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**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
WASHINGTON, D.C. 20555-0001

September 10, 1998

**MEMORANDUM TO:** William F. Kane, Director  
Spent Fuel Project Office  
Office of Nuclear Material Safety  
and Safeguards

**FROM:** Timothy J. McGinty, Project Manager  
Spent Fuel Licensing Section  
Spent Fuel Project Office  
Office of Nuclear Material Safety  
and Safeguards

**SUBJECT:** SUMMARY OF JUNE 16, 1998, MEETING WITH TRANSNUCLEAR  
WEST, INC., REGARDING LICENSING PLANS AND FABRICATION  
ACTIVITIES

On June 16, 1998, representatives of the Nuclear Regulatory Commission (NRC) and Transnuclear West, Inc. (TN-West) met to discuss TN-West's design reviews, licensing plans, and fabrication activities. TN-West recently acquired the Nutech Horizontal Modular Storage System (NUHOMS) technology from VECTRA Technologies, Inc. (VECTRA), and is in the process of re-starting fabrication activities of NUHOMS components. An attendance list is included as Attachment 1. Attachment 2 is the meeting agenda. Attachment 3 includes the meeting handouts. This meeting was noticed on June 2, 1998.

Alan Hanson, President of Transnuclear, Inc., parent company of TN-West, provided introductory remarks, summarizing the first 6 months of TN-West's activities, the transition of purchasing VECTRA, and the current organization. Mr. Hanson discussed a chronology of major recent events including: (1) the assumption of VECTRA's assets in November 1997, (2) TN-West's April 7, 1998, readiness-to-resume-fabrication letter to NRC, and (3) the May 6, 1998, NRC authorization to resume the limited fabrication of NUHOMS components.

Members of TN-West then discussed some of the problems identified by NRC and the actions taken concerning: (a) the corrective action program, (b) the design control and design change process, and (c) ensuring that fabrication is performed in compliance with the NUHOMS Certificate of Compliance (CoC). TN-West has implemented a new corrective action program with emphasis on root cause, generic applicability, and actions to prevent recurrence. TN-West has improved vendor surveillance and audit process, restructured the quality assurance organization, and formed a corrective action report review committee. TN-West has also performed a review for adequacy of all NUHOMS design changes and Condition 9 evaluations and has implemented fabrication readiness and safety review committees.

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With respect to restart activities, TN-West discussed the status of the pressurized water reactor (PWR) and boiling water reactor (BWR) dry shielded canister (DSC) design reviews. TN-West is completing the final reviews for the PWR DSCs, and is finalizing the calculations for the BWR DSCs. TN-West also provided an overview of both the site-specific and general license projects that utilize the NUHOMS system. In particular, TN-West illustrated the repair and fabrication back-log and the anticipated fabrication schedules for each project's associated DSCs and horizontal storage modules (HSMs).

Additionally, TN-West will be considering the incorporation of the Sacramento Municipal Utility District (SMUD) site-specific -24P DSC design for use under NUHOMS CoC in accordance with Condition 9. With respect to the fuel qualification amendment request, TN-West anticipates responding to the staff's request for additional information (RAI) by early August 1998.

TN-West also updated the licensing status of the MP-187 transportation system. When the SMUD MP-187 transportation system is certified for transport, TN-West intends to pursue amending the MP-187 CoC to: (1) include the fuel to be stored at the Idaho National Engineering Laboratory (INEL) project (2) include failed fuel as authorized contents, and (3) allow for higher burn up and enrichment fuel types. TN-West also intends to eventually seek NRC certification for the transport of BWR contents.

During the meeting, the staff initiated several discussions pertaining to TN-West's restart activities. For example, the process and criteria for selecting the HSM and DSC fabricators for the INEL project were discussed. The staff further probed into the degree of fabricator oversight planned by TN-West. Another point which was emphasized was that a volumetric examination of the closure weld is the preferable technique and is clearly discussed in the standard review plan (SRP). If the staff is not persuaded by the justification associated with any proposed alternative technique, the staff will place a condition in the license requiring a volumetric examination.

The staff also focused the discussion on the planning and scheduling associated with fabrication inspections and licensing submittals. The importance of providing detailed information regarding fabrication activities and of meeting schedules for submittals in the licensing area was emphasized in light of recent changes to the discipline of the Spent Fuel Project Office (SFPO) licensing review. Among the other key points illustrated regarding the SFPO licensing review were: (1) the transfer of some SFPO resources for technical reviews and the dedication of specific teams to certain projects; (2) the possibility of obtaining more SFPO resources; (3) that the basis for the review is the associated SRP; (4) that for dual-purpose applications the staff will be concentrating efforts in certifying storage first; (5) that after an initial staff evaluation partial and incomplete applications and RAI responses will be returned; (6) that applicants must make a positive statement that the appropriate SRP was followed in each new application and major amendment; and (7) that the staff's goal is to perform a certification without need for an RAI, however, one or even two may be acceptable. The staff intends, after two RAIs, to conduct a meeting with the applicant to either resolve the remaining issues or issue a CoC with the appropriate licensing conditions.

The meeting concluded with a question and answer session primarily focusing on how licensing reviews will be performed. Further discussions were held which amplified the importance of adhering to schedules, minimizing the number of RAIs, improving the quality of applications, and using the SRPs as review guidance.

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- Attachments: 1. Attendance List
- 2. Meeting Agenda
- 3. Meeting Handouts

Distribution:

Dockets	NRC File Center	PUBLIC	NMSS R/F	SFPO R/F
SFLS R/F	LEKokajko	SShankman	MWHodges	PEng
Easton	FSturz	MRaddatz	WReamer, OGC	NRC Attendees

OFC	SFPO	E	SFPO	E	SFPO	E	
NAME	TMcSmydd		VThaape		EJLeeds		
DATE	09/9/98		09/9/98		09/10/98		

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June 16, 1998, Meeting  
between Transnuclear West  
and Nuclear Regulatory Commission

ATTENDANCE LIST

<u>Name</u>	<u>Affiliation</u>
Tim McGinty	NRC/SFPO
William F. Kane	NRC/SFPO
Susan F. Shankman	NRC/NMSS
Charles Haughney	NRC/SFPO
Eric Leeds	NRC/SFPO
Tom Matula	NRC/SFPO
Skip Young	NRC/SFPO
Tim Kobetz	NRC/SFPO
Walter Bak	Transnuclear West
Robert Grenier	Transnuclear West
Alan S. Hanson	Transnuclear
William D. Gallo	Transnuclear
James Axline	Transnuclear West
Darren Gale	Framatome Tech.
Steve Schulin	IBEX Group
Robert P. Jordan	Maine Yankee
Jim Doman	Booz-Allen - DOE
Jerry Phillabaum	PECO Nuclear
Rita Bowser	Westinghouse
Ron Mattheus	PP&L
D. Dibert	Toledo Edison
Kevin Kelenski	PP&L
Dennis Kierpa	GPUN
Marlin Stoltz	Southern Nuclear
Paul Highberger	JAI Corp.
Leroy Stewart	DOE-OCRWM
David Williamson	SAIC

**AGENDA  
JUNE 16, 1998, MEETING BETWEEN  
TRANSNUCLEAR, INC.  
AND NUCLEAR REGULATORY COMMISSION**

<u>Topic</u>	<u>Lead Presenter</u>
Introductions/Opening Remarks	NRC/Transnuclear West
Summary of Design Review Activities for NUHOMS (Certificate of Compliance 1004)	Transnuclear West
Licensing Activities and Plans (NUHOMS Storage Systems)	Transnuclear West
Licensing Activities and Plans (NUHOMS MP187 Transportation Systems)	Transnuclear West
Questions and Additional Discussions	NRC/Transnuclear West
Closing Remarks	NRC/Transnuclear West

# AGENDA

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- Introduction
- Description of Restart
- Current Project Status
- Licensing Plans
  - Storage
  - Transportation



# INTRODUCTION

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- Transnuclear West Inc. (TNW) - The First 6 Months
- Organization
- Transition Activities
  - QA Manual Update
  - Transfer of NUHOMS Certificate



# CHRONOLOGY OF MAJOR EVENTS

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- November 22, 1997: Transnuclear, Inc. (TNY) assumes control of VECTRA assets pursuant to bankruptcy court order.
- December 7, 1997: TNW incorporated in Washington State as subsidiary of TNY.
- December 22, 1997: TNY and TNW meet with NRC to discuss inspection results and restart planning.
- March 9, 1998: Start of BG&E load of four NUHOMS modules at Calvert Cliffs.
- April 7, 1998: TNW informs NRC of readiness to resume fabrication.



# CHRONOLOGY OF MAJOR EVENTS

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- May 6, 1998: NRC authorizes TNW to restart fabrication of NUHOMS components.
- June 1, 1998: Robert M. Grenier assumes Presidency of TNW.
- June 11, 1998: TNW begins lifting internal stop-work orders.
- June 16, 1998: TNW meets with NRC to discuss the path forward.

# DESCRIPTION OF RESTART

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## Problems Identified by NRC

- Corrective Action Program
- Design and Design Change Control
- Fabrication in Compliance with License

# DESCRIPTION OF RESTART

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## Actions Taken

- **Corrective Action Program**
  - Implemented New Corrective Action Program with Emphasis on Root Cause, Generic Impact Review, and Actions to Prevent Recurrence
  - Improved and implemented vendor surveillance and audit process
  - Restructured QA Organization with Separate Groups Responsible for Audits, Supplier Oversight, QA Engineering, and Corrective Action Program

# DESCRIPTION OF RESTART

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## Actions Taken

- Corrective Action Program (continued)
  - Performed Review of Past Corrective Action Reports, Non-Conformance Reports, and Supplier Disposition Reports for Adequacy
  - Formed CAR Review Committee

# DESCRIPTION OF RESTART

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## Actions Taken

- Design Control
  - Implemented Revised Design and Design Change Control Procedures
  - Performed Review of Past Design Changes for Adequacy
  - Implemented Fabrication Readiness Review Process

# DESCRIPTION OF RESTART

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## Actions Taken

- License Compliance
  - Implemented Revised Condition 9 Process
  - Performed Review of Past Condition 9 Evaluations for Adequacy
  - Review of License Commitments through Fabrication Documents
  - Formed Safety Review Committee

# DESCRIPTION OF RESTART

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## Lessons Learned

- Aggressive self-identification of problems and thorough review for generic impact
- Increased communication with customers and suppliers
- Increased focus and awareness on regulatory compliance
- Improved supplier oversight program

# DESCRIPTION OF RESTART

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## Current Status

- Received NRC Concurrence for Limited Fabrication Activities
- Long-Term Actions in Progress
- Technical Verification of DSC in Progress
- Development of Schedule for Full Fabrication



# CURRENT PROJECT STATUS

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## Projects

Duke Oconee (General License PWR)

Toledo Edison (General License PWR)

PP&L Susquehanna (General License BWR)

GPUN Oyster Creek (General License BWR)

BGE Calvert Cliffs (Site License PWR)

SMUD Rancho Seco (Site License PWR)

INEEL TMI-2 (Site License PWR)

# CURRENT PROJECT STATUS

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## Backlog of Fabrication Activities

<u>Project</u>	<u>DSC</u>	<u>HSM</u>
Duke (incl. 4 DSC repairs)	8	0
BGE	--	--
PP&L	18	18
Rancho Seco	21	--
INEEL	29	30
GPUN (Repair Only)	8	10
Toledo Edison (incl. 5 DSC repair)	5	4

# LICENSING PLANS

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## Storage Systems

- Completion of 24P Technical Reverification (Condition 9)
- Completion of 52B Technical Reverification (Condition 9)
- Incorporation of SMUD 24P Canister into General License (Condition 9)
- Incorporation of 52B Transportable Canister into General License (Condition 9)

# LICENSING PLANS

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## Storage Systems (continued)

- Fuel Specification Amendment (existing license)
- Amendment to Increase Fuel Parameters and Types, as well as Increased Seismic Acceptance Criteria

# LICENSING PLANS

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## Transportation Systems

- Completion of MP187 License for Rancho Seco
- Amendment to MP187 License for INEEL
- Amendment to MP187 License for Failed Fuel
- Amendment to MP187 License for Higher Burn-up and Enrichment Fuel
- Amendment / New Application for BWR System



# Resolution of Outstanding Inspection Findings and Technical Issues

