



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

November 8, 2000

MEMORANDUM TO: Susan F. Shankman, Deputy Director  
Licensing and Inspection Directorate  
Spent Fuel Project Office  
Office of Nuclear Material Safety  
and Safeguards

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

SUBJECT: SUMMARY OF OCTOBER 6, 2000, MEETING WITH NAC  
INTERNATIONAL

On October 6, 2000, representatives of the Nuclear Regulatory Commission (NRC) and NAC International, Inc. (NAC) met to discuss NAC's current and projected applications and amendments for dual-purpose storage and transportation casks. Key aspects in the performance of NRC regulatory reviews, as it pertains to overall review schedules, were also discussed. An attendance list is included as Attachment 1. Attachment 2 includes the agenda and handouts provided by NRC at the meeting. This meeting was noticed on September 25, 2000.

The meeting commenced with NRC discussing some recent examples where significant technical issues regarding NAC applications have affected the review schedule, including: (1) NAC's inadequate response to NRC's requests for additional information (RAI) on drop-testing issues for the NAC-UMS transport cask application, (2) NAC's inadequate design basis engineering analysis for a late-stage request to modify the NAC-UMS storage cask amendment application for reduced heat load configurations, (3) NAC did not update, in a timely manner, the NAC-MPC Connecticut Yankee application to be consistent with the methodologies established for similar changes requested within an NAC-UMS Maine Yankee amendment application, (4) NAC did not meet the date they established for providing an NAC-MPC Yankee Rowe amendment application, and (5) NAC's inadequate engineering evaluations for recent NAC-LWT requests to authorize high burnup rods for transport. After summarizing some of these recent issues, NRC indicated our expectation that technical issues that are resolved in certain applications should be updated in a timely manner for similar applications on other cask designs.

NRC indicated that the resolution of technical issues, as discussed above, result in regulatory review process and scheduling difficulties. NRC re-iterated that technical issues that have been identified and resolved within applications should be included as part of the initial submittal for other applications with similar requests.

NAC then presented an overview of a in-process self-assessment as a result of NRC's observations. NAC acknowledged that some technical issues resolved in certain applications have not been carried over to similar applications, and made the following observations: (1) licensing storage and transport casks for decommissioned nuclear power plants involves unprecedented challenges, (2) the technical solutions in many areas often use approaches not previously reviewed by NRC, (3) that NRC's "reasonable assurance" standard appears to be higher for reviews in new areas, and (4) that NAC needs to be more proactive in ensuring that they understand the scope of NRC RAIs prior to responding. NAC indicated that they (1) intend to review and improve their process for submitting licensing documents, (2) have increased their licensing resources and management focus on licensing issues, and (3) need to assure that NRC schedules have adequate NAC response times included, in part to ensure that NAC fully understands the NRC issues.

NRC then discussed (see Attachment 2) (1) the "rules of engagement", (2) the Spent Fuel Project Office review prioritization scheme, and (3) the standard templates for time frames to complete a rulemaking for 10 CFR Part 72 Certificates of Compliance. NRC expressed that, for several future applications, the user need dates listed in NAC's August 16, 2000, letter are not consistent with the time frames currently necessary to complete an NRC technical review, and approval via the rulemaking process. NRC stated that cask vendor applicants, as well as utility users, need to have realistic expectations regarding the time frames to obtain regulatory approvals for use.

NAC responded that they are aware of the current regulatory approval process, and acknowledged NRC's views. However NAC, as a cask vendor for utilities, reserved the right to submit applications and indicate to the NRC the cask users desired schedule for use. A Yankee Atomic representative expressed that the utility need dates are not based on the regulatory review process, adding also that a desired schedule is not meant to subvert the regulatory review process.

NRC inquired whether the regulatory process was not clear enough to NAC and the cask users to allow for proper planning in seeking approvals. Yankee Atomic and Maine Yankee representatives indicated that the regulatory approval process could be streamlined, and also noted that desired cask design optimizations identified as the user need approaches were difficult to pursue in a timely manner.

In conclusion, NRC stated that vendor and utility planning for and execution of licensing applications needs to take into account both quality and realistic expectations. NRC also indicated that improved planning may enable certain submittals to be combined for efficiency and to add clarity to the regulatory review prioritization. During the course of the meeting, no regulatory decisions were requested or made.

Docket Nos: 71-9225, 71-9235, 71-9270, 72-1015, 72-1025

Attachments: 1. Attendance List  
2. Handouts

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#2

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OFC	SFPO	E	SFPO	3E	SFPO		
NAME	TM McGinnis		<del>W. H. H. H.</del> EZiegler		SBaggett		
DATE	11/8/00		11/8/00		11/8/00		

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October 6, 2000, Meeting between NAC International  
and Nuclear Regulatory Commission

ATTENDANCE LIST

<u>Name</u>	<u>Affiliation</u>
Tim McGinty	NRC/SFPO
M. Wayne Hodges	NRC/SFPO
Steve Baggett	NRC/SFPO
E. W. Brach	NRC/SFPO
SFShankman	NRC/SFPO
J. Randall Hall	NRC/SFPO
Andrew Barto	NRC/SFPO
Kim Gruss	NRC/SFPO
Mike Tokar	NRC/SFPO
Earl Easton	NRC/SFPO
Bill Lee	NAC International
Charlie Pennington	NAC International
Ed Davis	NAC International
Alan Nelson	NEI
Leslie Collins	Westinhouse
Ken Heider	Yankee Atomic
George Zinke	Maine Yankee
Jim Ray	Bechtel

**Meeting Agenda**  
**U. S. NRC / NAC International**  
**October 6, 2000**

**INTRODUCTIONS**

**PURPOSE OF MEETING**

- Discuss dual-purpose (NAC-UMS and NAC-MPC/STC) storage and transportation cask current and projected applications and amendments, and
- Discuss key aspects in the performance of NRC regulatory reviews

**SPECIFIC AREAS TO BE ADDRESSED**

- Interactions between staff and applicants during the conduct of reviews
- Expectations on the completeness of engineering and supporting analysis
- Scheduling assumptions for the conduct of reviews
- Times associated with processing storage cask approvals
- SFPO's casework prioritization scheme
- Scheduling and resource impacts resulting from NRC identification of technical issues in applications and RAI responses

**CLOSING REMARKS**

# **RULES OF ENGAGEMENT**

- **PARTIAL OR INCOMPLETE APPLICATIONS WILL BE RETURNED TO THE APPLICANT**
- **REVIEW OF RAI RESPONSE WILL NOT START UNTIL A COMPLETE RESPONSE IS RECEIVED**
- **APPLICANT'S FAILURE TO MEET SCHEDULE WILL CAUSE RESCHEDULING OF ENTIRE REVIEW**
- **APPLICANT TO IDENTIFY AND EXPLAIN THE REASONS FOR ALL DEVIATIONS FROM THE STANDARD REVIEW PLAN**
- **WITH SRP IN PLACE, NRC GOAL IS NO RAI FOR ANY NEW APPLICATION OR AMENDMENT**
- **ONE RAI (PERHAPS TWO) WILL BE CONSIDERED ACCEPTABLE**

## **RULES OF ENGAGEMENT (CONT)**

- **IF MORE THAN TWO RAIS ARE NEEDED, STAFF WILL:**
  - **IDENTIFY ITS POSITION AND CONCERNS**
  - **SUSPEND FURTHER TECHNICAL REVIEW PENDING CERTIFICATION OF APPLICATION SUFFICIENCY BY THE RESPECTIVE OWNERS GROUP OR OTHER INDEPENDENT THIRD PARTY REVIEW GROUP**
- **RAIS WILL BE DISCUSSED IN A PUBLIC MEETING**
- **IF APPLICANT IS UNABLE TO MEET THE NRC PUBLISHED SCHEDULE FOR ANY MILESTONE, A LETTER MUST BE SUBMITTED AT LEAST TWO WEEKS IN ADVANCE OF THE MILESTONE PROVIDING THE NEW SUBMITTAL DATE AND THE REASONS FOR THE REQUESTED CHANGE**
- **NRC WILL ASSESS THE IMPACT AND PUBLISH THE REVISED SCHEDULE**

# **NRC STORAGE CASK AND TRANSPORTATION PACKAGE REVIEW PRIORITIZATION SCHEME**

**Priority 1: Maintain the operational safety of spent fuel and other radioactive materials in storage and transport.**

**Priority 2: Maintain the operational capability at operating reactor sites (full-core off-load capability) or meet actual (identified) transportation requirement or need to support transport of nuclear material or other nuclear commerce.**

**Priority 3: Support dry storage and/or transportation needs of decommissioning facilities.**

**Priority 4: Other spent fuel storage and transportation efforts, provided these are budgeted.**

**Priority 5: Other spent fuel storage and transportation efforts, which are not budgeted, and no effort or resources are scheduled or planned.**



# DRY STORAGE CASK RULEMAKING

## DRAFT SCHEDULES FOR RULEMAKINGS

### TO AMEND PART 72.214 FOR DRY STORAGE CASKS

The following generic schedules contain the timeframes used to complete rulemakings to amend Part 72.214 for initial approval or amendments of dry storage casks (i.e. approval or amendment of Certificates of Compliance for dry storage casks). These timeframes reflect the ideal situation and thus are considered goals that may not be met in all situations. These schedules only apply to the Certificate of Compliance rulemakings under Part 72 and do not apply to any other type of rulemaking.

- **SCHEDULE TO ADD NEW CASK DESIGNS**
- **DRAFT SCHEDULE TO AMEND PREVIOUSLY APPROVED NEW CASK DESIGNS BY DIRECT FINAL RULEMAKING (DFR) PROCESS**
- **DRAFT SCHEDULE TO AMEND PREVIOUSLY APPROVED NEW CASK DESIGNS BY DIRECT FINAL RULEMAKING (DFR) PROCESS IF SIGNIFICANT AND ADVERSE COMMENTS ARE RECEIVED**
- **DRAFT SCHEDULE TO AMEND PREVIOUSLY APPROVED NEW CASK DESIGNS BY REGULAR PROPOSED RULEMAKING PROCESS**

#### SCHEDULE TO ADD NEW CASK DESIGNS

Step	Duration
1. Completion of preliminary CoC/SER	Time 0
2. Issue the draft proposed rulemaking package for office concurrence  <b>Note:</b> Assumes that the rulemaking package is prepared in parallel with the CoC/SER	2 weeks
3. Resolution of office comments. Proposed rule package forwarded to EDO for approval  <b>Note:</b> Assumes no significant issues arise during office review that could result in changes in CoC/SER - this could result in returning to step 1.	4 weeks
4. NRC approval of proposed rule. Proposed rule forwarded to Office of Federal Register for	

publication	3 weeks
<b>Note:</b> Includes time for Commission notification.	
5. Publication of proposed rule in the <u>Federal Register</u>	3 weeks
<b>Note:</b> This step is not within NRC control.	
6. Public Comment period	75 days
<b>Note:</b> Required to meet obligation under NAFTA	
7. NMSS review and resolution of public comments and finalization of CoC/SER.	8 weeks
<b>Note:</b> This period could be extended depending on the number and type (complexity) of comments or need for additional information to revise CoC/SER	
8. Issue draft final rulemaking package for office concurrence	2 weeks
9. Resolution of office comments. Final rule package forwarded to EDO for approval.	8 weeks
<b>Note:</b> Assumes no significant issues arise during office review; also dependent on number and type of comments received.	
10. NRC approval of final rule. Final rule forwarded to Office of Federal Register for publication	3 weeks
<b>Note:</b> Includes time for Commission notification.	
11. Publication of final rule in the <u>Federal Register</u>	3 weeks
<b>Note:</b> This step is not within NRC control.	
12. Rulemaking becomes effective 30 days after publication	30 days
<b>Total elapsed time to effective date</b>	<b>51 weeks</b>

**DRAFT SCHEDULE TO AMEND PREVIOUSLY APPROVED NEW CASK DESIGNS BY DIRECT FINAL RULEMAKING (DFR) PROCESS**

This includes preparation of both a direct final and a proposed rule that would be published in the Federal Register concurrently on the same date.

Step	Duration
1. Completion of preliminary CoC/SER	Time 0
2. Issue the draft direct final and proposed rulemaking package for office concurrence  <b>Note:</b> Assumes that the rulemaking package is prepared in parallel with the CoC/SER	2 weeks
3. Resolution of office comments. Direct final and proposed rule package forwarded to EDO for approval  <b>Note:</b> Assumes no significant issues arise during office review that could result in changes in CoC/SER - this could result in returning to step 1.	4 weeks
4. NRC approval of DFR and proposed rule forwarded to Office of Federal Register for publication  <b>Note:</b> Includes time for Commission notification.	3 weeks
5. Publication of direct final and proposed rules concurrently in the <u>Federal Register</u>  <b>Note:</b> This step is not under NRC control	3 weeks
6. Public Comment period on proposed rule	30 days
7. If no significant adverse comments are received, rule becomes effective 75 days after publication (45 days after end of public comment period)  <b>Note:</b> All comments received on the proposed rule are reviewed within 4 weeks after end of public comment period before effective date	75 days
<b>Total elapsed time to effective date</b>	<b>23 weeks</b>

**DRAFT SCHEDULE TO AMEND PREVIOUSLY APPROVED NEW CASK DESIGNS BY DIRECT FINAL RULEMAKING (DFR) PROCESS IF SIGNIFICANT AND ADVERSE COMMENTS ARE RECEIVED**

This includes preparation of both a direct final and a proposed rule that would be published in the Federal Register concurrently on the same date followed by subsequent final rule.

Step	Duration
1. Completion of preliminary CoC/SER	Time 0
2. Issue the draft direct final and proposed rulemaking package for office concurrence	

<p><b>Note:</b> Assumes that the rulemaking package is prepared in parallel with the CoC/SER</p>	2 weeks
<p>3. Resolution of office comments. Direct final and proposed rule package forwarded to EDO for approval</p> <p><b>Note:</b> Assumes no significant issues arise during office review that could result in changes in CoC/SER - this could result in returning to step 1.</p>	4 weeks
<p>4. NRC approval of DFR and proposed rule forwarded to Office of Federal Register for publication</p> <p><b>Note:</b> Includes time for Commission notification.</p>	3 weeks
<p>5. Publication of direct final and proposed rules concurrently in the <u>Federal Register</u></p> <p><b>Note:</b> This step is not under NRC control</p>	3 weeks
<p>6. Public Comment period on proposed rule</p>	30 days
<p>7. Review to identify any significant adverse comments</p> <p><b>Note:</b> Withdrawal notice must be published in the <u>Federal Register</u> prior to the effective date (45 days after end of comment period).</p>	3 weeks
<p>8. NMSS review and resolution of public comments and finalization of CoC/SER</p> <p><b>Note:</b> This period could be extended depending on the number and type (complexity) of comments or need for additional information to revise CoC/SER.</p>	8 weeks
<p>9. Issue draft final rulemaking for office concurrence</p>	2 weeks
<p>10. Resolution of office comments. Final rule package forwarded to EDO for approval.</p> <p><b>Note:</b> Assumes no significant issues arise during office review; also dependent on number and type of comments received</p>	8 weeks
<p>11. NRC approval of final rule. Final rule forwarded to Office of Federal Register for publication</p> <p><b>Note:</b> Includes time for Commission notification.</p>	3 weeks
<p>12. Publication of rulemaking in the <u>Federal Register</u></p> <p><b>Note:</b> This step is not under NRC control</p>	3 weeks

13. Rulemaking becomes effective 30 days after publication	30 days
Total elapsed time to effective date	48 weeks

**DRAFT SCHEDULE TO AMEND PREVIOUSLY APPROVED NEW CASK DESIGNS BY REGULAR PROPOSED RULEMAKING PROCESS**

Step	Duration
1. Completion of preliminary CoC/SER	Time 0
2. Issue the draft direct final and proposed rulemaking package for office concurrence  <b>Note:</b> Assumes that the rulemaking package is prepared in parallel with the CoC/SER	2 weeks
3. Resolution of office comments. Direct final and proposed rule package forwarded to EDO for approval  <b>Note:</b> Assumes no significant issues arise during office review that could result in changes in CoC/SER - this could result in returning to step 1.	4 weeks
4. NRC approval of DFR and proposed rule forwarded to Office of Federal Register for publication  <b>Note:</b> Includes time for Commission notification.	3 weeks
5. Publication of direct final and proposed rules concurrently in the <u>Federal Register</u>  <b>Note:</b> This step is not under NRC control	3 weeks
6. Public Comment period on proposed rule	75 days
7. NMSS review and resolution of public comments and finalization of CoC/SER  <b>Note:</b> This period could be extended depending on the number and type (complexity) of comments or need for additional information to revise CoC/SER.	8 weeks
8. Issue draft final rulemaking for office concurrence	2 weeks
9. Resolution of office comments. Final rule package forwarded to EDO for approval.  <b>Note:</b> Assumes no significant issues arise during office review; also dependent on number and type of comments received	8 weeks
10. NRC approval of final rule. Final rule forwarded to Office of Federal Register for	

publication	3 weeks
<b>Note: Includes time for Commission notification.</b>	
11. Publication of rulemaking in the <u>Federal Register</u>	3 weeks
<b>Note: This step is not under NRC control</b>	
12. Rulemaking becomes effective 30 days after publication	30 days
<b>Total elapsed time to effective date</b>	<b>51 weeks</b>

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