

May 31, 2011

MEMORANDUM TO: Larry Campbell, Chief
Mixed Oxide and Uranium Deconversion Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

FROM: David Tiktinsky, Sr. Project Manager **/RA/**
Mixed Oxide and Uranium Deconversion Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

SUBJECT: MAY 10, 2011, MEETING SUMMARY: PUBLIC MEETING ON
ISSUANCE OF FINAL SAFETY EVALUATION REPORT FOR
MIXED OXIDE FUEL FABRICATION FACILITY

On May 10, 2011, the U.S. Nuclear Regulatory Commission (NRC) staff led a public meeting to discuss the NRC's recent completion of the Safety Evaluation Report for the License Application to possess radioactive material at the Mixed Oxide Fuel Fabrication Facility in Aiken, South Carolina. I am attaching the meeting summary for your use. This summary does not contain any official use only information.

Docket No. 70-3098

Enclosure:
MFFF Public Meeting Summary

cc: See next page

CONTACT: David Tiktinsky, NMSS/FCSS
301-492-3229

cc:

Mr. Clay Ramsey, Federal Project Director
NA-262.1
P.O. Box A
Aiken, SC 29802

Mr. Sam Glenn, Deputy
Federal Project Director
NA-262.1
P.O. Box A
Aiken, SC 29802

Mr. Joseph Olencz, NNSA/HQ
1000 Independence Ave., SW
Washington, DC 20585

Mr. Peter Winokur, Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Ave., NW, Suite 700
Washington, DC 20004

Susan Jenkins
Division of Radioactive Waste Management
Bureau of Health and Environmental Control
2600 Bull St.
Columbia, SC 292011

D. Silverman
Morgan, Lewis, & Bockius
1111 Penn. Ave., NW
Washington, DC 20004

Diane Curran
Harmon, Curran, Spielberg & Eisenberg,
LLP
1726 M St., NW
Suite 600
Washington, DC 20036

G. Carroll
Nuclear Watch South
P.O. Box 8574
Atlanta, GA 30306

L. Zeller
Blue Ridge Environmental Defense League
P.O. Box 88
Glendale Springs, NC 28629

Mr. Dealis Gwyn
Licensing Manager
Shaw AREVA MOX Services
Savannah River Site
P.O. Box 7097
Aiken, SC 29804-7097

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301-492-3229

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OFFICE	MODB	FCSS	MODB
NAME	DTiktinsky	LAllen	LCampbell
DATE	05/21/11	05/27/11	05/31/11

OFFICIAL RECORD COPY

Summary of
Mixed Oxide Fuel Fabrication Facility Public Meeting

DATE: May 10, 2010

PLACE: City of Aiken Municipal Building
215 Park Avenue SW
Aiken, South Carolina (SC)

ATTENDEES: See Attachment 1

PURPOSE:

The purpose of the meetings was to discuss the U.S. Nuclear Regulatory Commission's (NRC's) recent completion of the Safety Evaluation Report (SER) for the License Application to Possess Radioactive Material at the Mixed Oxide Fuel Fabrication Facility (MFFF) under construction on the Savannah River Site (SRS) in Aiken, SC.

DISCUSSION:

NRC hosted a public meeting in Aiken, SC, to discuss the completion of the final SER for the MFFF under construction on the SRS. The meeting consisted of three portions that included the presentation session, general questions, and a poster session. Larry Campbell of the NRC opened the meeting with remarks about the nature of the public meeting and the general schedule for the meeting.

Staff Presentation:

The NRC staff presentation consisted of individual portions that covered the different review areas assessed by the NRC staff for the licensing of the MFFF. Each staff member covered their area of review and detailed a general overview of their area of expertise and the findings and conclusions based on their review. The review areas covered included Integrated Safety Analysis (ISA), Chemical Process Safety, Criticality, Fire Protection, Quality Assurance, Civil/Structural Design, and Construction Inspection.

Project Overview:

The overview portion concentrated on discussing the goals of the public meeting, as well as highlighting what areas would be discussed and the participating NRC staff members. The presentation also included discussion of the MFFF Process, the overall licensing process that has been followed, and SER organization.

ISA Summary:

The ISA and ISA summary were briefly discussed in reference to the Licensing Application Review (LAR) 70.61 requirements including process safety information (PSI) and management measures were explained. Items relied on for safety (IROFS) construction verification plans were also emphasized as critical review points by the technical staff.

Chemical Process Safety:

The presentation identified some of the key hazards and risks identified in the review process. These included hydrogen fires and explosions, as well as solvent fires and explosions. NRC found in its review that mixed oxide (MOX) services adequately identified chemical hazards, adequately assessed hazard accidents and their corresponding consequences.

Criticality Safety:

This portion of the presentation discussed criticality safety, the ISA and its mandatory adherence to the double contingency principal, subcriticality requirements, and credible accident sequences. Discussion also included the basis for nuclear criticality safety (NCS) programs on a general level, and with specifics related to MOX.

Fire Protection:

The staff's findings showed that the applicant's design and commitments were consistent with Agency guidance, NUREG-1718, and standards from the National Fire Protection Association (NFPA). Based on the findings, the staff concluded that the applicant's proposed equipment and facilities are adequately described and will protect health and minimize danger to life or property, MFFF's ISA demonstrates a reasonable level of assurance that adequate fire protection will be provided and maintained, and that fire protection-related IROFS and defense-in-depth controls will provide adequate protection against fires and explosions.

Quality Assurance and Management Measures:

The presentation included a description of what management measures and quality assurance are, as well as describing what the applicant has committed to and how those commitments are evaluated. The staff concluded based on the findings that the applicant has satisfied the acceptance criteria identified in NUREG-1718 and that it will provide reasonable assurance that all IROFS perform their designated safety functions and are continually available and reliable.

Civil/Structural Design:

The findings included the principal civil structure has been designed for Seismic Category-1 design loadings – normal, severe, and extreme. The design bases included hazards such as seismic, high wind, tornado, flooding, snow, and tornado or wind generated missiles. The staff conclusion stated the applicant adequately determined design bases for design of principal civil structures, used NRC-accepted codes and standards, used acceptable design methodology, and finally that the design of the principal civil structure complies with the baseline design criteria in 10 CFR 70.64.

Construction Inspection:

The presentation started with a few quick facts about the MFFF, including total and installed stats for reinforced concrete, reinforced steel, cable tray, power/control cable, process piping, gloveboxes, and processing tanks. Next an overview of the Construction Inspection program was discussed and highlighted the 2010 activities and inspection hours expended on the MFFF project.

The closing of the presentation included a quick summary of the review status and overall conclusions. The floor was then opened up for general questions of the staff from the public. The general questions sessions would then be followed by a poster session where members of the public could ask specific questions of the individual technical reviewers in their area.

General Questions and Poster Session:

The general questions session included questions from two members of the public and a comment from another. The questions from the members of the public involved the basis for the chemical processing review and the makeup of the received plutonium, the potential facility design modification to handle production of different types of fuel assemblies, discussion of a hypothetical scenario that could require a revaluation if construction were halted and the facility left for some significant time, a discussion of the admitted contentions as part of the MFFF licensing hearing at this point, and discussion of a NRC/DOE interagency agreement for plutonium processing and receiving. The last member of public commented on how she feels the review of the facility has been thorough. The staff provided answers to all of the questions that were brought up during the meeting.

Once the general comment session was over, the audience and staff participants broke for the poster session. Various members of the public walked around a read individual posters and asked specific questions of the various staff reviewers.

Action Items

None

Attachments

1. Attendees list
2. NRC presentation handouts