Department of Energy
Washington, DC 20585
February 28, 2007

11:42

The Honorable A. J. Eggenberger
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW, Suite 700
Washington, DC 20004

Dear Mr. Chairman:

Enclosed for your information and use are two internal Department of Energy memoranda from headquarters to their respective field elements. The purpose of these memoranda is to establish expectations for performing the ventilation system evaluations called for in Commitment 8.6 in the revised implementation plan for Defense Nuclear Facilities Safety Board recommendation 2004-2, *Active Confinement Systems*.

If you have any questions, please contact me or have your staff contact Mrs. Joanne Lorence, General Engineer, at (202) 586-7631.

Sincerely,

Mark B. Whitaker, Jr.
Departmental Representative
to the Defense Nuclear Facilities Safety Board
Office of Health, Safety and Security

Enclosures: NNSA Expectations for Performing Ventilation System Evaluations
Thomas P. D'Agostino
December 6, 2006

Department of Energy Office of Environmental Management
Expectations for Implementation of Commitment 8.6
Dr. Ines R. Triay
June 9, 2006

SEPARATION

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Department of Energy
National Nuclear Security Administration
Washington, DC 20585

December 6, 2006

MEMORANDUM FOR MANAGER, LOS ALAMOS SITE OFFICE
MANAGER, LIVERMORE SITE OFFICE
MANAGER, PANTEX SITE OFFICE
MANAGER, Y-12 SITE OFFICE
MANAGER, SANDIA SITE OFFICE
MANAGER, NEVADA SITE OFFICE
MANAGER, SAVANNAH RIVER SITE OFFICE

FROM: Thomas P. D'Agostino *T.P. D'Agostino*
Deputy Administrator
for Defense Programs

SUBJECT: National Nuclear Security Administration (NNSA) Expectations for Performing the Ventilation System Evaluations of Commitment 8.6 of the Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 2004-2, *Active Confinement Systems*

The purpose of this memorandum is to clarify the expectations for ventilation system evaluations being performed by NNSA to satisfy commitment 8.6 of the Department's Implementation Plan (IP) for Defense Nuclear Facilities Safety Board (DNFSB) Recommendation 2004-2, *Active Confinement Systems*. Specifically, it explains the coordination required with the Central Technical Authority (CTA), Independent Review Panel (IRP), and the Deputy Administrator for Defense Programs (NA-10) to ensure technically sound and appropriate evaluations and disposition of results.

An electronic copy of the ventilation system evaluation report must be provided to the CTA's Chief of Defense Nuclear Safety (CDNS), Jim McConnell at james.mcconnell@nnsa.doe.gov, along with a request for review. At a minimum, CDNS technical experts will independently review the evaluation report for technical accuracy and to help ensure that the conclusions reached are consistent with the Department of Energy (DOE)/NNSA safety policy and goals. The level and method of involvement is at the discretion of the CTA. The disposition of all CTA comments must be coordinated with the CTA and documented.

The IRP consists of five members with defense nuclear facility design, safety basis, and confinement ventilation system (CVS) expertise. The role of the IRP is defined in the *Ventilation System Evaluation Guidance for Safety-Related and Non-Safety-Related Systems* dated January 2006. This guidance was previously submitted to the DNFSB as 2004-2 IP Deliverables 8.5.4 and 8.7 by letter from Secretary Bodman dated July 12, 2006. This guidance, or its subsequent revision in response to 2004-2 IP commitment 8.5, Deliverable 8.5.5 (new or revised guidance based on experience and lessons learned from the pilot evaluations), is to be used to perform the evaluations.

The IRP performs an additional important role in ensuring that a consistent approach is applied across the complex while considering the unique hazards and characteristics associated with individual facilities. The IRP will independently look at all defense nuclear facility ventilation system evaluations, giving them a broader perspective and appreciation for the relative risks and benefits of various confinement ventilation system designs, and their application at different defense nuclear facilities. While the IRP is not intended to second guess or duplicate the efforts of the site office safety experts, our sites can potentially benefit from their experience. Therefore, the IRP is expected to assess the appropriateness of the evaluation results and identify novel or different approaches that may have been missed. The IRP should indicate their agreement or disagreement with the methods proposed for eliminating identified gaps (between the existing CVS and applicable performance criteria from either Table 5-1 or the Facility Documented Safety Analysis), and provide any additional input considered appropriate to the site offices. Therefore, at the same time it is provided to the CTA/CDNS, an electronic copy of the report should also be provided to Richard Englehart, the IRP Chairman at richard.englehart@hq.doe.gov along with a request for IRP review.

A minimum of 30 days should be allowed for the CTA and IRP to perform their reviews and provide comments back to the site office. The review requests must include the date by which CTA/IRP input is needed. The final report should include copies of the CTA and IRP comments and their disposition. Attached to this memorandum is the list of NNSA facilities that will complete a ventilation system evaluation and the due date for the final report.

As stated in the IP, the overall focus of the ventilation system evaluations is to (a) verify that appropriate performance criteria are derived for ventilation systems, (b) verify that these systems meet the performance criteria, and (c) determine if any physical modifications are necessary to enhance safety performance. A cost-benefit methodology was included in the ventilation system evaluation guidance to provide DOE decision makers a way to prioritize any value-added modifications or upgrades that would significantly improve CVS performance. Recommended CVS improvements and upgrades must be approved and dispositioned by the site offices.

The approach embodied in the 2004-2 IP is to ensure that any CVS upgrades or improvements necessary to ensure safety are made, and that any other CVS upgrades or improvements determined to be cost-effective are appropriately prioritized. It is not intended that this effort circumvent existing DOE requirements and guidance for implementing a thorough hazard and accident analysis process that establishes the basis for what safety systems are required and their classification, design requirements, and performance criteria.

In addition to the CTA/CDNS and IRP, technical experts in the NNSA Service Center, NNSA Headquarters (HQ), and the DOE 2004-2 Core Team may be used to help ensure appropriately consistent, conservative, and comprehensive ventilation system evaluations.

The Office of the Assistant Deputy Administrator for Facility and Infrastructure Acquisition and Operation (NA-17) will monitor and coordinate this effort with the Departmental Representative to the DNFSB, review the completed evaluations to ensure consistency with the intent of the evaluation guidance and the expectations therein, and approve actions that require NNSA HQ funding or coordination. Rick Kendall is the NNSA HQ point of contact for this effort and can be reached on (301) 903-3102 or at Rick.Kendall@nnsa.doe.gov should you have any questions.

Attachment

Attachment

NNSA Listing of Facilities that will complete a Ventilation System Evaluation, DNFSB Recommendation 2004-2

Site	Facility	Priority	Hazard Category	Due Date for Ventilation System Evaluation Report*
LANL	PF-4	High with accelerated schedule	HC2	December 21, 2006
LANL	CMRR	High	HC2	January 31, 2007
LANL	RLWTF	High	HC2	January 31, 2007
LANL	WCRRF	High	HC2	January 31, 2007
NTS	DAF/CEF	High	HC2	January 31, 2007
Pantex	12-64	High	HC2	January 31, 2007
SNL	ACRR	High	HC2	January 31, 2007
Y12	UPF	High	HC2	January 31, 2007
Y12	9212	High	HC2	January 31, 2007
LANL	WMRM	Medium	HC2	April 30, 2007
LANL	Radiography	Medium	HC2	April 30, 2007
LLNL	332	Medium	HC2	April 30, 2007
Pantex	SNM/CRF	Medium	HC2	April 30, 2007
Pantex	CEF	Medium	HC2	April 30, 2007
Y12	9720-82	Medium	HC2	April 30, 2007
Y12	9215	Medium	HC2	April 30, 2007
LANL	LANSCE, Lujan	Low	HC3	July 31, 2007
LANL	DVRS	Low	HC2	July 31, 2007
LLNL	B612	Low	HC2	July 31, 2007
Pantex	12-116	Low.	HC2	July 31, 2007
Pantex	12-44 Cell 8	Low	HC2	July 31, 2007
SNL	AHCF	Low	HC3	July 31, 2007
SNL	GIF	Low	HC3	July 31, 2007
Y12	9995	Low	HC2	July 31, 2007
Y12	9204/2E	Low	HC2	July 31, 2007

* These dates from the Department's 2004-2 Implementation Plan correspond to 90 days, 180 days, and 270 days, for high, medium, and low priority facilities respectively, after the Ventilation System Evaluation Guidance is revised based on the experience and lessons learned from the NNSA and EM pilot facility evaluations. Although the due date for issuing the revised guidance is October 31, 2006, revised guidance, if any, is not expected until January 2007 at the earliest due to delays in completing the pilot evaluations. Therefore, the due dates for the ventilation system evaluation reports will be adjusted accordingly (i.e., to correspond to 90 days, 180 days, and 270 days after revised guidance is issued for high, medium, and low priority facilities respectively). Significant changes to the evaluation guidance are not expected based on a preliminary review of the results from the pilot evaluations.

SEPARATION

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Department of Energy
Washington, DC 20585

JUN 09 2006

MEMORANDUM FOR DISTRIBUTION

FROM: DR. INÉS R. TRIAY
CHIEF OPERATING OFFICER FOR
ENVIRONMENTAL MANAGEMENT

SUBJECT: Office of Environmental Management Expectations for Implementation of Commitment 8.6 under the Department of Energy Implementation Plan Responding to Defense Nuclear Facilities Safety Board Recommendation 2004-2

The purpose of this memorandum is to establish expectations for the Office of Environmental Management (EM) to satisfy Commitment 8.6 (Safety Related Ventilation System Evaluation) of the draft *Department of Energy Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 2004-2, Active Confinement Systems*, expected to be approved in June 2006.

Dr. Robert C. Nelson has been assigned as the technical lead for EM activities associated with 2004-2. To date, EM actions have been completed for Deliverables 8.6.1 and 8.6.2 for Commitment 8.6. As you are aware, through your coordination on the established priority listing, evaluations must now be completed on our designated facilities to meet Deliverable 8.6.3. These evaluations may cause potential disruptions in previously established work expectations and place additional tasking upon limited resources. We must therefore wisely manage this effort to meet the Secretary's commitments under the 2004-2 Implementation Plan (IP).

Our priority listing identified 120 individual EM facilities requiring 2004-2 evaluations as delineated below:

Office	Pilot	High	Medium	Low	Total
RL		2	3		5
SR	3	5	64	15	87
PPPO		2			2
ORP		2	1		3
ID	1	7	2	2	12
CBFO				4	4
ORO		1	3	3	7

Although it is expected that many of these entries will be consolidated for the evaluation effort, with this number of evaluations we must make sure that we meet our commitment with sound, technically accurate and on-time reports. Initial technical interfaces have been established for each site as indicated below:

Office	Technical Lead
RL	Mark W. Jackson
SR	Mark A. Smith
PPPO	David R. Kozlowski
ORP - TF **- WTP**	Dennis H. Irby Lewis F. Miller, Jr.
ID	Craig R. Enos
CBFO	Richard F. Farrell
ORO	John A. Mullis

To assure that these interfaces have been correctly established and are interacting with you and/or your staff, I request that you verify these designations to Dr. Nelson via email by June 12, 2006. His email address is Robert_C_Nelson@orp.doe.gov. I expect Dr. Nelson to continue close coordination with these designated technical leads.

I have established the interim milestone dates listed below for completion of the related 2004-2 evaluation products. These dates will allow for effective review of our products by the established 2004-2 IRP, myself, and the Chief of Nuclear Safety.

	Table 4.3	Table 5.1	Final Report	2004-2 Date
Pilot	Jun 30, 2006	Jul 31, 2006	Aug 31, 2006	Sep 30, 2006
High	Sep 30, 2006	Nov 31, 2006	Dec 31, 2006	Jan 29, 2007
Medium	Dec 31, 2006	Feb 28, 2007	Mar 31, 2007	Apr 29, 2007
Low	Mar 31, 2007	May 31, 2007	Jun 30, 2007	July 28, 2007

If you have any questions, please call me at (202) 586-0738, Mr. Dae Y. Chung, Deputy Assistant Secretary for Safety Management and Operations, at (202) 586-5151, or Dr. Robert C. Nelson at (509) 376-8800.

cc:
D. Garman, US
J. Rispoli, EM-1
C. Anderson, EM-2
R. Lagdon, CNS-ESE
D. Chung, EM-60

Distribution:

Keith A. Klein, Manager, Richland Operations Office (RL)
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Richard Provencher, AMEM, Idaho Operations Office (ID)