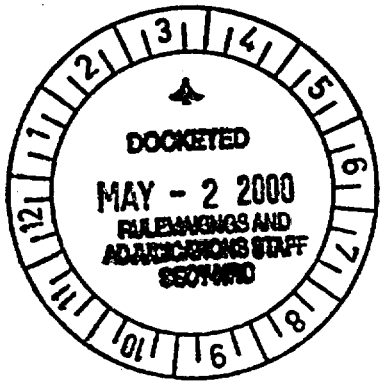
PRM-72-5



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RULES AND DIRECTIVES
US NRC

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DIRECTOR, PLANT SUPPORT
NUCLEAR GENERATION

DOCKET NUMBER
PETITION RULE PRM 72-5
(65FR36647)

April 18, 2000

Mr. E. William Brach
Director, Spent Fuel Project Office
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Dear Mr. Brach,

NEI strongly encourages NRC to act expeditiously to amend Part 72 to establish an efficient process for issuing and amending certificates of compliance (CoC) for dry cask storage for use under general license provisions. We understand that the Spent Fuel Project Office staff is currently considering an alternative process to NRC's current practice of listing and amending CoCs by rulemaking. NEI supports the staff's efforts. We are requesting that NRC consider industry's views on a streamlined process that focuses opportunities for public input on those issues that have the potential to have a significant impact on public health and safety.

NEI is proposing that the NRC discontinue its use of traditional notice and comment rulemaking for issuing and amending CoCs and, accordingly, NEI is proposing that NRC repeal section 72.214 which lists CoCs. We see no benefit in using the rulemaking process for what is in essence a ministerial act, i.e., maintaining a list of certified casks. The burden of maintaining such a listing in the code of federal regulations far outweighs any benefit. For example, the act of listing the certification in the code of federal regulations does not construe any additional authority upon the holder of the CoC nor does it construe any additional weight to requirements associated with cask usage.

Instead NEI proposes that NRC notice applications for new CoCs and amendments in the Federal Register for a 60-day comment period. For the case of amendments, applicants could propose to NRC that the requested amendment did not have the potential to have a significant impact on public health and safety. Where NRC agreed with the applicant's assertion of "no significant impact considerations," the amendment would be immediately effective upon publication in the *Federal Register*. Initial applications and other amendments would not be effective until NRC evaluated public comments and published its findings in the Federal Register.

TEMPLATE = SECY-051

SECY-02

Support for this approach, suggested rule language, and examples of no significant impact considerations are provided for your consideration.

By the year 2005, as many as 50 plants will require dry cask spent fuel storage to continue operating or to proceed through decommissioning. Congress recognized the strategic importance of dry cask storage to the nuclear power industry. The Nuclear Waste Policy Act findings at 42 U.S.C. 10151(a)(2), provide that the "Federal Government has the responsibility to encourage and expedite the effective use of existing storage facilities and the addition of new needed storage capacity at the site of each civilian nuclear power reactor."

Cask vendors must frequently amend CoCs to meet industry's growing and evolving needs for dry cask storage. For example, by the year 2001 the majority of fuel discharged from operating plants will exceed maximum licensed burnup limits of current casks. NRC's current practice of issuing CoCs and amendments thereto through the traditional rulemaking process, has proven to be inadequate to expedite the effective use of dry casks[1].

The NRC's practice of listing and amending cask CoCs by rulemaking has become inconsistent with Congress's stated intent to expedite use of casks. Section 133 of the Nuclear Waste Policy Act directs the Commission to establish, by rule, procedures for licensing any technology approved under Section 219(a) of the Act. NRC fulfilled its legislative obligation when it published its procedures for issuance of CoCs in Part 72.[2]

NRC's choice to go beyond what Congress intended by conducting full blown rulemaking on each specific application for a CoC and any amendment to a CoC is tantamount to shackling itself and the public with a process that wastes resources and mandates constant reconsideration of the same technical issues.[3] We

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[1] Each cask vendor has submitted a schedule to NRC for a large number of amendments to its cask design to meet its customers' needs. To date, the rulemaking process to amend cask CoCs has taken about 24 months to complete. With this response time, the unavailability of dry casks will impede plant operations and decommissioning at some point. While NRC action to permit certificate holders to use a change process detailed in section 72.48 to make minor changes without prior NRC review and approval will provide some relief for expediting effective cask usage, the number of amendments requiring NRC review and approval will still be substantial.

[2] For example, NRC has issued in excess of 10 CoCs under the provisions of Part 72. Thus NRC has demonstrated that the regulations are sufficient to certify technologies for use as provided by Congress in the NWPA.

[3] Issues that were resolved generically in promulgating requirements in Part 72 for certifying casks are reconsidered again and again through cask specific rulemakings. Many of the amendments do not involve new or novel technical issues, and instead are simply being reviewed to ascertain that the certificate holder has complied with NRC requirements for cask certification detailed in NRC regulations and regulatory guidance.

recommend instead that NRC simply provide notice in the *Federal Register* and consider public comments before issuing CoCs for new casks and on those amendments that could potentially have an impact on public health and safety. By proceeding in this manner NRC provides the public with meaningful opportunity for input on implementation of its rules, and at the same time makes more efficient use of its resources and the public's resources. Further, public and NRC resources are directed to agency actions on new casks and to actions on those issues that could have relevance to public health and safety and away from agency actions that merely confirm conformance to existing NRC guidance.

An additional benefit of soliciting public input without using a formal rulemaking process is to rationalize the process for issuing and amending CoCs for spent fuel storage with the process currently utilized for transportation CoCs under Part 71. It is neither practical nor logical to have certifications for the same product, in the case of casks certified for the dual purpose of storage and transportation, issued and amended using two entirely different processes. Furthermore, the simpler more streamlined approach for CoCs for transportation has proven to be efficient and effective since its inception more than 20 years ago. We can think of no reason why a process for certifying casks for storage should be so much more onerous than a process for certifying casks for transportation.

Based on the foregoing, we recommend that NRC consider the processes depicted in attachments 1 and 2. Attachment 1 depicts the process for new applications. Attachment 2 depicts the process for determining which amendments should be subject to notice and comment prior to NRC action and which amendments should be made immediately effective upon publication in the *Federal Register* for notice and comment.

Suggested language to amend Part 72, examples of types of amendments that would likely have a significant impact consideration and examples of amendments that would not have significant impact considerations are provided in attachment 3. Please feel free to contact me if I can be of any assistance to you (at 202 739-8109 or at lxh@nei.org) as you review industry's input.

Sincerely,

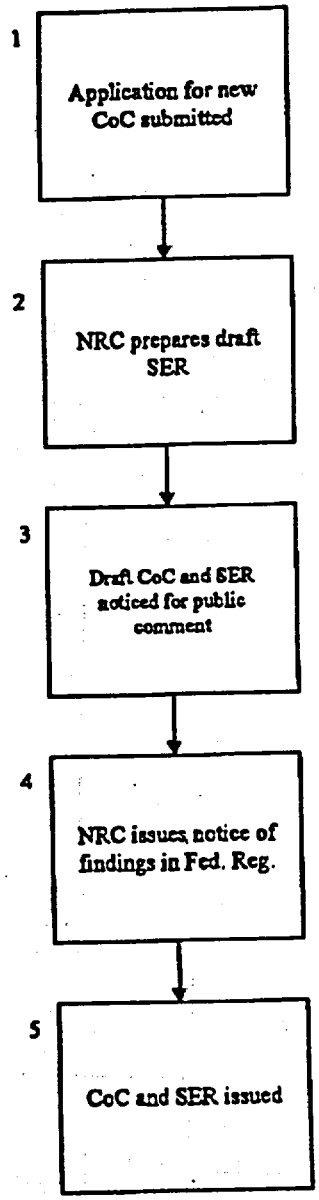
Lynnette Hendricks

LXH/amj

Attachments

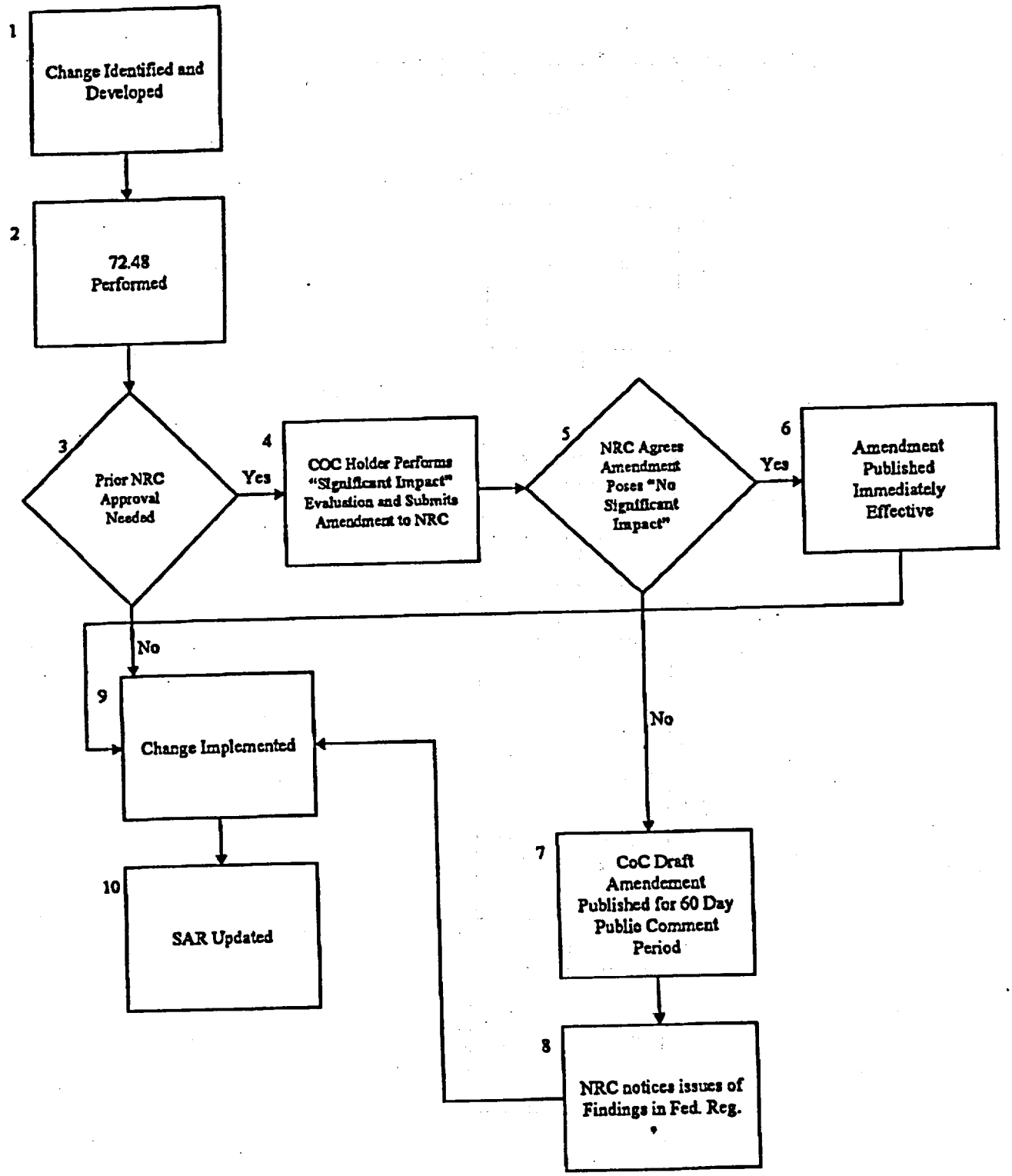
Attachment 1

CoC Application Process
Figure 1



Attachment 2

CoC Amendment Process
Figure 2



Attachment 3

Proposed Rule Language
(To be inserted in Part 72)

I. Delete Section 72.214.

II. Amend section 72.238 by inserting the following language after the existing text:

The Director, Office of Nuclear Material Safety and Safeguards, or the Director's designee will publish each initial application and each application for amendment in the Federal Register for a 60-day public comment period. An application may include a proposed determination that the amendment proposed does not involve a "significant impact consideration" based on an analysis of the criteria listed below. Upon receipt of an application, the Director, or the Director's designee will make a determination of whether it agrees with the applicant's "no significant impact considerations" proposal. If the Director, or the Director's designee agrees with the applicant's proposed determination, the amendment will be effective upon publication in the Federal Register prior to receipt and analysis of public comments.

An amendment is considered to have the potential to pose a significant impact if subsequent use of the cask would:

1. Result in a significant increase in the probability or consequences of an accident previously evaluated; or
2. Create the possibility for a new or different kind of accident from any accident previously evaluated; or,
3. Involve a significant reduction in a margin of safety.

Amendments Considered Likely to Involve Significant Impact Considerations
(Proposed Examples for Regulatory Guidance Document)

1. A significant increase in off site doses.
2. A significant increase in leakage across the confinement boundary.
3. An increase in Keff above 0.95 without compensatory changes.
4. Significant increases in mechanical stress beyond allowable limits in codes referenced in the NRC SRPs.
5. Cladding temperatures significantly exceeding limits in SRP.

Amendments Considered not Likely to Involve Significant Impact Considerations
(Proposed Examples for Regulatory Guidance Document)

1. A purely administrative change to technical specifications that do not involve significant impact considerations: for example, a change to achieve consistency throughout the technical specifications, correction of an error, or change in nomenclature.
2. A change in technical specifications that is compensated to ensure no significant increase in probability or consequences of analyzed accidents; and that the change does not significantly reduce safety margins. For example:
   a. Increase in allowable leak rate but compensated by an increase in fill gas quantity.
   b. Increase in the allowable handling height of the cask, but height increase is compensated by energy absorbing features.
   c. Addition of a more reactive fuel design that could lead to Keff exceeding 0.95, but compensated by an increase in areal poison density of fixed neutron poison sheets (or fixed neutron poisons).
   d. Increase in helium backfill pressure but compensated by increased material properties such that the increased cask internal pressure would not result in components exceeding code allowable during normal, off normal or accident conditions.
3. A change that constitutes an additional limitation, restriction, or control not presently included in the technical specifications, e.g., a more stringent surveillance requirement.
4. A change which may result in some increase to the probability or consequences of a previously analyzed accident or may reduce in some way the safety margin, but where the results are clearly within all acceptable criteria at the time of approval. For example:
   a. Increase in Keff beyond "minimal," such that changes could be made without prior NRC review or approval per NEI 96-07, but still within regulatory limits.
   b. Increase in offsite exposures beyond "minimal" changes that could be made without prior NRC review and approval per NEI 96-07, but still within regulatory limits.
5. Replacing explicit limits on fuel assemblies, decay heat and source terms with a table that incorporates limits and ensure limits are met by prescribing minimum cooling times for various combinations of enrichment vs. burnup. (Note, it is anticipated that different fuel brands that are otherwise have the same burnup and enrichment could be changed using 72.48 under guidance in NEI 96-07.)
6. Substitution of another NRC approved quality assurance program for fabrication of casks, e.g., Part 50 Appendix B for Part 72.
7. A change to a certificate where the change results in very minor changes to storage operations clearly in keeping with regulations. Examples include:

a. A reduction in the center-to-center cask spacing on the ISFSI, while considering the effects of insulation and heat load on concrete temperatures, and dose rates at the site boundary.
b. A reduced storage cask temperature monitoring frequency (e.g., once every three days vice once per day) for casks in storage greater than X years.
c. An increased time duration without transfer cask annulus cooling for canisters with fuel loading below Y kilowatts.
d. A reduction in the areal poison density in boral (or borated stainless steel) fixed poison sheets, offset by an increase in the allowable percentage of the manufacturer's minimum assured boron content in criticality calculations.

8. An expansion of the cask capacity (number of bundles, higher initial enrichment or higher burnup bundles) for storage when all of the following are satisfied: (Note, this example mirrors the example under 50.92 for reracking pools and the criteria used to determine when reracking can be done without opportunity for a prior hearing):
   a. Replacing existing baskets with baskets that increase capacity, including capacity increases gained through the removal of poisons in the cask,
   b. The Keff of the cask is maintained less than or equal to 0.95; and all other basic criteria in the SRP are met,
   c. No new technology or calculational method is used to justify the expansion;
   d. Credit for fuel burnup, increases in fuel with initial enrichment beyond 5%, increases in burnup beyond 45,000 MWd/MTU, and storage of new fuel types (e.g., damaged fuel or MOX) are appropriate if credit is taken based on well developed and demonstrated technology as evidenced by such technology, calculational methods and criteria having been previously approved for use in a specific application or through approval of a topical report, or through inclusion of criteria and calculational methods in the SRP.
9. Inclusion of a NRC requirement which is more recent than the requirement contained in the licensee's CoC or site-specific license.
10. Inclusion of an exception or alternative approved by the NRC for another licensee.
11. Administrative improvements such as use of generic organization position titles that clearly denote position function and responsibilities rather than using specific titles or use of generic organization charts to indicate functional relationships, authorities, and responsibilities, or alternatively use of descriptive text.