

September 3, 2003

MEMORANDUM TO: Martin J. Virgilio, Director
Office of Nuclear Material Safety and Safeguards

FROM: Robert C. Pierson, Director **/RA/**
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards

SUBJECT: ACTIONS RESULTING FROM PANEL REPORT - DIFFERING
PROFESSIONAL VIEW ON CHEMICAL CONSEQUENCES AT THE
PROPOSED MIXED OXIDE (MOX) FUEL FABRICATION FACILITY
(NMSS-DPV-2003-01)

I am responding to your memorandum dated June 7, 2003, that directed the following actions associated with the subject DPV.

1. Distribute the March 10, 2003, memorandum titled "Regulatory Authority Over Chemical Hazards at Fuel Cycle Facilities" and applicable Federal Register notice sections to the appropriate staff. This action was to be completed by July 8, 2003.
2. Conduct a lessons learned review of the closure of Item CS-5 during the public meeting to determine whether: (1) all relevant staff views about the issue were appropriately considered and addressed before the item was closed; (2) conduct staff training consistent with the lessons learned; and (3) report the results of that training. This action was to be completed by September 5, 2003.

The first action was completed as directed on June 25, 2003.

The remainder of this memorandum addresses the second action. The meeting report of January 31, 2003, discusses two issues associated with Item CS-5: (1) modeling of hazardous chemical releases (which was documented as closed); and (2) temporary emergency exposure limits (which was documented as open). The DPV and Action 2 above are associated with the modeling issue. Hereinafter, any reference to CS-5 is limited to the modeling issue.

Summary of Approach Used to Address This Action

Because the documented record of issue CS-5 is unclear concerning how and when the issue was closed, all NRC participants in the December 10, 2002, meeting on this issue, with one exception, were interviewed. The one exception, Julia McAnallen, has since left the Agency. Each interview was summarized and the written summary was shared with the interviewee to ensure accuracy and completeness. Generally, the following questions were asked of each meeting participant.

- Was issue CS-5 closed at the meeting? If not, when was it closed?

- If you recall that the issue was closed at the meeting, was there agreement among the staff that the issue had been adequately addressed?
- Were there any unresolved staff concerns on this issue at the close of the meeting? If so, how were they resolved?
- After the meeting, were you involved in any follow-up discussions on this issue? If so, what was the nature of your involvement.

A variety of other clarifying questions were asked based on the individual responses to these general questions. The interview summaries are provided as Attachment 1.

Mr. Murray, the individual who filed the DPV, was interviewed twice. He was the first individual interviewed. This approach was taken so that the questions could be revised, if necessary, based on the recollections of Mr. Murray. He was interviewed a second time after all other meeting participants had been interviewed to allow him to clarify any questions or issues that were raised during the other interviews.

Summary of Interview Results

- With the exception of Mr. Murray, all NRC staff interviewed either: (1) believed the issue was determined to be closed at the meeting; or (2) had no knowledge of how or when the issue was closed.
- With the exception of Mr. Murray and Mr. Brown, none of the interviewees were aware of any unresolved staff concerns on this issue. Mr. Brown stated that Mr. Murray probably had an opposing view but Mr. Murray could not provide a rationale for that view or identify any additional information/analyses required by the applicant.
- The Branch Chief, Section Chief, and the Project Manager (Mr. Persinko) stated that they were not aware of any unresolved staff concerns on this issue. They stated that they were unaware of Mr. Murray's concerns until the DPV was filed.
- Neither the Branch Chief nor the Section Chief recall discussing this issue with Mr. Murray after the meeting.
- E-mails exchanged between Mr. Persinko and Mr. Murray (Attachments 2 - 5) in preparing the meeting report appear to indicate that Mr. Murray considered the issue to be closed.
- The results of the interviews were summarized for Mr. Murray during his second interview on August 21, 2003. In addition, copies of the e-mails were given to him. He stated that Attachment 2 did not address all of his concerns but he was unable to provide any additional information regarding Attachments 3 - 5. He asked for additional time to review the e-mails and his personal notes.
- Mr. Murray responded to the August 21, 2003, interview in an e-mail dated August 25, 2003 (Attachment 6). In a brief follow-up conversation with Mr. Murray, he stated that he'd need at least two more weeks to research his notes. In addition, he stated that he

had raised the issue with management on several occasions after the meeting and he was told that the issue was closed. Mr. Murray's email has been reviewed by management and forwarded to the NRC inspector general.

Closure of CS-5

Based on the interviews and documents made available by the interviewees, we have developed the following summary of the actions leading to the closure of CS-5.

There were extensive staff discussions on this issue during the months preceding the meeting. The discussion at the meeting was also extensive and likely included sidebar discussions by the staff. At the meeting, the applicant explained the relationship of the administrative controls to its position regarding operator actions outside of the control room. Near the end of this discussion, Mr. Murray apparently ceased to express his concerns. Mr. Persinko took this to mean that the issue was closed.

It is unclear at what point the information in Attachment 5 to the meeting report was presented. This attachment provides clarifying information from the applicant.

On December 13, 2002, Mr. Persinko provided Mr. Murray with proposed wording/commitments from the applicant resulting from the December 10, 2002, meeting. Concerning CS-5, Mr. Murray responded, "DCS proposed text closes operator action per SRP 8.4.3.4. Chemical consequence levels (e.g., TEELs etc.) remain open" (Attachment 2). Although not stated in this e-mail, the DCS response did not satisfy all of Mr. Murray's concerns with this issue. Apparently unaware of the unresolved concerns, Mr. Persinko provided the draft meeting summary to Mr. Murray for his review and comment via e-mail on January 6, 2003 (Attachment 3). Mr. Murray provided his comments to Mr. Troskoski for his consideration, including two comments on CS-5 (Attachment 4). In his interview, Mr. Troskoski stated that he is confident that Mr. Murray understood the applicant's position and was unaware of Mr. Murray's unresolved concerns. Mr. Troskoski provided both his comments and Mr. Murray's comments to Mr. Persinko (Attachment 5). None of Mr. Murray's comments reflected concern with closing CS-5 although the draft meeting report clearly stated this intent. Therefore, Mr. Persinko stated that he was confident that there were no remaining staff concerns with this issue. Based on input received from Mr. Persinko, it was the Section Chief's understanding that there were no outstanding staff concerns and that the issue had been appropriately closed. The meeting report was issued documenting this position.

Mr. Murray stated that there were numerous discussions of chemical safety issues in the January - February time frame but it is not clear from the interviews of the meeting participants, other than Mr. Murray, that any of these discussions directly addressed CS-5.

Conclusions

Based on the interviews and documents available for review, the Project Manager appears to have done everything that could be reasonably expected to reach agreement on this issue. Mr. Murray reviewed the draft meeting report but did not raise his concern in his e-mail responses. Mr. Murray stated that he raised these concerns with managers after the meeting. However, neither the Branch Chief nor the Section Chief recall such conversations. The Project Manager concluded that the issue had been resolved and issued the report accordingly. It is clear that the communications between Mr. Murray, Mr. Persinko, and the involved managers

on this issue were not effective. However, the specific cause for this ineffectiveness could not be determined.

Training

I have personally met with FCSS staff during section meetings to discuss this DPV and a newly developed FCSS non-concurrence process. During my discussion of the DPV, I emphasized the need to keep the channels of communication open at all levels and to promptly identify unresolved concerns to management. My presentation on the non-concurrence process is provided for your information as Attachment 7. This process will be documented in the form of a formal FCSS policy. I am confident that this process addresses the procedural issues identified by this DPV.

Attachments:

1. Interview Summaries
2. E-mails dated 12/17/02
3. E-mail dated 1/6/03 @ 8:12 AM
4. E-mail dated 1/6/03 @ 2:26 PM
5. E-mail dated 1/6/03 @ 3:19 PM
6. E-mail dated 8/25/03
7. Presentation on Non-Concurrence Process

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