

April 29, 1998

MEMORANDUM TO: Charles J. Haughney, Acting Director  
Spent Fuel Project Office, NMSS

FROM: Michael G. Raddatz, Senior Project Manager  
Spent Fuel Licensing Section  
Spent Fuel Project Office, NMSS

SUBJECT: MEETING BETWEEN U.S. DEPARTMENT OF ENERGY AND  
THE NUCLEAR REGULATORY COMMISSION

On April 14, 1998, a meeting was held between representatives of the U.S. Department of Energy (DOE), its associated contractors, the Nuclear Regulatory Commission (NRC), and, by video conference, the Center for Nuclear Waste and Regulatory Analysis (CNWRA) to discuss the review of the Central Interim Storage Facility Topical Safety Analysis Report. Attachment 1 is a list of attendees. Attachment 2 is a copy of the meeting handout. The meeting was noticed on April 2, 1998.

The April 14, 1998, meeting provided an opportunity for DOE to obtain clarification of the staff's questions in the March, 9, 1998, request for additional information (RAI). The meeting included an open dialog via video conference between CNWRA and DOE. Many of the RAI questions were discussed to ensure that DOE clearly understands the level of detail required in its responses. The meeting generated no new questions, and no specific answers to questions in the March RAI were provided. No proprietary information was disseminated or presented at this meeting. No regulatory decisions were requested or made.

Docket 72-21

- Attachments: 1. Attendees List  
2. Meeting Handout

Distribution:

|               |                 |                 |               |
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| Docket        | NRC File Center | PUBLIC          | NMSS R/F      |
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| WRreamer, OGC | GMeyer, RI      | BSpitzburg, RIV | VEverett, RIV |
| SGagner, OPA  | NRC Attendees   |                 |               |

|      |             |   |          |   |          |   |      |  |
|------|-------------|---|----------|---|----------|---|------|--|
| OFC  | SFPO        | E | SFPO     | E | SFPO     | E |      |  |
| NAME | MRaddatz:dd |   | VTharpe  |   | EJLeeds  |   |      |  |
| DATE | 04/29/98    |   | 04/29/98 |   | 04/29/98 |   | 1/98 |  |

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April 14, 1998, Meeting  
 NRC, DOE, and CNWRA (via video conference)  
 Discussions of CSIF RAI Report

| <u>Name</u>       | <u>Organization</u>      | <u>Phone No.</u> |
|-------------------|--------------------------|------------------|
| Michael Raddatz   | NRC/NMSS/SFPO            | (301)415-8544    |
| Fritz Sturz       | NRC/NMSS/SFPO            | (301)415-8530    |
| Eric Leeds        | NRC/NMSS/SFPO            | (301)415-8540    |
| Tim Kobetz        | NRC/NMSS/SFPO            | (301)415-8538    |
| Bill Lake         | DOE/RW-45                | (202)586-2840    |
| Christopher Kouts | DOE/RW-45                | (202)586-4251    |
| N. Prajanna Kumar | DOE/RW-45                | (202)586-8980    |
| LeRoy Stewart     | DOE/RW-45                | (202)586-2797    |
| Gary Wood         | DOE/OQA/QATSS            | (202)586-5560    |
| James George      | DOE/OQA/QATSS/RW-3       | (202)586-7220    |
| Doug Orvis        | M&O/SE&I/SA              | (702)295-4137    |
| Jim Thornton      | M&O/CISF Design          | (704)382-8552    |
| John McConaghy    | M&O/DE&S                 | (704)382-3021    |
| Gary Kaplan       | M&O/DE&S                 | (704)382-6467    |
| Joe Stringer      | M&O/DE&S                 | (704)382-5711    |
| Colin Heath       | TRW Env. Safety Sys./M&O | (202)488-6740    |
| Gary Griffith     | Fluor Daniel/TRW         | (702)295-4416    |
| Bob Eble          | Duke Engineering         | (703)204-8657    |
| Eileen Supko      | Energy Resources Int'l.  | (202)785-8833    |
| Steve Schulin     | The IBEX Group           | (301)762-6714    |
| Sidney Crawford   | Self                     | (301)515-6398    |
| Laura M. Deere    | CNWRA                    | (210)522-4881    |
| Amitava Ghosh     | CNWRA                    | (210)522-3314    |
| N. S. Cheruvu     | CNWRA                    | (210)522-2492    |
| James Weldy       | CNWRA                    | (210)522-6800    |
| Gustavo Cragolino | CNWRA                    | (210)522-5539    |
| Asad Chowdhury    | CNWRA                    | (210)522-5151    |
| Pat Mackin        | CNWRA                    | (210)522-5054    |
| Andre 'Garabedian | CNWRA                    | (210)522-3376    |
| Jack Simonis      | CNWRA                    | (210)522-3344    |
| Daniel Pomerening | CNWRA                    | (210)522-2318    |
| Darius Daruwalla  | CNWRA                    | (210)522-3297    |
| Amit Armstrong    | CNWRA                    | (210)522-5182    |
| Budhi Sagar       | CNWRA                    | (210)522-5252    |

**Civilian Radioactive Waste  
Management System**

**Management & Operating  
Contractor**

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**TRW**

**TRW Environmental Safety  
Systems Inc.**

# **DOE/NRC Meeting**

## **CISF TSAR RAI Technical Discussion**

**April 14, 1998**

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**B&W Federal Services  
Duke Engineering & Services, Inc.  
Fluor Daniel, Inc.  
Framatome Cogema Fuels  
Integrated Resources Group  
INTERA, Inc.  
JAI Corporation**

**JK Research Associates, Inc.  
Lawrence Berkeley Laboratory  
Lawrence Livermore National Laboratory  
Los Alamos National Laboratory  
Morrison-Knudsen Corporation  
Science Applications International Corporation**

**Sandia National Laboratories  
TRW Environmental Safety Systems Inc.  
Woodward-Clyde Federal Services  
Winston & Strawn  
*Cooperating Federal Agency:*  
U.S. Geological Survey**

## Objectives of Discussion

- Assure understanding of RAI
- Assure path forward for reply
- Eliminate second round question or clarification for first round questions
- Need for clarification for NUREG-1567 format and guidance
- Provide level of detail consistent with TSAR

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## Items for Discussion

- 58 RAIs - Clear and Understood
- QA Classification - Bob Eble
- Accident Analysis - Jim Thornton
- Vendor SARs - Jim Thornton
- TSAR Reference - John McConaghy
- Site Specific - John McConaghy
- Level of Detail - Joe Stringer
- Operating Procedures and Conduct of Operations - Gary Kaplan

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## QA Classification

- **Issue**
  - Clarification is needed on classification, and level of detail associated with the classification selected.

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## Other QA Classifications

- QA-1, Important to Radiological Safety
- QA-2, MGDS - Not Applicable to CISF
- QA-3, Important to Radwaste
- QA-4, Important to Fire Protection
- QA-5, Important to Interaction
- QA-6, Important to Security
- QA-7, Important to Radiation Protection

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## Important to Safety (QA-1)

- 10 CFR 72 Important to safety definition
- 10 CFR general design criteria
  - Impacts on items performing safety functions:
    - confinement, criticality, retrieval, thermal, radiation protection
  - SSC's relied upon to prevent or mitigate events
    - 25 mrem/year for normal and abnormal events. 10CFR72.104
    - 5 rem for any accident (10CFR72.106)
    - 5 rem/year for worker (10CFR20.1201)

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## RAI's in the QA Classification Category

- 3-2, fixed radiation monitoring is QA-7
- 4-2, CCTV cameras are QA-7
- 4-4, gantry mounted robot is QA-7
- 4-7, 4-8, 4-9, 4-10, 4-12, 4-13, Fire protection is not important to safety
- 6-1, effluent monitoring is QA-7
- 6-2, liquid waste treatment is QA-3
- 14-5, QA-7 items are not in technical specifications.

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## Accident Analysis

- **Issues**
  - Methods used to identify DBEs
  - Referencing of vendor SARs in accident analyses
  - Monitoring and I&C System functional requirements

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## Accident Analysis

- **RAIs**
  - 5-13, 12-1, 12-14: Methods used to identify DBEs
  - 12-8, 12-9: Referencing of vendor SARs
  - 12-4, 12-5, 12-13, 14-4: Monitoring and I&C system functional requirements

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## Vendor SARs

- **Issue**
  - Information requested in RAIs provided in vendor SARs

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## Vendor SARs

- **RAIs Requiring Vendor SAR Treatment Clarification**
  - 11-1, Chemical and mechanical properties
  - 14-1, Operating conditions
  - 14-2, Long-term exposure

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## TSAR Reference

- **Issue**
  - Information is already provided in TSAR
  - Presentation may not be clearly expressed
  - TSAR Text clarifications will be proposed

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## TSAR Reference

- **RAIs**
  - 1-1 Similar Facilities (Table 5.2-1)
  - 4-11 Fire Protection Assumptions (4.4.2.2.1.8)
  - 5-5 Performance Characteristics / Design of Equipment (4.2)
  - 14-6 Corrective Action (14.5.5)

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## Site Specific

- **Issue**
  - RAI cannot be answered until site-specific design
  - Requires site-specific value
  - Requires selection of hardware vendor

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## Site Specific

- **RAIs**
  - 2-1 Demographics
  - 2-2 Capable Faults
  - 2-3 Volcano
  - 4-3 Crane Control System
  - 4-5 Lightning Design
  - 7-8 Storage pad Structural Analysis
  - 12-2 Aircraft Impact

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## Level of Detail

- **Issue**
  - The level of detail requested is greater than that provided in TSAR
  - Summary information provided, detailed information is in the back up design analysis

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## Level of Detail

- **RAIs**
  - 9-11 External Removable Contamination
  - 14-3 Maximum Removable Surface Contamination

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## **Operating Procedures and Conduct of Operations**

- **Issue**
  - **General comment stated that these chapters (chapters 5 and 13) contained insufficient information**

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## **Operating Procedures and Conduct of Operations**

- **RAIs**
  - **32 comments**
  - **Request for detailed procedures (2)**
  - **Modify flowsheets (7)**
  - **Request for minor clarification and additional details (21)**
  - **Comments already discussed (2)**

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## **Operating Procedures and Conduct of Operations**

- **TSAR Position**
  - Provide detailed flowsheets for major operations - receipt and storage
  - List activities that procedures will be developed for prior to startup
  - Provide general procedure format and content

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## **Operating Procedures and Conduct of Operations**

- **TSAR Changes**
  - Modify flowsheets as necessary (chap 5)
  - Add more detail to list of activities (chap 13)
  - Add general procedure format and content guide (chap 13)
  - Add minor information and clarification requested by other comments
  - Ensure TSAR makes appropriate references

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