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

OFFICE OF THE
SECRETARY

August 16, 2001

COMMISSION VOTING RECORD

DECISION ITEM: SECY-01-0097

TITLE: FINAL RULE: INTERIM STORAGE FOR GREATER THAN CLASS C WASTE

The Commission approved the subject paper as recorded in the Affirmation Session Staff Requirements Memorandum (SRM) of August 15, 2001.

This Record contains a summary of voting on this matter together with the individual vote sheets, views and comments of the Commission.

Annette L. Vietti-Cook
Secretary of the Commission

Attachments:
1. Voting Summary
2. Commissioner Vote Sheets

cc: Chairman Meserve
Commissioner Dicus
Commissioner McGaffigan
Commissioner Merrifield
OGC
EDO
PDR

VOTING SUMMARY - SECY-01-0097

RECORDED VOTES

	APRVD	DISAPRVD	ABSTAIN	NOT PARTICIP	COMMENTS	DATE
CHRM. MESERVE	X				X	8/7/01
COMR. DICUS	X				X	7/31/01
COMR. McGAFFIGAN	X				X	8/2/01
COMR. MERRIFIELD	X				X	7/20/01

COMMENT RESOLUTION

In their vote sheets, the Commission approved a final rule amending 10 CFR Parts 30, 70, 72, and 150. The amendments allow licensing for interim storage of power reactor-related greater than class C (GTCC) waste in a manner that is consistent with licensing the interim storage of spent fuel and would maintain Federal jurisdiction over the interim storage of reactor-related GTCC waste either on or off the reactor site. The amendments provide an option that simplifies and clarifies the licensing process and reduces the potential burden on licensees, the U.S. Nuclear Regulatory Commission (NRC), and Agreement States, with no adverse effect on public health and safety, or the environment. Subsequently, the comments of the Commission were noted in an Affirmation Session SRM issued on August 15, 2001.

AFFIRMATION V O T E

RESPONSE SHEET

TO: Annette Vietti-Cook
Secretary of the Commission

FROM: CHAIRMAN MESERVE

SUBJECT: SECY-01-0097 - FINAL RULE: INTERIM STORAGE FOR GREATER THAN CLASS C WASTE

Approved X with comment and edits **Disapproved** _____ **Abstain** _____

Not Participating _____ **Request Discussion** _____

COMMENTS:

See attached comments and edits.

SIGNATURE

August 7, 2001

DATE

Entered on "STARS" Yes ✓ **No** ____

CHAIRMAN MESERVE'S COMMENTS ON SECY-01-0097

SECY-01-0097 concerns a final rule that would amend 10 CFR Parts 30, 70, 72, and 150 to allow licensing for storage of power reactor-related greater than Class C waste (GTCC waste) in a manner consistent with the licensing of spent fuel. The final rule would maintain exclusive Federal jurisdiction over the storage of reactor-related GTCC waste either on or off the reactor site. I approve the staff's proposed action, subject to edits to the notice.

The comments submitted by certain States suggest that the Commission's action in this matter might be seen as an intrusion on authority that has been relinquished to Agreement States. Most such waste is found at sites of power reactors licensed under part 50, where, pursuant to Section 274(c)(1) of the Atomic Energy Act and 10 C.F.R. §150.15(a)(1), it clearly is subject to exclusive NRC jurisdiction during operations. An argument might be made that the Commission has not previously excluded State jurisdiction over reactor-related GTCC waste after shut-down, nor excluded State jurisdiction over such waste that may be located away from the reactor site. But this argument arises only because the Commission has not previously had the opportunity to undertake a focused consideration of the matter. No agreement with a State includes language that provides explicit authority for a State to exercise jurisdiction over such material. And, because the Commission has sole jurisdiction over GTCC waste during reactor operations and, pursuant to Sections 3(b)(1)(D) and 3(b)(2) of the Low Level Radioactive Waste Policy Amendments Act, also has jurisdiction over the disposal of such waste, it is only reasonable for the NRC to retain jurisdiction during the interim period between reactor shut down and disposal. In this context, the language of Sections 274(c)(1) and (4) should be construed with sufficient flexibility as to allow the achievement of a sensible result.

My approval of the final rule is subject to the attached edits of the Federal Register notice. The edits are extensive and are intended to clarify various aspects of the notice.

The petitioner is an NRC-licensed utility responsible for the Trojan Nuclear Plant (Trojan). In the petition, the petitioner anticipated that it would need to dispose of GTCC waste during decommissioning. The decommissioning plan discussed the transfer of spent reactor fuel being stored in the spent fuel pool, to an onsite Independent Spent Fuel Storage Installation (ISFSI) licensed under 10 CFR Part 72. The petitioner requested that 10 CFR Part 72 be revised to permit GTCC waste to be stored at the ISFSI pending transfer to a permanent disposal facility. The petitioner suggested that because the need to provide interim storage for GTCC waste is not specific to Trojan, but is generic, the regulations in 10 CFR Part 72 should be amended to explicitly provide for storage of GTCC waste in a licensed ISFSI.[2]

The petitioner stated that storage of GTCC waste under 10 CFR Part 72 would ensure safe interim storage. This storage would provide for public health and safety and environmental protection as required for spent fuel located at an ISFSI or spent fuel and high-level waste stored at a Monitored Retrievable Storage Installation (MRS).

The specific changes proposed in the petition would explicitly include interim storage of GTCC waste within the Purpose, Scope, and Definitions sections of 10 CFR Part 72 ~~in order to~~ thereby enabling treat GTCC waste in a manner similar to that for spent nuclear fuel. The revised definitions would only apply to the interim storage of GTCC waste under the authority of 10 CFR Part 72.

With this final rule, the petition is granted in part and denied in part. This rule will grant the petitioner's request to authorize GTCC waste storage under a 10 CFR Part 72 license, but as discussed later, uses a different approach.

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2 ~~Although~~ granting the petition in this rulemaking is no longer needed for Trojan since its reactor vessel with internals (package) was shipped to the Hanford LLW site after the State of Washington defined this package as Class C waste, the NRC has concluded that this rulemaking will be useful for other reactor operators that need to store their GTCC waste.

using the authority of 10 CFR Parts 30 and 70. This plan was sent to the Agreement States for their comments on April 18, 1997. Five States provided comments -- Illinois, Maine, New York, Texas, and Utah.

The draft rulemaking plan described how an ISFSI or an MRS might be regulated by both the NRC and an Agreement State (this is discussed in more detail in the Discussion section). The draft rulemaking plan did not require that the licensing jurisdiction for GTCC waste remain with NRC, but did suggest that Agreement States could voluntarily relinquish their licensing authority for GTCC waste stored at an ISFSI. The draft rulemaking plan specifically requested Agreement State input relative to their likelihood of voluntarily relinquishing their authority for licensing when an ISFSI or an MRS is used for storing GTCC waste.

One State supported the concept. Three States indicated that they were opposed to voluntarily relinquishing their authority and preferred to maintain their licensing authority for GTCC waste. One ~~questioned~~ doubted that inefficiencies would result from Agreement State jurisdiction over GTCC waste at a reactor site concurrent with NRC regulation of spent fuel remaining at the site. The commenter noted that similar situations already exist when LLW is stored at the site. A second noted that there "... have been many instances where an agreement state and NRC have effectively collaborated in the regulation of a single facility." A third noted that the NRC recently informed the States that they could voluntarily relinquish their authority for sealed sources and devices and that it was "...vehemently opposed to any rule that automatically usurps a State's licensing authority without the State's consent."

Proposed Rule

The NRC published the proposed rule, "Interim Storage for Greater than Class C Waste" in the Federal Register on June 16, 2000 (65 FR 37712). The NRC received 18 comment letters on the proposed rule. These comments and responses are discussed in the "Comments on the Proposed Rule" section.

Discussion

Current NRC regulations are not clear on the acceptability of storing reactor-related GTCC waste co-located at an ISFSI or an MRS. Co-location is the storage of spent fuel with other radioactive material in their respective separate containers. This situation has created confusion and uncertainty on the part of decommissioning reactor licensees and may create inefficiency and inconsistency in the way the NRC handles GTCC waste licensing matters.

The NRC believes that decommissioning activities at commercial nuclear power plants will generate ~~relatively~~ small volumes of GTCC waste relative to the amount of spent fuel that exists at these sites. GTCC waste exceeds the concentration limits of radionuclides established for Class C in §§ 61.55(a)(3)(ii), 61.55(a)(4)(iii), or 61.55(a)(5)(ii). GTCC waste is not generally acceptable for near-surface disposal at licensed low-level radioactive waste disposal facilities. Currently there are no routine disposal options for GTCC waste.

In general, reactor-related GTCC wastes can be grouped into two categories. The first, which is the more typical form, is activated metals components from nuclear reactors such as core shrouds, support plates, nozzles, core barrels, and in-core instrumentation. The second is process wastes such as filters and resins resulting from the operation and decommissioning of

reactors. In addition, there may be a small amount of GTCC waste generated from other activities associated with the reactor's operation (e.g., reactor start-up sources). GTCC waste may consist of either byproduct material or special nuclear material.

The Low-Level Radioactive Waste Policy Amendments Act of 1985 gave the Federal Government (U.S. Department of Energy (DOE)) the primary responsibility for developing a national strategy for disposal of GTCC waste. The Act also gave the NRC the licensing responsibility for a disposal facility for GTCC waste. Until a disposal facility is licensed, there is a need for interim storage of GTCC waste.

Currently, 10 CFR Part 50 licensees (Domestic Licensing of Production and Utilization Facilities) are authorized to store all types of reactor-related radioactive materials, including material that, when disposed of, would be classified as GTCC waste. The GTCC waste portion is currently being stored either within the reactor vessel, in the spent fuel pool, or in a radioactive material storage area, pending development of a suitable permanent disposal facility.

The authority to license the possession and storage of GTCC waste is contained within 10 CFR Part 30 for byproduct material and in 10 CFR Part 70 for special nuclear material. Under 10 CFR 50.52, the Commission may combine multiple licensing activities of an applicant that would otherwise be licensed individually in single licenses. Thus, the 10 CFR Part 50 license authorizing operation of production and utilization facilities currently includes, within it, the authorization to possess byproduct and special nuclear material that would otherwise need to be separately licensed under 10 CFR Parts 30 or 70.

Under the current regulations, before the 10 CFR Part 50 licensee can terminate its 10 CFR Part 50 license, ~~one of the actions that must be completed is for~~ must the licensee ~~to~~ transfer all of its spent fuel to another licensed facility; typically an ISFSI for storage or to a geologic repository for disposal. The ISFSI can be either at the reactor site under a specific 10 CFR

Part 72 license, or at an away-from-reactor site. The general license issued under 10 CFR 72.210 would terminate when the 10 CFR Part 50 license is terminated. Because the 10 CFR Part 72 general license would be terminated coincident with the termination of the 10 CFR Part 50 reactor license, the licensee must have a 10 CFR Part 72 specific license in order to continue to store spent fuel in an ISFSI located at the reactor site. Under a 10 CFR Part 50 license, a reactor licensee undergoing decommissioning can store GTCC waste at its site based on the authority of the 10 CFR Parts 30 and 70 license conferred to reactor licensees. However, the 10 CFR Parts 30 and 70 licenses incorporated within the 10 CFR Part 50 license are also terminated when the 10 CFR Part 50 license is terminated. Consequently, termination of the 10 CFR Part 50 license would require the licensee to either obtain a 10 CFR Part 30 or 70 license to store any reactor-related GTCC waste, or transfer the GTCC waste to a geologic repository for disposal.

The NRC's current understanding of industry's approach to reactor decommissioning indicates that many reactor licensees currently undergoing decommissioning, as well as those considering future plans for decommissioning, may or may not pursue early termination of their 10 CFR Part 50 license, for a variety of reasons. Consequently, with retention of the 10 CFR Part 50 license, licensees also will retain the 10 CFR Part 72 general license and their incorporated 10 CFR Parts 30 and 70 licenses (i.e., the authority to store reactor-related GTCC waste under the 10 CFR Part 50 license). However, the NRC believes that some licensees may wish to have the option of early termination of their 10 CFR Part 50 license (and thus 10 CFR Part 72 general license). In that case, the issue of storage of reactor-related GTCC waste under a 10 CFR Part 72 specific license which was identified in the proposed rule is still valid. The NRC continues to believe that storing reactor related GTCC waste either under a 10 CFR Part 50 license or under a 10 CFR Part 72 specific license provides an adequate level of protection

Regulatory Action

The NRC is amending 10 CFR Parts 30, 70, 72, and 150. The changes to these parts are necessary to allow the interim storage of NRC-licensed reactor-related GTCC waste within an ISFSI or an MRS and to require that the licensing responsibility for this waste remain under Federal jurisdiction. This action addresses only GTCC waste used or generated by a commercial power reactor licensed under 10 CFR Part 50 (i.e., not a research reactor) and does not include any other sources of GTCC waste, nor does it include other forms of LLW generated under a 10 CFR Part 50 license. Because reactor-related GTCC waste is initially under Federal jurisdiction while the reactor facility is operated and the ultimate disposal of GTCC waste also is under Federal jurisdiction, the NRC believes that the interim period between termination of a reactor license and ultimate disposal also should remain under Federal jurisdiction. GTCC waste could become eligible for disposal in a geologic repository in the future. Spent fuel can be stored in an ISFSI or an MRS pending ultimate disposal. This Federal jurisdiction is unlike the Federal or Agreement State jurisdiction for the storage of Class A, B, and C reactor-related LLW that are currently being disposed in LLW disposal sites regulated by Agreement States. In addition, the storage time for Class A, B, and C LLW is expected to be short in comparison to the relatively long-term interim storage of GTCC waste. Therefore, for efficiency and consistency of licensing, the NRC concludes that 10 CFR Part 72 should also be modified to allow the storage of GTCC waste within these facilities under exclusive NRC jurisdiction. A regulatory scheme which would allow for Federal jurisdiction over the generation of the GTCC waste, followed by State jurisdiction for interim storage, followed again by Federal jurisdiction over the disposal of GTCC waste, is an inefficient approach. Moreover, it is inefficient for NRC and an Agreement

and for a State to spend scarce resources to license and inspect a co-located ISFSI for GTCC waste

State to both spend scarce resources to license and inspect an ISFSI that stores ~~both~~ spent fuel ~~and GTCC waste~~. 10 CFR Parts 30, 70, and 150 require conforming changes.

In the section, "NRC to Maintain Authority for Reactor-Related GTCC Waste," the Commission provides the regulatory basis upon which the NRC has determined that jurisdiction for storage of reactor-related GTCC waste will remain with the NRC. (Also see comment number 15.)

This final rule will allow storage of reactor-related GTCC waste under a 10 CFR Part 72 specific license. The changes will modify 10 CFR Part 72 to allow storage of GTCC waste under this part using the appropriate criteria of 10 CFR Part 72. This will provide a more efficient means of implementing what is essentially already permitted by the regulations (storage of GTCC waste co-located at an ISFSI or an MRS). When storing GTCC waste within an ISFSI or MRS, the licensee or applicant must provide a description of its program that ensures the storage of the GTCC waste will not have an adverse effect on the ISFSI or MRS or on public health and safety and the environment.

The rule will not eliminate the current availability of storing GTCC waste under the authority of a 10 CFR Part 30 or 70 license. However, neither 10 CFR Parts 30 nor 70 include explicit criteria for storage of GTCC waste. Therefore, a licensing process conducted under 10 CFR Parts 30 or 70 regulations would be more resource intensive because the licensee would need to develop new proposed storage criteria. If the licensee decides to obtain a 10 CFR Part 30 or 70 license, the NRC will still maintain Federal jurisdiction over the reactor-related GTCC waste stored under 10 CFR Parts 30 and 70.

Comparing these two approaches, the NRC recognizes that the licensing process will be simpler with less regulatory burden if all the radioactive waste to be stored at an ISFSI or MRS is stored under the authority of one 10 CFR Part 72 license. The regulations in 10 CFR Part 72

were developed specifically for storage of spent fuel at an ISFSI and spent fuel and high-level waste at an MRS. Appropriate 10 CFR Part 72 criteria will be applied to GTCC waste storage. Under 10 CFR Parts 30 and 70, GTCC waste criteria would need to be developed on a case-by-case basis to support licensing under these parts. Also, using 10 CFR Part 72 to store reactor-related GTCC waste would eliminate the need for multiple licenses for the storage of spent fuel and GTCC waste.

The NRC has evaluated the technical issues arising from the commingling of spent fuel and reactor-related GTCC waste in the same storage container, and issues arising from the storage of reactor-related liquid GTCC waste, under a 10 CFR Part 72 specific license. This final rule will permit the co-locating of spent fuel and solid reactor-related GTCC waste in different casks and containers within an ISFSI or MRS. However, the rule will not permit the commingling of spent fuel and GTCC waste in the same storage cask except on a case by case basis. The rule does not change the current practice of storing specific components associated with, and integral to, the spent fuel with spent fuel. Additionally, the rule will not permit the storage of liquid reactor-related GTCC waste.

Without this change, prior to termination of the 10 CFR Part 50 license, a licensee would need to obtain multiple licenses to continue to store spent fuel and GTCC waste -- 10 CFR Part 72 for spent fuel and 10 CFR Part 30 or 70 (or both) for GTCC waste. Having one license for the ISFSI (or MRS) under 10 CFR Part 72 will be simpler for both licensees and the NRC, ~~relative to approval and management.~~

The NRC believes that the concept proposed in the petition of storing GTCC waste under the provisions of 10 CFR Part 72 is valid. However, the NRC also concludes that the method proposed by the petitioner, that is modifying the definition of spent fuel to include GTCC waste, could lead to confusion and inefficiency. If GTCC waste is defined as spent fuel, DOE

would be required to dispose of this waste in a deep geologic repository and would not have the flexibility to explore potentially more efficient disposal plans. The proposal could also require that GTCC waste use limited disposal space meant for wastes that require more stringent confinement.

Therefore, the NRC is adding a definition of GTCC waste within § 72.3 that will be consistent with 10 CFR 61.55. The NRC has evaluated 10 CFR Part 72 to determine which sections need to be modified to accommodate storage of separate containers of solid GTCC waste co-located with spent fuel within an ISFSI or an MRS. The majority of the changes to 10 CFR Part 72 will simply add the term "GTCC waste" to the appropriate sections and paragraphs (typically immediately after the terms "spent fuel" or "high-level waste"). In support of this rulemaking, the NRC is developing Interim Staff Guidance for NRC staff and licensee use in ~~utilizing~~ applying 10 CFR Part 72 storage criteria for various GTCC waste types.

The regulations in 10 CFR Part 150 are being modified to be consistent with the changes in 10 CFR Part 72. The change to 10 CFR Part 150 (Exemptions and Continued Regulatory Authority in Agreement States and in Offshore Waters Under Section 274) will specify that any GTCC waste stored in an ISFSI or an MRS is under NRC jurisdiction. 10 CFR Part 150 also is being modified to indicate that licensing the storage of any GTCC waste that originates in, or is used by, a facility licensed under 10 CFR Part 50 (a production or utilization facility) is the responsibility of the NRC.

The NRC has made changes to the final rule based on public comments (see the Response to Public Comments section) and has also determined that sections within 10 CFR Part 72 (not based on public comments) also needed to be removed or modified.

A public comment resulted in the recognition of the need to modify 10 CFR Parts 30 and 70 to provide exceptions to the requirements in these parts when the GTCC waste is being

stored under the provisions of 10 CFR Part 72. Without these changes, licensees would need 10 CFR Part(s) 30 and/or 70 licenses in addition to the 10 CFR Part 72 license. Other comments resulted in the preamble and § 72.120 ~~being clarified regarding~~ commingling of material that is associated with spent fuel assemblies.

In addition, during the review of comments, NRC staff identified the need for several necessary clarifications in the final rule that are not specifically based on public comments. The clarifying changes that NRC made are: a ~~clarification to~~ § 72.2(a) regarding power reactor-related GTCC waste to clarify that GTCC waste does not have to be stored in a complex that is designed and constructed specifically for storage of spent fuel; ~~the change in the proposed rule~~ to the definition in § 72.3 of "spent fuel cask or cask" is being withdrawn to eliminate an unnecessary storage requirement; § 72.6 is being revised to clearly indicate that reactor-related GTCC waste, if stored under 10 CFR Part 72, can only be stored under the provisions of a 10 CFR Part 72 specific license; ~~the proposed rule added~~ § 72.24(r), ~~however, the final rule~~ is removing ~~this addition~~ ~~to be more~~ consistent with 10 CFR Part 50's handling of radioactive material; § 72.40(b) is being revised ~~from~~ the proposed rule ~~to the final rule because~~ the proposed rule inadvertently removed existing text instead of adding a new introductory sentence and reference to the Atomic Safety and Licensing Appeal Board, ~~has been removed since this board~~ no longer exists; and ~~modification of~~ §§ 72.72, 72.76, and 72.78 to clarify the reporting requirements for special nuclear material as specified in 10 CFR 74.13(a)(1).

In a previous final rulemaking, "Clarification and Addition of Flexibility" (65 FR 50606; August 21, 2000), changes were made to 10 CFR Part 72. Section 72.140(c)(2) is the only section that is changed in both the previous and current rulemaking. The changes to this section in the current rulemaking are consistent with the "Clarification" rulemaking changes.

The NRC will continue to recover costs for generic activities related to the storage of GTCC waste under 10 CFR Part 72 by means of annual fees assessed to the spent fuel storage/reactor decommissioning class of licensees under 10 CFR Part 171. Subsequent to issuing the final revision to 10 CFR Part 72, 10 CFR Part 170 will be amended to clarify that full cost fees will be assessed for amendments and inspections related to the storage of GTCC waste under 10 CFR Part 72.

NRC to Maintain Authority for Reactor-Related GTCC Waste

Under section 274 of the Atomic Energy Act of 1954 (AEA), Agreement States possess regulatory authority over radioactive waste only where the Commission has relinquished its pre-existing authority. Section 274 agreements cannot be understood as a general matter to relinquish Commission authority over reactor-related GTCC waste. These wastes are too integrally related to the operation of reactors, because these wastes consist for the most part of activated metal reactor components such as core shrouds, support plates, nozzles, core barrels, and in-core instrumentation. When, under the section 274 program, the Commission reaches agreements with States and relinquishes regulatory jurisdiction to them, the Commission specifically retains authority over the "operation" of reactors, as required by an NRC rule promulgated nearly 40 years ago. See 10 CFR 150.15(a)(1). That rule defines "operation" as follows:

> As used in this subparagraph, operation of a facility includes, *but is not limited to* (i) the storage and handling of radioactive wastes at the facility site by the person licensed to operate the facility; and (ii) the discharge of radioactive effluents from the facility site.

Id. (Emphasis added).

In short, ~~under longstanding agency rules,~~ a State entering a section 274 Agreement with the NRC does not (and cannot) acquire regulatory authority over reactor-related GTCC waste. Contrary to the view of a commenting State, ~~therefore,~~ issuance of a final rule asserting ongoing NRC jurisdiction over reactor-related GTCC waste does not take back previously-granted State authority or terminate an NRC-State agreement without abiding by the process set out in section 274(j) of the AEA. ~~Certainly,~~ Nothing in the AEA, in NRC rules, or in NRC agreements with any of the commenting States even mentions reactor-related GTCC waste, let alone discontinues NRC jurisdiction over it. Hence, the Commission's decision in this rulemaking to exercise ongoing jurisdiction over this form of waste does not violate any provision of law.

Specifically, with regard to the storage of reactor-related GTCC waste, the NRC will continue Federal authority over the GTCC waste after termination of the 10 CFR Part 50 license. Thus, under the option of obtaining 10 CFR Part 30 and/or 70 licenses, the GTCC waste will remain under Federal authority. If the option of obtaining a specific license under 10 CFR Part 72 is chosen, the GTCC waste will also remain under Federal authority. This licensing authority will be irrespective of the physical location of the storage facility (either on or off the originating reactor site).

However, this rule does not affect the States' long-standing practice of exercising regulatory jurisdiction over ~~ordinary~~ non-GTCC low-level radioactive waste originally generated at reactors, or over GTCC waste generated by materials licensees regulated by Agreement States. However, under 10 CFR 72.128(b), any LLW generated by the ISFSI (or an MRS) must be treated and stored onsite awaiting transfer to a disposal site. The licensing authority for treatment and storage of ISFSI or MRS generated LLW would be under 10 CFR Part 72, and therefore, reserved to the NRC.

For a more detailed discussion of jurisdictional issues, please see the responses to comments 15, 16, and 17.

Comments on the Proposed Rule

This analysis presents a summary of the comments received on the proposed rule, the NRC's response to the comments, and changes made to the final rule as a result of these comments.

The NRC received 18 comment letters. Five were from Agreement States (South Carolina, Illinois, Utah, New York, and Maine), ten from industry (including the Portland General Electric Company, the petitioner, and the Nuclear Energy Institute), one from the Department of Energy (DOE), one from a private citizen, and one from a consulting firm.

In general, none of the commenters were opposed to the idea of storing reactor-related GTCC waste in an Independent Spent Fuel Storage Installation licensed under the provisions of 10 CFR Part 72. However, four of the Agreement State commenters were opposed to restricting the licensing authority solely to the NRC and believe that NRC is not correctly interpreting the Atomic Energy Act. Utah is opposed to applying NRC sole jurisdiction to "away-from- reactor ISFSIs" because the State believes it could likely end up with GTCC waste indefinitely stored within its borders with no disposal option. South Carolina and New York believe the NRC and the State can effectively collaborate in the regulation of a single facility. Maine believes the rulemaking should be reconsidered because it is not advisable to allow the commingling of spent fuel and GTCC waste. The industry, DOE, the private citizen, and the consulting firm all generally supported the rulemaking and some provided specific recommendations to improve the final rule.

The NRC, in the proposed rule, invited comments on (1) six specific topics dealing with safety, technical or licensing issues for the storage of GTCC waste and (2) three specific questions for Agreement State consideration. The comments on the proposed rule are generally contained within four categories. The first category contains general comments, followed by comments on commingling GTCC waste and spent fuel (these are mostly the comments identified in number 1 above), followed by State issues (these are mostly the comments identified in number 2 above), and then other comments.

A. General comments on the proposed rule:

1. Support of the proposed rule (or support of the comments submitted by the Nuclear Energy Institute (NEI)).

Comment: Thirteen of the 18 commenters provided specific comments in support of the concept of the proposed rule to store GTCC waste in an ISFSI. One of the supportive commenters was NEI, representing the industry, and three commenters also endorsed NEI's comments. As an example, one commenter noted that ~~they have~~ it had been actively involved with NEI on this issue and fully endorsed NEI's comments on behalf of the industry. The commenter specifically agreed with NRC's proposal to retain regulatory authority over GTCC waste during the interim period between reactor shutdown and prior to disposal. The commenter noted that there is no benefit to public safety and there is only a burden placed upon public resources to have regulatory authority shift to State authorities during this time.

Another industry commenter stated that it supports NRC's proposed rulemaking and encourages the NRC to continue the development of a rule which is prudent, practical, reasonable and consistent to ensure that the interim storage for GTCC waste is fair and

equitable to all involved stakeholders. The commenter notes that the proposed rulemaking will: (1) clarify NRC's handling of GTCC licensing, (2) be simpler, (3) result in less regulatory burden on licensees, (4) continue to consider the need to protect public health and safety, and (5) allow these waste streams to be stored in an ISFSI or an MRS under the authority of one 10 CFR Part 72 license.

Response: The NRC is not making any changes to the final rule that the NRC believes would negate the industry's general support for this rulemaking.

2. Flexibility.

Comment: An industry commenter believes that flexibility to manage GTCC waste using other methods than 10 CFR Part 72 is in the best interest of public safety. The commenter notes that GTCC waste has been approved, on a case-by-case basis, for disposal at licensed LLW disposal facilities and believes this practice should be allowed to continue.

Response: This rulemaking concerns only the storage of GTCC waste. However, see the response to comment numbers 15 and 17 for additional information regarding GTCC waste disposal.

3. Definition of spent fuel and GTCC waste.

Comment: Two industry commenters believe the definition of GTCC waste should be changed. One commenter believes it should be defined as spent fuel, as recommended in the petition, and the other believes it should be defined as high-level waste. In either case, the commenters believe this change would simplify disposal.

Three commenters, including DOE and NEI, note that the definition of spent fuel includes the special nuclear material, byproduct material, source material, and other radioactive materials

associated with fuel assemblies (i.e., the non-fuel components associated with those fuel assemblies). See 10 CFR 72.3. Non-fuel components may be included as part of the spent fuel delivered for disposal under the "Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste." See 10 CFR 961.11, Appendix E, B.2. The Standard Contract includes as non-fuel components, but is not limited to: control spiders, burnable poison rod assemblies, control rod elements, thimble plugs, fission chambers, primary and secondary neutron sources that are contained within the fuel assembly, and BWR channels that are an integral part of the fuel assembly ~~which do not require special handling~~. These same non-fuel components will ultimately be disposed of in the Federal repository in accordance with the Standard Contract. The commenters believe that the ~~proposed rule~~ definition of reactor-related GTCC waste is unclear in that ~~the commenters believe that these~~ it might be seen to include those non-fuel components ~~are included within NRC's category of reactor-related GTCC~~. The commenters believe that reactor-related GTCC waste should be limited to items such as reactor internals, filters, and resins.

The commenters further state that the rule should clearly state that a licensing basis is being proposed for storage of both categories of material, spent fuel associated material and reactor-related GTCC waste in an ISFSI or an MRS under Federal jurisdiction. The commenters believe that without this clarification the rule could be misinterpreted to impose new requirements for licensees to demonstrate that non-fuel components also meet the radiological classification of GTCC waste as a condition of storage.

Response: The NRC believes, at this time, that defining all GTCC waste as spent fuel or high-level waste for use in 10 CFR Part 72 could lead to confusion and inefficiency. If GTCC waste is defined as spent fuel or high-level waste, DOE would be required to dispose of this waste in a deep geologic repository (e.g., Yucca Mountain) and would not have the flexibility to

explore potentially more efficient disposal plans. This definition could also require that GTCC waste use limited disposal space meant for wastes that require more stringent confinement.

The commenters noting that the definition of spent fuel in 10 CFR 72.3 includes associated materials are correct. The NRC never intended to classify ~~this~~ such material as GTCC waste. The proposed rule did not make it clear that, if this material were separated from the spent fuel, some of it might be GTCC waste. However, it is not GTCC waste when it is placed within ~~the~~ a steel-fuel with the cask ~~because it is~~ associated ~~with~~ fuel assemblies. The NRC currently allows the storage of this material with spent fuel and this rulemaking will not make any change to this practice.

Accordingly, the final rule is modified as follows: The NRC has clarified that the material associated with spent fuel assemblies is not GTCC waste and currently can and will continue to be ~~allowed to be~~ stored with spent fuel. The clarifications are being made within the preamble and §§ 72.120(b), (c), and (e) have been modified to clarify what can and cannot be stored with spent fuel. In addition, the NRC is developing Interim Staff Guidance that will provide additional information for the NRC staff and licensees in determining which materials are associated with spent fuel.

4. Proposed rule is premature.

Comment: A State commenter believes that the rulemaking is premature and not within the spirit or letter of the Administrative Procedure Act because the proposed rule contains no separate design criteria for GTCC waste storage containers and ~~expects~~ reflects an expectation that the applicant will ensure that the co-location of GTCC waste does not adversely affect the safe storage of spent fuel and the operation of the ISFSI. The proposed rule solicits input on a number of issues, such as ~~on what can be stored~~, commingling, and performance criteria. Therefore, the commenter believes that the

and the scope of material subject to the rule

proposed rule is still in the beginning stages as there are significant decisions relating to technical, safety, and performance criteria yet to be made. The NRC should be soliciting comments on an explicit proposal. The commenter also believes that the NRC is seeking a way to make it financially more attractive for utilities to store GTCC waste after decommissioning and, in part, to solicit information from DOE on its GTCC disposal policies.

Response: The Commission does not ~~believe~~ this rulemaking ~~to be~~ "premature and not within the spirit or the letter of the Administrative Procedure Act." The proposed rule provided a complete regulatory proposal and the Commission intended this to be the basis for the final rule. The questions asked in the proposed rule were added to fine tune the proposal. We have received and reviewed all comments and thus have gained the additional information needed to ~~do the fine tuning for~~ the proposal. Through this process, the public has had an adequate opportunity to respond.

Based on public comments, the Commission has developed ~~the~~ final rule which is quite similar to the proposed rule. Changes made within the final rule clarify and correct inadvertent errors within the proposed rule, but do not make any fundamental changes in how the NRC proposed to license the storage of reactor-related GTCC waste in the proposed rule. The final rule addresses and responds to the issues raised by the commenters. The Commission does not anticipate any further rulemaking on the storage of reactor-related GTCC waste unless; (1) based on discussions with DOE and others, changes to the definition of GTCC waste are made, or (2) DOE develops disposal criteria for GTCC waste that would require corresponding changes.

5. General license versus specific license.

Comment: An industry commenter believes the wording in 10 CFR 72.40(b) must be revised. As written, the application to convert a general license to a specific license for an existing ISFSI would be denied. As proposed, it would deny a license if construction on the facility begins before a finding approving issuance of the license with any appropriate conditions to protect environmental values. The ISFSI licensed under 10 CFR 72.210, a general license, is very likely to have been designed, constructed, and operated for years prior to the need to apply for a specific license. The commenter also believes the rule should clearly indicate which sections apply to a general license and which do not. The rule should provide for the storage of GTCC waste at an ISFSI for both general and specific licenses until the 10 CFR Part 50 license terminates.

Response: This rulemaking relates to authorizing a 10 CFR Part 72 specific license holder, or applicant for a license, to store reactor-related GTCC waste in an ISFSI or an MRS. The comments on transitioning from a 10 CFR Part 72 general license to a 10 CFR Part 72 specific license are beyond the scope of this rulemaking. With regard to the commenter's request to indicate clearly which sections of 10 CFR Part 72 apply to general licensees and which apply to specific licensees, the NRC previously addressed this issue by adding a new § 72.13 to 10 CFR Part 72, in a final rule titled "Clarification and Addition of Flexibility" (65 FR 50606; August 21, 2000).

The NRC disagrees with the commenter's suggestion to provide for the storage of GTCC waste under both 10 CFR Part 72 general and specific licenses. As indicated in the proposed rule, because a 10 CFR Part 72 general license is granted to a person holding a 10 CFR Part 50 license to possess or operate a power reactor and a 10 CFR Part 50 licensee would already be authorized (see § 50.52) to possess radioactive material (including GTCC waste), the NRC

believes there is no need for additional authority to possess and store reactor-related GTCC waste under the general license provisions of 10 CFR Part 72. (See also response below).

NOTE: In evaluating this comment, the NRC determined that portions of § 72.40(b) were inadvertently omitted from the proposed rule. The text contained in the proposed rule was intended to be added to § 72.40(b) instead of to replace this paragraph. Accordingly, the final rule is modified to contain the existing text with the modification from the proposed rule.

6. General license.

Comment: A consulting firm commented that the changes to 10 CFR 72.6 extend the general license authorization for spent fuel in an ISFSI to include reactor-related GTCC waste. ~~Reference is made to Subpart K, however~~, for clarity the proposed rule should include: (1) GTCC waste in the title of Subpart K, (2) the authorization for reactor-related GTCC waste in 10 CFR 72.210, (3) reactor-related GTCC waste in 10 CFR 72.212(a)(1) and (a)(2), (4) reactor-related GTCC waste in 10 CFR 72.212(b)(5)(ii), and (5) the authorization for reactor-related GTCC waste in 10 CFR 72.230(b).

Response: The NRC agrees with the commenter that § 72.6 of the proposed rule could be read as allowing the storage of reactor-related GTCC waste at an ISFSI under a general license. This was done inadvertently and was inconsistent with the overall intent of the proposed rule. Therefore, the NRC has revised § 72.6 to indicate clearly that reactor-related GTCC waste only can be stored under the provisions of a specific license.[3]

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3 Not impacted by this rulemaking - 10 CFR Parts 30 and 70 do permit the storage of reactor-related GTCC waste.

7. Question from the proposed rule: If reactor licensees, after termination of their 10 CFR Part 50 license, elect to store reactor-related GTCC waste under the provisions of 10 CFR Parts 30/70, is additional guidance needed to provide a more efficient licensing process?

Comment: One State commenter believes that the same technical criteria should be developed and applied to storage of GTCC waste regardless of which licensing option a licensee selects.

Of six industry commenters, some believe that additional guidance is needed while others do not believe additional guidance is needed. One commenter believes the NRC should spend its resources on legislative and regulatory changes that eliminate dual regulation and set one standard protecting public health and safety. Another commenter believes additional guidance should be provided regarding the steps to obtain a 10 CFR Parts 30/70 license prior to termination of a 10 CFR Part 50 license. The guidance should be simple and include consideration of facility history, design, experience, and backfit costs of upgrading to newer regulations as a result of transfer to 10 CFR Parts 30/70 licenses.

Response: The NRC does not believe that additional guidance specifically for 10 CFR Parts 30/70 licenses ~~are~~ is needed. However, if the NRC were to develop guidance for storage of reactor-related GTCC waste under a 10 CFR Part 30 or 70 license, such guidance would be consistent with 10 CFR Part 72. The NRC prefers that reactor-related GTCC waste be stored under the provisions of 10 CFR Part 72. Therefore, to promote effectiveness and efficiency, the NRC is deferring development of any guidance for 10 CFR Parts 30 and 70. However, any application for a 10 CFR Part 30 or 70 license may use, to the extent appropriate (considering the case-by-case criteria the application would be proposing), the guidance developed for 10 CFR Part 72 in submission of an application. In conjunction with this rule NRC staff is

chemical compatibility and ultimate cask structural integrity must be established. Without DOE disposal criteria for multi-purpose casks, spent fuel may have to be handled more than once prior to disposal, and commingling will just complicate matters even more. The commenter believes that DOE should promptly promulgate disposal criteria. Another State commenter opposes any commingling of spent fuel and GTCC waste that contain resins which are composed of water and plastic because the high heat in spent fuel canisters can evaporate and build up pressure within a canister. A third State commenter urges the NRC to reconsider the proposed rulemaking as ~~they~~ it believe s that it is not advisable to allow commingling of spent fuel and GTCC waste at this time. The commenter notes that the incremental cost of additional GTCC waste canisters would be small relative to the total ISFSI costs and there would be a substantial risk by a licensee given the absence of criteria governing what constitutes an acceptable disposal package. Precluding commingling would also avoid technical issues when either moving the canisters or if re-licensing becomes necessary for spent fuel storage containers at the end of a 20-year license.

DOE supports the position that storage of commingled non-fuel bearing GTCC waste with spent fuel is acceptable under certain conditions. However, the DOE shares NRC's concern that commingled canisters may need to be opened and the GTCC waste separated prior to disposal. Therefore, any commingling decision needs to consider potential additional costs and radiological exposures associated with reopening a canister and removing the GTCC waste prior to acceptance by DOE of the spent fuel.

All six industry commenters on this topic support commingling when justified through a safety analysis. For example, one commenter believes that commingling has significant advantages and notes that many decommissioning reactors will only have about 15 cubic feet of GTCC waste. The advantages are reduced costs and reduced waste volume due to the more

efficient utilization of canister volume. However, the commenter notes that, without a clear and defined position from DOE that they will accept commingled canisters, the utilities would take significant risks to commingle. The casks may need to be opened and the waste separated. This could be a tremendous burden for decommissioned reactor licensees because they would no longer have the necessary facilities and personnel to reopen the cask and repackage the waste. However, one commenter noted that in DOE's, "Viability Assessment of a Repository at Yucca Mountain, Volume 2," dated December 1998, that it is DOE's design intention to open packages of commercial spent fuel received at Yucca Mountain. Therefore, DOE clearly has the opportunity to segregate the GTCC waste with little impact upon operations. The commenter also notes that commingling allows safer and more efficient management of GTCC waste. In some cases, during the first 20 years or more after reactor shutdown, GTCC waste, on a weight basis, can produce higher radiation doses than a spent fuel assembly. The GTCC waste could be placed in the center of a container and surrounded by spent fuel bundles to provide additional shielding.

Response: In 10 CFR 72.3, other radioactive materials associated with fuel assemblies are defined as spent fuel and storage within an ISFSI is the industry standard practice. These non-fuel components associated with fuel assemblies were designed for use inside the operating plant's reactor vessel with no risk to plant safety. The rule is not intended to change the previous guidance given on the storage of non-fuel components such as control rod elements, burnable poison rod assemblies, and thimble plugs. The NRC expectation is that these type of components will be stored and disposed of as part of the spent fuel assembly packages. The NRC recognizes that some of these components, if removed from fuel assemblies, could be classified as GTCC waste. The NRC's approach is to consider these non-fuel components as spent fuel and not as GTCC waste. The NRC believes that appropriate

interim storage for these non-fuel components should be with its associated spent fuel assembly.

However, with respect to GTCC waste which is not integral to spent fuel assemblies, the NRC has concluded that, in general, GTCC waste should not be stored in the same cask with spent fuel. In developing the rule, the NRC was cognizant of both potential DOE disposal criteria for GTCC waste to preclude unnecessarily allowing a storage option that is unacceptable for disposal and potential adverse interactions between spent fuel and various types of GTCC waste. The NRC believes that properly addressing potential adverse conditions from commingling spent fuel with certain types of GTCC waste presents significant safety and technical issues. In addition, because the DOE has not yet identified criteria for a disposal package, the NRC is concerned that storage of GTCC waste and spent fuel in the same container may be unacceptable for placement in the geologic repository. Therefore, the rule precludes the commingling of GTCC waste and spent fuel, except on a case-by-case basis, because the NRC desires to formulate regulations that both reduce radiological exposure and costs associated with repackaging the spent fuel and GTCC waste into two separate containers for disposal.

The NRC would review and approve certain commingling on a case-by-case basis for GTCC waste composed of solid metal components. This storage arrangement would be done at the licensee's own risk that segregation of this material may be required prior to transporting the spent fuel for final disposal. The NRC would expect that the licensee's decision process to commingle solid metal components would consider economic factors regarding the possibility that future segregation may be required for transportation and final disposal within a high-level waste repository or at a separate GTCC waste disposal facility. The incremental cost of storing separate GTCC waste canisters might be a relatively small increase in the total ISFSI costs.

However, The NRC expects that, when DOE does provide disposal criteria, the NRC will revise our regulations for storage of GTCC waste to be consistent with DOE disposal requirements, if necessary.

However, The NRC agrees that resin and plastic material should not be commingled with spent fuel. Resins and plastic materials may contain organic compounds that may degrade under the thermal and radiolytic conditions present inside a spent fuel storage cask. The products of this decomposition may be corrosive and/or flammable (both solids and gases). As a result, such, these decomposition products might adversely effect the integrity of the spent fuel cladding. The NRC concludes, however, that resins and plastics that may be classified as GTCC waste can be safely stored at an ISFSI in a separate container as long as the material has been solidified.

With respect to the comment that DOE intends to open packages at Yucca Mountain, the NRC specifically requested additional information from DOE on their current intent with regards to disposal of GTCC waste. In response to the proposed rule, DOE did not provide the NRC the information for the NRC to conclude that GTCC waste will be accepted for disposal at Yucca Mountain if this site should be selected as a repository. Therefore, after disposal criteria have been established by DOE, the NRC can revise its regulations and guidance, if necessary.

11. Question from the proposed rule: Should the storage of explosive, pyrophoric, combustible, or chemically reactive GTCC waste be prohibited in either commingled or separate GTCC casks? Or should storage be permitted if performance criteria can be established? If so, what criteria should be used?

Comment: The one State commenter believes its comment to question 10 applies to questions 11 through 14; that is, to prohibit commingling. Also, if the waste is explosive,

Comment: One State commenter believes its comment to question 10 applies to questions 11 through 14; that is, to prohibit commingling. The other State commenter opposes any commingling of spent fuel and GTCC waste that contain resins which are composed of water and plastic because the high heat in spent fuel canisters can evaporate and build up pressure within a canister. The commenter opposes any mixture of gas-generating materials within a storage container.

Five industry commenters believe that with the proper conditions (e.g., quantities of gas released will not exceed safe limits) this waste type can be safely stored. Also, storage should be allowed only, if under worst-case conditions, an accident would not endanger public health and safety. Another commenter noted that it is highly unlikely that such material would be in reactor decommissioning GTCC waste.

Response: The NRC has concluded that GTCC waste that may release gases via radiolytic or thermal decomposition, including flammable gases, should only be stored at an ISFSI if this material is solidified and stabilized to minimize these characteristics. For these types of materials, the licensee programs must ensure that an analysis is conducted to show that these materials can be safely stored for the full period of the ISFSI or MRS license. The NRC concludes that this type of material, once stabilized and solidified, should be stored within a separate container as noted in response to question 9. The expectation is that the licensee's programs would ensure the design criteria address accident conditions, pressure buildup, and that released gases meet off-site radiological limits.

13. Question from the proposed rule: Should the storage of solid GTCC waste that may contain free liquid (e.g., dewatered resin) be prohibited in either commingled or separate GTCC casks?

Or should storage be permitted if performance criteria can be established? If so, what criteria should be used?

Comment: The one State commenter believes its comment to question 10 applies to questions 11 through 14; that is, to prohibit commingling.

Five industry commenters ~~were mixed in that~~ provided differing views some believe that GTCC waste that may contain free liquids should not be commingled with spent fuel, while others believe that it should be allowed if supported by a Safety Analysis Report. One commenter noted that it is highly unlikely that such material would ~~be in~~ reactor decommissioning GTCC waste (i.e., dewatered resins from reactor plants are not GTCC waste).

Response: The NRC has concluded that solid GTCC waste that contains free liquids should be treated to remove excess free liquids prior to storage at an ISFSI or an MRS. For this solidified material, the licensee's programs must ensure that an analysis is conducted to show that these materials can be safely stored for the full period of the ISFSI or MRS license. The NRC concludes that this type of material, once solidified, should be stored within a separate container as noted in response to question 9. The expectation is that the licensee's programs would ensure the design criteria address accident conditions, pressure buildup, and that released gases meet off-site radiological limits.

14. Question from the proposed rule: Should the storage of liquid GTCC waste be prohibited in either commingled or separate GTCC casks? Or should storage be permitted if performance criteria can be established? If so, what criteria should be used?

Comment: The one State commenter believes its comment to question 10 applies to questions 11 through 14; that is, to prohibit commingling.

provided differing views:

Five industry commenters ~~were mixed in that~~ some believe that liquid GTCC waste should not be commingled with spent fuel, while others believe that it should be allowed if supported by a Safety Analysis Report. One commenter noted that it is highly unlikely that such material would be in reactor decommissioning GTCC waste.

Response: The NRC has concluded that liquid GTCC waste should be solidified prior to storage at an ISFSI or an MRS. For this solidified material, the licensee's programs must ensure that an analysis is conducted to show that these materials can be safely stored for the full period of the ISFSI or MRS license. The NRC concludes that this type of material, once solidified, should be stored within a separate container as noted in response to question 9. The expectation is that the licensee's programs would ensure the design criteria address accident conditions, pressure buildup, and that release gases meet off-site radiological limits.

C. Agreement State issues (including specific questions for Agreement States in the proposed rule):

15. From the proposed rule: What is the position of the Agreement States on NRC assuming jurisdiction of storage of GTCC waste generated during the operation of a 10 CFR Part 50 license after termination of the 10 CFR Part 50 license?

Comment: Only four of the 32 Agreement States responded to this question, but none supported the NRC's exercise of jurisdiction. The four States' reasons varied. The first State commenter, South Carolina, does not view favorably relinquishing what it regards as its jurisdiction over reactor-related GTCC waste because, in South Carolina's view, the waste is composed of radioactive materials which Agreement States can be authorized to regulate under the AEA. South Carolina also noted that ~~while~~ although the Low Level Radioactive Waste Policy

failed to protect the public heath and safety or failed to comply with requirements in Section 274 of the AEA -- is applicable to licensing the storage of GTCC waste, and neither reason is asserted in the proposed rule. Illinois says that the AEA provides the NRC with no authority to unilaterally modify Agreements with Agreement States, either by administrative fiat or by rule.

Illinois notes that, in the NRC's draft rulemaking plan, the NRC suggested that Agreement States voluntarily relinquish their licensing authority for GTCC waste but that three of the four Agreement State comments the NRC received opposed this concept. Illinois charges that the NRC now proposes a rule that would nullify Agreement State authority based on efficiency and consistency of licensing but that this ignores the provisions of the AEA for termination of an Agreement. Illinois disputes that the requirement, in Section 274c of the AEA, that forbids NRC discontinuance of its authority to license the construction and operation of production and utilization facilities provides NRC with the authority "to dictate that Agreement States no longer have authority to license storage of GTCC waste at a facility that is no longer licensed as a production or utilization facility."

The third State commenter, Utah, does not believe that the NRC should "usurp" State authority for licensing GTCC waste under 10 CFR Parts 30, 70, or 72, once a reactor is decommissioned. The State says there are other areas in which jurisdiction over AEA materials may be either State or Federal. The State believes that, after decommissioning, and especially where spent fuel is shipped offsite, the State should have a significant regulatory presence. (The commenter also believes that only the NRC should license GTCC waste storage casks.)

The fourth State commenter, New York, does not support what it calls the "carte blanche" relinquishment of its regulatory authority. New York believes that it has effectively collaborated with the NRC in the regulation of single facilities and is not aware of any problems. New York believes that cooperative effort can minimize duplication and maximize the value of

limited resources while still allowing both regulatory entities to retain their current regulatory authority. New York believes relinquishment could be considered on a case-by-case basis where regulatory duplication could not be minimized or a Memorandum of Understanding could not be developed to resolve problematic issues.

Response: Until this rulemaking, which opens a clear path to storage of reactor-related GTCC waste co-located with spent fuel in an ISFSI or an MRS after termination of a 10 CFR Part 50 license, the Commission has not had occasion to examine systematically the interplay between NRC and Agreement State jurisdiction over reactor-related GTCC waste. The LLRWPAA assigns to the Federal government the ultimate responsibility for disposal of GTCC waste, but no statute or regulation has explicitly addressed the storage of such waste. After considering all comments received during the rulemaking, and after examining carefully the underlying regulatory and statutory scheme, the Commission ~~now believes~~ concludes that the Commission should retain regulatory jurisdiction over reactor-related GTCC waste after termination of a reactor's 10 CFR Part 50 license.

The Commission's position follows directly from the existing Agreements the NRC and the States have entered into under section 274 of the AEA, and it is consistent with other law and with sound policy. Under section 274, Agreement States possess regulatory authority over radioactive waste only where the Commission has relinquished its preexisting authority. No Agreement explicitly mentions reactor-related GTCC waste, and though some Agreement States have programs for storage and disposal of non-reactor-related GTCC waste, programs that have been found compatible with the NRC's own program for regulating such wastes, section 274 Agreements cannot be understood as a general matter to relinquish Commission authority over reactor-related GTCC waste. These wastes are too integrally related to the operation of reactors because ~~since~~ these wastes consist for the most part of activated metal reactor components

such as core shrouds, support plates, nozzles, core barrels, and in-core instrumentation. The Commission has reserved to itself matters so integral to the operation of reactors. Thus, when, under the section 274 program, the Commission reaches Agreements with States and relinquishes regulatory jurisdiction to them, the Commission specifically retains authority over the "operation" of reactors, as required by an NRC rule promulgated nearly 40 years ago. Section 150.15(a)(1) of 10 CFR defines "operation" as follows:

> As used in this subparagraph, operation of a facility includes, *but is not limited to* (i) the storage and handling of radioactive wastes at the facility site by the person licensed to operate the facility; and (ii) the discharge of radioactive effluents from the facility site.

Id. (Emphasis added.)

In short, ~~under longstanding agency rules~~, a State entering a section 274 Agreement with the NRC does not, and cannot, acquire regulatory authority over reactor-related GTCC waste. Thus, the Commission's assertion of ongoing NRC jurisdiction over reactor-related GTCC waste does not take back previously-granted State authority or terminate an NRC-State Agreement.

The approach just outlined is consistent with ~~statutory law~~. Section 274 itself requires continued Commission authority over basic reactor operation even after entry of Agreements. See AEA, section 274(c)(1). Section 274 also contemplates continued Commission authority over "disposal" of certain types of waste material "because of the hazards or potential hazards thereof." See AEA, section 274(c)(4). The final rule the Commission issues today is consistent with these statutory provisions, because the GTCC waste over which the rule retains Commission jurisdiction was used by or generated at operating reactors and can reasonably be regarded as waste whose "potential hazards" warrant ultimate disposal under NRC supervision.

Insert Footnote to page 40

Footnote

The Commission's action today serves to preserve NRC jurisdiction over reactor-related GTCC waste both at the facility site, which is where most such waste now resides, and at other locations. Although Section 150.15(a)(1)(i) refers only to waste "at the facility site," that language is not confining because of the "is-not-limited-to" preamble. Our conclusion that such waste should be subject to exclusive NRC jurisdiction is reinforced by considering Sections 274 (c)(1) and (4) of the AEA and by Sections 3(b)(1)(d) and 3(b)(2) of the Low Level Radioactive Waste Policy Amendments Act, discussed subsequently.

This conclusion is strongly reinforced by more recent statutory enactments specifically dealing with the handling of radioactive wastes. The Low Level Radioactive Waste Policy Amendments Act assigns to the Federal government the ultimate responsibility for disposal of GTCC waste, and to the NRC the responsibility for regulating the disposal of GTCC waste generated by NRC licensees. See sections 3(b)(1)(D) and 3(b)(2) of the LLRWPAA.[4] The two principal facts behind these sections were that most States did not want to be ultimately responsible for the disposal of GTCC waste, and that the States did not want the GTCC waste buried in DOE's existing unlicensed low-level waste burial sites. Nonetheless, these sections have been read broadly enough to permit disposal of GTCC waste in facilities run by States or private entities -- as long as the Federal government was satisfied that the disposal provided adequate protection of public health and safety -- and to permit compatible Agreement State regulation of some GTCC waste stored and disposed of in a State or private facility. See, e.g., 54 Fed. Reg. 22578, 22579 (May 25, 1989).

However, the same statutory language cannot be read so broadly as to empower States to regulate storage and disposal of any and all GTCC waste. That is clearly the case with disposal. Indeed, the language of these two sections could more reasonably be read to prohibit the States from any regulation of disposal of reactor-related GTCC waste whatsoever. As for storage, these sections cannot be interpreted as allowing to Agreement States blanket and unlimited authority over storage of GTCC waste. Because the NRC indisputably has jurisdiction over GTCC waste while a reactor licensed under 10 CFR Part 50 is being operated, it is reasonable that it makes and similarly has jurisdiction over its disposal

4 Section 3(b)(1)(D) says, "The Federal Government shall be responsible for the disposal of ... any ... low-level radioactive waste with concentrations of radionuclides that exceed the limits established by the Commission for class C radioactive waste ...." Section 3(b)(2) says, "All radioactive waste designated a Federal responsibility pursuant to subparagraph (b)(1)(D) that results from activities licensed by the Nuclear Regulatory Commission ... shall be disposed of in a facility licensed by the ... Commission ...."

~~obvious sense~~ for the NRC to retain regulatory authority over ~~the higher-activity, more integrally related to reactor operations,~~ GTCC waste during the interim period -- i.e., between the time when the reactor is shut down and the time the GTCC waste goes to disposal. This is especially the case when, as many reactor owners contemplate, the GTCC waste could be stored along with NRC-regulated spent fuel in an NRC-regulated ISFSI or MRS. ~~Ordinary~~ low-level radioactive waste is different, because no statute assigns the federal government ultimate responsibility for disposal, or the NRC explicit responsibility for regulating disposal, of such waste, ~~nor is such waste so integrally related to reactor operations~~. Thus, issuance of this final rule does not affect the States' long-standing practice of exercising regulatory jurisdiction over ~~ordinary~~ low-level radioactive waste originally generated at reactors, or over GTCC waste generated by materials licensees regulated by Agreement States.

The alternative to NRC jurisdiction over reactor-related GTCC waste stored onsite or in an ISFSI or MRS is a regulatory scheme that calls for not one shift of regulatory authority, as in the case of Class A, B, or C low-level reactor waste, but two shifts of regulatory authority, one at plant shutdown, and the other at disposal. ~~It is difficult to argue the sense of this, and impossible to argue its necessity.~~

The NRC agrees that States can work well with the NRC, and although the NRC is retaining regulatory authority over the storage and disposal of reactor-related GTCC waste, there are a number of ways States may participate in NRC regulation~~, as the States know from experience.~~ For example, the Commission will continue to adhere to its Policy Statement, "Cooperation with States at Commercial Nuclear Power Plant and Other Nuclear Production or Utilization Facilities" (57 FR 6462; February 25, 1992), which allows States to develop specific arrangements, such as exchange of information, State observation of NRC inspection activities, and placement of State resident engineers at nuclear power plants.

Nonetheless, it would be a non sequitur to argue that, because the NRC and an Agreement State can work well together, they both should have regulatory power at, say, an NRC-regulated ISFSI that contains ~~both~~ spent fuel, regulated by the NRC, and reactor-related GTCC waste in an NRC-regulated spent fuel cask.

16. From the proposed rule: What controls and regulatory frameworks would the Agreement States envision, assuming they have jurisdiction over GTCC waste generated during the operation under a 10 CFR Part 50 license after termination of the 10 CFR Part 50 license? How would the Agreement States plan to ensure consistency with a national regulatory scheme?

Comment: Only two States responded. The first said that it cannot say what other Agreement States could do, and that each State should be evaluated on its own. But this State nevertheless claimed that GTCC waste is similar to Class B and C waste, which States have regulated for years. The State believes it has the experience and capability needed to establish the controls and regulatory framework comparable to NRC standards. It therefore believes that it is capable of administering 10 CFR Part 72 standards. The second State argued that consistency with a national regulatory scheme for storage of GTCC waste would be ensured in the same manner in which the consistency of other Agreement State regulation in other areas is ensured. The second State envisions establishing controls and a regulatory framework that are compatible with the NRC's for this type of waste storage.

Response: With so few responses, the NRC cannot form a clear picture of how the Agreement States would regulate storage of ~~all~~ reactor-related GTCC waste to ensure consistency with a national program for regulating such waste. As we note in the response to the next question, some State regulation of the storage and disposal of some marginally reactor-related GTCC waste has already occurred in a way that is consistent with a coherent national

program that protects public health and safety. But the question here is whether such a program can be established that would permit State regulation of all GTCC waste as a general matter, no matter what the activity level, no matter how integrally related to reactor operation, and no matter whether stored with spent fuel or not. It is certainly true, as one of the States said, that the NRC has authority under section 274 of the AEA to take steps that help assure that State programs are "compatible" with the NRC's own programs. Indeed, it is the NRC's responsibility to work to ~~assure~~ ensure such compatibility. Nonetheless, compatibility, like safety, is ultimately not the NRC's doing. Only the Agreement States can establish and maintain compatible programs. The NRC can only measure the degree of compatibility and health and safety, through the Integrated Materials Performance Evaluation Program, and take the steps necessary to ~~enforce that~~ seek to assure compatibility ~~and health and safety~~ where it is missing. ~~In the absence of a widespread and clear commitment on the part of the States to ensure compatible regulation of the storage of reactor-related GTCC waste~~, the NRC does not have a strong practical justification for ~~exercising its discretion in such a way as to permit~~ allowing States to exercise jurisdiction over storage ~~of all such waste.~~ Under circumstances in which the NRC must exercise jurisdiction of GTCC waste during reactor operations and at the time of disposal in the interim period before disposal.

17. From the proposed rule: The NRC staff is not aware of any current Agreement State license for the storage of reactor-related GTCC waste. Are there any such licenses within your State or are you aware of any such Agreement State licenses?

Comment: Two States commented. Illinois reports that it does not have any reactor-related GTCC waste under license. South Carolina reports that it allows temporary storage of some approved GTCC waste from 10 CFR Part 50 licensees (less than 1 percent above Class C limits) while awaiting disposal at its licensed Barnwell low-level waste facility. South Carolina also licenses the partially decommissioned Carolinas-Virginia Nuclear Power

19. Away from reactor storage.

Comment: The State of Utah is greatly concerned, and adamantly opposes, the storage of GTCC waste at away-from-reactor ISFSIs, including something such as the proposed Private Fuel Storage facility for spent fuel. The commenter believes that there is the potential that most of the nation's spent nuclear fuel and GTCC waste could be shipped to Utah and that, once there, it will never leave the State. The commenter notes that there are no long term GTCC waste disposal plans. The commenter believes that the NRC must restrict storage to at-reactor ISFSIs and not allow GTCC waste to be shipped across the country unless, and until, decisive plans have been made for the permanent disposition of GTCC waste. The commenter notes from DOE documents that DOE anticipates that GTCC waste will remain at the reactor site until a disposal option becomes available, and that currently the disposal option is not known. The proposed ~~rule~~ rule does not address is ~~mute on~~ the disposition of the waste at the end of a 10 CFR Part 72 ISFSI license. The commenter believes there is a significant volume of GTCC waste that could be shipped away from the reactor site and the NRC is silent on the transportation of GTCC waste. There is no discussion about transportation containers or the exposure level and the population at risk from transportation.

The commenter believes that NRC needs to prepare a programmatic or generic environmental impact statement (EIS) for the transportation of GTCC waste since this could be a significant departure from the current regulatory scheme and a significant federal action affecting the quality of the human environment. If the proposed Private Fuel Storage ISFSI on the Skull Valley Goshute Indian reservation in Utah becomes the prime location for GTCC waste storage, the proposed rule would permit the mass movement of GTCC waste across the country. In this respect, the NRC cannot rely on its "waste confidence rule" because the waste confidence rule only applies to spent fuel. The NRC does not address the final disposition of

GTCC waste. In fact, the NRC decommissioning rule under 10 CFR Part 72 only requires the applicant to propose and fund a decommissioning plan after removal of GTCC waste which may never occur. The commenter notes that no EIS has ever been prepared on the transportation of GTCC waste which may be long-lived and can contain millions of curies of radioactivity. The commenter believes particular attention is needed for GTCC waste resins and an evaluation of the hazard of an accident involving a long-duration fire. Resins contain water and plastic which would evaporate and melt unlike activated metals. The commenter believes NRC cannot rely on RADTRAN, a transportation model, because GTCC waste resins are composed of elements that RADTRAN does not address (e.g., ion exchange resins). Moreover, the NRC cannot rely on an EIS conducted for a site specific ISFSI that only addresses storage of spent fuel.

The State of Utah also believes that NRC has not thought through issues related to insurance requirements, liability for harm resulting from GTCC waste, and complexities of waste ownership. Utah maintains that a void will occur in insurance coverage for GTCC waste at an away-from-reactor ISFSI; the generating facility would no longer cover that waste, and the Price Anderson Act would not cover transportation incidents to and from the ISFSI because GTCC waste is not high level waste. Utah also notes as negatives that 10 CFR Part 72 fails to require on-site property insurance; multiple owners of the mix of GTCC waste at an away-from-reactor ISFSI will complicate assigning liability and after decommissioning of a reactor site, the "deep-pocket" utility ceases to be an "owner" thus shedding responsibility for the GTCC waste. Also, the State expresses concern that after an accident, it may need to take action in order to protect public health and safety, even though it lacks regulatory authority.

Response: The NRC disagrees with the comments. The comments generally stated that the GTCC waste should not be shipped to an away-from-reactor ISFSI site due to lack of analysis regarding transportation containers or the exposure level and the population at risk

Insert page 48

The NRC finds that most of these comments are not germane to this rulemaking, which provides general standards for the storage of reactor-related GTCC wastes. Issues associated with an away-from-reactor ISFSI can appropriately be addressed in a specific licensing action concerning such a facility.

from transportation. The transportation of radioactive material, which includes GTCC waste, was previously analyzed by the NRC in NUREG 0170, "Final Environmental Statement on the Transportation of Radioactive Materials by Air and Other Modes." This EIS covered the transport of all types of radioactive material by all transport modes (including GTCC waste). Transportation of GTCC waste and other Type B quantities of radioactive material (i.e., spent fuel) is governed by the NRC regulations in 10 CFR Part 71 and the Department of Transportation (DOT) regulations in 49 CFR Part 173. The NRC believes that NUREG-0170 bounds the environmental impact from the shipment of GTCC waste and this waste can be safely shipped in compliance with these regulations. ~~Separately, The NRC notes that an assessment of the environmental impacts associated with the transportation of radioactive material to and from an away-from-reactor ISFSI would be addressed to the extent appropriate in a licensing action on an away-from-reactor ISFSI.~~ Therefore, the NRC believes that the ~~storage of GTCC waste need not be limited to a reactor site.~~

With respect to the comment on insurance and liability, under existing law, there is no cause for a void in insurance coverage for GTCC waste at an away-from-reactor ISFSI even though 10 CFR Part 72 does not provide specific insurance or indemnity requirements for an away-from-reactor facility. Licensing actions to permit away-from-reactor storage may be made subject to license conditions ~~for~~ the maintenance of appropriate amounts of liability insurance up to $200 million. ($200 million is the maximum insurance currently commercially available to cover offsite public liability and is the amount required for large power reactors.) In addition, there may be appropriate commitments, confirmed by license conditions, for insurance to cover onsite damages.

The Price-Anderson Act (Atomic Energy Act § 170, 42 U.S.C. 2210 & 2014 (related definitions)) requires indemnification for 10 CFR Part 50 facilities. The Act also gives the

Commission discretionary authority to extend indemnity coverage to activities undertaken by three types of materials licensees. See 42 U.S.C. and 42 U.S.C. 2210 a. Thus, the Commission can indemnify away-from-reactor ISFSIs in the event the Commission were to find that the risks of offsite damage are so large as to be uninsurable or that the public interest requires it. Moreover, the Price Anderson Act does not restrict its coverage of reactor waste to spent fuel. Thus, were the Commission to use its discretion to cover away-from-reactor ISFSIs, all transportation to and from them would be covered. However, even lacking such a discretionary designation, transportation of GTCC waste to the ISFSI would, in any event, be covered by the generator's Price Anderson coverage. Likewise, if the final transportation were to be to an indemnified facility, such as a DOE facility, that transportation would be covered by Price Anderson. See e.g. Atomic Energy Act, § 170n(1)(B) and 42 U.S.C. n(1)(B).

In addition, to address any perceived problem from the multiplicity of customers, 10 CFR Part 72 license conditions can require terms in service agreements by which customers ~~would retain title to the GTCC waste stored and~~ allocation of liability ~~would be made among them.~~ Where needed, additional financial assurances could be provided. Also, § 72.30's provisions for "Financial assurance and recordkeeping for decommissioning" includes a requirement that the decommissioning plan have a funding plan that contains information on how reasonable assurance will be provided that funds will be available to decommission the ISFSI or MRS.

Finally, the State's possible need in an emergency "to take action even though it is not the regulator of the GTCC waste" is no different from the circumstance in an emergency resulting from a nuclear power plant or other federally regulated facility that uses radioactive materials. There are like requirements imposed on the 10 CFR Part 72 licensee for notification and requests for offsite assistance. See § 72.32. The Commission is confident that a

partnership of Federal, State, local, and Tribal governments will act to protect the public health and safety and the environment, in the event of an emergency.

20. The definition of the term "cask."

Comment: One commenter believes that the NRC needs to be clearer when using the term cask as it is defined and used in 10 CFR 72.121(a)(2) and 72.230(b). Reference is made to "casks that have been certified...under Part 71," but cask is not defined in either 10 CFR Part 71 or the transportation regulations in Title 49 CFR. The term cask is commonly used throughout the nuclear power industry to refer to one or more types of transport packaging, but it is also generally accepted that the correct term is "packaging" rather than "cask." Spent fuel dry storage has extended the application of the term cask, yet it is not formally defined in either Title 10 CFR or Title 49 CFR. The commenter noted that the proposed rule included a definition for the terms "spent fuel storage cask or cask," but believes that ~~although the intent is good~~, the definition may raise more questions than it resolves ~~in that the definition~~ because it focuses on a container and not a package. The term container is not defined in either Title 10 CFR or Title 49 CFR, resulting in a new definition which is based on an undefined term. Does cask refer to (1) a package, (2) packaging, or (3) something else? This is particularly important when referring to "casks that have been certified...under Part 71," which would suggest a specific package or packaging. The commenter believes that Title 10 CFR should avoid any term related to transportation which would create an inconsistency with Title 49 CFR. The commenter proposes several alternative solutions based on the intended meaning of cask to maintain consistency with Title 49 CFR and believes the term should be reviewed by the Department of Transportation and incorporated into 49 CFR 171.8 during the next revision.

Response: The commenter requested that the NRC modify the definition of the term "cask" as used in 10 CFR 72.121(a)(2) to better correlate this term to the term packaging and packages used in 10 CFR Part 71. The NRC believes the commenter's reference should have been to 10 CFR Part 72.212(a)(2), which discusses the use of casks certified under 10 CFR Part 72. The NRC believes the definition for the term cask should not be changed. The general term cask as used in 10 CFR Part 72 is intended to speak to the cask design characteristics, such as criticality, shielding, thermal loading, and structural integrity and not all the components of a typical transportation packaging, such as an impact limiter. Because there is not a good correlation between the 10 CFR Part 72 cask definition and 10 CFR Part 71 packaging and packages, attempting to relate the terms might cause confusion. As indicated by the commenter, it is very important that terms used in 10 CFR Part 71 and DOT regulations are consistent. In the proposed rule the only change intended for the term spent fuel storage cask or cask was to allow the storage of reactor-related GTCC waste within a cask, and attempting to change these terms within NRC regulations would require corresponding changes in DOT regulations, which is beyond the scope of this rulemaking.

However, in evaluating this comment, the NRC believes that changing the definition of "spent fuel storage cask or cask" to include GTCC waste was unintended. Adding GTCC waste to this definition would require that this waste type be stored in a "spent fuel storage cask." The NRC did not intend for the requirements in 10 CFR Part 72 to be as prescriptive as could be implied in the proposed rule.

Accordingly, the final rule removes the change in the proposed rule to § 72.3 dealing with the definition of "spent fuel storage cask or cask."

Section-by-Section Analysis

The following section is provided to assist the reader in understanding the specific changes made to each section or paragraph in 10 CFR Parts 30, 70, 72, and 150. For clarity of content in reading a section, much of that particular section may be repeated, although only a minor change is being made. This section should allow the reader to effectively review the specific changes without reviewing existing material that has been included for content, but has not been significantly changed.

Section 30.11(b) is a new paragraph, it was previously reserved, to exempt a licensee from the requirements of 10 CFR Part 30, to the extent that its activities are licensed under the requirements of 10 CFR Part 72.

Section 70.1(c) is being revised to exempt a licensee from the requirements of 10 CFR Part 70 when power reactor-related GTCC waste is being stored under the requirements of 10 CFR Part 72.

The title to 10 CFR Part 72 is being revised to include GTCC waste.

The following sections or paragraphs are being revised to specify the inclusion of GTCC waste, for clarity, or for completeness: §§ 72.1, 72.2(a) and (c), 72.8, 72.16(d), 72.22(e)(3), 72.24 introductory text and (i), 72.28(d), 72.30(a), 72.44(b)(4), (c)(3)(i), (c)(5), (d) and (g)(2), 72.52(b)(2), (c), and (e), 72.54(c)(1), 72.60(c), 72.72(a), (b), and (d), 72.75(b), (c), (d)(1)(iv), and (d)(2)(ii)(L), 72.80(g), 72.82(a) and (b), 72.106(b), 72.108 title and text, 72.122(b)(2), (h)(2), (h)(5), (i), and (l), 72.128 title and (a), and 72.140(c)(2). Also, §§ 72.72, 72.76, and 72.78 have been modified to clarify the reporting requirements for special nuclear material as specified in 10 CFR 74.13(a)(1).

AFFIRMATION VOTE

5 JUN 01 2: 46

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER DICUS

SUBJECT: **SECY-01-0097 - FINAL RULE: INTERIM STORAGE FOR GREATER THAN CLASS C WASTE**

Approved __X__ w/comments Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

Greta Joy Dicus
SIGNATURE

July 31, 2001
DATE

Entered on "STARS" Yes __X__ No ____

Comments of Commissioner Dicus Regarding SECY 01-0097

With respect to the complexities associated with the technical nature and jurisdictional issues of this rulemaking activity, I want to commend the staff on doing an excellent job. I believe that amending the regulations of 10 CFR Part 72 to allow for the interim storage of reactor-related Greater Than Class C (GTCC) waste at an independent spent fuel storage installation or a monitored retrievable storage installation, will provide both efficiencies and burden reductions to both the NRC and Part 50 reactor licensees, while maintaining protection of the public, the worker, and the environment.

Additionally, with respect to fact that reactor-related GTCC waste is already under Federal jurisdiction during the operating life of the plant, and with the ultimate disposal of such GTCC waste also being under Federal jurisdiction, I remain supportive of maintaining Federal jurisdiction over GTCC waste during the period between Part 50 license termination and ultimate disposal. With current regulations requiring the disposal of such wastes in a geologic repository in the absence of specific disposal requirements, coupled with the knowledge that the Barnwell low-level waste disposal facility being the only disposal site accepting similar type wastes, but at significantly reduced concentrations (less than 1% above the Class C radionuclide concentration limits specified in Part 61.55), I do not believe that there would be any reduction in Agreement State regulatory authority. I also believe that both the Atomic Energy Act of 1954, as amended, and the Low-Level Radioactive Waste Policy Amendments Act, 1985, appropriately clarify Federal responsibility over the regulation of GTCC waste.

gjd
7-31-01

Comments of Commissioner Dicus on the Press Release for SECY 01-0097

Please refer to the attached edits and/or modifications as included in the Press Release.

SUPPLEMENTAL MATERIAL

IN SUPPORT OF

SECY-01-0097

DRAFT PRESS RELEASE,

DRAFT CONGRESSIONAL LETTERS

and

DRAFT SBREFA LETTERS

BACKGROUND 1

PRESS RELEASE

MSL

G:\DPR\GTCC.wpd

March 9, 2001
(3:46PM)

OPA

DRAFT

(Source:Concurrence pkge)

NRC ISSUES FINAL RULE ON STORAGE OF CERTAIN "GREATER THAN CLASS C" WASTE IN AN INDEPENDENT SPENT FUEL STORAGE FACILITY

The Nuclear Regulatory Commission is publishing amendments to its regulations which allow storage of power reactor-related "greater than Class C" radioactive waste in an independent spent fuel storage installation, or a monitored retrievable storage installation.

gjd 7-31-9

"Greater than Class C" waste is a form of low-level radioactive waste with high enough concentrations of long-lived radioactive materials that it is generally unsuitable for near-surface land disposal. It is so named because its radioactivity exceeds the concentration limits established for Class C, ~~the most hazardous type of~~ low-level waste, which can be routinely buried in a low-level waste disposal facility.

Greater than Class C waste at nuclear power plants includes irradiated metal components from reactors, as well as filters and resins from reactor operations and decommissioning. Unlike other low-level waste which may be disposed of in near-surface facilities, greater than Class C waste typically must be disposed of in a ~~deep, underground~~ geologic repository. The authority to possess this type of radioactive material is included under the reactor license.

The amendments allow licensing for interim storage of greater than Class C waste in a manner consistent with licensing interim storage of spent fuel (high-level radioactive waste) and would maintain federal jurisdiction for storage of such waste. This will provide public health and environmental protection in a compatible manner as that which is currently required for storage of spent fuel at an independent ~~—located away from reactors—~~ spent fuel storage installations either located at or away from commercial power reactor site.

The amendments respond to a 1995 petition from the Portland General Electric Company on storage of greater than Class C waste from its Trojan nuclear plant in Oregon, which is in the process of being decommissioned. grid 7-31-01

The NRC believes the rule change is necessary because (1) previous requirements did not adequately address storage of reactor-related greater than Class C waste; and (2) there were jurisdictional issues regarding NRC and Agreement State authority over reactor-related greater than Class C waste storage activities. (Agreement States are states that have assumed regulatory authority over certain radioactive material.)

AFFIRMATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MCGAFFIGAN

SUBJECT: **SECY-01-0097 - FINAL RULE: INTERIM STORAGE FOR GREATER THAN CLASS C WASTE**

Approved X Disapproved _____ Abstain _____

Not Participating _____

COMMENTS:

Approved with attached comments and edits.

Edward McGaffigan Jr.
SIGNATURE

August 2, 2001
DATE

Entered on "STARS" Yes X No ____

Commissioner McGaffigan's Comments on SECY-01-0097

I approve publication of the proposed amendments to 10 CFR Part 72 to allow for the interim storage of reactor-related Greater Than Class C (GTCC) waste at an independent spent fuel storage installation or a monitored retrievable storage installation. Since the Commission had its first opportunity in March 1997 to address this important issue, I have been a strong proponent of this rulemaking which provides for consistent regulatory control over the storage of reactor-related GTCC and flexibility for licensees in selecting a regulatory approach for storage of GTCC after termination of their Part 50 licenses. The final rule also reduces the regulatory burden both for NRC and its licensees while protecting public health and safety and the environment. It is for these reasons that I support the final rule and appreciate the staff's efforts to bring this issue to closure. I also offer specific edits to the Federal Register notice as indicated on the attached for the staff's consideration.

EMcG

[7590-01-P]

NUCLEAR REGULATORY COMMISSION

10 CFR Parts 30, 70, 72, and 150

[Docket No. PRM-72-2]

RIN 3150-AG33

Interim Storage for Greater Than Class C Waste

AGENCY: Nuclear Regulatory Commission.

ACTION: Final rule.

SUMMARY: The Nuclear Regulatory Commission (NRC) is amending its regulations to allow licensing for the interim storage of Greater than Class C (GTCC) waste in a manner that is consistent with licensing the interim storage of spent fuel and will maintain Federal jurisdiction for storage of reactor-related GTCC waste. The final rule will only apply to the interim storage of GTCC waste generated or used by commercial nuclear power plants. These amendments will also simplify and clarify the licensing process. The final rule will grant in part and deny in part a petition for rulemaking submitted by Portland General Electric Company (PRM-72-2).

EFFECTIVE DATE: (30 days from date of publication in the FEDERAL REGISTER).

Proposed Rule

The NRC published the proposed rule, "Interim Storage for Greater than Class C Waste" in the Federal Register on June 16, 2000 (65 FR 37712). The NRC received 18 comment letters on the proposed rule. These comments and responses are discussed in the "Comments on the Proposed Rule" section.

Discussion

silent?

Current NRC regulations are ~~not clear~~ on the acceptability of storing reactor-related GTCC waste co-located at an ISFSI or an MRS. Co-location is the storage of spent fuel with other radioactive material in their respective separate containers. This situation has created confusion and uncertainty on the part of decommissioning reactor licensees and may create inefficiency and inconsistency in the way the NRC handles GTCC waste licensing matters.

The NRC believes that decommissioning activities at commercial nuclear power plants will generate relatively small volumes of GTCC waste relative to the amount of spent fuel that exists at these sites. GTCC waste exceeds the concentration limits of radionuclides established for Class C in §§ 61.55(a)(3)(ii), 61.55(a)(4)(iii), or 61.55(a)(5)(ii). GTCC waste is not generally acceptable for near-surface disposal at licensed low-level radioactive waste disposal facilities. Currently there are no routine disposal options for GTCC waste.

In general, reactor-related GTCC wastes can be grouped into two categories. The first, which is the more typical form, is activated metals components from nuclear reactors such as core shrouds, support plates, nozzles, core barrels, and in-core instrumentation. The second is process wastes such as filters and resins resulting from the operation and decommissioning of

reactors. In addition, there may be a small amount of GTCC waste generated from other activities associated with the reactor's operation (e.g., reactor start-up sources). GTCC waste may consist of either byproduct material or special nuclear material.

The Low-Level Radioactive Waste Policy Amendments Act of 1985 gave the Federal Government (U.S. Department of Energy (DOE)) the primary responsibility for developing a national strategy for disposal of GTCC waste. The Act also gave the NRC the licensing responsibility for a disposal facility for GTCC waste. Until a disposal facility is licensed, there is a need for interim storage of GTCC waste.

Currently, 10 CFR Part 50 licensees (Domestic Licensing of Production and Utilization Facilities) are authorized to store all types of reactor-related radioactive materials, including material that, when disposed of, would be classified as GTCC waste. The GTCC waste portion is currently being stored either within the reactor vessel, in the spent fuel pool, or in a radioactive material storage area, pending development of a suitable permanent disposal facility.

The authority to license the possession and storage of GTCC waste is contained within 10 CFR Part 30 for byproduct material and in 10 CFR Part 70 for special nuclear material. Under 10 CFR 50.52, the Commission may combine multiple licensable licensing activities of an applicant that would otherwise be licensed individually in single licenses. Thus, the 10 CFR Part 50 license authorizing operation of production and utilization facilities currently includes, within it, the authorization to possess byproduct and special nuclear material that would otherwise need to be separately licensed under 10 CFR Parts 30 or 70.

Under the current regulations, before the 10 CFR Part 50 licensee can terminate its 10 CFR Part 50 license, one of the actions that must be completed is for the licensee to transfer all of its spent fuel to another licensed facility; typically an ISFSI for storage or to a geologic repository for disposal. The ISFSI can be either at the reactor site under a specific 10 CFR

Regulatory Action

The NRC is amending 10 CFR Parts 30, 70, 72, and 150. The changes to these parts are necessary to allow the interim storage of NRC-licensed reactor-related GTCC waste within an ISFSI or an MRS and to require that the licensing responsibility for this waste remain under Federal jurisdiction. This action deals only with GTCC waste used or generated by a commercial power reactor licensed under 10 CFR Part 50 (i.e., not a research reactor) and does not include any other sources of GTCC waste, nor does it include other forms of LLW generated under a 10 CFR Part 50 license. Because reactor-related GTCC waste is initially under Federal jurisdiction while the reactor facility is operated and the ultimate disposal of GTCC waste also is under Federal jurisdiction, the NRC believes that the interim period between termination of a reactor license and ultimate disposal also should remain under Federal jurisdiction. GTCC waste could become eligible for disposal in a geologic repository in the future. Spent fuel can be stored in an ISFSI or an MRS pending ultimate disposal. This Federal jurisdiction is unlike the Federal or Agreement State jurisdiction for the storage of Class A, B, and C reactor-related LLW that are currently being disposed in LLW disposal sites regulated by Agreement States. In addition, the storage time for Class A, B, and C LLW is expected to be short in comparison to the relatively long-term interim storage of GTCC waste. Therefore, for efficiency and consistency of licensing, the NRC concludes that 10 CFR Part 72 should also be modified to allow the storage of GTCC waste within these facilities under NRC's jurisdiction. A regulatory scheme which would allow for Federal jurisdiction over the generation of the GTCC waste, followed by State jurisdiction for interim storage, followed again by Federal jurisdiction over the disposal of GTCC waste, is an inefficient approach. It is inefficient for both NRC and an Agreement

State to both spend scarce resources to license and inspect an ISFSI that stores both spent fuel and GTCC waste. 10 CFR Parts 30, 70, and 150 require conforming changes.

In the section, "NRC to Maintain Authority for Reactor-Related GTCC Waste," the Commission provides the regulatory basis upon which the NRC has determined that jurisdiction for storage of reactor-related GTCC waste will remain with the NRC. (Also see comment number 15.)

This final rule will allow storage of reactor-related GTCC waste under a 10 CFR Part 72 specific license. The changes will modify 10 CFR Part 72 to allow storage of GTCC waste under this part using the appropriate criteria of 10 CFR Part 72. This will provide a more efficient means of implementing what is essentially already permitted by the regulations (storage of GTCC waste co-located at an ISFSI or an MRS). When storing GTCC waste within an ISFSI or MRS, the licensee or applicant must provide a description of its program that ensures the storage of the GTCC waste will not have an adverse effect on the ISFSI or MRS or on public health and safety and the environment.

The rule will not eliminate the current availability of storing GTCC waste under the authority of a 10 CFR Part 30 or 70 license. However, neither 10 CFR Parts 30 nor 70 include explicit criteria for storage of GTCC waste. Therefore, a licensing process conducted under 10 CFR Parts 30 or 70 regulations would be more resource intensive because the licensee would need to develop new proposed storage criteria. If the licensee decides to obtain a 10 CFR Part 30 or 70 license, the NRC will still maintain Federal jurisdiction over the reactor-related GTCC waste stored under 10 CFR Parts 30 and 70.

Comparing these two approaches, the NRC recognizes that the licensing process will be simpler with less regulatory burden if all the radioactive waste to be stored at an ISFSI or MRS is stored under the authority of one 10 CFR Part 72 license. The regulations in 10 CFR Part 72

were developed specifically for storage of spent fuel at an ISFSI and spent fuel and high-level waste at an MRS. Appropriate 10 CFR Part 72 criteria will be applied to GTCC waste storage. Under 10 CFR Parts 30 and 70, GTCC waste criteria would need to be developed on a case-by-case basis to support licensing under these parts. Also, using 10 CFR Part 72 to store reactor-related GTCC waste would eliminate the need for multiple licenses for the storage of spent fuel and GTCC waste.

The NRC has evaluated the technical issues arising from the commingling of spent fuel and reactor-related GTCC waste in the same storage container, and issues arising from the storage of reactor-related liquid GTCC waste, under a 10 CFR Part 72 specific license. This final rule will permit the co-locating of spent fuel and solid reactor-related GTCC waste in different casks and containers within an ISFSI or MRS. However, the rule will not permit the commingling of spent fuel and GTCC waste in the same storage cask except on a case by case basis. The rule does not change the current practice of storing specific components associated with, and integral to, the spent fuel with spent fuel. Additionally, the rule will not permit the storage of liquid reactor-related GTCC waste.

Without this change, prior to termination of the 10 CFR Part 50 license, a licensee would need to obtain multiple licenses to continue to store spent fuel and GTCC waste -- 10 CFR Part 72 for spent fuel and 10 CFR Part 30 or 70 (or both) for GTCC waste. Having one license for the ISFSI (or MRS) under 10 CFR Part 72 will be simpler for both licensees and the NRC relative to approval and management.

The NRC believes that the concept proposed in the petition of storing GTCC waste under the provisions of 10 CFR Part 72 is valid. However, the NRC also concludes that the method proposed by the petitioner, that is modifying the definition of spent fuel to include GTCC waste, could lead to confusion and inefficiency. If GTCC waste is defined as spent fuel, DOE

would be required to dispose of this waste in a deep geologic repository and would not have the flexibility to explore potentially more efficient disposal plans. The proposal could also require that GTCC waste use limited disposal space meant for wastes that require more stringent confinement.

Therefore, the NRC is adding a definition of GTCC waste within § 72.3 that will be consistent with 10 CFR 61.55. The NRC has evaluated 10 CFR Part 72 to determine which sections need to be modified to accommodate storage of separate containers of solid GTCC waste co-located with spent fuel within an ISFSI or an MRS. The majority of the changes to 10 CFR Part 72 will simply add the term "GTCC waste" to the appropriate sections and paragraphs (typically immediately after the terms "spent fuel" or "high-level waste"). In support of this rulemaking, the NRC is developing Interim Staff Guidance for NRC staff and licensee use in utilizing 10 CFR Part 72 storage criteria for various GTCC waste types.

The regulations in 10 CFR Part 150 are being modified to be consistent with the changes in 10 CFR Part 72. The change to 10 CFR Part 150 (Exemptions and Continued Regulatory Authority in Agreement States and in Offshore Waters Under Section 274) will specify that any GTCC waste stored in an ISFSI or an MRS is under NRC jurisdiction. 10 CFR Part 150 also is being modified to indicate that licensing the storage of any GTCC waste that originates in, or is used by, a facility licensed under 10 CFR Part 50 (a production or utilization facility) is the responsibility of the NRC.

The NRC has made changes to the final rule based on public comments (see the Response to Public Comments section) and has also determined that sections within 10 CFR Part 72 (not based on public comments) also needed to be removed or modified.

A public comment resulted in the recognition of the need to modify 10 CFR Parts 30 and 70 to provide exceptions to the requirements in these parts when the GTCC waste is being

stored under the provisions of 10 CFR Part 72. Without these changes, licensees would need 10 CFR Part(s) 30 and/or 70 licenses in addition to the 10 CFR Part 72 license. Other comments resulted in the preamble and § 72.120 being clarified regarding commingling of material that is associated with spent fuel assemblies.

In addition, during the review of comments, NRC staff identified the need for several necessary clarifications in the final rule that are not specifically based on public comments. The clarifying changes that NRC made are: a clarification to § 72.2(a) regarding power reactor-related GTCC waste to clarify that GTCC waste does not have to be stored in a complex that is designed and constructed specifically for storage of spent fuel, the change in the proposed rule to the definition in § 72.3 of "spent fuel cask or cask" is being withdrawn to eliminate an unnecessary storage requirement; § 72.6 is being revised to clearly indicate that reactor-related GTCC waste, if stored under 10 CFR Part 72, can only be stored under the provisions of a 10 CFR Part 72 specific license; the proposed rule added § 72.24(r), however, the final rule is removing this addition to be more consistent with 10 CFR Part 50's handling of radioactive material; § 72.40(b) is being revised from the proposed rule to the final rule because the proposed rule inadvertently removed existing text instead of adding a new introductory sentence and reference to the Atomic Safety and Licensing Appeal Board has been removed since this board no longer exists; and modification of §§ 72.72, 72.76, and 72.78 to clarify the reporting requirements for special nuclear material as specified in 10 CFR 74.13(a)(1).

In a previous final rulemaking, "Clarification and Addition of Flexibility" (65 FR 50606; August 21, 2000), changes were made to 10 CFR Part 72. Section 72.140(c)(2) is the only section that is changed in both the previous and current rulemaking. The changes to this section in the current rulemaking are consistent with the "Clarification" rulemaking changes.

equitable to all involved stakeholders. The commenter notes that the proposed rulemaking will: (1) clarify NRC's handling of GTCC licensing, (2) be simpler, (3) result in less regulatory burden on licensees, (4) continue to consider the need to protect public health and safety, and (5) allow these waste streams to be stored in an ISFSI or an MRS under the authority of one 10 CFR Part 72 license. Replace with: "No response is needed."

Response: The NRC is not making any changes to the final rule that the NRC believes would negate the industry's general support for this rulemaking.

2. Flexibility.

Comment: An industry commenter believes that flexibility to manage GTCC waste using other methods than 10 CFR Part 72 is in the best interest of public safety. The commenter notes that GTCC waste has been approved, on a case-by-case basis, for disposal at licensed LLW disposal facilities and believes this practice should be allowed to continue.

Response: This rulemaking concerns only the storage of GTCC waste. However, see the response to comment numbers 15 and 17 for additional information regarding GTCC waste disposal.

3. Definition of spent fuel and GTCC waste.

Comment: Two industry commenters believe the definition of GTCC waste should be changed. One commenter believes it should be defined as spent fuel, as recommended in the petition, and the other believes it should be defined as high-level waste. In either case, the commenters believe this would simplify disposal.

Three commenters, including DOE and NEI, note that the definition of spent fuel includes the special nuclear material, byproduct material, source material, and other radioactive materials

proposed rule is still in the beginning stages as there are significant decisions relating to technical, safety, and performance criteria yet to be made. The NRC should be soliciting comments on an explicit proposal. The commenter also believes that the NRC is seeking a way to make it financially more attractive for utilities to store GTCC waste after decommissioning and, in part, to solicit information from DOE on its GTCC disposal policies.

Response: The Commission does not believe this rulemaking to be "premature and not within the spirit or the letter of the Administrative Procedure Act." The proposed rule provided a complete regulatory proposal ~~and the Commission intended this to be~~ the basis for the final rule. ~~The questions asked in the proposed rule were added to fine tune the proposal.~~ We have received and reviewed all comments and thus have gained the additional information needed to ~~do the fine tuning for the proposal.~~ Through this process, the public has had an adequate opportunity to respond.

Based on public comments, the Commission has developed the final rule which is quite similar to the proposed rule. Changes made within the final rule clarify and correct inadvertent errors within the proposed rule, but do not make any fundamental changes in how the NRC proposed to license the storage of reactor-related GTCC waste in the proposed rule. The final rule addresses and responds to the issues raised by the commenters. The Commission does not anticipate any further rulemaking on the storage of reactor-related GTCC waste unless; (1) based on discussions with DOE and others, changes to the definition of GTCC waste are made, or (2) DOE develops disposal criteria for GTCC waste that would require corresponding changes.

efficient utilization of canister volume. However, the commenter notes that, without a clear and defined position from DOE that they will accept commingled canisters, the utilities would take significant risks to commingle. The casks may need to be opened and the waste separated. This could be a tremendous burden for decommissioned reactor licensees because they would no longer have the necessary facilities and personnel to reopen the cask and repackage the waste. However, one commenter noted that in DOE's, "Viability Assessment of a Repository at Yucca Mountain, Volume 2," dated December 1998, that it is DOE's design intention to open packages of commercial spent fuel received at Yucca Mountain. Therefore, DOE clearly has the opportunity to segregate the GTCC waste with little impact upon operations. The commenter also notes that commingling allows safer and more efficient management of GTCC waste. In some cases, during the first 20 years or more after reactor shutdown, GTCC waste, on a weight basis, can produce higher radiation doses than a spent fuel assembly. The GTCC waste could be placed in the center of a container and surrounded by spent fuel bundles to provide additional shielding.

Response: In 10 CFR 72.3, other radioactive materials associated with fuel assemblies are defined as spent fuel and storage within an ISFSI is the industry standard practice. These non-fuel components associated with fuel assemblies were designed for use inside the operating plant's reactor vessel with no risk to plant safety. The rule is not intended to change the previous guidance given on the storage of non-fuel components such as control rod elements, burnable poison rod assemblies, and thimble plugs. The NRC expectation is that these type of components will be stored and disposed of as part of the spent fuel assembly packages. The NRC recognizes that some of these components, if removed from fuel assemblies, could be classified as GTCC waste. The NRC's approach is to consider these non-fuel components as spent fuel and not as GTCC waste. The NRC believes that appropriate

The NRC expects that, when DOE does provide disposal criteria, the NRC will revise our regulations for storage of GTCC waste to be consistent with DOE disposal requirements, if necessary.

However, the NRC agrees that resin and plastic material should not be commingled with spent fuel. Resins and plastic materials may contain organic compounds that may degrade under the thermal and radiolytic conditions present inside a spent fuel storage cask. The products of this decomposition may be corrosive and/or flammable (both solids and gases). As such, these decomposition products might adversely effect the integrity of the spent fuel cladding. The NRC concludes, however, that resins and plastics, that may be classified as GTCC waste, can be safely stored at an ISFSI in a separate container as long as the material has been solidified.

With respect to the comment that DOE intends to open packages at Yucca Mountain, the NRC specifically requested additional information from DOE on ~~their~~ its current ~~intent~~ intentions with regards to disposal of GTCC waste. In response to the proposed rule, DOE did not provide the NRC the information for the NRC to conclude that GTCC waste will be accepted for disposal at Yucca Mountain if this site should be selected as a repository. Therefore, after disposal criteria have been established by DOE, the NRC can revise its regulations and guidance, if necessary.

11. Question from the proposed rule: Should the storage of explosive, pyrophoric, combustible, or chemically reactive GTCC waste be prohibited in either commingled or separate GTCC casks? Or should storage be permitted if performance criteria can be established? If so, what criteria should be used?

Comment: The one State commenter believes its comment to question 10 applies to questions 11 through 14; that is, to prohibit commingling. Also, if the waste is explosive,

program that protects public health and safety. But the question here is whether such a program can be established that would permit State regulation of all GTCC waste as a general matter, no matter what the activity level, no matter how integrally related to reactor operation, and no matter whether stored with spent fuel or not. It is certainly true, as one of the States said, that the NRC has authority under section 274 of the AEA to take steps that help assure that State programs are "compatible" with the NRC's own programs. Indeed, it is the NRC's responsibility to work to assure such compatibility. Nonetheless, ~~compatibility, like safety, is ultimately not the NRC's doing.~~ Only the Agreement States can establish and maintain compatible programs. The NRC can only ~~measure~~ assess the degree of compatibility and protection of health and safety, through the Integrated Materials Performance Evaluation Program, and take the steps necessary to enforce ~~that~~ compatibility and protection of health and safety where it is missing. In the absence of a widespread and clear commitment on the part of the States to ensure compatible regulation of the storage of reactor-related GTCC waste, the NRC does not have a strong practical justification for exercising its discretion in such a way as to permit States to exercise jurisdiction over storage of all such waste. At this time, it is unclear whether a consistent national regulatory scheme could be established and maintained if States exercised jurisdiction over storage of all such wastes.

17. From the proposed rule: The NRC staff is not aware of any current Agreement State license for the storage of reactor-related GTCC waste. Are there any such licenses within your State or are you aware of any such Agreement State licenses?

Comment: Two States commented. Illinois reports that it does not have any reactor-related GTCC waste under license. South Carolina reports that it allows temporary storage of some approved GTCC waste from 10 CFR Part 50 licensees (less than 1 percent above Class C limits) while awaiting disposal at its licensed Barnwell low-level waste facility. South Carolina also licenses the partially decommissioned Carolinas-Virginia Nuclear Power

GTCC waste. In fact, the NRC decommissioning rule under 10 CFR Part 72 only requires the applicant to propose and fund a decommissioning plan after removal of GTCC waste which may never occur. The commenter notes that no EIS has ever been prepared on the transportation of GTCC waste which may be long-lived and can contain millions of curies of radioactivity. The commenter believes particular attention is needed for GTCC waste resins and an evaluation of the hazard of an accident involving a long-duration fire. Resins contain water and plastic which would evaporate and melt unlike activated metals. The commenter believes NRC cannot rely on RADTRAN, a transportation model, because GTCC waste resins are composed of elements that RADTRAN does not address (e.g., ion exchange resins). Moreover, the NRC cannot rely on an EIS conducted for a site specific ISFSI that only addresses storage of spent fuel.

The State of Utah also believes that NRC has not thought through issues related to insurance requirements; liability for harm resulting from GTCC waste; and complexities of waste ownership. Utah maintains that a void will occur in insurance coverage for GTCC waste at an away-from-reactor ISFSI; the generating facility would no longer cover that waste, and the Price-Anderson Act would not cover transportation incidents to and from the ISFSI because GTCC waste is not high level waste. Utah also notes as negatives that 10 CFR Part 72 fails to require on-site property insurance; multiple owners of the mix of GTCC waste at an away-from-reactor ISFSI will complicate assigning liability and after decommissioning of a reactor site, the "deep-pocket" utility ceases to be an "owner" thus shedding responsibility for the GTCC waste. Also, the State expresses concern that after an accident, it may need to take action in order to protect public health and safety, even though it lacks regulatory authority.

Response: The NRC disagrees with the comments. The comments generally stated that the GTCC waste should not be shipped to an away-from-reactor ISFSI site due to lack of analysis regarding transportation containers or the exposure level and the population at risk

Commission discretionary authority to extend indemnity coverage to activities undertaken by three types of materials licensees. See 42 U.S.C. and 42 U.S.C. 2210 a. Thus, the Commission can indemnify away-from-reactor ISFSIs in the event the Commission were to find that the risks of offsite damage are so large as to be uninsurable or that the public interest requires it. Moreover, the Price Anderson Act does not restrict its coverage of reactor waste to spent fuel. Thus, were the Commission to use its discretion to cover away-from-reactor ISFSIs, all transportation to and from them would be covered. However, even lacking such a discretionary designation, transportation of GTCC waste to the ISFSI would, in any event, be covered by the generator's Price Anderson coverage. Likewise, if the final transportation were to be to an indemnified facility, such as a DOE facility, that transportation would be covered by Price Anderson. See e.g. Atomic Energy Act, § 170n(1)(B) and 42 U.S.C. §2210 n(1)(B).

In addition, to address any perceived problem from the multiplicity of customers, 10 CFR Part 72 license conditions can require terms in service agreements by which customers would retain title to the GTCC waste stored and allocation of liability would be made among them. Where needed, additional financial assurances could be provided. Also, § 72.30's provisions for "Financial assurance and recordkeeping for decommissioning" includes a requirement that the decommissioning plan have a funding plan that contains information on how reasonable assurance will be provided that funds will be available to decommission the ISFSI or MRS.

Finally, the State's possible need in an emergency "to take action even though it is not the regulator of the GTCC waste" is no different from the circumstance in an emergency resulting from a nuclear power plant or other federally regulated facility that uses radioactive materials. There are like requirements imposed on the 10 CFR Part 72 licensee for notification and requests for offsite assistance. See § 72.32. The Commission is confident that a

Make before reading on preceding page

5. The heading of Part 72 is revised to read as presented ~~above~~ below:

6. The authority citation for Part 72 continues to read as follows:

Authority: Secs. 51, 53, 57, 62, 63, 65, 69, 81, 161, 182, 183, 184, 186, 187, 189, 68 Stat. 929, 930, 932, 933, 934, 935, 948, 953, 954, 955, as amended, sec. 234, 83 Stat. 444, as amended (42 U.S.C. 2071, 2073, 2077, 2092, 2093, 2095, 2099, 2111, 2201, 2232, 2233, 2234, 2236, 2237, 2238, 2282); sec. 274, Pub. L. 86-373, 73 Stat. 688, as amended (42 U.S.C. 2021); sec. 201, as amended, 202, 206, 88 Stat. 1242, as amended, 1244, 1246 (42 U.S.C. 5841, 5842, 5846); Pub. L. 95 - 601, sec. 10, 92 Stat. 295 as amended by Pub. L. 102-486, sec 7902, 106 Stat. 3123 (42 U.S.C. 5851); sec. 102, Pub. L. 91-190, 83 Stat. (42 U.S.C. 4332); secs. 131, 132, 133, 135, 137, 141, Pub. L. 97-425, 96 Stat. 2229, 2230, 2232, 2241, sec. 148, Pub. L. 100-203, 101 Stat. 1330 - 235 (42 U.S.C. 10151, 10152, 10153, 10155, 10157, 10161, 10168).

Section 72.44(g) also issued under secs. 142(b) and 148(c), (d), Pub. L. 100-203, 101 Stat. 1330 - 232, 1330 - 236 (42 U.S.C. 10162(b), 10168(c), (d)). Section 72.46 also issued under sec. 189, 68 Stat. 935 (42 U.S.C. 2239); sec. 134, Pub. L. 97-425, 96 Stat. 2230 (42 U.S.C. 10154). Section 72.96(d) also issued under sec. 145(g), Pub. L. 100-203; 101 Stat. 1330 -235 (42 U.S.C. 10165(g)). Subpart J also issued under secs. 2(2), 2(15), 2(19), 117(a), 141(h), Pub. L. 97-425, 96 Stat. 2202, 2203, 2204, 2222, 2244 (42 U.S.C. 10101, 10137(a), 10161(h)). Subparts K and L are also issued under sec. 133, 98 Stat. 2230 (42 U.S.C. 10153) and sec. 218(a), 96 Stat. 2252 (42 U.S.C. 10198).

AFFIRMATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: COMMISSIONER MERRIFIELD

SUBJECT: **SECY-01-0097 - FINAL RULE: INTERIM STORAGE FOR GREATER THAN CLASS C WASTE**

Approved ✓ Disapproved _____ Abstain _____

Not Participating _____

COMMENTS: See attached comments

SIGNATURE

7/20/01
DATE

Entered on "STARS" Yes ✓ No ____

Commissioner Merrifield's Comments on SECY-01-0097

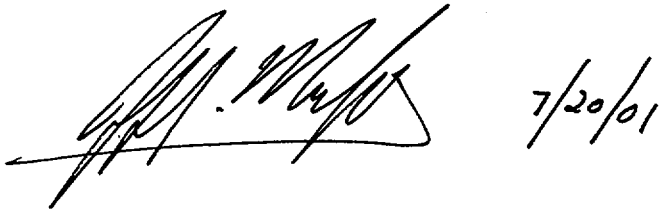
I approve the staff's recommendation to publish in the Federal Register the final rule for interim storage of reactor-related greater than class C (GTCC) waste. While I am strongly supportive of States' rights and their responsibility to control issues within the State borders, I believe the need for consistent regulatory control over this specific GTCC waste outweighs the States' rights in this case.

The paper as currently written emphasizes the efficiency of NRC maintaining regulatory control over interim storage of GTCC waste. However, the Commission determined that this action would also maintain a more stable and predicable regulatory environment. Therefore the following paragraph should be inserted before the first full sentence on page 12.

> The NRC requested Agreement State input on ways in which Agreement States, if permitted to take jurisdiction over reactor-related GTCC waste, would ensure consistency with a national regulatory scheme. Only two States responded to this request. Though both States asserted that their programs would be compatible with federal regulations, neither said that their programs would be identical. Indeed, one state argued that each state program should be evaluated on its own. The States have rightly pointed out that States have already developed regulatory programs for Class A, B, C, and non-reactor GTCC waste that adequately protect health and safety. The issue, however, is whether a regulatory scheme that would call for back and forth federal jurisdiction over reactor-related GTCC waste, and multiple States' jurisdiction over the same waste in between, promotes a reasonably predictable and stable regulatory environment. In our view, the better reading of the applicable statutes is that Congress' clear intent to give reactor-related GTCC waste special treatment, expressed especially in terms of federal responsibility for disposal of such waste, sets it apart from other waste and calls for exclusive federal jurisdiction over the storage of reactor-related GTCC waste.

In addition, the third paragraph on page 3 should be edited as follows: "...in order to treat GTCC waste generated or used by commercial nuclear power plants in a manner similar to that for spent fuel."

The last full sentence on page 11 should also be edited as follows: "...disposal of GTCC waste, is an inefficient approach, that could lead to inconsistent regulation."



7/20/01