterfeit Items Program utilized at the plant.

(E.O.1.2) **DISCUSS** the hazards associated with the use of Suspect/Counterfeit fasteners and some Lessons Learned.

(E.O.1.3) **STATE** the definitions of some of the most frequently used "terms" when dealing with suspect/Counterfeit Items.

(E.O.1.4) **STATE** the procedure for identifying and removing Suspect/Counterfeit items as they relate to the Identifier, the Facility/Building Managers & PLC's, the Maintenance Department and the craft supervisors, and Construction Activities, according to STD-6241.

(E.O.1.5) **STATE** the procedure for the Control of removed Suspect/Counterfeit Fasteners and the procedure used to destroy them.

(E.O.1.6) **SEPARATE** acceptable fasteners from unacceptable fasteners and **DEFEND** your decision.

Are there any questions before we begin our presentation? Before we begin I want to let you know that upon successful completion of this class you will receive a new "color coded" card (the color this round is Blue) with the most recent Head Mark List from the Albuquerque Operations Office. From time to time the card will be updated, and at that time the color will change to show you at a glance whether or not you have the MOST recent update. When this happens, I will issue new cards to everyone who has gone through my class. These cards are made so they can be worn on your badge for quick, easy reference.

NOTE: *The focus of this lesson is Suspect/Counterfeit Fasteners, however, we will briefly discuss some other items found not only in our facility, but in some other DOE facilities.*

Instructor: *Show 20/20 Video Here before presentation. First discuss briefly what will be seen in the video and who started the investigation; Congressman John D. Dingell, Chairman Subcommittee on Oversight and Investigations, United State House of Representatives.*

Discuss the "Buy America Act" concerning the purchase of items, equipment and components by the United States Military.

Legend:	DOE/AL	DOE Albuquerque
	FM/FBM	Facility Manager/Facility Building Manager
	S/C	Suspect/Counterfeit
	PLC's	Property Location Custodians
	MPOD	Materials Processing Operations Department
	QA	Quality Assurance
	BOP	Balance of Plant

II. Presentation

A. Pantex Suspect/Counterfeit Items Program. **Reference Enabling Objective (E.O.1.1)**

1. In order to minimize the threat to government products and activities, the Department of Energy, Albuquerque Operations Office (DOE/AL) has published the Supplemental Directive: AL 57XB, Titled; "Suspect Parts Plan".

The objectives contained within this directive require that DOE/AL site contractors implement and manage those activities that deal with; specification, procurement, inspection and processing of items and materials procured for non-weapons applications.....in a manner that will minimize the possibility of procuring, installing and using SC materials.

2. BWXT Pantex continues to believe that these requirements can be reasonably met utilizing a two-part approach;
 - a. The first objective is to take those actions necessary to preclude the introduction of "suspect" or "counterfeit" materials into the plant. This objective provides two layers of defensive activities; Procurement and Receiving inspection, and;
 - b. The second objective is to take those actions necessary to remove those items that may already be installed in "Critical Systems".

It is important to note that even though "Critical Systems" is perhaps our most dangerous area, we will also discuss "Important" and "BOP" areas.

3. Presently, guidance and direction regarding classes of products, sub-standard physical properties, manufacturers and origin of manufacture have been received for grade 5, 8, 8.2 and ASTM A325 fasteners; electrical circuit breakers and piping flanges of Chinese origin. These items provide the basis for the S/C Parts Program.
 4. As brands or characteristics are identified or additional items (such as components, products, materials, etc) are identified by the DOE/AL, in sufficient detail, such items may be incorporated into this program.
 5. One other thing that is important to note is that Pantex has established a program built upon a graded approach, where any "Critical System" receives FIRST priority.
- B. Hazards Associated With the Use of Suspect/Counterfeit Fasteners and Some Lessons Learned. Reference Enabling Objective E.O.1.2
1. Some of the current activities which have been underway, and possibly completed recently, are;
 - a. Forklifts.....Loadpath, loadbearing areas of the forklifts have been inspected and SC fasteners replaced on ALL plant forklifts.

Note: This action was completed on November 30, 1994.

One Forklift was in Sandia; N. M., awaiting installation of the shielding for use in Zone 4. When this forklift returned to the plant, it was completely gone over and received a thorough inspection for SC fasteners, prior to any use of the forklift.

Note: This action was also complete. This anticipated date of arrival was mid-October 1995 and the inspection

was complete soon after its arrival at the plant.

- b. Cranes and Hoists.....Inspections for SC fasteners to the loadpath/loadbearing areas of the cranes and hoists began inside the MAA area in 1995. The anticipated, scheduled completion date was April 30, 1996. Because cranes and hoists have such a high priority because of the magnitude of work they perform, this will be an on-going project; never to leave anything to be taken for granted.
- c. Tooling.....Lifting fixtures have been inspected by the Area Mechanics and Tooling Control personnel for SC fasteners under Phase 1, included with lifting fixtures (base or caster), that require weight testing.

The Tooling & Design Department has evaluated the SC documentation for the type and size of fasteners to be procured and issued a buying requisition.

Action taken; a work order was submitted to remove and replace the identified fasteners.

2. Hazards and Lessons Learned.

- a. Oak Ridge National Laboratory/Johnson Controls Services.....June 16, 1995; Counterfeit bolts were found in an auxiliary winch during an "acceptance inspection". The bolts were grade 5 with NO Head Makings and were located in a "Critical" area.

Evaluation.....If these bolts had not been found, **serious injury** to the safety and health of the personnel operating the winch would have occurred.

- b. Oak Ridge National Laboratory/Johnson Controls Services.....July 12, 1995; Three bolts were found at the front of an engine and one bolt was found at the rear of a compressor. The bolts were identified as counterfeit and located in a "Critical" area, and were immediately tagged "Out of Service" so no one could use either of them.

Evaluation.....If these items had not been identified, the result could have been serious injury to personnel and damage to the equipment.

- c. Oak Ridge K-25 Site/Martin Marietta Energy System.....February 21, 1995; A three-ton overhead crane was removed from service for preventive maintenance (PM). Twelve SC bolts were discovered in the construction of the crane. The crane was kept out of service until all the bolts were replaced.

Remember.....we said the crane was pulled down for PM, which meant the crane was not new.....it was in service and being used!!

Evaluation.....Because of the large number of SC bolts found, the Stores Department inventoried their entire stock of bolts and training classes were set up immediately for ALL personnel for the purpose of identifying and reporting of SC bolts. Serious injury (and in this case death) could have been the end result of the use of SC bolts in this overhead crane.

- d. Oak Ridge K-25 Martin Marietta Energy Systems.....Between February 22nd and April 7, 1995, twenty one separate accounts of counterfeit bolts were found. Some of them were;
- 1) An inspection of a Simon Aerial High Lift turned up five counterfeit grade 5 bolts.
 - 2) On three separate dates, overhead cranes were inspected turning up more than twenty counterfeit bolts.
 - 3) An inspection of some portable compressor equipment turned up more than thirty counterfeit bolts.
 - 4) An inspection of a Flat Head Pressure Vessel turned up more than forty counterfeit bolts. Two rims of five bolts each on the vessel were all found counterfeit. Thirty bolts located near where the compressor attached to the motor were found.

- 5) Eight separate inspections on forklifts were performed, turning up nearly one hundred counterfeit bolts.
- 6) An inspection of a Bucket Truck, truck-mounted aerial work platform, turned up ninety one counterfeit bolts.

Evaluation.....No impact has occurred to the environment or personnel to date because of the establishment of a SC program and the quick response of the maintenance personnel during inspection of these items.

3. To date.....there have been **NO** deaths in any DOE installation as a result of SC fasteners. There have been, however, deaths in other areas of industry, such as construction. A few years ago a construction worker had secured the hook on his body harness to a ring on a wall attached with a counterfeit bolt. The bolt head broke off and the worker fell to his death.

Are there any questions on the Lessons Learned? Is there anything you would like to discuss before we go on?

C. Frequently Used "Terms" and Definitions Dealing With SC Items.

Reference Enabling Objective E.O.1.3

1. **Characteristic:** Any property or attribute of an item, process, or service that is distinct, describable, and measurable.....as conforming or non-conforming to specified quality requirements.

Ques: What would you say if you were asked about some of the characteristics of some of the bolts displayed here on our table? Would you know what there characteristics are?

Ans: You might say any of these: Their head markings, lack of a head mark, length of the bolt, diameter of the bolt, lack of thread, improper pitch of the threads, insufficient paperwork or improper documentation, a bolt which was in a box with (say) fifty other bolts and one failed a pull-test.

2. **Critical Application:** Any use of a product which is consistent with the physical, mechanical and performance requirements as described in applicable standards. Failure of this product could result in serious injury or DEATH, significant property damage, or significant repair costs.

Ques: What are just a few of the Critical Applications here at the plant?

Ans: Cranes & Hoists, forklifts, fire protection systems, all Tooling, any hoisting & rigging application, vacuum systems in some areas, bolts in the shielding on the stage right forklift, etc.

3. **Fastener:** A metal screw, nut, bolt, or stud with internal (or) external threads. It could be a load indicating washer which is "through-hardened" to meet a particular standard or specification.
4. **Load Indicating Washer:** A Bellville Washer, designed with a "cupped" or "beveled" edge, used to exert spring tension. The more pressure exerted on the washer, the flatter it becomes. The washer will actually loose its "cupped" shape and become flat. It may also be a washer which has been scored in order to "shear" at a specified pressure.
5. **Through-Hardening:** Heating an item (bolt) above the transformation temperature followed by quenching and tempering.

We will go a little more into this process later when we talk about how the "grade" of a bolt is determined.

6. **Grade Identification Markings:** Any symbol appearing on a fastener indicating the fasteners base material, strength properties or performance capabilities. In this case they are radial lines on the head of the bolt....we will discuss this later with "grade" identification.

These must all conform to a specific standard of a government agency or a consensus standard.

7. **Non-Conformance:** A deficiency in characteristic, documentation or procedure

which renders the quality of an item unacceptable or indeterminate.

Ques: *What are some examples of non-conformance?*

Ans: *A counterfeit head mark, no head mark, a physical defect in the bolt, an item which failed a test, inadequate documentation of the bolt or "lot", etc.*

8. **Suspect/Counterfeit Item:** An item that potentially or actually does NOT meet the National Consensus Standards or is a copy of an item that does meet the standards without the authority to do so.

Ques: *What are some examples of other items identified as counterfeit, other than fasteners?*

Ans: *Circuit breakers, rupture discs, abrasive saw blades, abrasive grinding wheels, flanges (of Chinese origin), brake pads...and on and on!!*

There is a difference between Suspect and counterfeit:

- ☛ **Suspect....**An item may be considered "suspect" if there is some reason it may appear to be less that standard. Example: A certain make of bolts may fail "frequently" in a piece of equipment on a regular basis. The question is: do we have a problem with the equipment or this particular "lot" of bolts?
- ☛ **Counterfeit....** An item is counterfeit if it has been positively identified by some means, such as a counterfeit head marking or a test failure.

D. Procedure For Identifying and Removing the SC Fasteners, as They Relate To Each Person And Department, and Process for Construction Activities.

Reference Enabling Objective E.O.1.4

Prerequisites for participation in the Suspect/Counterfeit Program:

"Personnel designated to perform inspection, replacement, or evaluation activities regarding suspect/counterfeit fasteners, successfully complete Suspect/Counterfeit Parts Training, Course #84.11." (Section 3.1.1)

Scenario: A crafts worker (the identifier) has begun a job and discovered that the bolts in a flange are counterfeit, by head marks. What happens now?

1. The Identifier..... [Reference STD-6241, Section 3.3.1]

Immediately notifies the FM/FBM, PLC or Designee of the Suspect/Counterfeit fasteners location and any other relevant information, such as property number, serial number, equipment make and model, and tooling number (if relevant).

- ☛ The Facility or Building Manager, PLC, or designee, WITH THE ASSISTANCE OF THE IDENTIFIER, will complete Section "A" of the PX-3108. (Section 3.3.2)

Preliminary Classification of Identified Suspect/Counterfeit Fasteners..... (Section 3.4)

2. The FM/FBM, PLC or Designee..... [Reference STD-6241, Section 3.4.1 (a)(1-5)]
- a. Determines the preliminary classification of the s/c fastener application by evaluating the application of the s/c fastener against the following criteria:
- 1) If the s/c fastener is installed in a hoist, crane, forklift, or a system listed in the MNL-1101, contact and fax the PX-3108 to Systems Engineering, Technical Resources Department for evaluation and processing.

- 2) If the s/c fastener might cause injury to personnel, or damage the environment on failure, contact and fax the PX-3108 to Systems Engineering for evaluation and processing.
- 3) If the s/c fastener is installed in special tooling, contact and fax the PX-3108 to the Tooling and Machine Department for evaluation and processing.
- 4) If the s/c fastener might disable equipment on failure, classify the s/c fastener as MINOR on the PX-3108, Section "A" and route to the cognizant Systems Engineer for concurrence.
- 1) If the s/c fastener might NOT disable equipment on failure, classify the s/c fastener as Non-Q on the PX-3108, Section "A" and route to the cognizant Systems Engineer for concurrence.

Classifying Suspect/Counterfeit Fasteners as Minor or Non-Q.....[Section 3.5]

3. The Facility or Building Manager or PLC will..... [Section 3.5.1 (a-f)]
 - a Classify the s/c fasteners as Minor or Non-Q, based on the criteria, then complete the PX-3108, Section "A."
 1. Route copies of the PX-3108 to Systems Engineering or Tooling and Machine Design for review and concurrence, and to the Quality Department.
 2. Receive concurrence or reclassification from the cognizant Systems Engineer.
 3. Marks the identified s/c fasteners with red or orange paint.

Suspect/Counterfeit fasteners are "marked" to prevent their migration back into critical safety system or processes upon removal.
Suspect/Counterfeit fasteners designated as Minor or Non-Q items are marked with RED PAINT (if a contrasting color) or ORANGE PAINT (if red is not a contrasting color).

Additional Note: IF you have a fastener you need to mark with this paint, you may obtain the assistance of the identifier (if that was a craft worker) to obtain and paint the fastener for you. If a craft worker is not available, or for some reason is not able to assist you, call the Area Mechanics Shop at Ext 6487 to obtain the paint.

4. Report all identified s/c fasteners to the Operations Center (OC at ext 5000).
 5. Retain a copy of the PX-3108 for facility history.
 4. System Engineering or Tooling and Machine Design Engineer....(Section 3.5.2)
 1. Receives the PX-3108, review for concurrence or reclassification.
 2. Indicates concurrence by filling out Section "B" of the PX-3108.
 3. Routes copies of the PX-3108 to Facility or Building Manager and the Quality Department.
 5. Quality Department will..... (Section 3.5.3)
 - a. Receive concurrence or reclassification information on PX-3108 from the Systems Engineer.
 - b. Enter all PX-3108 data received into the S/C Parts Tracking Database.
- Replacement of Minor, Non-Q, or Critical Suspect/Counterfeit Fasteners.....(Section 3.6)***
6. The Facility or Building Manager or PLC (will):
 - a. Coordinate with crafts to schedule facilities, equipment, systems, or special tooling for s/c fastener replacement, as required.

The fasteners designated as Minor or Non-Q are marked, and documented in the Tracking Database, then replaced as preventive maintenance (PM) or corrective maintenance (CM) activities require the fastener to be removed.

- b Provide a PX-3108 to crafts personnel for replacement documentation.
- c Receive the removed s/c fasteners from crafts personnel with the PX-3109 (tag) attached, and the PX-3108 with replacement data.
- d Route a copy of th PX-3108 to the Quality Department.
- e Restore facilities, equipment, or systems to operations as required.
- f Control and segregate removed s/c fasteners pending disposition.
- g Retain copies of PX-3108 for facility maintenance history.
- h Send the s/c fasteners for destruction, within TEN WORKING DAYS of receipt, to the Fabrication Department with the PX-3108 and the Tag affixed to the corresponding s/c items.

Suspect/Counterfeit Fasteners Classified to be "Critical..." [Section 3.10.2]

- 7. The Systems Engineer, or Tooling and Machine Design Engineer (will):
 - a Indicate "Critical" classification on PX-3108.
 - b Coordinate with Facility or Building Manager to determine if the facility, system, equipment, or special tooling is required to support operations either through immediate replacement or interim operations.
 - c Document on the PX-3108 if the facility, system, equipment, or special tooling is NOT required for support operations and that LockOut/TagOut is to be implemented until replacement is accomplished.

IMMEDIATE Replacement of "Critical" Suspect/Counterfeit Fasteners in facilities, systems, equipment, and special tooling..... [Section 3.11]

- 8. The Systems Engineer, or Tooling and Machine Design Engineer:

- a Document the replacement and testing criteria on the PX-3108.

NOTE: An engineering analysis is NOT required for suspect/counterfeit fasteners classified as "critical" applications when immediate replacement activities can be implemented.

- b Complete Section "B" of the PX-3108.
 - c Notify the Facility or Building Manager, PLC, or designee of classification and route copies of the PX-3108 to the Facility or Building Manager and the Quality Department.
 - d Assist the Facility or Building Manager in coordinating IMMEDIATE REPLACEMENT activities.
9. The Facility or Building Manager, PLC, or Designee (will).....
- a Receive the PX-3108 with "critical" classification and replacement and testing criteria from the appropriate engineer.
 - b Mark the identified s/c fastener with blue paint.

Note: Suspect/Counterfeit fasteners are marked to prevent migration back into critical safety systems or processes; they are designated as "Critical" items and marked with BLUE paint.

- c Report all identified s/c fasteners and fax the PX-3108 to the Operations Center.
- d Coordinate with crafts to schedule facilities, equipment, or systems for the immediate replacement of critical s/c fasteners.
- e Provide the PX-3108 to crafts personnel for replacement documentation.
- f Receive the s/c material from crafts personnel with the PX-3109 tag attached, and the PX-3108 with replacement data.

- g Route a copy of the PX-3108 with replacement data, to the Quality Department.
 - h Restore facility, equipment, or special tooling systems to "operational" service as required.
 - i Control and segregate the removed s/c fasteners pending disposition.
 - j Retain copies of the PX-3108 for facility, equipment, or special tooling maintenance history.
 - k Send the s/c fasteners for destruction, within TEN WORKING DAYS of receipt, to the Fabrication Department with the PX-3108 and PX-3109 tag affixed to the corresponding s/c items.
10. The Maintenance Department will.....[Section 3.12]
- a Implement critical s/c fastener replacements as prioritized.
 - b Collect and tag the removed s/c fasteners with a PX-3109 tag.
 - c Provide functional testing as specified by Systems Engineering, or the Tooling and Machine Design Department, on the PX-3108.
 - d Document replacement or testing data on the PX-3108.
 - e Provide the removed s/c materials to the Facility or Building Manager, PLC, or Designee, with the PX-3109 tag attached, and the PX-3108 with the replacement data.
11. There ARE provisions in the plant standard for Interim Operations of Facilities, Equipment, or Special Tooling with "Critical" s/c Fasteners. For this process See Section 3.12.1 of the STD-6241.
12. Construction Activities.....[Section 3.15]

Facilities:

- a Develop documents and associated supporting documents for the design and procurement of modifications to, or construction of facilities or systems, to include preventative statements of suspect/counterfeit fastener incorporation.
- b Provide documented inspection activities to identify suspect/counterfeit fasteners.
- c Provide coordination for the replacement of identified suspect/counterfeit fasteners, and the necessity of follow-on actions or evaluations and documentation during construction activities.
- d Provide for the marking, documentation, controlling, disposition, and reporting of s/c fasteners identified during construction activities.

Questions???????

E. Procedure For the Control of the Removed SC Fasteners and Procedure Used for their Destruction.

Reference Enabling Objective E.O.1.5

Replacement of Minor, Non-O, or Critical Suspect/Counterfeit Fasteners.....(Section 3.6)

- 1. The Maintenance Department: [Reference STD-6241, Section 3.6.2 (a-e)]
 - a Implement s/c fastener replacements as maintenance activities require the fastener to be removed.
 - b Collect and tag the removed s/c fasteners with a PX-3109 tag.
 - c Provide functional testing if specified by Systems Engineering or the Tooling and Machine Design Engineer on the PX-3108.
 - d Document replacement or testing data on the PX-3108.

- e Provide the removed s/c fastener (material) to the Facility or Building Manager or PLC with the PX-3109 tag attached, and the Px-3108 containing replacement data.
2. The Quality Department.....[Section 3.6.3]
- a Receives copies of the PX-3108 with replacement data from the Facility or Building Manager.
 - b Enter all PX-3108 data received into the Suspect Parts Tracking Database.

Processing Removed Suspect/Counterfeit Fasteners from facilities, equipment, and special tooling.....[Section 3.7]

3. The Fabrication Department will.....
- a Receive the removed s/c fasteners with attached PX-3108 and PX-3109.
 - b Correlate for accountability, the number of s/c fasteners received, to the documented quantity on the PX-3108.
 - c Document receipt of the PX-3108 and forward copies to the Quality Department.
 - d Segregate and control removed s/c fasteners from other material until destroyed.
 - e Destroy the s/c fasteners by using the EEMCO™ 800 ton press.

Suspect/Counterfeit Fasteners are permanently and irrevocably altered to prohibit the original intent. This is done by "crushing" the fasteners in the 800 ton press. This process permanently destroys the fastener and prohibits ANY use other than as scrap metal.

- f Document the destruction on the PX-3108, and return the completed PX-3108 and the PX-3109 tag to the Quality Department.

- g Collect the destroyed s/c fasteners as "recyclable" scrap metal, and forward to the Property Management Department.

III. Demonstration....

At this time, Using the Operator's Aid, I will demonstrate how to identify a Suspect/Counterfeit bolt. We will be working together on this demonstration as I state what some of the markings look like, and I will ask you to use your head mark list in your handout, then together we will separate acceptable bolts from SC bolts.

As we go through this exercise, please refer to the list below to pinpoint where some of these SC fasteners come from. For the most part, a major source of our problem comes from the Pacific Rim Countries: China, Japan, Korea, Yugoslavia, Taiwan, etc. We do, however, also receive these SC items from Canada and Mexico. So relax and lets go over the DOE head mark list and I'll show you on the Operator's Aid, where they are and what grade they are. One of these Operator Aids will hang in EVERY craft shop within 10 days of the beginning of this training. If your shop does not receive one, please call me at X6570 and I will get one to you.

1. All Grade 5 and Grade 8 fasteners of foreign origin which do not bear any manufacturer's head mark, are counterfeit.
 - ☛ The Grade 5 fastener will have 3 radial lines equally spaced.
 - ☛ The Grade 8 fastener has 6 radial lines spaced a 60° angles.
 - ☛ Beware of the grade 8.2 bolt with 6 radial lines displayed in what is called the "Sunrise Mark". All the lines are centered on the top one half of the bolt head and will be designated with the mark: "KS".
2. All Grade 5 fasteners with the headmarks of:
 - ☛ A "J" for the Jinn Her Company (Taiwan).
 - ☛ A "KS" for the Kosaka Kogyo Company (Japan).

*At this time there are only two known grade 5 fasteners identified as SC:
"J" and "KS".*

3. Grade 8 fasteners with the following manufacturer's head marks:

- ☛ An "A" from Asshi Mfg (Japan)
- ☛ An "NF" from Nippan Fasteners (Japan)
- ☛ An "H" from Hinomato Metal (Japan)
- ☛ An "M" from Minamida Sieybo (Japan)
- ☛ An "MS" from Minato Kogyo (Japan)
- ☛ A "KS" from Kosaka Kogyo (Japan)
- ☛ An "RT" from Takai Ltd, (Japan)
- ☛ An "FM" from Fastener Company of Japan (Japan)
- ☛ A "KY" from Kyoei Mfg (Japan)
- ☛ A "J" from Jinn Her Company (Taiwan)
- ☛ A "Hollow Triangle", usually located between two of the radial lines, (from Canada, Taiwan, Japan, and/or Yugoslavia).
- ☛ An "E" from Daici Company (Japan)
- ☛ A "UNY" from Unytite Company (Japan)

*At this time there are 12 Grade 8 Fasteners identified as
Suspect/Counterfeit.*

4. A Grade 8.2 fastener with all 6 lines located on the top half of the bolt head with a "KS" marking below it. (Japan)

5. All "A325" fasteners (From the Bennett Denver Target Only) with the following head markings:
- ☛ Head with NO radial lines and the insignia: A325
KS
 - ☛ Head with three radial lines below/above the insignia: A325
KS
 - ☛ Head with NO radial lines and the A325 underlined: A325
KS
6. Determining the "grade" of a bolt by looking at the head.....
- ☛ If a head has NO radial lines at all, it could be a grade 2 or 3 (possibly) and made of low carbon.
 - ☛ If a head has 3 radial lines equally spaced, it would be a grade 5, made of medium carbon and heat treated to 120,000 psi.
 - ☛ If a head has 6 radial lines spaced at 60° intervals, it would be a Grade 8, made of top grade Alloy Steel and heat treated to 150,000 psi.
 - ☛ If a head has more than 6 radial lines (say 8), and had a hollow square in the center, it would Exceed a Grade 8, made of top grade Alloy Steel and heat treated to 180,000 psi.

Any questions on how you determine the grade of a bolt? What about determining at a glance whether or not a bolt is on the counterfeit list? Let's go on and do a little practice.

IV. Application (exercise/practice)

A. Review safety precautions

There are NO safety precautions involved in this procedure.

B. Practice under supervision

Reference Enabling Objective E.O.1.6

At this time, I have a set of flash cards and I am going to show you a bolt with a head mark on it. When I show you this bolt on a particular card, I want you to tell me three things:

1. *What is the "Grade" of the bolt?*
2. *Is the bolt an acceptable one, or is it counterfeit (SC)?*
3. *Defend your decision.....why is it either acceptable, or counterfeit?*

V. SUMMARY AND REVIEW

A. Review the main points

Before we actually go into a review.....in the beginning I asked you a question concerning the actual prosecution of counterfeiters. I stated that we would talk about this later in the lesson. Now I am going to quickly go over 4 documented cases which have actually been prosecuted. There are many more, however, we don't have the time to go over all of them right now.

The following information is simply FYI. Relax and follow along with me in your handout.

1. January 1987, Reynolds Fasteners; Arlington, Texas.

The case was settled.

Verdict.....the company pled guilty to 1 felony charge with a \$10,000 criminal fine, a \$1 million civil fine and was forced to forfeit \$300,000 worth of inventory.

2. September 1989, Rice Aircraft, Inc.; Hauppauge, New York.

The company pled guilty to 2 felonies, \$50,000 fine, and a \$1 million in restitution.

The President of the company, Mr Bruce Rice, also pled guilty to 3 felonies, received a \$50,000 fine, 5 yrs in jail and was forced to pay \$1 million in restitution.

3. March 1990, McHaffie, Inc.; Sylmar, California.

Pled guilty to conspiracy and 2 false statements and received \$750,000 in fines.

The President of the company, Mr Norman McHaffie, pled guilty to 1 false statement, received \$750,000 in fines and spent 3 years in jail.

The Production Manager, Mr. William Whitman, pled guilty, spent 20 weekends in jail and was forced to do 150 hours of community work for his knowledge of the transaction.

4. June 1991, Aircom Fasteners Inc.; Arlington, Texas.

Pled guilty to 9 false statements and 2 counts of Customs Fraud. Received \$100,000 in fines, \$2,200 in special assessments and 3 years probation and was forced into debarment.

Now if no one has a question, I will ask you some questions over the material we covered in this lesson. This is not a test, it is simply to review the material for your own understanding. During this review, please feel free to ask questions if you need to.

Ques: How many radial lines will a Grade 5 fastener have?

Ans: 3 Radial lines.

Ques: How many radial lines will a Grade 8 fastener have?

Ans: 6 radial lines.

Ques: What color is an item marked (Painted) if it is determined to be "critical"?

Ans: A medium blue.

Ques: What color is an item marked (Painted) if it is determined to be a Non-Q item?

Ans: Red or orange.

Ques: You are the "identifier" of a counterfeit item. Who must you notify?

Ans: The FM/FBM, PLC or designee.

Ques: What three things must be taken into consideration before removing a SC item?

Ans: The inspection and replacement plan criteria; the Systems Engineering Evaluation; and the priority of existing "critical" work.

Ques: Who is responsible for reporting the finding of a SC item to the Operations Center?

Ans: The FM/FBM, PLC or designee.

Ques: Who is responsible for initiating the PX-3108?

Ans: At this time, the FM/FBM.

B. Restate the learning objectives

(T.O.1.0) Using the Suspect/Counterfeit Head Mark list displayed on the Operator's Aid, **SEGREGATE** the acceptable fasteners from the unacceptable fasteners given to you in a box by the instructor, and **DEFEND** your decision in accordance with ANSI B-18.2.1 and the DOE Suspect/Counterfeit Head Mark list.

NOTE: The conditions and standards of the Enabling Objectives are the same as the Terminal Objective, unless otherwise stated.

Enabling Objectives:

(E.O.1.1) DISCUSS the Pantex Suspect/Counterfeit Items Program utilized at the plant.

(E.O.1.2) DISCUSS the hazards associated with the use of Suspect/Counterfeit fasteners and some Lessons Learned.

(E.O.1.3) STATE the definitions of some of the most frequently used "terms" when dealing with suspect/Counterfeit Items.

(E.O.1.4) Briefly IDENTIFY the responsibilities of the Identifier, the Facility/Building Managers & PLC's, the Materials Processing Operations Department, and the Infrastructure Maintenance Department, and Construction Activities, according to STD-6241.

(E.O.1.5) STATE the procedure for identifying and removing Suspect/Counterfeit items as they relate to the Identifier, the Facility/Building Managers & PLC's, the Maintenance Department and the craft supervisors, according to STD-6241.

(E.O.1.6) STATE the procedure for the Control of removed Suspect/Counterfeit Fasteners and the procedure used to destroy them.

C. Restate the motivator

Every year many overseas companies are costing the American Industry millions of dollars in lost revenue. Counterfeit bolts (fasteners) in our aircraft carriers is perhaps one of the most dangerous of all places. The US Army has found some Suspect/Counterfeit Fasteners in the M1 And M60 tanks.

The auto industry recalls thousands of cars and trucks each year because they are

finding more and more Suspect/Counterfeit fasteners being supplied to this industry. Nuclear Reactors are another area of real concern for these fasteners. These are not, by far, the only places a suspect/counterfeit fastener is dangerous.

ISM: Any place where a counterfeit item puts a life in danger is serious. The construction business, for instance, has experienced deaths due to substandard fasteners. Education is our best defense against these kinds of accidents happening. This training will help you to spot these items at a glance and you could be very instrumental in preventing a serious injury or DEATH.....possibly your own!!!

VI. EVALUATION/EXAM

INSTRUCTOR: Use JPM #03044.

Day, Nancy

From: Singh, Rabindra
Sent: Wednesday, May 07, 2003 2:23
To: Day, Nancy
Subject: FW: Temperform Response

Please add this to Pantex Response.Thanks. Rabi

-----Original Message-----

From: Michael L Ulshafer [mailto:MULSHAFE@pantex.doe.gov]
Sent: Tuesday, May 06, 2003 5:48 PM
To: Thomas.Rotella@nnsa.doe.gov
Cc: Rabindra.Singh@nnsa.doe.gov
Subject: Re: Temperform Response Vehicle

Thanks Tom for the easy reply format. Two things you requested:

1) Federal Cost Estimate Associated with the Temperform Investigation:

Mike Ulshafer: August - September 2002 = 7 hours @ \$50/hour = \$350

Mike Ulshafer: March - May 2003 = 3.5 hours @ \$54/hour = \$189

Jeff Tedrow: March - April 2003 = 3 hours @ \$58/hour = \$174

Total = \$713

2) In addition, it was brought to my attention that we (Pantex) somehow responded to an earlier version of the "Temperform Lines of Inquiry" in which the wording was slightly altered (for items 2 and 4.2) from the April 4th, Mr Everet Beckner letter. I am not sure how this happened, but I regret this oversight. I do not believe any changes are necessary as our response for item #3, also covers the response for the altered wording under item #2. The response for item 4.2 is sufficient as is. Consequently, our submittal is still accurate. Call me if you have questions, 806-477-3145. Thanks, Mike

>>> "Rotella, Thomas" <Thomas.Rotella@nnsa.doe.gov> 05/06/03 12:53PM >>>
Mike... a response to this email should do it.. fax sent at 1:50pm EDT.

Thanks,
T

5/7/2003

memorandum

National Nuclear Security Administration
Pantex Site Office

DATE: AUG - 7 2003

REPLY TO
ATTN OF: PXSO:WQS:MLU


SUBJECT: Investigation of the Use Improperly Heat-Treated Parts Supplied by Temperform USA

TO: Everet H. Beckner, Deputy Administration for Defense Programs, NA-10 HQ:FORS

REFERENCE: Pool/Ulshafer, memorandum, dated August 6, 2003, subject as above.

Attached is BWXT's supplemental response to your April 4, 2003 memorandum, same subject, specifically addressing items one and two of the Temperform USA Lines of Inquiry with regards to BWXT's subcontractors. The scopes of involved subcontractors were limited to those that supplied safety-related or mission-sensitive products or services. Twelve primary subcontractors that had done work at Pantex from 1998 to the present, participated in this investigation. Additionally, eight vendors that supplied tempered aluminum to Pantex between 1998 and present also participated. All subcontractors and vendors contacted, reported that they had not provided any materials, parts, components, or equipment that may have been heat-treated, supplied, or tested by Temperform USA or any of its vendors.

If you have further questions, please call Wendell Shoemaker at (806) 477-3122.



Daniel E. Glenn
Manager

Attachment: as stated

cc w/attachment:

K. Waltzer, PXSO, 12-36A
W. Shoemaker, PXSO, 12-23
M. Blackburn, PXSO, 12-23
S. Erhart, PXSO, 12-36A
G. Pool, BWXT, 12-69C
B. Barringer, BWXT, 12-107A
R. Singh, NA-124/HQ:GTN
F. Gregory, NA-121.3/AL
X. Ascanio, NA-124/HQ:GTN

S: AMOA/2003memos/12855



P.O. Box 30020 Amarillo, Texas 79120 806/477-3000

August 6, 2003

Mr. Michael L. Ulshafer
Weapons Quality Staff
U. S. Department of Energy
National Nuclear Security Administration
Pantex Site Office
P. O. Box 30020
Amarillo, TX 79120-0030

Subject: Investigation of the Use of Improperly Heat-Treated Aluminum Parts Supplied by Temperform USA

Reference: Memorandum Everet H. Beckner, Deputy Administration for Defense Programs and C. S. Przybylek, Chief Operating Officer, Department of Energy (DOE) National Nuclear Security Administration (NNSA) Washington, DC 20585 dated April 4, 2003

Dear Mr. Ulshafer:

The purpose of this correspondence is to provide a supplementary response to items 1 and 2 of the Temperform USA Lines of Inquiry, as attached to the referenced memorandum.

While our initial response to your correspondence did not address subcontractors, BWXT Pantex has now completed consultations with subcontractors and vendors concerning items 1 and 2 of the Temperform USA Lines of Inquiry. The following response is hereby provided:

	Temperform Lines of Inquiry	Response	Status
1.	Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated, supplied, or tested by Temperform USA after May 1998?	Relevant subcontractors and vendors of BWXT Pantex were requested to respond to this line of inquiry. All firms have indicated they had not provided any materials, parts, components, or equipment that may have been heat-treated, supplied, or tested by Temperform USA after May 1998.	Complete
2.	Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated supplied, or tested by Temperform USA from vendors/suppliers identified on Attachment 2 after May 1998?	Relevant subcontractors and vendors of BWXT Pantex were requested to respond to this line of inquiry. They have indicated they had not provided any materials, parts, components, or equipment that may have been heat-treated, supplied, or tested by Temperform USA from vendors/suppliers identified on Attachment 2 of the memorandum after May 1998.	Complete

Mr. Michael Ulshafer

Page 2

Questions or concerns should be directed to Bob Barringer at (806) 477-4356 or Kathy Brack at (806) 477-4099.

Very truly yours,



Gary E. Pool
Division Manager
Planning, Scheduling & Integration

ess

cc: Mike Mallory, 12-69A
Dan Swaim, 12-69A



Department of Energy
National Nuclear Security Administration
Nevada Operations Office
P.O. Box 98518
Las Vegas, NV 89193-8518

Rabindra N. Singh, Nuclear Engineer, Office of Operations and Readiness, NNSA/HQ
(NA-124) GTN

**INVESTIGATION OF THE USE OF IMPROPERLY HEAT-TREATED ALUMINUM
SUPPLIED BY TEMPERFORM USA**

Reference: Memo, Beckner to Carlson, dtd 04/04/03

This letter is in response to the referenced memorandum requesting National Nuclear Security Administration Nevada Site Office (NNSA/NSO) to investigate whether heat-treated aluminum parts, supplied by Temperform USA, are used in safety-related or mission-sensitive applications at the NNSA/NSO. The NNSA/NSO has determined that our contractor and their subcontractors have not used materials/parts, components, or equipment that may have been heat-treated, supplied, or tested by Temperform USA in a vital safety system. This review addressed the lines of inquiry listed in your subject memorandum. Enclosed for your information is Bechtel Nevada's (BN) letter to NNSA/NSO summarizing their investigation.

In addition to this review, NNSA/NSO will be performing an assessment of the BN Quality Assurance Program, including the Suspect/Counterfeit Items Program during this calendar year.

The NNSA/NSO federal cost associated with this investigation is estimated at \$3,000. This cost is solely based on labor hours used to conduct this investigation. We anticipate no additional costs such as training to be associated with this effort.

Should you have any questions, please contact Donald G. Horton at (702) 295-6714.


Terry L. Wallace
Assistant Manager
for Technical Services

PAD:JMS-3025
SHM-05-06

Enclosure:
As stated

cc w/encl:
E. H Beckner, NNSA/HQ (NA-10) FORS
J. H. Roberson, DOE/HQ (EM-1) FORS

MAY. 5, 2003 4:16PM

NO. 921 P. 3/4

Bechtel Nevada

Mailing address: P.O. Box 88021
Las Vegas, NV 89183-8821

Express mail only 2621 Lasoo Road
North Las Vegas, NV 89630-4120
E000-FT-03-0113

May 1, 2003

K. A. Carlson, Manager
U.S. Department of Energy
National Nuclear Security Administration
Nevada Site Office
P.O. Box 98518
Las Vegas, NV 89193-8518

Subject: **INQUIRY REGARDING TEMPERFORM USA**

- References: (1) Department of Energy Memorandum from Jessie Hill Roberson to Distribution, Received February 11, 2003
(2) Department of Energy Memorandum from Everal H. Becker to K. A. Carlson, Manager, U.S. Department of Energy National Nuclear Security Administration Nevada Site Office (NNSA/NSO), dated April 4, 2003

Bechtel Nevada (BN) received an inquiry from NNSA/NSO on December 29, 2002, requesting that BN review procurements of aluminum materials made between 1998 and 2002 for the purpose of identifying any such procurements that involved Temperform USA. The NNSA/NSO inquiry was accompanied by a list of companies that were known to have had business transactions with Temperform USA in the past. NNSA/NSO requested that BN determine if any aluminum materials received during that time period were used in any vital safety systems.

BN circulated the list of companies provided by NNSA/NSO through the BN Procurement & Property Management Department and completed a review of all purchase orders issued in the 1998-2002 time frame. The review identified 15 purchase orders involving the Eric M. Jorgensen Company (EMJC) wherein, aluminum materials were furnished to BN. The review also identified one purchase order involving the Allied Signal Company wherein, aluminum materials were furnished to BN. Consequently, BN issued Suspect/Counterfeit Alerts 03-1 and 03-2 to BN personnel who had requested the purchase of the aluminum material, seeking to ascertain whether these materials were in current inventory or had been used in a vital safety system.

BN personnel familiar with the end use of the aluminum material furnished by Allied Signal Company reported that these materials were not in current inventory and were used in applications other than vital safety systems. The Allied Signal West Coast Support Operations Office also confirmed that the material provided to BN was not furnished by, or in any way treated by, Temperform USA.

BN personnel familiar with the end use of the aluminum materials furnished by EMJC on 12 of the 15 purchase orders, previously mentioned, reported that these materials were not in current inventory and were used in applications other than vital safety systems. For various reasons, such as the unavailability of personnel familiar with the end use of the material, BN was unable to determine where the aluminum materials furnished on the remaining 3 EMJC purchase orders

FROM ESHD

(TUE) 5_6'03...9:34/ST. 9:33/NO. 4860748305 P 4

MAY. 5. 2003 4:16PM

NO. 921 P. 4/4

E000-FT-03-0113
K. A. Carlson
Page 2 of 2
May 1, 2003

were ultimately used. However, according to EMIC, the aluminum materials furnished by EMIC on the remaining three purchase orders were not furnished by, or in any way treated by, Temperform USA. EMIC representatives informed BN that Temperform USA has never been a subcontractor to EMIC for any BN procurements. On February 13 and February 20, 2003, respectively, BN Suspect/Counterfeit Alerts 03-1 and 03-2 were closed.

The cost of the effort to complete the foregoing inquiry is \$2,500.00. In accordance with the BN Contract, BN maintains a Suspect/Counterfeit Items Program, which is described in Company Directive CD-3200.004, "Suspect/Counterfeit Items Program." The company directive prescribes the training requirements for Nevada Test Site personnel. Two training sessions have been completed in Fiscal Year 2003. One training session occurred in December 2002, which included 74 attendees; the other training session occurred in March 2003, which included 44 attendees.

If you have further questions or if BN may be of further assistance in this matter, please contact P. A. Mars at (702) 295-0167.


Frederick A. Tarantino
General Manager

Subject Code: PNC 4

cc: Correspondence Control, CF008
D. G. Horton, NNSA/NSO, 505
R. D. Loney, BN, CF007
P. A. Mars, BN, CF007
F. J. Ruth, BN, CF007
T. L. Wallace, NNSA/NSO, 505



Ideas That Change the World

*Associate Laboratory Directorate for
Weapons Engineering and Manufacturing
Richard V. Bynum, Deputy Associate Director
P.O. Box 1663, MS A102
Los Alamos, New Mexico 87545
Ph: 505-667-9807/Fax: 505-667-9988*

Date: May 8, 2003
Refer To: DADWEM:03-026

Eugene T. Rodriguez
Associate Director for Office Program Liaison
U. S. Department of Energy
Los Alamos Site Office (LASO)
528 35th Street
Los Alamos, NM 87544

Dear Mr. Rodriguez:

Subject: Temperform - Supplemental and Clarification Information

Reference: Memorandum to Gene Rodriguez from Vann Bynum, DADWEM:03-023 dated April 30, 2003

In accordance with the discussions held in the teleconference with DOE Headquarters this morning, attached is the supplemental information and clarification to the reference memorandum.

If you have any questions or need additional information, please call Chris Bader at 505-667-9321.

Sincerely,

Richard V. Bynum, PhD
Deputy Associate Director
Weapons Engineering and Manufacturing

RVB:CPB:bg

- Attachments:**
1. Supplemental Information to Paragraph #3 of Referenced Memorandum
 2. Clarification Memo to Pressure Safety Analysis - HSR-5-03-105.
 3. Analysis of Incorrect Heat Treatment by Temperform

Eugene T. Rodriguez

-2-

May 8, 2003

Cy: Anita Lievo, DOE/LASO, A136
Rich Mah, ADWEM, A107
Earle Marie Hanson, ESA-DO, P945
Paul Follansbee, MST-DO, G754
John Straw, NMT-DO, E500
Mary Hockaday, DX-DO, P918
Larry Lucero, NMT-6, E525
Deborah Lucero, ADWEM/QAO, C343
Derrick Montoya, DX-1, P950
Dave Montoya, ESA-WSE, C936
Alan Patterson, MST-6, G770
Dave Webster, PS-1, P949
David Mann, NMT-6, E525
Eric Ernst, NMT-DO, E509
Phil Romero, HSR-5, K403
Chris Bader, ADWEM, A102
DADWEM File
IM-5, A150

Cpbader, May 8, 2003

Attachment 1

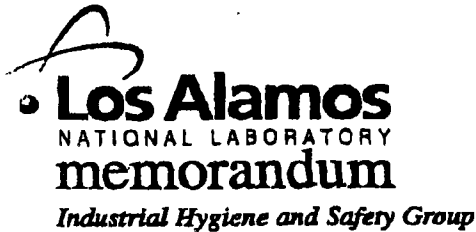
Reference: Memorandum DADWEM: 03-023, Dated April 30, 2003, Subject:
Temperform Status

Subject: Supplemental information to paragraph #3 of the referenced document

Add paragraph to item #3 as follows:

It should be noted that 8 orders of the temperform material were used to produce 16 containers that store plutonium products in an inert atmosphere. Analysis has determined no structural or safety concerns; however, these items will be replaced since they are used within a glove-box environment and subject to handling damage that could present interface issues. Replacement of 13 of these items, using properly verified material, will be completed by May 30, 2003. The balance of the items will be removed from service and scrapped.

Attachment 2



To/MS: Christopher Bader, A102
From/MS: Phil Romero K403
phir@lanl.gov
665-8503
Phone:
Date: May 8, 2003
ID: HSR-5-03-105

SUBJECT: CLARIFICATIONS TO THE PRESSURE SAFETY ANALYSIS OF PIT STORAGE CONTAINER, REF. HSR-5-03-073 MEMO

A meeting was held on May 8, 2003 in which a number of questions surrounding the safety analysis of the pit storage containers were discussed. The following information is provided as a means to clarify information presented on the original analysis.

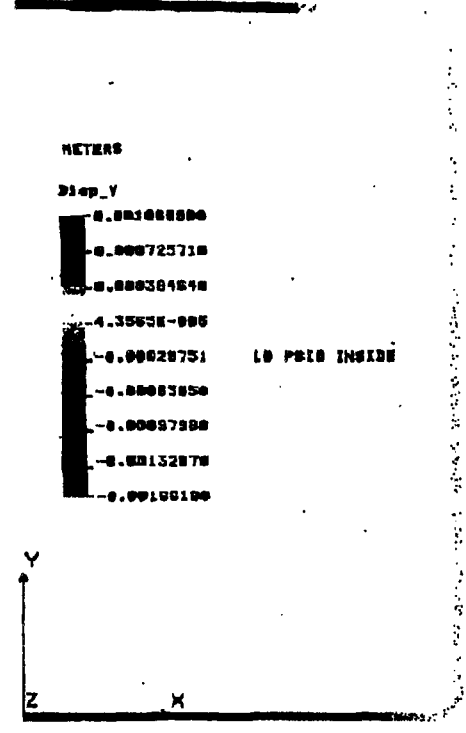
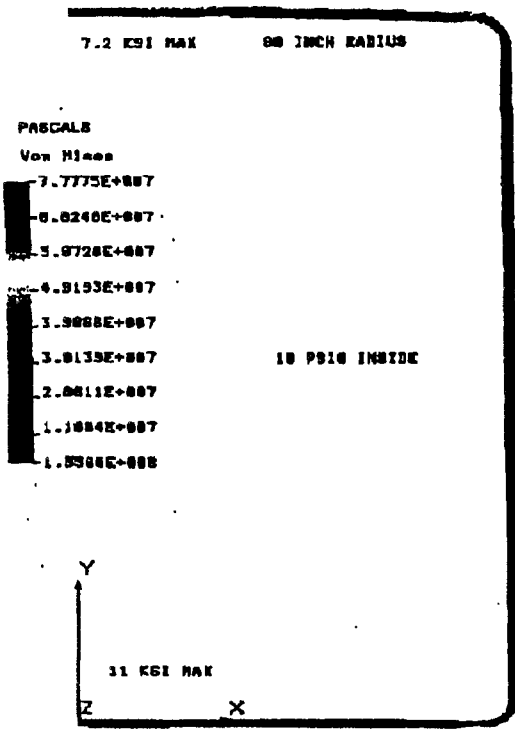
A memo was issued on March 12, 2003 to Jim Watts, ESA-DE documenting the results of a request which was made to the pressure safety committee to perform a safety analysis of the pit storage containers per LANL drawing No. 55Y638822. The operating pressure of the containers is 3 to 4 psig and they are equipped with a pressure relieve device set at 7 psig. Initial communications related concerns regarding the temper of the 6061 aluminum. The concern was that the aluminum temper was not T6 but could be as low as T0.

Thus to determine the actual stresses, an axisymmetric finite analysis was performed on the bottom (base section) and sides of the container as this was the area of concern in terms of overstressed conditions. Note the analysis was performed using strictly SI Units and the results converted. Specifically two geometries were examined:

- (1) the actual flat bottom (base) (shown in the lower portion of the figure) and
- (2) a bottom base section with a slight radius (shown in the upper portion of the figure).

The analysis was performed using 10 psig inside of the can and because it is a linear analysis, the results were scaled back to the relief device setting of 7 psig and the bending stress documented. The figures below show stress (left portion of the figure) and deformation (right portion of the figure). The left figure depicts the stresses beginning at the base of the can (11 ksi) with an applied pressure of 10 psig, or (7.7 ksi) at 7 psig. Furthermore, with an applied pressure of 4 psig, the resultant stress at the base of the can would be 4.4 ksi, which is within the allowable of 7.2 ksi for T0.

The original analysis depicted the bending stress at a point referenced as an 80 inch radius, this parameter was inserted into the model to hypothetically depict stresses should the base deform to this modest amount. Considering the moderate stress obtained at the base with a flat bottom, this hypothetical scenario would not occur.



Deflections are shown in the right figure. The flat bottom (base) of the can would deflect to 0.05 inches or 1.2 mm at 7 psig.

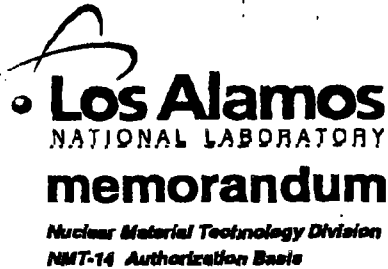
In summary, these containers are considered safe for use at 4 psig in the TD temper. In addition the pressure relief device provides protection against an over pressurized condition. The pressure relief device is set at 7 psig and within the limits specified in the ASME Boiler and Pressure Vessel Code.

Please look over these comments and feel free to call me if you have any additional questions or need further clarification.

Ptr

Cy: David Mann, NMT-6, E525
 Jeff Kinzer, NMT-6, E525
 PVPC File

Attachment 3



To/MS: Eric Ernst, NMT-DO, E500
From/MS: Derek Gordon, NMT-14, E578
Phone/Fax: 5-1951/5-8978
Symbol: NMT-14:03-046
Date: May 8, 2003

ANALYSIS OF INCORRECT HEAT TREATMENT BY TEMPERFORM

The Storage Containers in question are used for component storage in inert or dry air environments. The containers are used inside glovebox lines in PF-4. The containers are filled to no more than 4 psig. The containers have a pressure relief valve (PRV) that is set at 7 psig.

Neither the storage container nor the pressure relief valve have safety class or safety significant functions.

Assuming the container releases its contents into a standard glovebox, the pressure increase is negligible.

The current Documented Safety Analysis (TA-55 Hazard Analysis, page B.5-16) has identified and bounded the release/failure of the storage container outside the gloveboxes. The failure of Pu storage container in cabinets or during movement results in a Frequency II (frequency between 1 in 100 years and 1 in 10 years) and Consequence B (severe injury or disability, $5 \text{ rem} < x < 400 \text{ rem}$). These containers will be used inside a glovebox line, thus a failure of these containers in a glovebox line is bounded by this scenario.

In addition, the DSA describes a glovebox overpressurization hazard scenario (TA-55 HA, B.7-19). This hazard scenario also bounds the overpressurization of a glovebox that may be caused by a release/failure of a storage container within the glovebox. This scenario also results in a Frequency II and a Consequence B.

An analysis has been performed which shows the containers have sufficient capacity to withstand an internal pressure of 7 psig. This conclusion was based on allowable stresses derived from the ASME Boiler and Pressure Vessel Code. It should be noted that this code is not technically applicable for vessels used at less than 15 psig. It does provide a reasonable basis for evaluation.

Gloveboxes are considered safety significant structures in the TA-55 DSA. Their safety function is to provide a barrier to the uncontrolled release of nuclear material to the laboratories. If a container were to release its pressure inside the glovebox, the glovebox will contain this pressure and prevent a release. The containers are made of aluminum and will undergo significant deformation prior to failure. Should failure occur,

the material will fail in a ductile mode, thus fragments are not expected. Any nuclear material released to the glovebox in this event would also be contained by the glovebox.

In summary, failure of the storage containers are covered and bounded by the TA-55 DSA. No margin of safety was defined for these components and the defined safety controls for TA-55 provide adequate protection for workers, the public and the environment.

According to the laboratory USQD process, the receipt of new information from a vendor needs to be considered an entry condition for the PISA process. In this case, the receipt of new information does not affect the TA-55 DSA and no further in the PISA process is required.

On a related topic, the improperly tempered material will be the subject of a LANL site wide ORPS report which will be prepared and submitted by PS-7, the Occurrence Reporting group.

cc:
NMT-14 File

memorandum

National Nuclear Security Administration
Los Alamos Site Office
Los Alamos, New Mexico 87544

DATE: **MAY 06 2003**
REPLY TO: OPL-7ABL-0003-0027
ATTN OF:
SUBJECT: Investigation of the Use of Improperly Heat-Treated Aluminum Parts Supplied by Temperform USA

TO: Everet H. Beckner, Deputy Administrator for Defense Programs
NNS-HQ, NA-10/FORS

We have completed our investigation of potential use of improperly heat-treated aluminum materials in safety-related or mission-sensitive applications at the Los Alamos National Laboratory (LANL). LANL and Los Alamos Site Office (LASO) responses to the lines of inquiry are as follows:

1. *Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated, supplied, or tested by Temperform USA after May 1998?*

Yes. See Response to Inquiry 2.

2. *Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated, supplied, or tested by Temperform USA from vendors/suppliers identified on Attachment 2 of the April 4, 2003, memorandum from Everet H. Beckner, Deputy Administrator for Defense Programs and C. S. Przybylek, Chief Operating Officer after May 1998.*

LANL's review of vendor/supplier purchase requests revealed that 41 items were acquired from Reliance Metals and one item was purchased from a subcontractor of Allied Signal, Research Metal Foils, RMF. This one item contained approximately 0.01% of material processes by Temperform. These purchases began in 1999 and continued through a portion of 2003.

3. *If materials/parts, components or equipment heat-treated, supplied or tested by Temperform or Temperform vendors were procured, were they identified as nonconforming and either removed or technically justified for use?*

LANL technically reviewed all located items and subsequently determined that each was either acceptable for use or cited for scheduled removal from service by May 30, 2003. An engineering analysis was completed on one storage container to determine the appropriateness of continued use. The need for an Unresolved Safety Question Determination (USQD) was

evaluated and determined by LANL to be unnecessary per site procedures. LANL determined that a Justification for Continued Operations (JCO) was not required for this anomaly. LASO has reviewed and concurs with LANL's path forward.

There are five items for which ultimate use could not be identified. The recipients of these items were identified and due to the nature of their departmental work, it is known that their mission does not involve facility safety class or safety significant systems or mission-sensitive applications.

4. *If you discover that site contractor(s) (or subcontractors) have or use material/parts, components, or equipment heat-treated, supplied, or tested by Temperform USA or Temperform USA vendors:*
 - a. *Determine whether these materials/parts, components or equipment are installed in any system performing a safety function (i.e., safety class or safety significant system), or if they are intended for use in a safety system but are still in inventory; or if installed or intended for use in mission-sensitive application. If you discover parts in safety systems, please perform an engineering evaluation to determine any reliability impact, if possible, remove these items from service immediately or during regular scheduled maintenance, and perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.*

No known items have been fabricated with this suspect material in support of facility safety class or safety significant systems. However, LANL did perform comprehensive evaluations to determine if mission-sensitive applications had been compromised. Attachment 1 is a representative sample of evaluations performed. LANL has determined that this equipment will be replaced.

As stated above, the five items that could not be located, were distributed to departments whose mission does not involve safety significant systems, safety class systems, or mission-sensitive systems. All other items identified were evaluated, and where necessary, segregated with Nonconformance tags or removed from service as appropriate.

- b. *Collect and track information on procurement and use of Temperform materials for non-safety related systems or mission-sensitive applications.*

As noted in Attachment 2, all items have been identified and tracked to ensure appropriate dispositioning. Attachment 3 describes actions and evaluations completed by LANL Design Agency to ensure that specific product was not comprised or impacted.

LANL has initiated formal documented nonconformance reports and entered them into the Corrective Action Management Systems (CAMS).

LANL's Performance Surety Division issued a site-wide Notice on October 4, 2002, notifying LANL personnel of concerns regarding heat-treated aluminum supplied by Temperform USA.

5. *Information collected should include the supplier, type of material, and quantities.*

LANL has identified the suppliers and the type of material. See information on Attachment 2.

6. *Determine the cost associated with this investigation.*

LANL estimated that this investigation has cost approximately \$83,000 in man-hour allocations and approximately \$17,000 for part replacement activities for a total costing of approximately \$100,000.


The Los Alamos Site Office (LASO) estimated that this investigation has resulted in approximately \$6,000 of man-hour costs.

7. *Identify training provided by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and Federal Contractor Employees.*

LANL previously utilized the training services of the DOE provided contractor to train workers in the area of suspect counterfeit parts per DOE Order 440.1A. Since the discontinuation of that service, LANL is coordinating future training sessions.

LASO personnel previously participated in the training services of the DOE provided contractor to train workers in the area of suspect counterfeit parts per DOE Order 440.1A. Since the discontinuation of that service, in the future, LASO personnel will participate in LANL coordinated training sessions.

If you have any questions regarding this information, please contact Anita Leivo at (505) 667-1021 or Jose Cedillos at (505) 665-6437.


Ralph E. Erickson
Manager


Everet H. Beckner

4

3 Attachments

Cc w/attachment:

R. Singh, NNSA/HQ, NA-12/GTN
G. Rodriguez, LASO, OPL
A. Leivo, LASO, OPL
J. Cedillos, LASO, OPM
V. Bynum, LANL, ADWEM, MS-A102
C. Bader, LANL, ADWE, MS-A102
D. Webster, LANL, PS-1, MS P949


Los Alamos
NATIONAL LABORATORY
memorandum
Industrial Hygiene and Safety Group

Attachment (1)

To/MS: Jim Watts
jrwatts@lanl.gov
From/MS: Robert Bourque K403
bourque@lanl.gov
Phone: 665-6936
Date: March 12, 2003
ID: HSR-5-03-073

SUBJECT: PRESSURE SAFETY ANALYSIS OF PIT STORAGE CONTAINER

Concern has been raised that the temper of the 6061 aluminum in the existing pit storage containers are not T6 but could even be T0. The allowable stress in T0 condition is much less than in T6. These containers are pressurized to 7 psig and, curiously, have fairly thin flat bottoms. The issue is whether or not the bottoms will be overstressed and, if so, what are the consequences.

Aluminum 6061 has the following properties at room temperature:

Temper	Su, ksi	Sy, ksi	Elong, %	Bhn, g	Sm, ksi	Sb, ksi
T0	18	8	30	30	5.1	7.2
T6	45	40	17	95	12.9	19.3

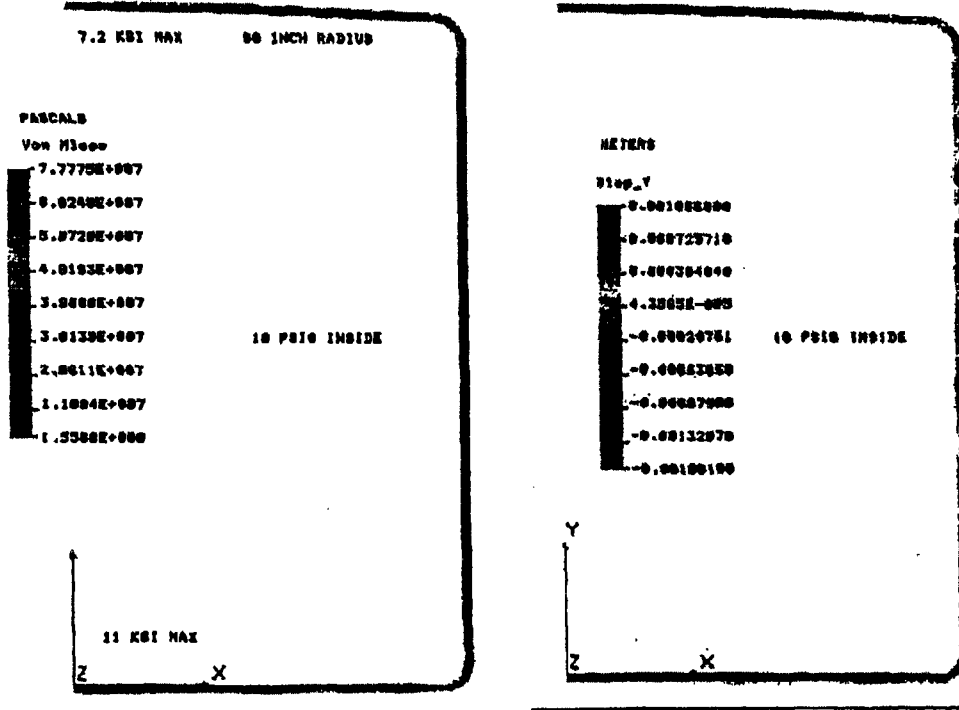
Sm is the allowable membrane stress based on the ASME Boiler and Pressure Vessel Code Section VIII, Div. 1 (minimum of $S_u/3.5$ and $2S_y/3$). Sb is the allowable outer fiber bending stress (minimum of $1.5S_m$ and $0.9S_y$). Because it is not clear that the containers are T6 temper, one must assume they are T0. However, one could tell by their Brinell (Bhn) hardness. If the opportunity arises, these hardness measurements should be made.

To determine actual stresses, an axisymmetric finite element analysis was performed on the bottom and sides of the container. Two geometries were examined: (1) the actual flat bottom and (2) a bottom with a slight radius, as would occur if the flat bottom "oil-canned" under pressure. The oil-canning would occur if the aluminum yielded and would continue until the radius was such that stresses were below yield. Because of the large failure elongation in the T0 condition, this deformation is not a safety issue.

The analysis was done with 10 psig inside. Being a linear analysis, the results can be scaled. The figures below show stress and deformation. The flat bottom is on the bottom; while an 80 inch radius bottom is on the top. The two bottoms were combined for convenience into a single model; their results can be interpreted separately.

The main stresses are bending; membrane stresses are very small. The flat bottom realizes a maximum bending stress of 11 ksi with 10 psig, or 7.7 ksi at 7 psig, just below the T0 yield stress but slightly above the allowable Sb. Even if the material were exactly T0 temper, it would still not yield. (However, it is likely that the temper is some at unknown level between T0 and T6). Even if there were some slight yielding not detected because of finite mesh size, the bottom

would deform to a radius much larger than the 80" shown in the top of the figure, where the maximum bending stress at 7 psig is only 5 ksi, well under the T0 Sb.



Deflections are shown in the right figure. The flat bottom would deflect 1.2 mm at 7 psig.

In summary, these containers are safe to use at least up to 7 psig even in the T0 temper. However, it is suggested that Brinell hardness be obtained, at least on the bottom, in order to determine the actual temper.

Please look over these comments and feel free to call me if you need any clarification. You are also invited to look at the new pressure safety web site for further information. It's at: <http://int.lanl.gov/safety/pressure/index.shtml>

Thanks for your cooperation.

Robert Bourque, Pressure Safety Committee Reviewer

REQUESTER	ORDER DATE	REC'D DATE	PART NUMBER/ITEM	MR ORDER NUMBER	Responsibility	Used for	Impact to WR product and/or Safety	Management Comments and Confirmation
Jill Hoffala	01/21/03	open	56657 Rod, Cast Alum 6061-T6 14.00 in dia	337176	ESA David Montoya	Used to manufacture a cross stock canned subassembly to undergo shock and vibration tests.	No impact.	Used for Development Purposes -Confirmed by Quality Council Member - David Montoya
Gilbert Sandoval for DX-5, Robert Thomson (Orlando Smith)	06/12/02	06/13/02	57832 Rod, 6061-T 13.25 dia x RL	153854	DX Derrick Montoya	DWG 34Y168511, Armando Hex pkg. (This was through JCI (Gilbert Sandoval for DX5 Robert Thomson.	No impact.	Some items built for subcrits from purchased stock. Communication with DX-5 engineering, Paul Leslie and Brian Emkile, has confirmed the items are not safety related and have not been used in a WR or JTA application. Confirmed by Quality Council Member - Derrick Montoya
Clinton Shorrock	06/03/02	06/13/02	ALT12573 Rod, Alum 6060-6 13.25 dia x RL	144946	ESA David Montoya	Dwg 076254A, Nose Torque Collar	No impact.	Used for Development Purposes -Confirmed by Quality Council Member - David Montoya
Clinton Shorrock	06/03/02	06/13/02	ALT12573 Rod, Alum 6061-T6 13.25 dia x RL	144941	ESA David Montoya	Dwg 076253A, Torque reaction collar	No impact.	Used for Development Purposes -Confirmed by Quality Council Member - David Montoya Used for tooling -Ref. 8XR N0058LA2003LA - Confirmed by Quality Council Member - David Montoya
A. J. Pasqueriello	04/06/02	04/10/02	57832 Rod, 6061-T6 13.25 dia x RL	101767	ESA David Montoya	Storage container. P/N 157Y700613, S/N 0005	No impact.	Confirmed by Quality Council Member - David Montoya
Lawrence Garcia	06/22/02	06/23/02	57832 Rod, 6061-T6 13.25 dia x RL	220754	DX Derrick Montoya	Used to fabricate over pack containers.	No impact.	Four items: Communication with Lawrence Garcia of NIS-6, confirmed items are not safety related and have not been used in a WR or JTA application. Initial response documented to Pat Ayala. Confirmed by Quality council Member - Derrick Montoya
Lawrence Garcia	06/22/02	06/23/02	56657 Rod, Cast Alum 6061-T6 14.00 in dia	220765	DX Derrick Montoya	Used to fabricate over pack containers.	No impact.	Same as above
Lawrence Garcia	06/20/02	06/22/02	57832 Rod, 6061-T6 13.25 dia x RL	218568	DX Derrick Montoya	Used to fabricate over pack containers.	No impact.	Same as above
Lawrence Garcia	06/20/02	06/01/02	56657 Rod, Cast Alum 6061-T6 14.00 in dia	218585	DX Derrick Montoya	Used to fabricate over pack containers.	No impact.	Same as above
Jeffrey Griego	07/30/02	08/05/02	56657 Rod, Cast Alum 6061-T6 14.00 in dia	197472	MST Alan Paterson	Material not used - still in stock	No impact.	Material will be scrapped and sent to salvage - Confirmed by Quality Council Member Alan Paterson
David Ross	06/16/02	06/21/02	56657 Rod, Cast Alum 6061-T6 14.00 in dia	215218	David Ross	Used in diagnostic packages for "Sub-critical" experiments. No structural integrity requirements.	No impact.	Used for Development Purposes - Confirmed by Gilbert Sandoval and Brian Emkilet

Attachment (2)

Gilbert Sandover	06/05/02	09/07/02	5667 Rod. Cast Alum 8081-TB 14.00 in dia	147878	SSS - Gilbert Sandover	Used in diagnostic packages for "Sub-critical" experiments. No structural integrity requirements. Used in diagnostic packages for "Sub-critical" experiments. No structural integrity requirements. No storage container (KT14-10500).	No Impact.	Used for Development Purpose - Confirmed by Gilbert Sandover and Brian Enfield
David Ross	09/12/02	03/15/02	Aluminum Round 8081, 14 1/4" Dia.	77639	SSS - David Ross	Used in diagnostic packages for "Sub-critical" experiments. No structural integrity requirements. No storage container (KT14-10500).	No Impact.	Used for Development Purpose - Confirmed by Gilbert Sandover and Brian Enfield
David Mann (Philip Dean)	02/22/02	02/25/02	Aluminum Round 8081, 14 1/4" Dia.	064737	MM Larry Lucero	Used in JCER Program, 88 looking 2-132	No Impact.	Used in looking applications. Reference SXR N0058A2002A - Confirmed by Quality Council Member Larry Lucero
Mark Rainbolt	02/04/02	02/05/02	Aluminum Round 8081, 14 1/4" Dia.	398833	ESA David Montoya	Used in JCER Program, 88 looking 2-132	No Impact.	Development team removed from service and will be rebuilt - Confirmed by Quality Council Member David Montoya
Tim Cash	10/22/01	10/23/01	Aluminum Round 8081, 13 1/4" Dia.	523559	DX Derrick Montoya	Used for stands on thing site shot	No Impact.	Price purchased by the DX-5 shops. DX-5 machinist, Tim Cash, recalls the stock being used for stands on a thing site shot and have since been destroyed. Confirmed items are not safety related and have not been used in a VFR or JTA application.
A.J. Pargament	08/17/01	08/18/01	Aluminum Round 8081, 13 1/4" Dia.	336492	ESA David Montoya	Storage container. PN 157Y700813, S/N 001.002.003.004	No Impact.	Used for looking -R6- SXR N0058A2002A - Confirmed by Quality Council Member - David Montoya
David Mann (Philip Dean)	09/22/01	09/23/01	Aluminum Round 8081, 14 1/4" Dia.	312373	MMT Larry Lucero	DWG 557683817 used in 948 storage container. KT14-1000-000	No Impact.	Used in looking applications. Reference SXR N0058A2003A - Confirmed by Quality Council Member Larry Lucero
Chad Sandover (Orlando Smith)	07/25/01	07/26/01	Aluminum Round 8081, 14 1/4" Dia.	466660	ESA David Montoya	Stress cushion mallet	No Impact.	Used for Development Purpose - Confirmed by Quality Council Member - David Montoya
Jacob Baris	05/03/01	05/04/01	Aluminum Round 8081, 14 1/4" Dia.	474692	MMT Alan Peterson	No records were kept for small part manufacturing resulting from this purchase.	Unable to locate	Unable to locate MMT shop does not make weapons products or safety class or safety significant systems Confirmed by Quality Council Member - Alan Peterson
Jacob Baris	04/02/01	04/03/01	Aluminum Round 8081, 14 1/4" Dia.	448468	MMT Alan Peterson	No records were kept for small part manufacturing resulting from this purchase.	Unable to locate	Unable to locate MMT shop does not make weapons products or safety class or safety significant systems Confirmed by Quality Council Member - Alan Peterson
Manny Martinez	03/18/01	03/20/01	Aluminum Round 8081, 13 1/4" Dia.	441114	ESA David Montoya	Prog TK07. Used as line components. AL case	No Impact.	Used for Development Purpose - Confirmed by Quality Council Member - David Montoya
Gabriel Garcia	03/18/01	03/19/01	Aluminum Round 8081, 13 1/4" Dia.	438845	ESA David Montoya	Prog JC83. Used in AN potting fixture	No Impact.	Used for Development Purpose - Confirmed by Quality Council Member - David Montoya
Matt Porter (Orlando Smith)	03/18/01	03/19/01	Aluminum Round 8081, 14 1/4" Dia.	440036	ESA David Montoya	LAMPs/Inspection fixture	No Impact.	Used for Development Purpose - Confirmed by Quality Council Member - David Montoya

Mark Chavez		03/14/01		437629		No impact.	Stock was purchased at DX-5 dev. machine shop that supports DARHT. The technician who purchased it does not remember it. Former DX-5 management, Leonard Trujillo, contacted to help track down what it could have been used for. Trujillo confirms that because of the time frame of the purchase as well as the nature of the work done in that particular shop, the use of the stock was not used in a safety related application and it definitely was not used in a WR or JTA application. Confirmed by QCM - Derrick Montoya	
Jacob Barco	03/13/01	03/13/01	Aluminum Round 6061, 14 1/4" Dia.	437930	MST Alan Paterson	No records were kept for small part manufacturing resulting from this purchase.	Unable to locate	Unable to locate MST shop does not make weapons products or safety class or safety significant systems Confirmed by Quality Council Member - Alan Paterson
Jacob Barco	03/13/01	03/13/01	Aluminum Round 6061, 14 1/4" Dia.	437930	MST Alan Paterson	No records were kept for small part manufacturing resulting from this purchase.	Unable to locate	Unable to locate MST shop does not make weapons products or safety class or safety significant systems Confirmed by Quality Council Member - Alan Paterson
Charles Hila (Phillip Duran)	02/27/01	02/28/01	Aluminum Round 6061, 13 1/4" Dia.	431838	ESA David Montoya	Dwg 15Y700234. Used in UT inspection station (KT14-1000-0000)	No impact.	Used for tooling - Ref. SXR N0062LA2003LA - Confirmed by Quality Council Member - David Montoya
David Ross	02/22/01	02/23/01	Aluminum Round 6061, 14 1/4" Dia.	160365	ESS - David Ross	Used in diagnostic packages for "Sub-critical" experiments. No structural integrity requirements.	No impact.	Used for Development Purposes - Confirmed by Gilbert Sandoval and Brian Emkiet
Manny Martinez	02/14/01	02/15/01	Aluminum Round 6061, 14 1/4" Dia.	425011	ESA David Montoya	Program RD84. Used in Hemi shells	No impact.	Used for Development Purposes - Confirmed by Quality Council Member - David Montoya
Peter Sandoval	01/28/01	01/29/01	Aluminum Round 6061, 14 1/4" Dia.	415112	ESA David Montoya	Prog JFB2. Used in Vacuum potting fixture	No impact.	Used for Development Purposes - confirmed by Quality council Member - David Montoya
Wilfred Romero	01/08/01	01/10/01	Aluminum Round 6061, 13 1/4" Dia.	406471	ESA David Montoya	was scrapped.	No impact.	Hem was purchase to support development and was scrapped - confirmed by Quality Council Member David Montoya
David Ross	11/12/03	11/13/00	Aluminum Round 6061, 14 1/4" Dia.	697205	ESS - David Ross	Used in diagnostic packages for "Sub-critical" experiments. No structural integrity requirements.	No impact.	Used for Development Purposes - Confirmed by Gilbert Sandoval and Brian Emkiet
Tom Hitzman (Orlando Smith)	09/24/00	09/25/00	Aluminum Round 6061, 13 1/4" Dia.	757311	ESA David Montoya	Classified Drawing	No impact.	Non structural trainer mockup - Confirmed by Quality Council Member David Montoya
A. J. Pasquariello	03/21/00	03/21/00	Aluminum Round 6061, 13 1/4" Dia.	872106	ESA David Montoya	storage container. P/N 55Y638822-2 used as subassembly 55Y638817, BIN CAN1 & CAN2.	No impact.	Used for WR tooling - Reference SXR N0058LA2003LA - Confirmed by Quality Council Member David Montoya

A.J. Pasquarello	03/20/00	03/21/00	Aluminum Round 6061, 13 1/4" Dia.	672100	ESA David Montoya	Storage container. P/N 55Y638822, used on Assy 55Y638817, S/N CAN1 & CAN2	No impact.	Used for WR tooling - Reference SXRN0058LA2003LA - Confirmed by Quality Council Member David Montoya
Mark Miller	03/14/00	03/15/00	Aluminum Round 6061, 13 1/4" Dia.	668626	ESA David Montoya	Air bearing fixture	No impact.	Used for Development Purposes - Fixture has been tagged and taken out of service until hardness check made - Confirmed by Quality Council Member David Montoya
John Erickson	02/16/00	02/18/00	Aluminum Round 6061, 13 1/4" Dia.	655638	ESA David Montoya	SNS Accelerator	No impact.	Used for Development Purposes - Confirmed by Quality Council Member - David Montoya
Charles Lucero	12/01/99	12/02/99	Aluminum Round 6061, 13 1/4" Dia.	617224	ESA David Montoya	Storage Container. P/N 55Y638822 used on final assembly 55638817.	No impact.	Used for WR tooling - Reference SXRN0058LA2003LA - Confirmed by Quality Council Member David Montoya
Richard Kalkyka (Stephen Hidalgo)	09/29/99	09/29/99	Aluminum Round 6061, 13 1/4" Dia.	579569	ESA David Montoya	Dwg 061-2-397 Fwd potting mandrel	No impact.	Used for Development Purposes - Confirmed by Quality Council Member - David Montoya
Phillip Duran	09/01/99	09/01/99	Aluminum Round 6061, 14 1/4" Dia.	567338	ESA David Montoya	No records were kept for manufacturing resulting from this purchase.	Unable to locate	No records kept although TA-41 no longer exist. Past manager believes material sent to salvage. Confirmed by Quality Council Member David Montoya

UNCLASSIFIED

Document No.: 20030427LA

Rev No.: 0

Purpose

Reason for Release 1.0 /REV 0/ Document the Temperform Response to NNSA.

ICO or Contract No.: N/A

Program	Affected Assemblies		Related Authorizations
	Drawing No.	Nomenclature	
	N/A	N/A	N/A

References and Remarks N/A

Drawing Information

Drawing No.	Dwg Loc	Suffix		Issue	Drawing Information
		DA	PA		
N/A	LA	N/A		N/A	N/A

Authorization Details

1.0 /REV 0/ The following list documents the Status/Resolution to the NNSA Request to address the Temperform Aluminum material received at the Los Alamos National Laboratory.

1. MR Order Number: 337178,

1.1 Requestor: Jill Hefele

1.2 Use: Manufacture of moss mock canned subassembly for use in shock and vibration tests.

1.3 Category: Development

1.4 Impact: None

2. MR Order Number: 144846

2.1 Requestor: Clinton Shonrock

2.2 Use: Nose Torque Collar, Drawing No. 076254A

2.3 Category: Development

2.4 Impact: None

3. MR Order Number: 144841

3.1 Requestor: Clinton Shonrock

3.2 Use: Torque Reaction Collar, Drawing No. 076253A

3.3 Category: Development

3.4 Impact: None

4. MR Order Number(s): 101787, 338482

4.1 Requestor: A. J. Pasquarello

4.2 Use: Storage Container, Part Number 157Y700813, SN 001, 002, 003, 004, 005

4.3 Category: WR Component Storage

4.4 Impact: Memo: Pressure Safety Analysis of Pit Storage Container, HSR-6-03-073, Dated March 12, 2003, States these containers are safe to use. Reference SXR N0058LA2003LA for approved usage statement.

5. MR Order Number: 368833

5.1 Requestor: Mark Rainbolt

5.2 Use: JCEH Program, (88) Tooling Number 2-132

5.3 Category: Development

5.4 Impact: Tooling Taken out of Service (Tagged). New tooling will be fabricated

6. MR Order Number: 486980

6.1 Requestor: Cindy Sandoval/Oriando Smith

6.2 Use: Stress Cushion Male/Female Mold

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6.3 Category: Development
6.4 Impact: None

7. MR Order Number: 441114
7.1 Requestor: Manny Martinez
7.2 Use: Program TK07. Used as a liner components, Aluminum Case
7.3 Category: Development
7.4 Impact: None

8. MR Order Number: 439845
8.1 Requestor: Gabriel Garcia
8.2 Use: Program JCB3. Air Potting Fixture
8.3 Category: Development
8.4 Impact: None

9. MR Order Number: 440036
9.1 Requestor: Matt Portaz/Orlando Smith
9.2 Use: LAMPS Inspection Fixture
9.3 Category: Development
9.4 Impact: None

10. MR Order Number: 431656
10.1 Requestor: Charles Hills/Phillip Duran
10.2 Use: UT Inspection Station, Drawing Number 15Y700234
10.3 Category: WR Production
10.4 Impact: None, Reference SXR N0062LA2003LA for approved usage statement

11. MR Order Number: 425011
11.1 Requestor: Manny Martinez
11.2 Use: Program RD84 Hemispherical Shells
11.3 Category: Development
11.4 Impact: None

12. MR Order Number: 418112
12.1 Requestor: Peter Sandoval
12.2 Use: Program JFB2
12.3 Category: Development
12.4 Impact: None

13. MR Order Number: 406471
13.1 Requestor: Wilfred Romero
13.2 Use: No Description
13.3 Category: Development
13.4 Impact: None (Scrapped)

14. MR Order Number: 757311
14.1 Requestor: Tom Hileman/Orlando Smith
14.2 Use: Non-structural W80 Trainer Mockup
14.3 Category: Development
14.4 Impact: None

15. MR Order Number(s): 672108, 672109, 617224
15.1 Requestor: A. J. Pasquariello/Charles Luero
15.2 Use: Storage Container P/N 65Y638622-2 used on Assembly 65Y638817, S/N CAN1 & CAN2
15.3 Category: VWR Component Storage
15.4 Impact: Memo: Pressure Safety Analysis of Pit Storage Container, HSR-5-03-073, Dated March 12, 2003, States these containers are safe to use. Reference SXR N0058LA2003LA for approved usage statement.

16. MR Order Number: 668826
16.1 Requestor: Mark Miller
16.2 Use: Air Bearing Fixture
16.3 Category: Development

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UNCLASSIFIED

Document No.: 20030427LA

Rev No.: 0

16.4 Impact: Fixture Tagged and taken out of service until Brinell hardness is obtained.

17. MR Order Number: 656639

17.1 Requestor: John Erickson

17.2 Use: SNS Accelerator

17.3 Category: Development

17.4 Impact: None

18. MR Order Number: 579569

18.1 Requestor: Richard Kealley/Stephen Hidalgo

18.2 Use: Forward Potting Mandrel

18.3 Category: Development

18.4 Impact: None

19. MR Order Number: 567338

19.1 Requestor: Phillip Duran

19.2 Use: No records found, however TA-41 no longer exists. Past manager Richard Larson believes this material was sent to salvage when the facility was remediated. He said TA-41 had a policy to do hardness tests on aluminum for all critical applications.

19.3 Category: Development

19.4 Impact: None

UNCLASSIFIED

4 of 4

United States Government

Department of Energy
National Nuclear Security Administration

memorandum

DATE: May 2, 2003

REPLY TO
ATTN OF: Y12-40:Glasman

SUBJECT: Y-12 INVESTIGATION OF THE USE OF IMPROPERLY HEAT-TREATED ALUMINUM PARTS
SUPPLIED BY TEMPERFORM USA PER MEMORANDUM DATED APRIL 4, 2003, FROM
E. BECKNER AND T. PRZYBYLEK TO MANAGER, Y-12 SITE OFFICE


TO: Everett Beckner, Deputy Administrator for Defense Programs, NA-10, FORS
Tyler Przybylek, Chief Operating Officer, NA-1, FORS

On April 4, 2003, the Y-12 Site Office (YSO) was asked to investigate whether Temperform USA supplied aluminum parts to Y-12 for use in safety-related or mission sensitive applications.

Results of this investigation, performed in accordance with the lines of inquiry contained in Attachment 1 of the subject memorandum, indicated that no materials were procured from Temperform USA or Temperform USA vendors after May 1998. These results were reviewed and validated by YSO.

Details of this investigation are contained in Attachment 1 of this memorandum.

If you have any questions regarding this investigation, please contact Sherry Hardgrave at (865) 574-1381, or Michael Glasman at (865) 574-3499.

for 
William J. Brumley
Manager
Y-12 Site Office

Attachment:
As Stated

cc w/attachment
D. K. Hoag, Y12-30, YSO
E. Hale, Y12-40, YSO
S. Hardgrave, Y12-40, YSO
L. Schaffer, Y12-40, YSO
C. T. Shen, Y12-40, YSO
K. D. Ivey, Y12-40, YSO
T. B. Oiberding, Y12-50, YSO
D. K. Hoag, Y12-30, YSO

ATTACHMENT 1

The Y-12 investigation addressed the following lines of inquiry to determine if Y-12, its contractor or subcontractor procured and/or used heat-treated aluminum materials/parts, components, or equipment supplied by Temperform USA or Temperform USA vendors.

- 1) Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated, supplied, or tested by Temperform USA after May 1998?

BWXT Y-12 review of procurement records indicated that no materials or services were procured from Temperform USA either directly or through subcontractors after May 1998. This was determined based on review of procurement records.

- 2) Has site contractor(s) (including their subcontractors) procured or used materials/parts, components or equipment that may have been heat-treated, supplied, or tested by Temperform USA from vendors/suppliers after May 1998. Vendors/suppliers were identified on Attachment 2 of April 4, 2003, Beckner-Przbylek to Brumley memorandum.

BWXT Y-12 review of procurement records identified seven potential suppliers/vendors listed on Attachment 2 cited above. No orders, however, were placed with these vendors for materials or services for Y-12 after May 1998.

- 3) If materials/parts, components or equipment heat-treated, supplied or tested by Temperform or Temperform vendors were procured, were they identified as nonconforming and either removed or technically justified for use?

No materials /parts, components or equipment heat-treated, supplied or tested by Temperform or Temperform vendors were procured.

- 4) If you discover that site contractor(s) (or subcontractors) have or use material/parts, components, or equipment heat-treated, supplied, or tested by Temperform USA or Temperform USA vendors:
 - a) Determine whether these materials/parts, components or equipment are installed in any system performing a safety function (i.e., safety class or safety significant system), or if they are intended for use in a safety system but are still in inventory; or if installed or intended for use in mission-sensitive application. If you discover parts in safety systems, please perform an engineering evaluation to qualify items that can be left in place, including technical justification for doing so.

- b) Collect and track information on procurement and use of Tempperform USA materials/parts, components or equipment for non-safety related systems or other mission-sensitive applications. Tracking the use of these potential nonconforming or suspect parts may be an issue because nonconforming parts can and have later ended up in safety and other applications.

No materials/parts, components or equipment were procured or installed in any system at Y-12 supplied by Tempperform or any of its vendors.

- 5) Information collected should include the contractor /supplier/vendor by site, type of materials, and quantity. Other information, such as part number or model number and application/system, may be useful information to share with other Department of Energy (DOE) sites.

No materials/parts, components or equipment were procured or installed in any system at Y-12 supplied by Tempperform or any of its vendors.

- 6) Determine the cost associated with this investigation. The Office of the Inspector General will attempt to recover the cost associated with the investigation. The cost should be broken into categories: total cost for man hours, total cost for disposition of material (i.e., replacement cost, etc), total cost for travel (if any), and total cost for testing (if any). Backup documentation is not necessary to be submitted, but should be maintained by your respective sites in case the costs are changed later.

Approximately \$1220 was spent by the contractor searching data and reporting results.

Approximately \$600 was spent by NNSA-YSO validating the contractor's results and preparing this report.

- 7) Identify training by the DOE and the contractor to ensure worker safety in the area of suspect counterfeit parts per DOE Order 440.1A, Worker Protection Management for DOE and federal Contractor Employees.

Y-12 has participated in the Suspect/Counterfeit parts program from its inception and continues to take advantage of the training provided by DOE Headquarters Quality Assurance Working Group and the Government Industry Data Exchange Program (GIDEP). The GIDEP training was part of the QAWG and Supplier Quality Information Group organizational meetings and was attended by various Y-12 contractor QA and procurement personnel. This information was shared with other cognizant Y-12 employees. Mr. Roger Moerman, a subject matter expert in the area of suspect-counterfeit parts, conducted this training at Y-12 at least 3 times in the last 10 years, and most recently about 2 years ago. Over 90 individuals from several sites in Oak-Ridge and DOE attended. Y-12 has contacted Mr. Moerman directly and plans to have him present additional training if funding issues can be resolved.

RESULTS OF TEMPER FORM USA INVESTIGATION

NASA SITES	TEMPER FORM/Listed Vendor Identified	Use in Safety System Application	Use in Mission Sensitive (Weapon Component) Application	Dispositioned	Total Investigative Costs
SSO/SNL	Yes	No	No	Action Completed - Records reviewed. Verified no safety system or mission sensitive application.	\$3,500 - SNL \$3,000-550
PXSO/BWXT	Yes	No	No	Action Completed - Records reviewed. Verified no safety system or mission sensitive application.	\$7,540 - BWXT \$713 - PXSO
SRSO/WSRC	No	N/A	N/A	N/A	\$2,175 - Westing. \$2,475 - SRSO
LASO/LANL	Yes	No	No	Action completed - Records reviewed. Verified no safety system or mission sensitive application.	\$ 6,000 - LASO \$83,000 - LANL
YSO/BWXT	No	N/A	N/A	N/A	\$600 - YSO \$1220 - BWXT
LSO/LLNL	Yes	No	No	Action Completed - Records reviewed. Verified no safety or mission sensitive system application.	\$12,750 - LLNL \$4,000 - LSO
KCSO/ Honeywell	Yes	No	No	Action Completed - Records reviewed. Verified no safety system or mission sensitive application.	\$3,582 -Honeywell \$600 - KCSO
NSO/Bechtel Nev.	Yes	No	No	Action Completed - Records reviewed. Verified no safety system or mission sensitive application.	\$2,500 - Bechtel \$3,000 - NSO

Attachment 4

COMPANIES WHO HAD PARTS PROCESSED AT TEMPERFORM and/or WHO APPROVED TEMPERFORM AS A VENDOR									
12/02									
A & A Machine & Development Co., Inc.	16225 Greenwood Place	Gardena	CA	90247		USA	(310) 532-7708		
A & R Products	1840 Del Rey Ave., #200	Marina Del Rey	CA	90292		USA	(310) 822-0517		
ABN Industrial Company	6840 Gale Street	Buena Park	CA	90621		USA	(714) 821-8211		
ACD Inc	2321 S Pullman St	Banks Arm	CA	92765		USA	(714) 281-7833		
Ace Clearwater Enterprise	10818 Macallen Dr	Torrance	CA	90502		USA	(310) 558-2157		
Ace Air Mfg., Inc.	1430 West 136 th Street	Gardena	CA	90248		USA	(310) 488-7246		
Ace Bolt Tooling, Inc.	578 East 96 th Street	Gardena	CA	90248		USA	(310) 324-3214		
Ace Tube Bending	14 Journey	Aliso Viejo	CA	92658		USA			
Ace-Fab	608 W 81st Street	Lake Bluff	CA	92330		USA	(949) 271-1187		
Accurate Machining Co.	4823 N. Ronald Street	Harwood Heights	IL	60638		USA	(708) 887-4374		
ACM (All Components Manufacturing) Co.	1807 Industry Ave.	Rice Rivera	CA	90680		USA	(818) 948-3336		
Ade Enterprises, Inc.	6740 Thurwood Ct.	Galena	CA	92117		USA	(604) 684-1767		
Aero-Titan Corporation	8920 Dale Street	Buena Park	CA	92621		USA	(714) 822-8767		
Advanced Aerodynamics & Structures	9205 Lakewood Blvd	Long Beach Airport	CA	90808		USA	(562) 638-8818		
Advanced Metal Fab	3020 Las Hermanas Drive	Rancho Dominguez	CA	90221		USA	(310) 893-2000		
Advanced Metalforming Technologies	6215 S. Boyle Ave.	Los Angeles	CA	90088		USA	(323) 277-1070		
Advanced Ground System Engineering Corporation	1285 N. Kessner Blvd.	Arabam	CA	92608		USA	(714) 832-6086		
Advanced Precision Sheetmetal, Inc.	140 East 182 nd Street	Gardena	CA	90248		USA	(310) 324-4806		
Advanced Tube Engineering, Inc.	18271 Enterprise Lane, Unit D	Huntington Beach	CA	92648		USA	(714) 847-7888		
Aero Arc	3888 W. 187th St.	Torrance	CA	90506		USA	(310) 634-8768		
Aero Banding Co.	48328 N. Division Street	Larchmont	CA	93534-4844		USA	(801) 948-3369		
Aero Metal	2180 N. Lark Drive	Parlin	MO	63028		USA			
Aero Metal Shims of ABC, Inc. (Kennedy Space Center)	PO Box 8008, 7008 Challenger Ave.	Titusville	FL	32783-8008		USA	(407) 280-1100		
Aero Sheet Metal	48328 N. Division Street	Larchmont	CA	93534-4844		USA	(801) 948-8037		
Aero Sheet Metal	11802 Delouange St	North Hollywood	CA	91604-6198		USA			
Aero Wheel and Brake Service Corp.	6800 Aaco Street	Montebello	CA	90640		USA	(213) 727-8000		
Aerotech, Inc.									
Advantage Pipe	2020 E. Bascom Ave.	Huntington Park	CA	90220		USA			
Aggressive Engineering Corp.	1230 N. Knollwood Circle	Anaheim	CA	92801		USA	(714) 896-8313		
Agnolia Machine	1879 West Commonwealth	Pullerton	CA	92633		USA	(714) 441-4481		
AHF DUCOrmen	PO Box 2910	Gardena	CA	90247-2310		USA	(310) 500-5300		
Airbus		Paris				France			
Airport Forming (aka: Ron's Metal Fabricator)	17289 Darwin Ave. #12	Haywards	CA	94545		USA	(709) 686-1080		
AL Industries, Inc.	1841 East Garfield Street	San Jose	CA	95106		USA	(415) 800-9133		
Aluminum Products Co. (aka: South Metal Blasting & Fabrication)	10801 Lower Azusa Street	El Monte	CA	91731		USA	(800) 877-7715		
All Power Manufacturing Co.	18441 Modesto Street	Berita Fe Springs	CA	90774-0140		USA	(562) 802-2840		
All-Pro Precision Sheet Metal, Inc.	2060 East Imperial Hwy	Terrence	CA	92621		USA	(714) 895-9170		
Allied Signal		Phoenix	AZ						
Allied Signal		Phoenix	AZ						
Allen United	12078 East Clark Street	Berita Fe Springs	CA	90770		USA			
Alliant Blast	648 Anchorage Drive	San Marcos	CA	92060		USA	(760) 748-5616		
Amelish National Controls Corp.	1778 Westman Drive	West Chicago	IL	60186		USA	(630) 831-8335		
American Racing Custom Wheels	19200 South Hayes Ave	Rancho Dominguez	CA	90221		USA	(310) 838-7608		
AMP Research	23021 Ridge Road	Los Angeles	CA	90033		USA	(818) 481-8880		
Anelva	18247 Garfield Ave	Paramount	CA	90763		USA			
Applied Medical Resources	78091 Merit Circle, Building 101	Laguna Hills	CA	92653		USA	(714) 862-8120		
Areia Precision, Inc.	420 N. Fax Street	San Fernando	CA	91340		USA	(818) 361-8434		
Argo Spring Mfg. Co., Inc.	13335 Shoemaker Ave.	Norwalk	CA	90680		USA	(562) 921-6741		
Arizona Aircraft Spares	8431 E. Hemphill Loop	Tucson	AZ	85705		USA	(520) 608-0666		
Arnold Products	4411 Kaula Ave	Los Alamitos	CA	90720		USA	(714) 828-7770		
Art Aerospace, Inc.	8812 Lulline Ave. #L	Chalworth	CA	91371		USA			
Aspacated Machine Technology, Inc.	680 Mariner Street	Brea	CA	92821		USA	(714) 650-8178		
Atlas Copco Rotorflow	240 E. Rosecrans Ave	Gardena	CA	90248		USA	(310) 329-9183		
Avenche Sheet Performance	18230 S. Figueroa St.	Gardena	CA	90248		USA	(310) 532-4548		
Ayres Corporation	PO Box 9060, One Cardinal Ave	Albany	NY	31708		USA	(512) 863-1440		
Baja Pacific Light Metals, Corp.	16306 Valley View Ave	La Habra	CA	90638		USA	(510) 484-7474		
Band-Tek, Inc.	6848 Industry Way	Walshamler	CA	92683		USA	(714) 802-6368		
Benjamin Metal Company	14000 S. Figueroa Street	Los Angeles	CA	90059		USA	(323) 321-7700		
BF Goodrich Aerospace	850 Lagoon Drive	Chula Vista	CA	91910		USA	(619) 691-2249		
BF Goodrich Aerospace	Bay Blvd at G Street, Bldg 79	Chula Vista	CA	91910		USA	(619) 691-3249		
BUS Industries	2113 Jordan Ave	Torrance	CA	90501		USA	(310) 833-1081		
Blackburn-Mellon Manufacturing Co.	7828 Wyrsee	Houston	TX	77081		USA	(713) 844-3388		
Boeing Aircraft and Missile Systems	PO Box 96742	St. Louis	MO	63166-8742		USA			
Boeing Aircraft and Missile Systems	8800 Frost Ave, Bldg 246	Barthol	MD	83194		USA			
Boeing Commercial Airplane Group		Wichita	KS						
Boeing Commercial Airplane Group	PO Box 3787	Seattle	WA	98124-2707		USA	(206) 862-8771		
Boeing Commercial Airplane Group	San Francisco, Metal, Manufacturing Dept.	Redwood	WA	98006		USA			
Boeing Douglas Products Division	PO Box 2721	Long Beach	CA	90801		USA			
Boeing Douglas Products Division	1412 S. Harborway Way	Torrance	CA	90502		USA			
Boeing Douglas Products Division	1814 West 136 th Street, Industrial Division	San Lake City	UT	84116		USA			
Boeing Light Helicopter Division	8000 East McDowell Road	Mesa	AZ	85218		USA	(602) 691-2710		
Boeing Space Systems	9301 Boles Ave	Huntington Beach	CA	92647		USA			
Boeing Space Systems	8232 Rancho Road	Huntington Beach	CA	92647		USA			
Bendix Technology, Inc.	74 Alsea Ridge Road	Groesbeck	OH	44816		USA	(440) 838-1180		
Bristol Metals	18000 Northrup Street	La Habra	CA	90638		USA	(714) 738-4880		
Brux Industries, Inc.	101 Evans Ave	Dalyon	NV	89403		USA	(702) 248-0441		
California Manufacturing & Machining	888 Vernon Way	El Cajon	CA	92020		USA	(619) 588-8787		
Cal Tex	18821 Vermont Ave	Paramount	CA	90723		USA	(802) 831-1816		
Color Space Facility	12031 E. Philadelphia St	Whittier	CA	90601		USA	(519) 848-1981		
California Air-Tech Corp	1873 Via Arco	Rancho Dominguez	CA	90220		USA	(310) 888-8800		
California Fumeless Components, Inc.	6780 Colton Ave	Riverside	CA	92503-1420		USA	(951) 847-8283		
California Metal Shaping	1704 Hooper Ave	Los Angeles	CA	90021		USA	(213) 740-4842		
California Pipe & Bending	318 East 88 th Place	Los Angeles	CA	90003		USA			
Cardan Machine Products, Inc.	17008 Kanger Ave	Carson	CA	90748		USA	(310) 884-3400		
Centar Tool & Machine Co.	18600 Heron Circle	Buena Park	CA	90620		USA	(714) 738-0715		

Continental Wheel Corporation	13421 Freeway Drive	Santa Fe Springs	CA	90670	USA	(852) 921-9657
Continental Tool Corporation	15631 Freeway Drive	Santa Fe Springs	CA	90670	USA	(852) 921-9657
Corvid Machine & Tool, Inc.	804 Pineda Robles Blvd	Paso Robles	CA	93446	USA	(805) 239-1565
Corvid Tool Corporation	13621 Freeway Drive	Santa Fe Springs	CA	90670	USA	(852) 921-9657
Corvid Machine	15386 Pineda Road	Tampa	FL	33621	USA	
Century Parts, Inc.	918 West 123rd Street	Torrance	CA	90502	USA	(310) 326-0581
Certified Aviation Service	8466-H Airport Loop	Costa Mesa	CA	92626	USA	(714) 862-2441
Central Motor Service (USA Global Business Corporation)	4501 Blyway Drive	Bakersfield	CA	93306	USA	(805) 381-4688
Chertronics						
Clay, LLC	1739 S. Clementine Street	Anaheim	CA	92802	USA	(714) 861-1850
O.M. Condon Industries, Inc.	(3780) Resendiz Ave.	Santa Fe Springs	CA	90670	USA	(852) 483-7978
CNC Manufacturing	42164 Sarah Way	Terrace	CA	92690	USA	(909) 883-0068
Coast Aluminum & Architectural	887 Saratoga Way	Hayward	CA	94544	USA	(610) 441-8800
Coast Aluminum & Architectural (Processing)	10430 Sumner Drive	Santa Fe Springs	CA	90670	USA	
Coast Metal Craft Inc	16818 Susana Road	Rancho Dominguez	CA	90221	USA	(310) 697-0570
Conquest Industries	6918 Bell Ranch Drive	Santa Fe Springs	CA	90670	USA	(852) 898-1111
Consolidated Trading Co. (John Olympia Aviation)	PO Box 5425, 612 E. Franklin Ave.	El Segundo	CA	90248	USA	(310) 840-2247
Continental Forge Co.	612 E. Carlin Street	Compton	CA	90222	USA	(310) 774-3220
Couler Steel & Forge Co.	1488 87th Street	Emeryville	CA	94608	USA	(415) 480-3800
Craftco Metal Forming	24100-D Water Street	Perris	CA	92570	USA	(800) 940-8114
Cramer Engineering Company	11110 Greenstone Ave	Santa Fe Springs	CA	90670	USA	(852) 903-3188
Cramer Engineering Company	11110 Greenstone Ave	Santa Fe Springs	CA	90670	USA	(852) 903-3188
Creative Pathways, Inc.	5121 Fuller Street	Torrance	CA	90506	USA	(310) 630-1988
Custom Metal Shapes	16209 172 Euclidian Ave	San Ramon	CA	94583	USA	
Custom Metal Shaping	12187-C Blauvelt Ave	Santa Fe Springs	CA	90670	USA	
Custom Services, Inc.	610 West Hyde Park Blvd	Inglewood	CA	90302	USA	(310) 676-7919
Cyber Science	180 Bostwick Blvd	San Marcos	CA	92369	USA	(760) 898-4270
Choice Services (aka BE Racing)	180 Bostwick Blvd	San Marcos	CA	92369	USA	(760) 898-4270
Cyprus Inc	6700 Ind. Park, PO Box 488	Pompano	FL	33062	USA	(305) 783-4761
Davidson Aluminum & Metal Corp.	100 West Industry Court	Dear Park	NY	11720	USA	(616) 388-6555
Datamold Corporation	1325 Flower Ave.	Duarte	CA	91010	USA	(828) 308-0740
Date Fabrication, Inc.	2850 De Soto Ave	Chatsworth	CA	91311	USA	(818) 497-4000
Designing Spools/Rear III	337 N. Euclid Way, Bldg D-5	Anaheim	CA	92801	USA	(714) 776-3400
Diamond National Glass Co. (Div. Of Diamond Washable Inc.)	8900 De Soto Drive	Paramount	CA	90723	USA	(852) 934-2180
Dirtmaster	848 Rancheros Drive	San Marcos	CA	92066	USA	(760) 748-3648
D.M. Precision	18882 Adams Blvd.	Cliver City	CA	90230	USA	(313) 984-7866
Downey Centerless Grinding	12323 Bellflower Blvd.	Downey	CA	90241	USA	
Duplaque Parts Company	148 Pacific Street	San Marcos	CA	92066	USA	
Dura Plasto Products, Inc.	PO Box 2087, 830 East 9th Street	Beaumont	CA	92223	USA	(908) 845-3181
Dynalite Enterprises, Inc.	12018 Greenleaf Ave	Santa Fe Springs	CA	90670	USA	(852) 944-0271
ECI Water SSI Products, Inc.	2080 Chicago Ave., Suite C-5	Riverside	CA	92507	USA	
Empire Soccer Manufacturing Co.	747 N. Yale	Vista Park	IL	60161	USA	(630) 233-7080
Estelina TA Mfg. Company	PO Box 3505, 378 West Arden Ave.	Gardena	CA	91206-3500	USA	(818) 240-1000
Estelina TA Mfg. Company	PO Box 0821, 2905 W. Franklin Parkway	Valencia	CA	91355	USA	(805) 776-1100
E.R.C. Company	3276 E. Merla St, Unit 46	Rancho Dominguez	CA	90221	USA	(310) 603-2570
Euro Engineering	23180 Del Lago Dr.	Laguna Hills	CA	92683	USA	(949) 770-0107
Evergreen Systems International	4740 Calle Guzman	Cambridge	CA	90630	USA	(805) 446-6492
Express Metal Aerospace, Inc.	2906 West Parkton	Santa Ana	CA	92774	USA	
EZ-Tech Manufacturing	1280 Howard Drive	West Chicago	IL	60185	USA	(888) 293-0010
F.D. Countours	175 Pauline Ave	Costa Mesa	CA	92626	USA	(714) 848-3330
Feldrid Fasteners	800 West College	Fullerton	CA	92831	USA	
Ferr Wheel Concepts, Inc.	786 North Georgia Ave	Abens	CA	91702	USA	
Foam Molders & Specialists	20504 State Road	Corona	CA	90705	USA	(852) 931-7767
Forti-Riteco Viking	1 Elk Circle	Vero	NV	89486	USA	
Forged Metals Inc	10988 Beech Ave	Fontana	CA	92337	USA	(909) 350-8260
Forrest Machine, Inc.	28544 Stanford Ave	Valencia	CA	91355	USA	
Frontier Technologies	19408 S. Figueroa St.	Gardena	CA	90248	USA	(310) 787-1227
Full-Size Race Products	434 W. Roland Ave	Santa Ana	CA	92707	USA	(714) 436-0622
Futon Gear	3340 East La Palma	Anaheim	CA	92806	USA	(714) 830-5818
Futon Wheel Service A/P	PO Box 198	Aurora	IL	44202	USA	
Gary Bell Manufacturing	PO Box 368, 24198 Crane Ave, Dogleg	Perris	CA	92570	USA	(800) 968-0090
Gary's Taps	817 Ocean Ford Walk	Venice	CA	90291	USA	(310) 983-5135
General Knives, Incorporated	110 Sunny Drive	Lichtstown	PA	15906	USA	(814) 205-6991
General Vessel Manufacturing Co.	PO Box 1607, 1882 Olive St	South Gate	CA	90280	USA	(213) 884-2867
Gilmore Metal	114, Box 98	Bishop	CA	93514	USA	(760) 879-4972
Givox Glass, Inc.	890 West Washington Blvd	Los Angeles	CA	90016	USA	(213) 747-7406
Glen Sander Engineering	3185 Kettlewell St.	Torrance	CA	90508	USA	(310) 534-1810
Globe Tool & Manufacturing Co., Inc.	730 24th Ave SE	Minneapolis	MN	55414	USA	(612) 881-8780
GOY Industries, Inc.	3601 West Central Ave.	Santa Ana	CA	92704	USA	(714) 666-0444
Hanner Corporation (Hanner's Metal Spinning Co.)	820 State Street	Ontario	CA	91703	USA	(918) 240-0170
Hardin Associates, Ltd.	18500 Minnesota Ave.	Paramount	CA	90723	USA	(852) 931-1491
Harrington Mold	1800 Quaker Ridge Road	Ontario	CA	91718	USA	(800) 622-2767
Harvey Wheel International, Inc. (John Harmon's International, Inc.)	14600 Brewster Blvd	La Mirada	CA	90638	USA	
Herrera Machine	5912 Clara Street	Bell Gardens	CA	90221	USA	(852) 928-0200
Hi-Quality Alloys	806 E. 164th Street	Gardena	CA	90248	USA	(213) 321-9083
Hi-Quality Alloys	13329 Telegraph Road	Santa Fe Springs	CA	90670	USA	(852) 941-8264
Hi-Ton Carving, Inc.	13211 Florence Ave	Santa Fe Springs	CA	90670	USA	(852) 941-8888
Hoover Glass, Inc.	1509 S. Eastern Ave.	Los Angeles	CA	90022	USA	(213) 526-1390
Hove Welding & Fabrication	41218 Nisk Lane	Alhambra	CA	91802	USA	(609) 986-8897
Hydroform USA	2849 East 208th St	Long Beach	CA	90810	USA	(310) 622-8532
Hydroform, Inc.	5284 Research Blvd	Huntington Beach	CA	92649	USA	(714) 898-9041
Hy-Tech Spinning Inc	116 W. Hyde Park Blvd	Inglewood	CA	90302	USA	(310) 873-4484
Ice Industries	1308 Marina Place	Rancho Dominguez	CA	90230	USA	(310) 431-6885
Image Casting	8868 Parkside Road	Oxnard	CA	93033	USA	(805) 286-1109
Informa Cycles	18278 Grand Ave.	Lake Elsinore	CA	92550	USA	(858) 678-4575
Independent Forge Co	692 N. Balboa St.	Orange	CA	92669	USA	(714) 897-7337
International Architectural Metal Works	577 E. 50th Place	Covina	CA	91723	USA	(852) 332-8890

J & M Metal Spinning	4345 Conception Ave.	Lakewood	CA	90713	USA	
J & M Metal Spinning	1433 1/2 Dalby Ave.	Long Beach	CA	90813	USA	
JC Carter						
J.D. Welding & Fabrication	1420 S. Camarillo Road	Northridge	CA	91350	USA	(818) 494-0660
Jensen Tool & Mfg.	9388 Alhambra Way	Banega	CA	92701	USA	(919) 448-1220
J.S. Boley Mfg. Co.	7040 Laurel Canyon Blvd.	North Hollywood	CA	91616	USA	(818) 963-1716
J.W. Lytle Co., Inc.	1888 Sampson	Conroe	CA	91718	USA	(909) 371-5784
Earl M. Jorgensen Co. (Steel, Jorgensen Steel & Aluminum)	70 E. 1st St. 1888 Main St. Box 6, Inc.	Lynwood	CA	90262	USA	(714) 862-6684
K & H Manufacturing, Inc.	1980 Freeman Ave	Signal Hill	CA	90804	USA	(562) 494-7870
Kappa						
Kan Hill Racing Wheels	19527 Canyon Drive	Whittier	CA	90603	USA	(662) 943-6477
Kaiser Plastic Fabricators, Inc.	5121 Lynda Blvd.	Torrance	CA	90502-5158	USA	(310) 335-3182
Kam Engineering & Mfg. Corp.	1161 East Ash Ave.	Fullerton	CA	92831	USA	(714) 963-9830
KM Pack Co.	285 East Thorne Road	Las Cruces	NM	88506	USA	(505) 825-2120
KWC Wheel Co.	1488 Columbia Ave	Riverside	CA	92507	USA	(951) 544-4992
Kyster Corporation	1817 E. Ash Ave	Fullerton	CA	92831	USA	
Kyrene Machine Co., Inc.	16842 Hale Ave	Irving	CA	92714	USA	(714) 643-6647
Lane & Rodrick, Inc.	12840 Almond Street	Santa Fe Springs	CA	90670	USA	(626) 864-3468
Latch Mfg. and Machine Works	6100 US 1 North	St. Augustine	FL	32088	USA	
Luxe Plastics Corp.	650 Via Alondra	Comerville	CA	91950	USA	
Ling Electronics	4860 E. La Palma Ave	Anaheim	CA	92827	USA	(714) 778-1000
Lothman Martin Aerospace, Inc.	321 Industrial Park Rd.	Johnstown	PA	16004-1981	USA	(814) 262-3080
Marvin Engineering Co	260 W Beach Ave	Inglewood	CA	90302	USA	(310) 674-6000
Matbo Forge Inc	10443 Minnesota Ave	Paramount	CA	90763	USA	(866) 854-8388
McSullivan Company	1251 W. 240th Street	Harbor City	CA	90710	USA	(310) 328-3063
Mechanical Metal Finishing Co.	10227 Broadway	Gardena	CA	90248	USA	(310) 321-1071
MetalCenter	12034 Geeralone Ave	Santa Fe Springs	CA	90670	USA	(626) 844-3322
Metal Forming Machine, Inc.	8838 S. Boyle Ave.	Los Angeles	CA	90058	USA	(323) 486-8900
MetalPro Industries, Inc.	28084 Ave. Stanford, Unit 4	Valencia	CA	91385	USA	
Metalweld (A Division of Metro-Line Ind., Inc.)	291 Corporate Terrace	Devoe	CA	91730	USA	(909) 371-2800
MFM Electronics, Inc.	6215 S. Boyle Ave.	Los Angeles	CA	90068	USA	(213) 684-4600
Millard Inc.	8821 Buve Street	Los Gardena	CA	90201	USA	(562) 628-0688
Millerton Alloy Wheels	450 S. Lantion Street	Anaheim	CA	92806	USA	(714) 633-0716
Musking Engineering Co.	13124 Rubia Road	Whittier	CA	90606	USA	(562) 898-0734
North Specialty Products (A Division of Stebb North, Inc.)	2984-B Bakum Street	Brea	CA	92621	USA	(714) 524-1065
North Safety Products (A Division of Stebb North, Inc.)	2844-B Bakum Street	Brea	CA	92621	USA	(714) 524-1636
Northrup Grumman Commercial		Hawthorne				
Northrup Grumman Commercial		Dallas				
Northrup Grumman Military		Metalweld				
Northrup Grumman Military Tactical Flight Division		El Segundo				
Orak Alloy Wheels	490 S. Lantion Street	Anaheim	CA	92806	USA	(714) 633-0176
Olympic Aviation	PO Box 2426, 812 E. Franklin Ave.	El Segundo	CA	90246	USA	(310) 648-2247
Olympic Aviation (aka Consolidated Trading Co.)	PO Box 2426, 812 E. Franklin Ave.	El Segundo	CA	90246	USA	(310) 648-2247
Omeg Manufacturing, Inc.	1817 West 130th Street	Gardena	CA	90248	USA	(310) 632-8974
Optima Wheels, Inc.	18380 Valley View Ave	La Mirada	CA	90638	USA	(562) 494-7474
Orbital Aeronautics Operation Base	1301 Skyway Drive	Bakersfield	CA	93306	USA	(805) 391-4886
Orbital Sciences Corporation	1301 Skyway Drive	Bakersfield	CA	93306	USA	(805) 391-4886
Orbital Sciences Corporation (for Collins Airline Service)	1301 Skyway Drive	Bakersfield	CA	93306	USA	(805) 391-4886
O & B Fabrication	10112 Lehigh Road	La Mirada	CA	90638	USA	
O F Manufacturing, Inc.	13196 Arctic Circle	Santa Fe Springs	CA	90670	USA	(562) 821-3840
Pacific Coast Alloy, LLC	7818 E. Rosalyn Ave.	Fullerton	CA	92831	USA	(714) 871-2490
Pacific Defense Products	817 E. Lakeview Ave., Suite G	Placentia	CA	92670	USA	(714) 777-1636
Paramount Roll & Forming, Inc.	12120 E. Florence Ave.	Santa Fe Springs	CA	90670	USA	(310) 844-4232
Paramount Spring Engineering Co., Inc.	13721 Boss Drive	Santa Fe Springs	CA	90670	USA	(626) 521-2785
Paragon Sports Products, LLC	1284 South Lyon Street	Santa Ana	CA	92705	USA	(714) 838-8131
Performance Forged Products	7401 Telegraph Road	Montebello	CA	90645	USA	(313) 722-8440
Pervan Industries	1718 Kona Drive	Compton	CA	90220	USA	(310) 630-8331
Phillips	13688 Rosecrans Ave., Units B & C	Santa Fe Springs	CA	90670	USA	(310) 921-4112
Phillips Metal Spinning, Inc.	13688 Rosecrans Ave., Units B & C	Santa Fe Springs	CA	90670	USA	(310) 921-4112
Phillips Metal Co.	1368 W. Anaheim Street	Long Beach	CA	90805	USA	(562) 436-7571
Plasto Tech Int'l, Inc.	10791-N Rockfield	Irving	CA	92716	USA	(714) 463-7880
Precision Machining International	2210 N. Farber, Suite 101	Tucson	AZ	85745	USA	(602) 622-0080
Precision Resources, California Division	5688 Engineer Drive	Huntington Beach	CA	92646	USA	(714) 861-4430
Precision Tube Bending	13628 Yac St	Santa Fe Springs	CA	90670	USA	(310) 921-6723
Pro-Lane Industries	154 N. Valencia Street	Glendora	CA	91741	USA	(916) 335-3838
Pro-Mill, Inc.	1000 N. Kramer Blvd, Unit 10	Anaheim	CA	92808	USA	(714) 835-2082
Procase Fab, Inc.	76424 Glendon Drive	Santa Fe Springs	CA	90670	USA	(626) 921-1079
Pyrotek, Inc.	6745 Jordan Circle	Santa Fe Springs	CA	90670	USA	(626) 948-2402
Quick Draw & Machining, Inc.	4488 Macdon St	Verona	CA	93003	USA	(909) 644-7884
Racing Sports Almolco Co., Inc.	3829 E. Guadalupe Road, Unit A	Ontario	CA	91781	USA	(909) 905-0888
Rays Aircraft Service	1883 S. Newborn	Porterville	CA	93257	USA	(505) 784-9110
R & B Machine	6175 Brooks, Unit A	Morristown	CA	91763	USA	(909) 821-2193
RD Fuki Engineering, Inc.	1814 West 208th Street, Suite 203	Torrance	CA	90501	USA	(310) 782-8525
RD Fabricators, Inc.	840 North Bolshoff	Orange	CA	92668	USA	(714) 834-3676
Regent Mfg., Inc.	11908 Regentview Ave.	Downey	CA	90241	USA	(562) 662-1174
Reliance Metal Center	6716 Jefferson Street, N.E.	Albuquerque	NM	81100	USA	(505) 348-9889
Reo Metal Fabricators, Inc.	1321 E. Warner Ave	Santa Ana	CA	92706	USA	(714) 842-2104
Research Metal Industries	8080 S. Western Ave., PO Box 47883	Los Angeles	CA	90047-0830	USA	(213) 763-9771
Rinas Nacionalist, S.A.	Carmelita Tecate-Ensenada KM 4	Tecate R.C.			Mexico	011 82 665
Richard International, Inc.	1488 Hill Street	El Cajon	CA	92020	USA	(619) 447-3639
Rohr, Inc (Acquired by BP Goodrich)	95A Larson Drive	Chula Vista	CA	91910	USA	(619) 691-2249
Rohr, Inc (Acquired by BP Goodrich)	Say Blvd at G Street, Bldg 70	Chula Vista	CA	91910	USA	(619) 691-2249
Robinson Cycles	1317 Fairwood Ave	Clearwater	FL	34619	USA	(813) 726-6118
Robinson Helicopter	2801 Airport Drive	Torrance	CA	90505	USA	(310) 630-4606
Rolls Royce						
Ron's Metal Spinning (aka Airport Forming)	17703 Dearth Ave, #12	Hesperia	CA	92348	USA	(760) 952-1080
Rony Manufacturing, Inc.	PO Box 1038	San Luis	CA	96629	USA	(707) 898-1887
Santa Fe Roll & Forming Co.	12120 Florence Ave.	Santa Fe Springs	CA	90670	USA	(626) 844-7496

Sargent Fletcher Inc	8400 E Fair Ave	El Monte	CA	91731-2900	USA	(909) 402-2000
Saton, Inc.	1801 E. El Segundo Blvd.	El Segundo	CA	90245	USA	(310) 322-4710
Sattelle Mfg. Co.	13141 E. Florence Ave.	Santa Fe Springs	CA	90670	USA	(714) 780-4400
Schultz Engineering Corp.	6789 Thornwood Drive	Goleta	CA	93117-3601	USA	(805) 964-2294
Seopko Tube Bending & Machining	17000 S. Western Ave, #17	Gardena	CA	90247	USA	(310) 816-0787
S.E. Racing	165 Bonwick Blvd	San Marcos	CA	92069	USA	(619) 396-8270
S.E. Racing (aka Cycle Science)	180 Bonwick Blvd	San Marcos	CA	92069	USA	(619) 396-8270
Senter Ferrules, Inc. (Business Steel Products Division)	2260-N San Fernando Blvd	Burbank	CA	91804-2868	USA	(818) 841-0180
Sissy Rider Equipment Co., Inc.	2941 E. White Star Ave., Suite B	Anaheim	CA	92808	USA	(714) 832-8890
Slysystems Parts, Inc.	16708 Figueroa	Gardena	CA	90248	USA	(909) 341-0770
SMS Technology Co.	8711 Mason Ave	Chatsworth	CA	91311	USA	(818) 898-0735
Somerset, Inc.	3000-3100 La Jolla	Anaheim	CA	92806	USA	(714) 830-7280
Southwest United Industries	237 South Main Street	Yuba	CA	95979	USA	
Southwest California Metals	2970 Red Ranch Drive	Santa Fe Springs	CA	90670	USA	(909) 941-1878
Specialty Fabricators, Inc.	3221 Madras Road	Simi Valley	CA	90088	USA	(805) 870-0730
Spr-Mex, Inc.	10828 Dolores Ave	South Gate	CA	91280	USA	
Square Tool & Machine Co., Inc.	9730 Paoliard Way	So. El Monte	CA	91733	USA	(626) 443-4457
Standard Industries, Inc.	1440 S. Aliso Street	Anaheim	CA	92808	USA	(714) 850-7110
Stein Industries, Inc.	4608 West Arroyo Ave.	Fullerton	CA	92833	USA	(714) 572-4368
Superior Engineering	18794 Los Vaqueros Circle	Los Alamitos	CA	90720	USA	(714) 936-8422
Supreme Castings & Pattern Co., Inc.	1188 Kraemer Place	Anaheim	CA	92808	USA	
Swift-Car	344 W 187th St	Gardena	CA	90248	USA	(310) 354-1200
T-D Materials	2608 E. 37th Street	Los Angeles	CA	90008	USA	(323) 232-6171
Techni-Cast Corp.	11220 South Garfield	South Gate	CA	90280	USA	(310) 923-6888
Techniform Metal Curving, Inc.	375 S. Carolus Ave	Alhambra	CA	91806	USA	(909) 475-8888
Telephone Riser						
The Tilden Company	1480 E. Walnut Ave.	Fullerton	CA	92831	USA	(714) 441-3788
Threaded Fastener Engineering	1714 E. Grove Ave, Unit B	Ontario	CA	91762	USA	(909) 923-8787
Timony Metals	1800 Marine Ave	Redondo Beach	CA	90278	USA	(310) 678-0184
Tropic Golf & Ski Co. Mfg. Inc.	23102 Mariposa Ave	Torrance	CA	90502	USA	(310) 778-5182
Tropon	4480 A Dupont Court	Ventura	CA	93003	USA	
Troy Lighting, Inc., Custom Division	14836 East Clark Ave.	Industry	CA	91745	USA	(626) 336-4111
True Form (VFI Acquisition Inc dba)	12180 Park St	Cerritos	CA	90703	USA	(818) 926-3819
Trident Products						
Trico Metal Stamping	16918 East Proctor Ave.	Industry	CA	91746	USA	(626) 336-1239
Tube Technologies, Inc.	1886 Consumer Circle	Corona	CA	91720	USA	(909) 371-4878
Trio Tool & Die Co., Inc.	9840 West El Segundo Blvd.	Hawthorne	CA	90250-4892	USA	(213) 772-1336
University Corporation for Atmospheric Research	PO Box 3000, 1880 Table Mesa Drive	Boulder	CO	80507-3000	USA	(803) 497-8187
University of California at Irvine, Physical Sciences Dept.	Palms Hall, Room 8000	Irvine	CA	92697-1578	USA	(949) 824-8048
Usaco Threading Co.	14002 Anson Ave	Santa Fe Springs	CA	90670	USA	(562) 902-1888
Waning, Inc.	8811 Whittaker Ave.	Buena Park	CA	90621	USA	(714) 823-3035
Webster Metals & Supply Co., Inc.	PO Box 318, 18708 Garfield Ave.	Paramount	CA	90173-0318	USA	(562) 902-0280
Wells Manufacturing Co.	PO Box 290, 2 Elk Circle	Vernal	NV	89438	USA	(775) 346-0444
Western Machining Company, Inc.	1370 Apple Ave	Fullerton	CA	92831-3318	USA	(714) 502-0088
Western Metal Spinning & Mfg. Co.	3385 Wagon Way	Perris	CA	92572	USA	(909) 657-0711
Wills Machine, Inc.	1446 Dorton Street, Suite 3	Ventura	CA	93003	USA	(805) 644-0807

Attachment 4

COMPANIES WHO HAD PARTS PROCESSED AT TEMPERFORM and/or WHO APPROVED TEMPERFORM AS A VENDOR							
4/28/02							
A & A Machine & Development Co., Inc.	18825 Gramercy Place	Gardena	CA	90247		USA	(310) 532-7708
A & R Products	4949 Del Rey Ave., #89	Marina Del Rey	CA	90292		USA	(310) 822-2417
ABN Industrial Company	8849 Dale Street	Buena Park	CA	90621		USA	(714) 621-8211
ADD Inc	7331 S. Pullman St	Garlin Area	CA	92705		USA	(714) 281-7823
Ace Diemaster Enterprise	19815 Mapleton Cr	Torrance	CA	90502		USA	(310) 858-2157
Ace Air Mfg., Inc.	1430 West 12th Street	Gardena	CA	90248		USA	(310) 822-7246
Ace Bolt Tooling, Inc.	318 East 96th Street	Gardena	CA	90248		USA	(310) 924-3214
Ace Tube Bending	14 Journey	Aliso Viejo	CA	92606		USA	
Aceco-Fab	888-4 Birch Street	Lake Bluff	CA	92330		USA	(606) 471-1197
Accurate Machining Co.	2820 N. Ronald Street	Hardwood Heights	IL	60426		USA	(708) 867-4374
ACM (All Components Manufacturing) Co.	7907 Industry Ave.	Rice River	CA	90280		USA	(626) 948-3836
Adv. Enterprises, Inc.	6740 Thornwood Cr.	Geleta	CA	93117		USA	(606) 984-4767
Aero-Times Corporation	8920 Dale Street	Buena Park	CA	90621		USA	(714) 822-8767
Advanced Aerodynamics & Structures	3205 Lakewood Blvd	Long Beach Airport	CA	90808		USA	(562) 856-8616
Advanced Metal Fab	3020 Las Hermanas Drive	Rancho Dominguez	CA	90221		USA	(310) 890-2000
Advanced Metallizing Technologies	8213 S. Boyls Ave.	Los Angeles	CA	90058		USA	(323) 277-1070
Advanced Ground System Engineering Corporation	1126 N. Kessler Blvd.	Anaheim	CA	92805		USA	(714) 833-8966
Advanced Precision Structural, Inc.	140 East 182nd Street	Gardena	CA	90248		USA	(310) 334-4858
Advanced Tube Engineering, Inc.	18211 Enterprise Lane, Unit C	Huntington Beach	CA	92648		USA	(714) 847-7858
Aero Aero	1828 W. 137th St	Torrance	CA	90508		USA	(310) 634-8768
Aero Bending Co.	48328 N. Division Street	Lancaster	CA	93538-4844		USA	(801) 948-3363
Aero Metal	2180 N. Lark Drive	Perth	MO	63728		USA	
Aero Metals Division of AIRC, Inc. (Kennedy Space Center)	P.O. Box 8088, 7008 Challenger Ave.	Titusville	FL	32783-8088		USA	(407) 280-1100
Aero Sheet Metal	43326 N. Division Street	Lancaster	CA	93538-4844		USA	(801) 948-8057
Aero Sheet Metal	11902 Dahlouge St	North Hollywood	CA	91605-6190		USA	
Aero Wheel and Brake Service Corp.	8800 Aaco Street	Montebello	CA	90640		USA	(213) 727-8000
Aerotech, Inc.							
Advanta Pile	2920 E. Shaver Ave.	Herrington Park	GA	30229		USA	
Aggressive Engineering Corp.	1236 N. Knobwood Circle	Anaheim	CA	92801		USA	(714) 896-8313
Agula Machine	1879 West Commonwealth	Fullerton	CA	92833		USA	(714) 441-4481
AHF DUC Overrun	P.O. Box 2310	Gardena	CA	90247-2310		USA	(310) 388-8390
Airbus		Paris				France	
Aircraft Forming (aka: Ron's Metal Spinning)	17283 Dapth Ave. #12	Hesperia	CA	92348		USA	(760) 886-1080
A.I. Industries, Inc.	1841 East Garfield Street	Battle Ave	CA	92705		USA	(714) 850-8133
Airway Services Co. (aka: Scribe Metal Spinning & Fabrication)	10801 Lower Azusa Road	St. Marys	CA	91731		USA	(800) 877-7775
All Power Manufacturing Co.	18141 Mojave Street	Battle Co Springs	CA	90874-0140		USA	(626) 932-2940
All-Prop Precision Sheet Metal, Inc.	2080 East Imperial Hwy	Essex	CA	92621		USA	(714) 998-8178
Allied Signal		Tombase	CA				
Allied Signal		Phoenix	AZ				
Allen United	12078 East Clark Street	San Joaquin	CA	90679		USA	
Allent Alkes	848 Anchorage Drive	San Marcos	CA	92069		USA	(760) 748-3240
Ametek National Controls Corp.	1726 Westam Drive	West Chicago	IL	60186		USA	(630) 231-8335
American Racing Custom Wheels	19200 South Reyes Ave	Rancho Dominguez	CA	90221		USA	(310) 836-7806
ANP Research	22631 Ridge Route	Laguna Hills	CA	92653		USA	(649) 481-8860
Anaplex	18447 Garfield Ave	Paramount	CA	90723		USA	
Applied Medical Resources	28081 Merit Circle, Building 101	Laguna Hills	CA	92653		USA	(714) 842-6120
Arcis Precision, Inc.	426 N. Fox Street	San Fernando	CA	91340		USA	(818) 361-6434
Argo Spring Mfg. Co., Inc.	13050 Bismarck Ave.	Norwalk	CA	90660		USA	(562) 921-6741
Arizona Aircraft Spares	4491 E. Hemisphere Loop	Tucson	AZ	85705		USA	(602) 808-0286
Arrowhead Products	4411 Kates Ave	Los Alamitos	CA	90720		USA	(714) 828-7770
AM Aerospace, Inc.	5912 Lulline Ave. #1	Cheltenham	CA	91311		USA	
Associated Machine Technology, Inc.	680 Mariner Street	Brea	CA	92621		USA	(714) 860-6178
Atlas Doppo Rotoflow	540 E. Rosecrance Ave	Gardena	CA	90248		USA	(310) 326-0183
Atlanta Sheet Performance	18230 S. Figueroa St.	Gardena	CA	90248		USA	(310) 432-7858
Arcis Corporation	P.O. Box 3090, One Rockwell Ave	Albany	NY	31708		USA	(612) 843-1440
Baja Pacific Light Metal, Corp.	11508 Valley View Ave	La Habra	CA	90638		USA	(310) 404-7474
Band-Tek, Inc.	8848 Industry Way	Walshamater	CA	92983		USA	(714) 802-8308
Benjamin Metal Company	14000 S. Figueroa Street	Los Angeles	CA	90069		USA	(323) 321-1700
BF Goodrich Aerospace	850 Lagoon Drive	Chula Vista	CA	91910		USA	(619) 891-2249
BF Goodrich Aerospace	Bay Blvd at G Street, Bldg 79	Chula Vista	CA	91910		USA	(619) 891-2249
BJS Industries	2113 Border Ave	Torrance	CA	90501		USA	(310) 833-1081
Blochman-Milton Manufacturing Co.	7828 Wynnes	Houston	TX	77081		USA	(713) 844-2366
Boeing Aircraft and Missile Systems	P.O. Box 96742	St. Louis	MO	63164-6742		USA	
Boeing Commercial Airplane Group	8800 Propl Ave, Bldg 246	Boothville	MO	63194		USA	
Boeing Commercial Airplane Group	P.O. Box 3787	Seattle	WA	98124-2207		USA	(206) 882-8771
Boeing Commercial Airplane Group	Supplemental Metal Shop 1000 1000	Remton	WA	98058		USA	
Boeing Douglas Products Division	P.O. Box 2727	Long Beach	CA	90801		USA	
Boeing Douglas Products Division	1417 S. Harborway Way	Tombase	CA	90802		USA	
Boeing Douglas Products Division	1818 North 20th West International Roadway W	St. Louis City	MO	63118		USA	
Boeing Light Helicopter Division	5900 East McDowell Road	Meriden	CT	06420		USA	(802) 861-2710
Boeing Space Systems	5361 Boltes Ave	Huntington Beach	CA	92647		USA	
Boeing Space Systems	8882 Rancho Road	Huntington Beach	CA	92647		USA	
Bonded Technology, Inc.	14 Alsea Ridge Road	Greenwell	CT	06426		USA	(860) 436-7180
Bronco Metals	11800 Northern Street	La Habra	CA	90638		USA	(714) 736-4360
Bronco Industries, Inc.	101 Evans Ave	Dayton	OH	95403		USA	(702) 246-0461
Cal-Metal Manufacturing & Machining	898 Vernon Way	El Cajon	CA	92020		USA	(619) 588-8787
Cal Text	18821 Vermont Ave	Fresno	CA	93723		USA	(562) 631-1818
Calcor Space Facility	12837 E. Philadelphia St	Whittier	CA	90607		USA	(310) 245-1891
California Air-Ton Corp	1873 Via Arado	Rancho Dominguez	CA	90220		USA	(310) 888-8800
California Furnace Components, Inc.	6790 Central Ave	Riverside	CA	92504-1420		USA	(951) 847-9285
California Metal Shaping	1704 Hooper Ave	Los Angeles	CA	90021		USA	(213) 746-3842
California Pipe & Bending	318 East 88th Place	Los Angeles	CA	90003		USA	
Cardiac Machine Products, Inc.	17005 Kuegan Ave	Garson	CA	90746		USA	(310) 884-3400
Center Tool & Machine Co.	6840 Hermosa Circle	Buena Park	CA	90620		USA	(714) 738-0715

Centaline Wheel Corporation	18021 Freeway Drive	Santa Fe Springs	CA	90670	USA	(862) 921-8637
Centaline Tool Corporation	15021 Freeway Drive	Santa Fe Springs	CA	90670	USA	(862) 921-9697
Central Machine & Tool, Inc.	405 Pico Robles Blvd	Pico Pablos	CA	93446	USA	(905) 229-1686
Central Tool Corporation	13821 Freeway Drive	Santa Fe Springs	CA	90670	USA	(862) 921-8137
Centric Machine	12280 Race Track Road	Tampa	FL	33621	USA	
Century Parts, Inc.	915 West 123rd Street	Torrance	CA	90502	USA	(310) 326-0281
Certified Aviation Service	5166-H Airport Loop	Costa Mesa	CA	92626	USA	(714) 662-2441
Central Aviation Supply (USA Orbital Aerospace Corporation)	1301 Skyway Drive	Dakotafield	CA	93558	USA	(865) 281-4588
Chemtronics						
Chen, LLC	1739 B. Clementine Street	Arakham	CA	92802	USA	(714) 861-1860
CAL Gordon Industries, Inc.	13780 Roseville Ave.	Santa Fe Springs	CA	90670	USA	(862) 483-7378
CNC Manufacturing	23168 Baren Way	Torrance	CA	90580	USA	(862) 883-0065
Coast Aluminum & Architecture	887 Bandoval Way	Hayward	CA	94544	USA	(610) 441-8600
Coast Aluminum & Architectural (Processing)	10430 Wheeler Drive	Santa Fe Springs	CA	90670	USA	
Coast Metal Craft Inc	14818 Susana Road	Mancha Dominguez	CA	90221	USA	(310) 637-0370
Conquest Industries	8018 Bell Ranch Drive	Santa Fe Springs	CA	90670	USA	(862) 906-1111
Consolidated Trading Co (Johns Olympic Athlete)	PO Box 8428, #12 E. Franklin Ave.	El Segundo	CA	90244	USA	(310) 840-2247
Continental Forge Co.	512 E. Carlin Street	Orange	CA	92622	USA	(714) 774-3220
Coulter Steel & Forge Co.	1484 BPP Street	Emeryville	CA	94608	USA	(415) 420-3405
Crafton Metal Forming	241008-E Waller Street	Paints	CA	92570	USA	(606) 940-8448
Cramer Engineering Company	1111D Greenstone Ave	Santa Fe Springs	CA	90670	USA	(862) 903-8885
Cramer Engineering Company	1111D Greenstone Ave	Santa Fe Springs	CA	90670	USA	(862) 903-8856
Creative Pathways, Inc.	5121 Fylla Street	Torrance	CA	90506	USA	(310) 630-1668
Custom Metal Shapes	16309 1/2 Eucalyptus Ave	Belflower	CA	90706	USA	
Custom Metal Spinning	12187-C Blauwin Ave	Santa Fe Springs	CA	90670	USA	
Custom Services, Inc.	610 West Hyde Park Blvd	Irvingwood	CA	90302	USA	(310) 870-7910
Cycle Science	188 Bonsett Blvd	San Marcos	CA	92069	USA	(760) 896-4270
Cycle Science (dba BE Racing)	188 Bonsett Blvd	San Marcos	CA	92069	USA	(760) 896-4270
Cyrus Inc	Emmal Ind. Park, P.O. Box 458	Pondichy	IL	63062	USA	(308) 283-1761
Davidson Aluminum & Metal Corp.	104 West Industry Court	Dear Park	NY	11729	USA	(516) 485-0000
Dakfield Corporation	1325 Flower Ave.	Duels	CA	91010	USA	(825) 308-0740
Dale Fabrication, Inc.	2650 De Bots Ave	Chatsworth	CA	91311	USA	(818) 407-4000
Designing Specialties III	307 N. Euclid Way, Bldg 0-3	Arakham	CA	92801	USA	(714) 776-4300
Diamond Diamond Glass Co. (Div. Of Diamond Weldworks Int)	8201 De Bie Drive	Paramount	CA	92755	USA	(862) 834-2100
Dirimash	845 Ranchero Drive	San Marcos	CA	92069	USA	(760) 748-3548
D.M. Precision	6882 Adams Blvd.	Downey	CA	90241	USA	(213) 924-7906
Downey Centerless Grinding	13323 Bellflower Blvd.	Downey	CA	90241	USA	
Duplicate Parts Company	168 Pacific Street	San Marcos	CA	92069	USA	
Dura Plastic Products, Inc.	PO Box 2087, 833 East 7th Street	Bessemer	CA	92223	USA	(908) 645-3161
Dynamic Enterprises, Inc.	1901A Greenleaf Ave	Santa Fe Springs	CA	90670	USA	(862) 844-0271
ECI Water Ltd Products, Inc.	2080 Chicago Ave., Suite C-4	Riverside	CA	92507	USA	
Empire Bonus Manufacturing Co.	747 N. Yale	Villa Park	IL	60161	USA	(830) 233-7080
Estaline TA Mfg. Company	PO Box 3850, 378 West Arden Ave.	Glendale	CA	91206-2900	USA	(818) 240-1600
Estaline TA Mfg. Company	PO Box 0621, 2005 W. Franklin Parkway	Valencia	CA	91355	USA	(805) 776-1100
E.R.C. Company	2970 E. Meria St., Unit 86	Rancho Dominguez	CA	90221	USA	(310) 608-0970
Euro Engineering	23180 Del Lago Dr.	Laguna Hills	CA	92653	USA	(949) 776-0107
Evertown Systems International	4740 Calle Guzman	Comerio	CA	90639	USA	(805) 245-4402
Excess Metal Aerospace, Inc.	2286 West Fanchon	Santa Ana	CA	92774	USA	
EZTech Manufacturing	1286 Howard Drive	West Chicago	IL	60185	USA	(830) 293-0010
F.D. Components	175 Pauline Ave	Costa Mesa	CA	92626	USA	(714) 848-3390
Fairchild Fasteners	800 State College	Pittsford	CA	92331	USA	
Fair Wheel Concepts, Inc.	1738 North Georgia Ave	Abusa	CA	91702	USA	
Foan Molders & Specialties	20004 State Road	Carroll	CA	90703	USA	(862) 834-7767
FRH Plaster Viding	1 ERK Circle	Vero	NY	85488	USA	
Forged Metals Inc	10988 Beach Ave	Fontana	CA	92337	USA	(909) 380-8280
Forrest Machining, Inc.	28544 Stanford Ave	Valencia	CA	91365	USA	
Frontier Technologies	18408 S. Figueroa St.	Gardena	CA	90248	USA	(310) 787-1227
Full-Bore Race Products	454 W. Rolland Ave.	Santa Ana	CA	92707	USA	(714) 436-8822
Furn Scale	3340 East La Palma	Arakham	CA	92806	USA	(714) 830-5818
Furn Speed Service A/P	PO Box 198	Aurora	IL	41202	USA	
Gary Pail Manufacturing	PO Box 963, 24108 Crane Ave, Dayton	Peris	CA	92870	USA	(800) 666-0890
Gary's Test	817 Ocean Front Walk	Venice	CA	90291	USA	(310) 452-3132
General Kinetics, Incorporated	110 Sunny Drive	Johnstown	PA	15806	USA	(814) 283-8991
General Vector Manufacturing Co.	PO Box 1607, 6882 Olive St	South Gate	CA	90280	USA	(213) 894-2867
Gilmore Metal	1114, Box 08	Bishop	CA	93514	USA	(760) 873-4972
Givox Glass, Inc.	850 West Washington Blvd	Los Angeles	CA	90016	USA	(213) 747-7408
Glen Bender Engineering	3185 Keshave St.	Torrance	CA	90508	USA	(310) 534-3210
Globe Tool & Manufacturing Co., Inc.	750 2nd Ave SE	Minneapolis	MN	55414	USA	(812) 861-8780
GOT Industries, Inc.	3601 West Central Ave.	Santa Ana	CA	92704	USA	(714) 666-0444
Hammer Corporation (Herman's Metal Spinning Co.)	820 State Street	Glendale	CA	91208	USA	(818) 246-0170
Handli Associates, Ltd.	15600 Minnesota Ave.	Paramount	CA	90723	USA	(862) 251-1491
Harrison Mold	1806 Quaker Ridge Road	Ontario	CA	91718	USA	(800) 825-2767
Hausch Welding International, Inc. (aka Hausch Laserwelding International, Inc)	14000 Plaster Blvd	La Mirada	CA	90628	USA	
Hemera Machining	8912 Clark Street	Bell Gardens	CA	90201	USA	(862) 626-0209
Hi-Craft Metal Products	806 E. 184th Street	Gardena	CA	90248	USA	(213) 321-8883
Hi-Quality Alloys	12329 Telegraph Road	Santa Fe Springs	CA	90690	USA	(862) 841-8304
Hi-Tech Curving, Inc.	13211 Flornice Ave	Santa Fe Springs	CA	90670	USA	(862) 941-8888
Hoover Glass, Inc.	1509 S. Eastern Ave.	Los Angeles	CA	90022	USA	(213) 834-1390
Hovee Welding & Fabrication	41211 Nisk Lane	Altaville	CA	92582	USA	(951) 896-8987
Hydroform USA	2845 East 208th St	Long Beach	CA	90810	USA	(310) 622-8932
Hydrograph, Inc.	5281 Research Blvd	Huntington Beach	CA	92649	USA	(714) 898-9041
Hy-Tech Spinning Inc	116 W. Hyde Park Blvd	Irvingwood	CA	90302	USA	(310) 873-4488
Ico Industries	1306 Melrose Place	Rancho Dominguez	CA	90230	USA	(310) 631-6885
Image Casting	2888 Parkside Road	Orland	CA	93063	USA	(865) 886-1108
Inland Cycles	18273 Grand Ave.	Lake Elsinore	CA	92550	USA	(951) 876-4876
Independent Forge Co	6921N Balgoin St	Orange	CA	92666	USA	(714) 867-7337
International Architectural Metal Works	577 E. Edna Place	Covina	CA	91733	USA	(626) 352-8600

J & M Metal Spinning	4246 Conquista Ave.	Lakewood	CA	90718	USA	
J & M Metal Spinning	1430 1/2 Daley Ave.	Long Beach	CA	90813	USA	
JC Carter						
J.G. Wiggins & Fabrication	1420 S. Garmatha Blvd	Norman	CA	98920	USA	(310) 404-0068
Jermine Tool & Mfg.	8368 Abraham Way	Berkeley	CA	94701	USA	(818) 448-1220
J.S. Spray Mfg. Co.	7040 Laurel Canyon Blvd.	North Hollywood	CA	91615	USA	(818) 945-1718
J.W. Lytle Co., Inc.	1856 Eastwood	Corona	CA	91718	USA	(909) 373-5794
Earl M. Johnson Co. (aka Johnson Steel & Aluminum)	PO Box 640, 19800 Laker Ave. & Ind.	Lynwood	CA	90292	USA	(213) 862-6884
K & T Manufacturing, Inc.	1868 Freeman Ave	Signal Hill	CA	90804	USA	(562) 494-7870
Kalco						
Ken Hill Racing Wheels	16627 Canyon Drive	Whittier	CA	90603	USA	(626) 645-6477
Kapner Plastic Fabricators, Inc.	3121 Loma Blvd.	Torrance	CA	90502-5188	USA	(310) 388-3182
Kern Engineering & Mfg. Corp.	1148 East Ash Ave.	Pullerton	CA	92831	USA	(714) 882-8830
KIT Pack Co.	285 East Thiers Road	Las Cruces	NM	88905	USA	(505) 525-2120
KMG Wheel Co.	1408 Constance Ave	Beverly Hills	CA	92507	USA	(818) 744-4382
Krylar Corporation	1217 E. Ash Ave	Pullerton	CA	92831	USA	
Kuyper's Machine Co., Inc.	16842 Hale Ave	Inglewood	CA	90274	USA	(714) 645-0647
Lane & Rodick, Inc.	12646 Alford Street	Santa Fe Springs	CA	90670	USA	(800) 668-3488
Latch Mfg. aka Barkon Machine Works	6100 US 1 North	St. Augustine	FL	32086	USA	
Liege International Corp.	880 Via Alondra	Comedia	CA	91910	USA	
Lino Electronics	4880 E. La Palma Ave	Anaheim	CA	92807	USA	(714) 776-1000
Loebhard Martin Aerogels, Inc.	221 Industrial Park Rd.	Johnstown	PA	15904-1981	USA	(814) 262-3780
Marvin Engineering Co	260 W Beach Ave	Inglewood	CA	90302	USA	(310) 674-6000
Mattoo Forge Inc	16443 Minnesota Ave	Paramount	CA	90725	USA	(626) 834-8888
McStarline Company	1891 W. 240th Street	Harbor City	CA	90710	USA	(310) 322-2683
Mechanical Metal Finishing Co.	18228 Broadway	Gardena	CA	90248	USA	(910) 321-1071
Metal Center	12054 Greenlawn Ave	Santa Fe Springs	CA	90670	USA	(626) 644-5322
Metal Forming Machine, Inc.	2316 S. Boyle Ave.	Los Angeles	CA	90006	USA	(323) 668-6700
MetalPro Industries, Inc.	28024 Ave. Starford, Unit 4	Valencia	CA	91385	USA	
Metroline (A Division of Metro-Line Ind., Inc.)	261 Corporate Terrace	Dixona	CA	91730	USA	(800) 371-2800
MF&M Electronics, Inc.	8216 S. Boyle Ave.	Los Angeles	CA	90068	USA	(213) 688-6600
Mikro Ind.	8821 Buva Street	San Gabriel	CA	90021	USA	(562) 328-0888
Millersum Alloy Wheels	400 S. Lemon Street	Anaheim	CA	92806	USA	(714) 633-0718
Mulling Engineering Co.	12141 Rhonda Road	Whittier	CA	90608	USA	(562) 888-0734
North Specialty Products (A Division of Slabe North, Inc.)	2654-B Barkon Street	Brea	CA	92621	USA	(714) 824-1985
North Slaty Products (A Division of Slabe North, Inc.)	2867-B Barkon Street	Brea	CA	92621	USA	(714) 824-1656
Northrup Grumman Commercial		Hawthorne				
Northrup Grumman Commercial		Dallas				
Northrup Grumman Military		Melbourne				
Northrup Grumman Military Testbed Flight Division		El Segundo				
Oakley Alloy Wheels	480 S. Lemon Street	Anaheim	CA	92806	USA	(714) 623-0176
Olympic Aviation	PO Box 2420, 612 E. Franklin Ave.	El Segundo	CA	90246	USA	(310) 640-2247
Olympic Aviation (aka Consolidated Trading Co.)	PO Box 2420, 612 E. Franklin Ave.	El Segundo	CA	90245	USA	(310) 644-2247
Omeg Manufacturing, Inc.	1617 West 139 th Street	Gardena	CA	90248	USA	(910) 632-6974
Optima Wheels, Inc.	78390 Valley View Ave	La Mirada	CA	90638	USA	(562) 484-3474
Orbital Aerial Operation Base	1301 Skyway Drive	Bakersfield	CA	93306	USA	(805) 361-4886
Orbital Sciences Corporation	1301 Skyway Drive	Bakersfield	CA	93308	USA	(805) 361-4886
Optical Systems Corporation (aka Central Aviation Services)	1301 Skyway Drive	Bakersfield	CA	93306	USA	(805) 361-4886
O P Fabrication	18112 La Brea Road	La Mirada	CA	90638	USA	
O P Manufacturing, Inc.	13190 Arctic Circle	Santa Fe Springs	CA	90670	USA	(626) 821-3440
Pacific Coast Alloy, LLC	18118 E. Rosalynn Ave.	Pullerton	CA	92831	USA	(714) 871-2490
Pacific Defense Products	817 E. Lakewood Ave., Suite 0	Palmdale	CA	93570	USA	(714) 777-1638
Paramount Roll & Forming, Inc.	12120 E. Florence Ave.	Santa Fe Springs	CA	90670	USA	(310) 644-4232
Paramount Spring Engineering Co., Inc.	12721 Rose Drive	Santa Fe Springs	CA	90670	USA	(626) 821-2786
Paragon Sports Products, LLC	1254 South Lyon Street	Santa Ana	CA	92705	USA	(714) 838-6131
Performance Forged Products	7401 Telegraph Road	Montebello	CA	90640	USA	(213) 722-8440
Pervin Industries	1710 Kona Drive	Compton	CA	90220	USA	(910) 636-6321
Phillips	13659 Reservoir Ave., Unit B & C	Santa Fe Springs	CA	90670	USA	(910) 621-4112
Phillips Metal Spinning, Inc.	13659 Reservoir Ave., Unit B & C	Santa Fe Springs	CA	90670	USA	(310) 621-4112
Phillips Steel Co.	1908 W. Anaheim Street	Long Beach	CA	90813	USA	(562) 436-1671
Plastic Tech Int., Inc.	18781-N Rockfield	Inglewood	CA	90710	USA	(714) 454-1880
Precision Machine International	3210 n. Farisa, Suite 101	Tucson	AZ	85748	USA	(602) 623-0060
Precision Resources, California Division	3608 Engineer Drive	Huntington Beach	CA	92648	USA	(714) 861-2450
Precision Tube Bending	13628 Lake St	Santa Fe Springs	CA	90670	USA	(910) 621-6723
Pro-Lane Industries	164 S. Valencia Street	Gardena	CA	91747	USA	(818) 336-5836
Pro-Mill, Inc.	1809 N. Kramer Blvd, Unit W	Anaheim	CA	92806	USA	(714) 830-0082
Process Fab., Inc.	16644 Glenlon Drive	Santa Fe Springs	CA	90670	USA	(562) 871-1878
Pyruik, Inc.	9749 Jordan Circle	Santa Fe Springs	CA	90670	USA	(626) 948-2402
Quick Draw & Machining, Inc.	4880 McGraw Street	Ventura	CA	93003	USA	(805) 644-7884
Racing Sports Alkaloid Co., Inc.	3620 E. Guadalupe Road, Unit A	Ontario	CA	91761	USA	(909) 805-0888
Rays Aircraft Service	1893 S. Newborn	Porterville	CA	93267	USA	(209) 784-9110
R & B Machine	6778 Brooks, Unit A	Montclair	CA	91763	USA	(909) 821-2180
RD Fluid Engineering, Inc.	1018 West 208 th Street, Suite 203	Torrance	CA	90501	USA	(310) 782-6028
RD Fabricators, Inc.	840 North Rockoff	Orange	CA	92668	USA	(714) 834-3876
Regent Mfg., Inc.	11908 Regentview Ave.	Downey	CA	90341	USA	(562) 862-1174
Ribance Metal Center	6716 Jefferson Street, N.E.	Albuquerque	NM	87100	USA	(505) 348-3889
Rio Metal Fabricators, Inc.	1221 E. Warner Ave	Santa Ana	CA	92708	USA	(714) 832-3104
Research Metal Industries	8806 S. Warner Ave., PO Box 47880	Los Angeles	CA	90047-8830	USA	(213) 783-3771
Rimec International, S.A.	Carretera Toluca-Ensenada KM 4	Toluca & C.	Mexico	611 82 865		
Robson International, Inc.	1488 Hillcrest	El Cajon	CA	92020	USA	(619) 447-3838
Roll, Inc (Acquired by BF Goodrich)	898 Lagoon Drive	Cruta Yaba	CA	91910	USA	(619) 691-2242
Roll, Inc (Acquired by BF Goodrich)	Bay Blvd # 8 Street, Bldg 78	Cruta Yaba	CA	91910	USA	(619) 691-2242
Robinson Cycles	1317 Fairwood Ave	Clearwater	FL	34619	USA	(813) 725-5118
Robinson Helicopter	2801 Airport Drive	Torrance	CA	90503	USA	(310) 680-4608
Rolle Royce						
Ron's Metal Spinning (aka Airport Forming)	17298 Darwin Ave, #12	Hesperia	CA	92348	USA	(760) 985-1090
Rory Manufacturing, Inc.	PO Box 1038	Brawley	CA	90628	USA	(707) 898-1867
Santa Fe Roll & Forming Co.	12130 Florence Ave.	Santa Fe Springs	CA	90670	USA	(626) 944-7888

Bergant Fabricator Inc	8400 E Flair Ave	El Monte	CA	91731-3909	USA	(928) 402-2000
Belco, Inc.	1801 E. El Segundo Blvd.	El Segundo	CA	90245	USA	(310) 322-4710
Satellite Mfg. Co.	13181 E. Florence Ave.	Santa Fe Springs	CA	90870	USA	(714) 789-4405
Schultz Engineering Corp.	5789 Thornwood Drive	Goleta	CA	93117-3601	USA	(805) 954-2294
Beepko Tube Swaging & Machining	17000 S. Western Ave, #17	Gardena	CA	90247	USA	(310) 515-0787
B.E. Racing	180 Bonadick Blvd	San Marcos	CA	92066	USA	(912) 888-8270
B.E. Racing (also Cycle Science)	180 Bonadick Blvd	San Marcos	CA	92066	USA	(912) 888-8270
Scuder Formula Inc. Americas East Products Division	2280 N San Fernando Blvd	Burbank	CA	91504-3462	USA	(818) 841-0190
City Rider Equipment Co., Inc.	2951 E. White Star Ave., Suite B	Anaheim	CA	92808	USA	(714) 832-6890
Skyspace Parts, Inc.	16700 Piquette	Gardena	CA	90248	USA	(805) 331-0770
SMB Technologies Co.	9711 Mason Ave	Chatsworth	CA	91311	USA	(818) 888-0795
Sonnetal, Inc.	5000-3100 La Jolla	Anaheim	CA	92808	USA	(714) 690-7260
Sonnetal, Inc.	422 South Main Street	Yuba	CA	95975	USA	
Southwest United Industries	6670 Bell Ranch Drive	Santa Fe Springs	CA	90670	USA	(862) 941-1878
Southern California Metals	2221 Main Road	Simi Valley	CA	93065	USA	(805) 879-0730
Specialty Fabrications, Inc.	10828 Dolores Ave	South Gate	CA	90260	USA	
Spin-Mex, Inc.	9730 Factorial Way	So. El Monte	CA	91733	USA	(828) 443-4457
Square Tool & Machine Co., Inc.	1440 S. Aliso Street	Anaheim	CA	92805	USA	(714) 850-7110
Standard Industries, Inc.	4006 West Arroyo Ave.	Petaluma	CA	94953	USA	(714) 522-4520
Stein Industries, Inc.	19794 Los Vaqueros Circle	Los Alamitos	CA	90720	USA	(714) 956-3422
Superior Engineering	1145 Kresner Place	Anaheim	CA	92808	USA	
Supreme Castings & Pattern Co., Inc.	344 W 167th St	Gardena	CA	90248	USA	(310) 354-1200
Swift-Cor	2668 E. 37th Street	Los Angeles	CA	90008	USA	(828) 292-6171
T-D Materials	11226 North Garfield	South Gate	CA	90260	USA	(562) 923-4584
Techni-Cast Corp.	376 S. Cactus Ave	Rialto	CA	92378	USA	(908) 877-8688
TechniForm Metal Curving, Inc.						
Tek@me Invest						
The Trident Company	1450 E. Walnut Ave.	Fullerton	CA	92631	USA	(714) 441-3768
Thruwad Fastener Engineering	1714 S. Grove Ave, Unit B	Ontario	CA	91762	USA	(909) 823-8787
Timary Metals	2500 Marina Ave	Rancho Beach	CA	90275	USA	(310) 879-0184
Tomic Cast & Mold Co. Mfg. Inc.	23102 Mariposa Ave	Torrance	CA	90502	USA	(213) 775-3182
Thomas	4450 A Dupont Court	Ventura	CA	95003	USA	
Troy Lighting, Inc., Custom Division	14536 East Clark Ave.	Industry	CA	91745	USA	(828) 336-4611
True Form (TF Acquisition Inc dba)	12180 Park Bl	Carroll	CA	90703	USA	(310) 926-8819
Trident Products						
Trico Metal Stamping	16918 East Proctor Ave.	Industry	CA	91746	USA	(928) 338-1238
Tube Technologies, Inc.	1556 Consumer Circle	Corona	CA	91720	USA	(909) 371-4878
Trio Tool & Die Co., Inc.	2340 West El Segundo Blvd.	Hawthorne	CA	90250-4892	USA	(213) 772-1336
University Corporation for Atmospheric Research	PO Box 3000, 1690 Teller West Drive	Boulder	CO	80507-3000	USA	(303) 497-8747
University of California at Irvine, Physical Sciences Dept.	Physics Hall, Room 8060	Irvine	CA	92697-4870	USA	(949) 824-8044
Uwaco Threading Co.	14008 Anson Ave	Santa Fe Springs	CA	90670	USA	(862) 822-1888
Waring, Inc.	8511 Whittaker Ave.	Buena Park	CA	90621	USA	(714) 822-8056
Water Metals & Supply Co., Inc.	PO Box 318, 16700 Gerfield Ave.	Paramount	CA	90723-0318	USA	(862) 902-0280
Wells Manufacturing Co.	PO Box 290, 2 Erik Circle	Vero	NY	09436	USA	(775) 846-0444
Western Machining Company, Inc.	1375 Anacle Ave	Petaluma	CA	94953-5318	USA	(714) 822-8008
Western Metal Spinning & Mfg. Co.	6026 Western Way	Perth	CA	92372	USA	(908) 857-0711
Wills Machine, Inc.	1448 Denton Street, Suite 3	Ventura	CA	93003	USA	(805) 644-0807