

January 21, 1981



RULEMAKING ISSUE
(Affirmation)



For: The Commissioners

From: William J. Dircks
Executive Director for Operations

Subject: 10 CFR Part 60 - "Disposal of High - Level Radioactive Wastes in Geologic Repositories--Licensing Procedures" (SECY-80-474 and Supplements SECY-80-474 A-D)

Purpose: To forward to the Commissioners for their approval a copy of the subject rule in final form which includes all changes, in comparative text, made in the rule as a result of Commission meetings on SECY-80-474 and its supplemental papers, SECY-80-474 A-D. This paper presents only changes in the rule and its supplementary information. Corresponding changes in the staff analysis of public comments (Enclosure B of SECY-80-474) will be compiled and forwarded to the Commission after all related outstanding issues have been resolved.

Discussion: On October 17, 1980 the final rule 10 CFR Part 60 was forwarded to the Commissioners for their approval for publication (SECY-80-474). The Commissioners were first briefed by the staff on November 26, 1980 at an open meeting on this paper. At that meeting, Chairman Ahearne announced that regular meetings between the Commissioners and the staff would be scheduled every two weeks until outstanding issues were resolved. In response to issues raised at these regular meetings, a number of changes and clarifications in the rule were proposed by the staff and submitted to the Commissioners as SECY-80-474 C (12/9/80), SECY-80-474 D (12/11/80) and an untitled paper (presented at the 12/22/80 meeting).

In addition to SECY-80-474 per se, Commission discussion also included consideration of several internal memos and a letter from DOE relating to the final rule - 10 CFR Part 60. These include chronologically: (1) a memo from Leonard Bickwit, Jr. (OGC) to the Commissioners dated 12/10/80 and herein submitted as Enclosure B; (2) Commissioner Bradford's 12/18/80 memo to Chairman Ahearne and Commissioners Gilinsky and Hendrie (Enclosure C); (3) Edward Hanrahan's (OPE) 1/6/81 memo to the Commissioners (Enclosure D); (4) the 1/6/81 memo from Leonard Bickwit, Jr., (OGC) to Chairman Ahearne, and Commissioners Gilinsky, Hendrie and Bradford (Enclosure E) and (5) the 1/6/81 letter from Mr. Worth Bateman (DOE) to Chairman Ahearne (Enclosure F). Proposed revisions to the rule yet to be discussed at a Commission meeting on SECY-80-474 are included in the 1/9/81 memo of Commissioner Hendrie to Chairman Ahearne and Commissioners Gilinsky and Bradford (Enclosure G) and in two memos dated 1/16/81 from Commissioner Bradford to Chairman Ahearne and Commissioners Gilinsky and Hendrie (Enclosures H and I).

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SECY NOTE: This paper, which is identical to Advance copies, which were circulated to Commission offices on January 21, 1980, supersedes SECY-80-474 and Supplements SECY-80-474A-D.

Because of the confusion that may be generated by the increasing number of revised pages submitted in comparative text by the staff during the discussions of SECY-80-474 and its supplements, the staff is now submitting a clean version of SECY-80-474 in comparative text which incorporates all proposed modifications to the rule. (This comparative text includes the changes originally proposed in the 10/17/80 version of SECY-80-474). [Further, modifications to the rule provided in the memos of Commissioners Hendrie and Bradford (Enclosures G, H and I) are also presented in this paper in comparative text.]

In order to facilitate Commission review of the changes in the rule, the staff has prepared the following synopsis of all the significant changes indicating (1) the nature of the change; (2) what prompted the change and (3) in which supplement the change was first submitted to the Commissioners. Language changes provided for the first time in this paper are termed "new language presentation."

CHANGES TO THE FINAL RULE - 10 CFR PART 60 ENCLOSURE A AS SET FORTH AS SECY-80-474 (10/18/80)

- p. 5 Specification of Minimum Number of Sites to be Characterized: Item 2 of Commissioner Bradford's 12/18/80 memo. Language was first submitted in 12/22/80 untitled staff handout but has been modified by Commissioner Hendrie's 1/9/81 memo and Commissioner Bradford's 1/16/81 memo. (See also p. 17).
- p. 5 Domed Salt and Bedded Salt as Alternative Geologic Media; Commission discussion (1/7/81) and Commissioner Hendrie's 1/9/81 memo. This is a new language presentation.
- p. 5-6 AEA Authority to Consider Alternatives; Item #1 Commissioner Bradford's 12/18/80 memo. This is a new language presentation.
- p. 7 "Site" and "medium", Item #14 Commissioner Bradford's 12/18/80. This is a new language presentation.
- p. 7-8 Mandatory In-situ testing at depth; Item #3 Commissioner Bradford's 12/18/80 memo. This is a new language presentation incorporating both recommended wording by the staff, (p. 7) and suggested wording from Commissioner Hendrie's 1/9/81 memo (pp. 7-8). (See also pp. 17, and 25.)
- p. 11-12 Oper. Meeting Policy; Item #11 Commissioner Bradford's memo. This is a new language presentation.

- p. 12-13 Changes to discussion of formal hearings; the staff wished to clarify language. First submitted to the Commission in SECY-80-474C. (See also p. 26-30.)
- p. 14 Ex parte Communications; discussed at 12/11/80 Commission meeting. First submitted to the Commission in untitled 12/22/80 handout. (See also p. 32.)
- p. 14 Immediate effectiveness; Item #6 of Commissioner Bradford's memo. First submitted in untitled 12/22/80 handout. (See also p. 32.)
- NOTE: This paper does not include language prepared by OGC relative to the effectiveness of Licensing Board decisions.
- p. 15-16 Decommissioning criteria; Item #15 of Commissioner Bradford's 12/18/80 memo. This is a new language presentation.
- p. 17 Site Characterization; In response to changes in the rule and supplementary information presented Commissioner Hendrie's 1/9/81 memo with respect to mandatory in-situ testing at depth and the specification of a minimum number of alternative sites and media. (See also p. 42.)
- p. 18 Information presented in DOE EIS can be incorporated by reference into a site characterization report; Prompted by 12/8/80 meeting between NRC and DOE staff. First submitted in SECY-8--474 D. (See also p. 50.)
- p. 18 Transmittal of copy of NRC's final site characterization analysis and Director's opinion to DOE; prompted by 12/8/80 meeting between NRC and DOE staff. First submitted in SECY-80-474 D. (See also p. 53.)
- p. 19 Public Comment on DOE's site characterization report deleted; prompted by 12/8/80 meeting between DOE and NRC staff. Submitted in SECY-80-474 D.
- p. 19 DOE obligated to provide information deemed necessary during site characterization and Director can express views anytime during site characterization; Item #7 Commissioner Bradford's 12/18/80 memo. This is a new language presentation. (See also p. 53.)
- p. 19-20 Description of Site Characterization Work actually done; Item #17 of Commissioner Bradford's memo. This is a new language presentation. Related modifications to text (see p. 55) were provided in Commissioner Bradford's memo.

- p. 20 Common defense and security finding; Item #13 of Commissioner Bradford's memo. First submitted in the 12/22/80 informal handout.
- NOTE: OGC submitted language changes to the Commissioners dealing with this issue. The OGC language was discussed at the 1/7/81 Commission meeting, but no decision was reached at that time.
- p. 22 Essential Conditions for Construction Authorization; Item #9 of Commissioner Bradford's 12/18/80 memo. This is a new language presentation. Related modification of text of rule (p. 63) was provided in Commissioner Bradford's 1/16/81 memo.
- p. 20 Explanation of deletion of EIS prior to issuance of a License; Item #16 Commissioner Bradford's 12/18/80 memo. This is a new language presentation.
- p. 23 Differences between planned and completed Site Characterization Work; Item #17 Commissioner Bradford's 12/18/80 memo. This is a new language presentation.
- p. 23 Deletion of term "significant" in 60.17(c)(3); Item #10 of Commissioner Bradford's memo. This is a new language presentation. (See also p. 75.)

Finally, it should be noted that in fulfilling note 2(g) of SECY-80-474, the staff has made a large number of changes in format to satisfy the revised Federal Register "Document Draft Handbook" (June, 1980). In no case do these changes effect the substance of the rule.

DISTRIBUTION

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Executive Director for Operations

This paper is currently scheduled for discussion and vote at an Open Meeting on Tuesday, January 27, 1981.

Commissioners' comments or consent should be provided directly to the Office of the Secretary AS SOON AS POSSIBLE.

NUCLEAR REGULATORY COMMISSION

10 CFR PARTS 2, 19, 20, 21, 30, 40, 51, 60, AND 70

Disposal of High-Level Radioactive Wastes In
Geologic Repositories-Licensing Procedures

AGENCY: Nuclear Regulatory Commission.

ACTION: Final Rule.

SUMMARY: The Nuclear Regulatory Commission is publishing a final rule on the disposal of high-level radioactive wastes at geologic repositories. The rule sets forth requirements applicable to the Department of Energy for submitting an application for a license and specifies the procedures which the Commission will follow in considering such an application. The rule also sets forth provisions for consultation and participation in the license review by State, local, and Indian tribal governments.

EFFECTIVE DATE: [Insert date 30 days after publication in the FEDERAL REGISTER]

FOR FURTHER INFORMATION CONTACT:

I.C. Roberts, Assistant Director for Siting Standards, Office of Standards Development, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Telephone (301) 443-5985.

SUPPLEMENTARY INFORMATION:

Background

[In]On December 6, 1979, the Nuclear Regulatory Commission published for comment a proposed rule setting forth procedures for licensing geologic high-level radioactive waste (HLW) repositories to be constructed and

operated by the Department of Energy (DOE) (44 FR 70408). The proposed rule superseded the proposed General Statement of Policy published for comment in November 1978 (43 FR 53869). Public comment on the proposed rule (10 CFR Part 60) was received from thirty-four groups and individuals. ~~[The rule that is the subject of this notice does not differ significantly from the proposed 10 CFR Part 60; although several]~~ A number of changes and clarifications have been made in the rule as a result of comments received. This rule contains only the procedural requirements for licensing. The technical criteria against which the license application will be reviewed are still under development. The current staff thinking on the technical criteria was reflected in an Advance Notice of Proposed Rulemaking and draft technical criteria published for public comment [i]on May 13, 1980 (45 FR 31393).

Authority:

Sections 202(3) and (4) of the Energy Reorganization Act of 1974, as amended, provide the NRC with licensing and regulatory authority regarding DOE facilities used primarily for the receipt and storage¹ of the high-level radioactive wastes resulting from activities licensed under the Atomic Energy Act and certain other long-term, high-level waste storage facilities of the DOE. Pursuant to that authority, the Commission is promulgating regulations appropriate for licensing geologic disposal of HLW by the DOE. The requirement in the rule that DOE submit a site characterization report in advance of performing exploration [~~which~~

¹The Commission interprets "storage" as used in the Energy Reorganization Act to include disposal.

~~may-include-in-situ-testing-at-depth~~)] activities also implements Section 14(a) of the NRC Authorization Act of 1979 (Pub. L. 95-601).² DOE is responsible for developing the methods and technology for the permanent disposal of high-level radioactive waste in a Federal repository, and for submitting a license application for a potential repository. The licensing procedures in this rule will be supplemented by technical criteria which will be developed by the Commission in the light of such generally applicable environmental standards as may have been established by the Environmental Protection Agency under Reorganization Plan No. 3 of 1970.

Comments

A total of thirty-four groups and individuals commented on the proposed rule, addressing a variety of issues. Most of the commenters viewed the proposed rule as a significant improvement over the proposed General Statement of Policy, and, generally, the comments were supportive of the principles and procedures outlined in the proposed rule. The principal comments received relate to multiple site characterization, in situ testing at depth, cost estimates for site characterization, whether the rule should require that the site selected by DOE be the "best", whether an environmental impact statement (EIS) should be required for site

²Section 14(a) reads as follows: Any person, agency, or other entity proposing to develop a storage or disposal facility, including a test disposal facility, for high-level radioactive wastes, non-high-level radioactive wastes including transuranium contaminated wastes, or irradiated nuclear reactor fuel, shall notify the Commission as early as possible after the commencement of planning for a particular proposed facility. The Commission shall in turn notify the Governor and the State legislature of the State of proposed situs whenever the Commission has knowledge of such proposal.

characterization, whether the Commission should prepare an EIS for this rulemaking action, opportunities for State, local and public participation, formal public hearings, the preliminary nature of some information to be included in an application for construction authorization, and the termination of a license following decommissioning. Summaries of the comments received on these issues are presented below. Copies of the comments and an analysis of them by the NRC staff are available in the Commission's Public Document Room. Some of the commenters raised issues that will be covered in the technical criteria; those will be dealt with in connection with the ongoing rulemaking for those criteria.

a. Site Characterization. Comments on site characterization straddled the Commission position set forth in the proposed rule. Some commenters agreed with the requirement for multiple site characterization as presented in the proposed rule. Some commenters expressed the opinion that multiple site characterization was not required for the Commission to fulfill its NEPA obligation to consider alternatives [proposed]. The Commission has carefully reviewed arguments presented by the commenters who stated that multiple site characterization is not necessary. The Commission continues to believe that required multiple site characterization provides the only effective means by which it can make a comparative evaluation as a basis for arriving at a reasoned decision under NEPA. Other commenters believe that the requirements for multiple site characterization were not stringent enough, and suggested that the rule specify the number of geologic media and sites to be characterized by the DOE. The Commission continues to believe that characterization of several sites will prevent a premature commitment by DOE to a particular site, and will assure that DOE's preferred site will be chosen from a slate of candidate

sites that are among the best that can reasonably be found. The Commission considers three sites in two geologic media at least one of which is not salt to be the minimum number needed to satisfy NEPA. That is, the Commission can foresee no circumstance that would permit it to conclude, on the basis of a more limited investigation that alternatives have been considered in accordance with the "rule of reason," It is the present judgment of the Commission that for purposes of making a reasoned choice that there is not sufficient difference between bedded salt and dome salt for them to be considered two distinct alternative media. However, because the "rule of reason" is intrinsically flexible the Commission does not believe that it would be appropriate for ~~[the-rule]~~ these regulations to specify ~~[the-in-mandatory-terms;-the-precise]~~ more than the minimum number or type of geologic media and sites that DOE must characterize during multiple site characterization. What is important is that there be sufficient information for NRC to be able to evaluate real alternatives, in a timely manner, in accordance with NEPA. (Information on plans for considering alternative sites is to be included in the Site Characterization Report.) This provision was questioned by some commenters. This information is needed so that any deficiency may be the subject of a "specific recommendation" by the Director of the NRC's Office of Nuclear Material Safety and Safeguards, (Director) as provided in §60.11(e), with respect to additional information that might be needed by the Commission in reviewing a license application in accordance with NEPA. Another commenter raised the issue that in addition to the need to consider alternatives under the provisions of NEPA, the need for characterizing several sites in a variety of media is also justified by NRC's obligation under the Atomic Energy Act to protect public health and safety. The Commission recognizes that, under the

provisions of the Atomic Energy Act, a consideration of alternatives might indeed be appropriate, where necessary or desirable to protect health. (Section 161g.) The Commission anticipates, however, that its fundamental licensing inquiry in the context of evaluating radiological safety issues will be directed to determining whether the activities proposed by the DOE can be carried out in a manner consistent with generally applicable environmental standards established by the Environmental Protection Agency. The Commission cannot say at this point in time that an examination of alternatives would be essential for this purpose.

The [NRC] Commission also continues to believe that waste form research is an appropriate topic for treatment in the site characterization report, as the discussion may lead to specific recommendations by the Director, and, as well, contribute to early examination and broader understanding of possible waste form/host rock interactions. Further, wording of §60.11(a) has been changed from "waste form" to "waste form and packaging" to better convey the concept that the NRC [~~was~~] will seek[ing] information relating to the interaction of the waste as emplaced (hence including packaging) with the host rock.

In response to one commenter's suggestion that the site characterization report be made to NRC on a site by site basis, §60.11(a) has been revised to require DOE to submit a separate site characterization report for each site to be characterized.

There were also suggestions that the distinction between site characterization and screening activities be drawn more sharply. However, because the activities needed prior to characterization may depend on a variety of factors peculiar to the site and geologic medium, the [NRC] Commission has concluded that greater precision might be unduly restrictive.

The DOE requested clarification of the term "site". [A d]Definitions of both the terms site and medium will be set forth [in] when the technical criteria are published.

b. In Situ Testing at Depth. Several commenters supported the Commission view on in situ testing at depth. Some commenters, noting the importance of in situ testing at depth, suggested that the rule require the DOE to include in situ testing at depth in its site characterization program. The U.S. Geological Survey supported required in situ testing at depth at a number of sites prior to NRC adjudicatory hearings, so that such hearings could proceed on the basis of critical, site-specific data on the candidate host rocks and environs rather than on inferences derived from a limited number of drill holes supplemented by geophysical techniques. The USGS expressed the opinion that direct observation and in situ tests of host media will be the only way to characterize sites with confidence. Several other commenters objected to the Commission suggestion that in situ testing at depth may be necessary. The possibility of in situ testing at depth after a preferred repository site has been selected was also suggested.

The Commission, like the USGS, [continues-to] believes that in situ testing at depth³ is [probably] an essential technique for DOE to obtain sufficient data to determine whether and to what extent the surrounding geologic medium is suitable for hosting a geologic repository. This belief

³The Commission interprets the phrase "in situ testing at depth," to mean the conduct of those geophysical, geochemical, hydrologic, and/or rock mechanics tests performed from a test area at the base of a shaft excavated to the proposed depth of a potential repository in order to determine the suitability of a particular site for a geologic repository.

is supported by the ever-present possibility of lateral changes in the properties of the host rock and the possible presence of inhomogeneities of too small a scale to be detected by remote or borehole techniques. Moreover, in order for NRC to be able to conclude that the alternatives to DOE's preferred site are in fact reasonable alternatives for the intended purpose, in situ testing at depth is [probably] essential to characterizing alternative sites as well. The NRC will then be able to determine, after considering all relevant environmental factors as contemplated by NEPA, whether a construction authorization of DOE's proposed site should be issued. [However] Thus, the Commission [does-not categorically] requires in situ testing at depth in the rule [since] [if] It is conceivable, however, that [in-some-instances] techniques may be developed to obtain the necessary data at a particular site without in situ testing at depth. In such a case, DOE may request an exemption from the in situ testing at depth requirement. DOE, like any applicant for an NRC license, has the burden of establishing that NRC requirements have been met, and the regulations require DOE to undertake any testing needed to determine the suitability of the site for a geologic repository. Thus, if [DOE-chose-not-to-explore] exploration at depth [it-would-not be-relieved-in-any-way-of] were not undertaken, DOE would still have the same burden of obtaining and supplying to the Commission information needed to establish the suitability of the site.

c. Cost Estimates for Site Characterization. Cost estimates for site characterization cited in the supplementary information accompanying the proposed rule were regarded by some commenters as being too low. Much of the data for the cost estimate of \$20 million per site was derived from the Teknekron Inc. report, "A Cost Optimization Study for Geologic

Isolation of Radioactive Wastes," May 1979, prepared under contract with Battelle Pacific Northwest Laboratories. The NRC staff has reexamined its previous estimate and still believes that figure of \$20 million was a realistic estimate for the "at depth" portion of the site characterization program considered at that time. Independent support of this figure has been obtained from the cost summary of \$16 million for a program analogous to site characterization conducted by the Bureau of Mines at its Environmental Research Facility in Colorado during 1978-1979.

The DOE has developed a preliminary design for an underground test facility in New Mexico at which many site characterization activities could be conducted. The estimated cost of the facility was \$27 million (1980 dollars). This figure has been confirmed by [the] American Mine Services under contract to NRC. The scope of the DOE preliminary design surpasses the extent of activities suggested for the "at depth" portion of site characterization in the proposed rule. For example, the DOE Site Preliminary Verification Project Plan includes extensive underground mining development. The [staff] Commission has come to believe, however, that a facility consisting of two shafts and up to 1,000 feet of tunnels is a more practical arrangement for conducting tests and experiments at depth for site characterization. Therefore, the [staff] Commission believes the \$27 million figure represents the upper limit for the "at depth" portion of site characterization in soft rock. Cost estimates for site characterization including in situ testing at depth in hard rock may range up to 30% more than cost figures for soft rock.

d. The "Best" Site. Some commenters suggested that the final rule should require that the site selected by the DOE be the "best". Yet other commenters thought that the Commission was setting an unattainable goal

of perfection for the selection of the site for a geologic repository. It remains the Commission's view that the process of multiple site characterization provides a workable mechanism by which the DOE will be able to develop a slate of candidate sites that are among the best that can reasonably be found and from which DOE will select its preferred site.

It generally has been NRC practice to consider only whether a license application meets prescribed criteria. The Commission perceives no reason to adopt a different philosophy here.

e. Environmental Impact Statement. Some commenters believed that the NRC should require that the DOE submit an environmental impact statement (EIS) at the site characterization stage. Other commenters believed that DOE need only submit an Environmental Report or an Environmental Assessment for site characterization. In its comment letter on the proposed rule, the DOE stated that a decision to bank or withdraw a site or to conduct a site characterization by more extensive methods such as sinking a shaft will require the preparation of an EIS. In any event, since NRC is undertaking no "major Federal action" in connection with site characterization, it has no statutory basis for prescribing what steps DOE must take in order to be in compliance with NEPA.

The rule requires submission of an environmental report along with the safety analysis report. If DOE has prepared an environmental impact statement, that document can be used so long as it contains the information called for in the regulation. However, NRC cannot be bound to accept judgments arrived at by DOE in its environmental impact statement.

One commenter suggested that the NRC should prepare an EIS for the rulemaking action. The Commission determined that this was not necessary as part of its review and approval of publication of the proposed rule.

Instead, an environmental impact appraisal was prepared for those requirements which might have environmental impacts. These impacts were not found to be significant. This environmental impact appraisal has recently been updated and no new impact was found to be significant. A copy of the updated appraisal is available for inspection and copying at the Commission's Public Document Room.

f. State, Local, and Public Participation. The proposed rule included detailed provisions to ensure extensive opportunities for participation by State, and local governments and the general public in the review of the DOE's programs for site selection and site characterization. The consultation role of the States in reviewing applicable NRC regulations and licensing procedures, as well as participation in the licensing process, was treated explicitly in the proposed rule. However, a more formal role of consultation and concurrence for States was requested by some commenters. Suggestions were also made that the Commission require the DOE to solicit input from State, Indian tribal and local governments as well as from the general public prior to and during site characterization.

The Commission's views on this subject were set out at length in a report submitted to the Congress on "Means for Improving State Participation in the Siting Licensing and Development of Federal Nuclear Facilities" NUREG-0539, March 1979, cited in the supplementary information accompanying the proposed rule. The concerns of the commenters on broad policy issues such as "consultation and concurrence" would require actions by parties other than the Commission. Within the context of NRC's existing authority, appropriate opportunities for meaningful State and public participation have been developed. No serious deficiencies in these opportunities have been pointed out to the NRC. In addition, the provisions of the NRC's open

meeting policy set forth at 43 FR 28058 (June 28, 1978) will also be applied to the licensing of a geologic repository to the extent practicable. Under this policy, generally all meetings conducted by the NRC technical staff as part of its review of a particular domestic license or permit application will be open to attendance by all parties or petitioners for leave to intervene in the case.

It should be noted, however, that proposals for intervenor funding have not been incorporated as suggested by some commenters. This question may be addressed separately in the context of rulemaking applicable to various adjudicatory proceedings, should the Commission be given statutory authority, which it now lacks, to provide such funding.

In response to commenters' suggestions, the rule has been clarified with respect to notice to, and participation by, Indian tribes.

g. Public Hearings. The issue of whether public hearings should be mandatory during the pre-licensing and/or licensing stages of geologic disposal of HLW was addressed by a number of commenters. Two commenters suggested that hearings be required prior to site characterization. One commenter suggested that public hearings should be held in the vicinity of a proposed site prior to the approval of a Site Characterization Report, while another commenter suggested that hearings be held prior to in situ testing at depth. It was also proposed by another commenter that public hearings be held on DOE's research and development work on waste forms. Finally, two other commenters believed that formal hearings should be mandatory prior to granting construction authorization to DOE. [The-NRE has-considered-the-possibility-of-hearings-prior-to-site-characterization; and-continues-to-maintain-its-position-as-set-forth-in-the-Notice-of-Proposed-Rulemaking-at-44-FR-70409-that-with-respect-to-a-geologic-repository;

reconnaissance-level data alone will not support a presumption that a site is suitable with respect to safety for a repository. Hence, any decision on alternative site issues at this early point is likely to require reexamination at the construction authorization proceedings and, therefore, would be of questionable value.

However, the NRC has considered the advisability of public hearings at the construction authorization stage, has determined that such hearings are required in the public interest and has included provisions for mandatory public hearings prior to granting construction authorization (10 CFR 2.104).] These issues were discussed at the time the rule was proposed. The Commission then concluded, in light of the limited information available at the site characterization stage, that formal hearings were not warranted at that point. The commenter did not deny the relevance of the policy considerations identified by the Commission, but would have balanced these considerations differently. But this is a matter of judgment, and the NRC adheres to its original position for the reasons then offered. Also, the NRC must decline to review DOE research and development programs formally. NRC's statutory authority includes "licensing and related regulatory authority" as to certain DOE facilities. NRC's jurisdiction arises when there is a "facility" to consider, i.e., when it is proposed that a particular site be characterized. Although it is important to follow DOE's program closely, the Commission would not be warranted in formalizing a review process with respect to that program.

In reviewing the procedures for formal proceedings in connection with licensing, the Commission has determined that hearings would be in the public interest prior to the granting of construction authorization. An amendment

(in § 2.101(f)(7)) has the effect of mandating such hearings. In addition, hearings will be held upon the request of any interested person prior to finally granting a license to receive and possess high-level radioactive waste at a geologic repository operations area and before granting license amendments to decommission or terminate a license.

As in the case of facilities' licensing matters, ex parte communications would be restricted while on-the-record proceedings are pending. Because a construction authorization (unlike a construction permit) is not a license, its issuance does not constitute a final decision on the pending application. To avoid any unintended implication that the ex parte rule (10 CFR § 2.780) would apply between the construction authorization proceedings and the commencement of formal proceedings prior to receipt of wastes, that rule has been amended to provide specifically that a final decision with respect to issuance of construction authorization will be deemed, unless the Commission orders otherwise, to terminate, for purposes of the ex parte rule, formal proceedings then pending before the NRC with respect to the application.

The rule has also been revised to provide that in cases involving public hearings, the initial decision of the presiding officer shall not be immediately effective. (§ 2.764.) It is further provided that even if no hearing has been held, the Director of Nuclear Material Safety and Safeguards will not issue a construction authorization or license until expressly authorized to do so by the Commission. These changes, while not issued in direct response to commenters' suggestions, reflect sentiments that the fullest opportunity for formal consideration of the issues is in the public interest.

h. Preliminary Nature of the Information to be Included in an Application for Construction Authorization. A number of commenters expressed the opinion that the wording of §60.21 did not explicitly reflect the preliminary nature of some of the information that would be available at the construction authorization stage. Some commenters believed that some categories of information, such as emergency plans and plans for retrieval did not seem necessary, at least in full detail, at the construction authorization stage. In view of the fact that §60.21 must be read in conjunction with §60.24(a), which specifies that the application "shall be as complete as possible in light of information that is reasonably available at the time of docketing," no change to the proposed rule is required. Further, §60.24(b) specifically lists several categories of information which, where appropriate, may be left for consideration only at the stage of license issuance.

i. Termination of a License. Two commenters opposed the provisions (§60.52) for the termination of a license for a repository after decommissioning. The NRC believes that there will be considerable debate regarding license termination during the period between adoption of rules and implementation of their provisions. Although the NRC could have omitted the topic altogether, it believes that some recognition of the issue is desirable so that the rule covers the entire process. It should be noted that there is no assurance under the language that the license would be terminated since a decision to do so could only be made if "authorized by law." The Commission wishes to emphasize that criteria to be used in making a decision to decommission a repository are not included in this procedural rule but will be set forth either within

the technical criteria of Part 60 or as a future regulation or policy statement.

Changes

The final rule contains the following changes from the proposed rule as published in December 1979.

a. Definition of the term "Disposal". Commenters noted that the proposed definition of the term "disposal" embodied the contradictory concepts of "permanent emplacement" and possible retrieval for purposes other than resource value. The definition has been modified to reflect usage of the term "disposal" in the rule to characterize the condition in which isolation is required. (§60.2(e))

b. Incidental Uses of Radioactive Materials. The DOE noted that the proposed rule could have the effect of prohibiting the use of source, special nuclear, and byproduct materials at the site during site characterization and facility construction. The DOE referred to the desirability of being able to use such materials, for example as radiography sources and radiation monitoring test sources. There may also be a need to employ a small amount of radioactive material for in situ testing in the course of site characterization activities.

The Commission did not intend to restrict DOE's use of radioactive materials for the stated purposes, and has clarified the point by adding a new section, §60.7, which expressly recognizes that DOE (which is exempt from NRC licensing except as expressly required to be licensed) need not be licensed for such preliminary activities. This is not an exemption under the exemption provisions of the Atomic Energy Act, but rather an interpretation of the Commission's jurisdiction under Section 202 of the

Energy Reorganization Act of 1974. In other words, the "facility" that the NRC is licensing is one at which high-level radioactive wastes are actually stored. To the extent that the procedures call for earlier NRC involvement, that involvement would be undertaken with a view to long-term health and safety considerations; but during site characterization and prior to emplacement of waste, there would be no "facility" for storage of high-level waste and no basis for the exercise of licensing authority over the incidental use of source, special nuclear, and byproduct material by DOE.

Once operations at a facility have been licensed, the Commission believes it should regulate the use of all licensable materials onsite, so as to avoid fragmentation of responsibility and accountability with respect to radiological safety (particularly as it may affect occupational exposures).

The change does not respond to the DOE's additional concern that the proposed rule would prohibit construction and operation of a surface facility for the storage of spent reactor fuel at a repository site prior to issuance of a Part 60 license. Should this situation actually arise in practice, the Commission would consider granting an exemption so as to permit licensing to be carried out under other parts of NRC regulations.

c. Site Characterization. Following detailed consideration of public comments, the Commission has decided to require in situ testing at depth and to specify the minimum number of sites to be considered as alternatives during site characterization.

[c-]d. Site Characterization Report. One commenter on the proposed rule suggested that the description of the DOE's planned site characterization program include a preliminary design of the repository. Knowledge of the proposed design would help indicate how the testing program related to the repository layout. The Commission has made it explicit that the site characterization report include a conceptual design of the geologic repository operations area. This is needed so as to permit analysis of certain aspects of the site characterization program. (§60.11(a).)

The provisions of §60.11(a) have been modified by the addition of a footnote to indicate that information on the criteria and methods used for site selection, identification and location of alternative sites and media and the decision process used to select the site including means used to obtain State, Indian tribal and public views, which all can be expected to be in DOE's Environmental Impact Statement for site characterization, need not be duplicated in the site characterization report, but can be incorporated by reference.

§60.11(e) has been modified to explicitly state that a copy of NRC's final site characterization analysis and the Director's opinion will be transmitted to DOE.

The provisions of §60.11(g) have been changed to require DOE to permit NRC staff to visit and inspect the site and observe excavations, borings, and in situ tests as they are done. The NRC believes that such a requirement is essential for NRC to determine that site characterization activities have no adverse impacts upon site safety.

The proposed rule contained provisions which would permit the DOE to include multiple sites in a single site characterization report. In

response to public comment, and for the sake of clarity, the final rule requires a separate site characterization report for each site to be characterized.

The Commission reiterates that the site characterization report will be reviewed by the NRC staff with opportunity for public comment on ~~[both-the-report-and]~~ the NRC staff analysis of the DOE site characterization report. DOE has indicated that it will provide opportunity for public comment on its site characterization report prior to submittal to the NRC. Also, the Commission continues to anticipate that it will hold local public ~~[hearings]~~ meetings in the immediate area of the site to be characterized. These meetings will be held both to disseminate information and to obtain public input which will be factored into the final version of the staff analysis.

The period for comment on the NRC's draft site characterization analysis has been extended from a minimum of 60 days to a minimum of 90 days in response to public comment. (§60.11(e))

The provision concerning semiannual progress reports has been expanded so as to provide additional guidance to the DOE on the contents of those reports. (§60.11(g).) In addition, §60.11(g) now contains a provision which requires DOE to provide in report form, any information related to site characterization, when requested by the Director.

The rule has been revised to permit the Director of NMSS to comment at any time in writing to DOE to express views on any aspect of site characterization (§60.11(h)).

e. Content of License Application. Provisions which set forth the general information to be included in an application have been expanded to include a description of site characterization work actually

conducted by DOE at all sites and, as appropriate, explanations of why such work differed from the description of program in the Site Characterization Report.

[d:]f. Construction Authorization Findings. The necessary findings by the Commission on environmental matters (§60.31(c)) have been revised to conform to the language in other portions of the Commission's regulations. Contrary to the views expressed by a commenter, the Commission regards this provision as being fully consistent with the requirements of NEPA.

The Commission has declined to modify the common defense and security finding [as-suggested-by], which one commenter [The-Commission's review-of-the-history-of-the-Energy-Reorganization-Act-of-1974-indicates that-NRC's-review-was-deemed-to-be-important-to-protect-the-health-and-safety-of-the-public;-the-Commission-thinks-it-is-appropriate-to-rely-upon-DOE-to-take-action-to-protect-the-common-defense-and-security-inasmuch-as-it-shares-with-NRC-such-responsibilities-under-the-Atomic-Energy-Act:] characterized to be "so vague as to be of no consequence." The proposed "irrimicality" findings, §§ 60.31(b) and 60.41(c), reflect the legal standards set forth in the Atomic Energy Act, in particular Section 57c.(2) thereof. Comparable language appears elsewhere in Commission regulations, e.g., 10 CFR §§ 50.57(a)(6) and 70.31(d). With respect to certain activities, however, the Commission requires that a license applicant submit a description of fundamental material controls for the control of and accounting for special nuclear material and also a physical security plan. The present regulations do not require such submissions from the DOE, and the NRC has, therefore, omitted any specific findings that the fundamental material controls or physical security plan are

adequate. In so doing, the NRC takes notice of the fact that the DOE is responsible for maintaining common defense and security at installations of the greatest sensitivity. Further, the Department--unlike any other license applicant--shares with NRC responsibilities under the Atomic Energy Act to protect the common defense and security. And, radiation hazards associated with high-level radioactive wastes make them inherently unattractive as a target for diversion. The NRC has concluded that the DOE should certify that it will provide "such safeguards as it requires at comparable surface facilities ... to promote the common defense and security," § 60.21(b)(3), but that details of the safeguards program need neither be obtained nor reviewed in order for the Commission to be able to make the required finding. While this approach contemplates that the Commission would give great weight to the DOE's certification, it does not foreclose the possibility of common defense and security issues being raised and adjudicated in formal proceedings. The provisions of the Energy Reorganization Act calling for Commission review of high-level waste facilities were designed to assure protection of the health and safety of the public and protection of the environment; considering the fact that the legislative history indicates no equivalent concern about the need for the Commission to review common defense and security issues, the NRC believes the approach outlined is reasonable and appropriate.

[e.]g. Conditions of Construction Authorization. The final rule specifies (§60.32(b)) that the construction authorization "will incorporate" conditions requiring the submission of certain periodic or special reports. This wording differs from that of the proposed rule which stated that the Commission "may, at its discretion incorporate" these conditions. The NRC agrees with a commenter that such reports will

be needed and that there is no reason to reserve discretion, as the proposed rule would have done. The particulars of the conditions would, of course, depend upon the nature of the project that is to be constructed.

A new paragraph 60.32(c) has been set forth in the final rule which states that there will be a set of conditions which are of sufficient importance that the DOE cannot deviate from them without having obtained an amendment to the construction authorization.

[f-]h. License Specifications. The Commission has accepted a suggestion to delete a requirement for including, as license conditions, restrictions as to the location and characteristics of the storage medium. As noted by a commenter, these features may be inherent in the storage medium itself.

[g-]i. Inspections. The final rule contains a provision (§60.73(c)) requiring DOE to provide on site office space for the exclusive use of NRC inspectors and personnel.

[h-]j. Participation of Indian Tribes. Several changes have been made in the rule to provide for full participation by Indian tribes in the licensing procedures. These changes generally provide that tribes shall have the same opportunities as governmental units. A new Section 60.64 provides that Indian Tribes shall have the same opportunities as States to submit proposals for their participation in the NRC review. These proposals shall be approved (and may be funded) if appropriate findings can be made concerning the contribution to be made to the licensing review. A new Section 60.65 makes it clear, however, that the Director shall endeavor to avoid duplication of effort when acting on multiple proposals, to the extent that this can be accomplished without substantial prejudice to the parties involved.

(k) Preparation of an Environmental Impact Statement prior to issuance of license to receive and possess HLW. The requirement that the NRC prepare and circulate an EIS prior to issuing a license to receive and possess HLW has been deleted (51.5(a)(11)). Since an EIS will be prepared by NRC prior to granting construction authorization for a geologic repository operations area, it may not be necessary to prepare a second EIS. Rather, after the construction authorization stage, the NRC will perform environmental assessments, and, as appropriate, will supplement the EIS, or determine that no such supplemental statement is required.

(l) Differences between planned and completed site characterization work. A provision has been added to the rule that requires DOE to include in its license application a description of site characterization work actually conducted by DOE at all sites considered, and appropriate explanations of why such work differed from the program described in the Site Characterization Report for each site (60.21(b)(4)). It is expected that such a provision will facilitate the evaluation of DOE's site characterization program by the public.

m. Records and Tests. The term "significant" has been deleted from Section 60.71(c)(3). The Commission requires notification of all deviations from license conditions, whether or not they might be regarded as "significant."

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974, as amended, Public Law 95-601 (November 6, 1978), the National Environmental Policy Act of 1969, as amended, and sections 552 and 553 of title 5 of the United States Code, notice is

hereby given that the following amendments to Title 10, Chapter I, Code of Federal Regulations are published as a document subject to codification.

PART 2
RULES OF PRACTICE

1. Section 2.101 is amended to add a new paragraph (f) to read as follows:¹

§2.101 Filing of application.

* * * * *

(f)(1) Each application for a license to receive and possess high-level radioactive waste at a geologic repository operations area pursuant to Part 60 of this chapter and any environmental report required in connection therewith pursuant to Part 51 of this chapter shall be processed in accordance with the provisions of this paragraph.

(2) To allow a determination as to whether the application or environmental report is complete and acceptable for docketing, it will be initially treated as a tendered document, and a copy will be available for public inspection in the Commission's Public Document Room. Twenty copies shall be filed to enable this determination to be made.

(3) If the Director of Nuclear Material Safety and Safeguards determines that the tendered document is complete and acceptable for docketing, a docket number will be assigned and the applicant will be notified of the determination. If it is determined that all or any part of the tendered document is incomplete and therefore not acceptable for processing, the applicant will be informed of this determination and the respects in which the document is deficient.

¹As compared to text of proposed rule additions are underscored and deletions are bracketed and lined through.

(4) The Director shall determine the application to be not complete and therefore not acceptable for processing if it fails to include site characterization data, including the results of appropriate in situ testing at depth for each site characterized, with respect to the number of sites and media specified. If such a determination is made, the Director shall request the DOE to submit, within a specified time, such characterization data as the Director determines to be necessary. If the DOE fails to provide the requested data within the time specified, the application shall be subject to denial under Section 2.108.

(5)[(4)] With respect to any tendered document that is acceptable for docketing, the applicant will be requested to (i) submit to the Director of Nuclear Material Safety and Safeguards such additional copies as the regulations in Parts 60 and 51 require, (ii) serve a copy on the chief executive of the municipality in which the geologic repository operations area is to be located or, if the geologic repository operations area is not to be located within a municipality, on the chief executive of the county (or to the Tribal organization, if it is to be located within an Indian reservation), and (iii) make direct distribution of additional copies to Federal, State, Indian Tribe, and local officials in accordance with the requirements of this chapter and written instructions from the Director of Nuclear Material Safety and Safeguards. All such copies shall be completely assembled documents, identified by docket number. Subsequently distributed amendments, however, may include revised pages to previous submittals and, in such cases, the recipients will be responsible for inserting the revised pages.

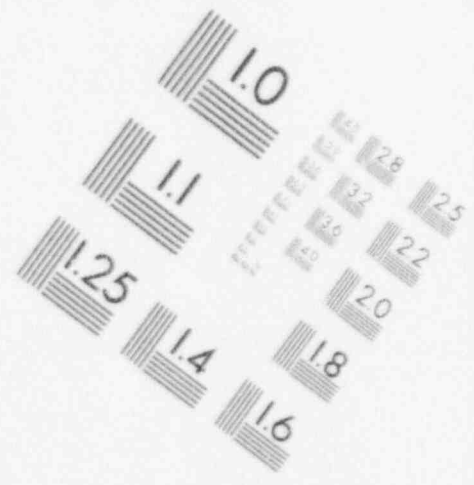
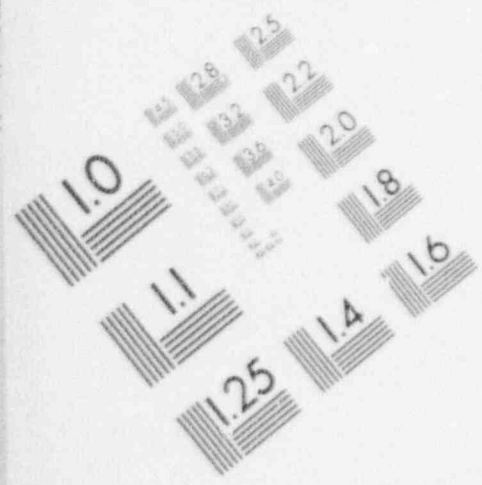
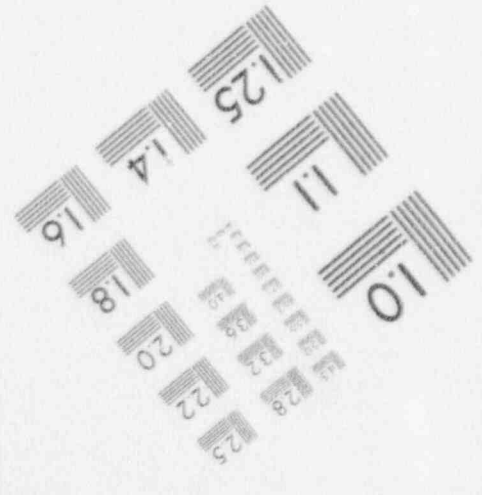
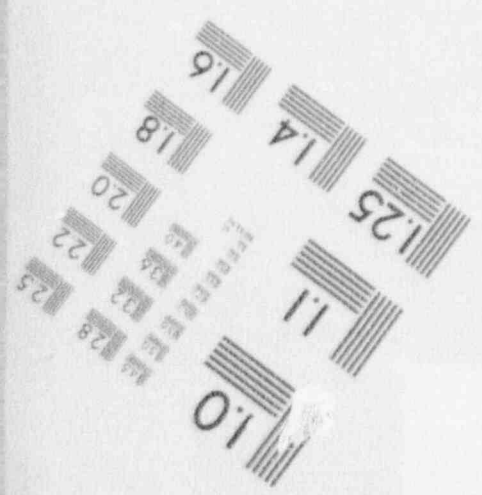
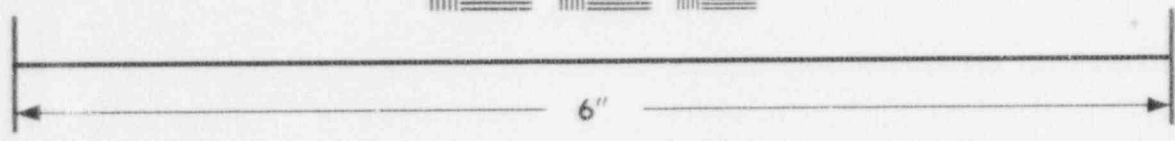
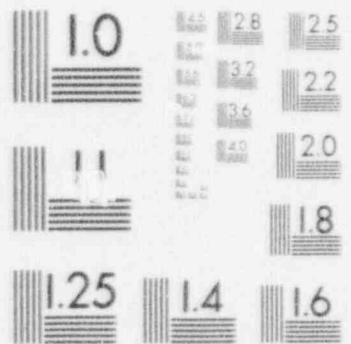


IMAGE EVALUATION
TEST TARGET (MT-3)



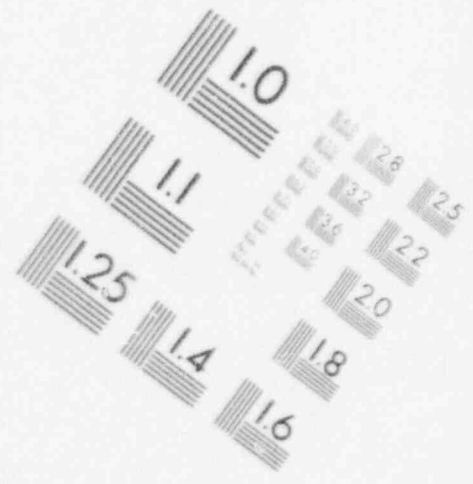
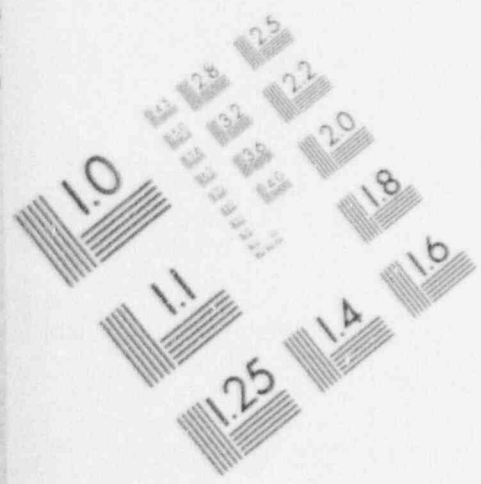
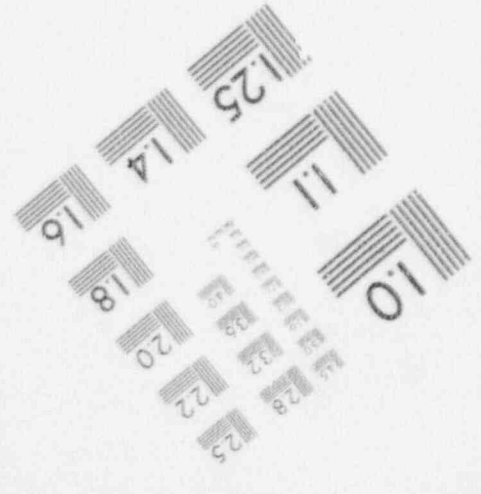
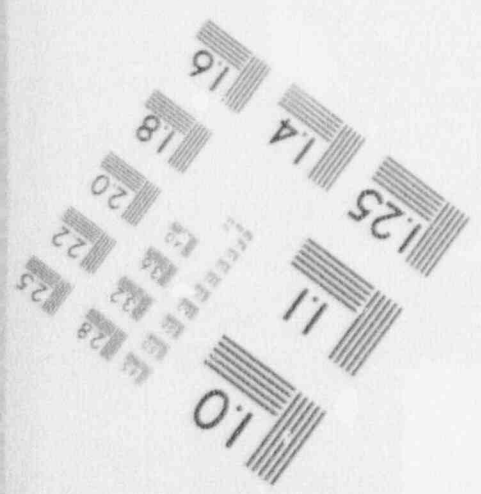
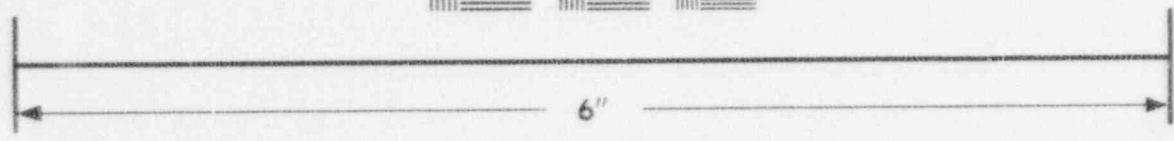
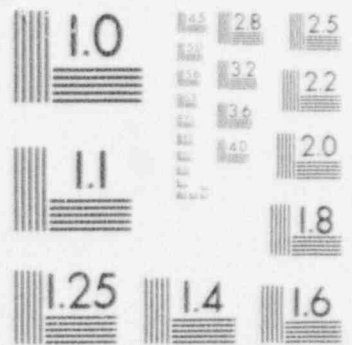


IMAGE EVALUATION
TEST TARGET (MT-3)



(6)[(5)] The tendered document will be formally docketed upon receipt by the Director of Nuclear Material Safety and Safeguards of the required additional copies. The date of docketing shall be the date when the required copies are received by the Director of Nuclear Material Safety and Safeguards. Within ten (10) days after docketing, the applicant shall submit to the Director of Nuclear Material Safety and Safeguards a written statement that distribution of the additional copies to Federal, State, Indian Tribe, and local officials has been completed in accordance with requirements of this chapter and written instructions furnished to the applicant by the Director of Nuclear Material Safety and Safeguards. Distribution of the additional copies shall be deemed to be complete as of the time the copies are deposited in the mail or with a carrier prepaid for delivery to the designated addressees.

(7)[(6)] Amendments to the application and environmental report shall be filed and distributed and a written statement shall be furnished to the Director of Nuclear Material Safety and Safeguards in the same manner as for the initial application and environmental report.

(3)[(7)] The Director of Nuclear Material Safety and Safeguards will cause to be published in the FEDERAL REGISTER a notice of docketing which identifies the State and location at which the proposed geologic repository operations area would be located and will give notice of docketing to the governor of that State. The notice of docketing will state that the Commission finds that a hearing is required in the public interest, prior to issuance of a construction authorization, and will recite the matters specified in § 2.104(a) of this part.

2. Section 2.103(a) is revised to read as follows:

§2.103 Action on applications for byproduct, source, special nuclear material, and operator licenses.

(a) If the Director of Nuclear Reactor Regulation or the Director of Nuclear Material Safety and Safeguards, as appropriate, finds that an application for a byproduct, source, special nuclear material, or operator license complies with the requirements of the Act, the Energy Reorganization Act, and this chapter, he will issue a license. If the license is for a facility or for receipt of waste radioactive material from other persons for the purpose of commercial disposal by the waste disposal licensee, or if it is to receive and possess high-level radioactive waste at a geologic repository operations area pursuant to Part 60 of this chapter, the Director of Nuclear Reactor Regulation or the Director of Nuclear Material Safety and Safeguards, as appropriate, will inform the State, Indian Tribes, and local officials notified in § 2.104(e) of the issuance of the license.

* * * * *

~~§ 2.104-2 FR 2.104(a) is amended to read as follows:~~

~~§2.104-2 Notice of Hearing:~~

~~*-----*~~

~~(a) In the case of an application on which a hearing is required by the Act or this chapter, or in which the Commission finds that a hearing is required in the public interest, the Secretary will issue a notice of hearing to be published in the FEDERAL REGISTER as required by law at least fifteen (15) days, and in the case of an application concerning a construction permit for a facility of the type described in §50.22(b) or~~

§50-22 of this chapter or a testing facility; at least thirty (30) days; prior to the date set for hearing in the notice;² in addition in the case of an application for a construction permit for a facility of the type described in §50-22 of this chapter, or a testing facility, the notice (other than a notice pursuant to paragraph (d) of this section) shall be issued as soon as practicable after the application has been docketed. Provided, that if the Commission, pursuant to §2-101(a)(2), decides to determine the acceptability of the application on the basis of its technical adequacy as well as completeness, the notice shall be issued as soon as practicable after the application has been tendered. The notice will state:

(1) The time, place, and nature of the hearing and/or prehearing conference, if any;

(2) The authority under which the hearing is to be held;

(3) The matters of fact and law to be considered; and

(4) The time within which answers to the notice shall be filed.]

[In addition, any notice of hearing published with regard to an application for a license to receive and possess high-level waste at a geologic repository operations area pursuant to Part 60 of this chapter shall provide that the hearing will be held prior to issuance of authorization to construct such geologic repository operations area.]

²If the notice of hearing concerning an application for a construction permit for a facility of the type described in §50-22(b) or §50-22 of this chapter or a testing facility does not specify the time and place of initial hearing, a subsequent notice will be published in the FEDERAL REGISTER which will provide at least thirty (30) days notice of the time and place of that hearing. After this notice is given the presiding officer may reschedule the commencement of the initial hearing for a later date or reconvene a recessed hearing without again providing thirty (30) days notice.

3. Section 2.104(e) is revised to read as follows:

§2.104 Notice of hearing.

* * * * *

(e) The Secretary will give timely notice of the hearing to all parties and to other persons, if any, entitled by law to notice. The Secretary will transmit a notice of hearing on an application for a facility license or for a license for receipt of waste radioactive material from other persons for the purpose of commercial disposal by the waste disposal licensee or for a license to receive and possess high-level radioactive waste at a geologic repository operations area pursuant to Part 60 of this chapter to the Governor or other appropriate official of the State and to the chief executive of the municipality in which the facility is to be located or the activity is to be conducted or, if the facility is not to be located or the activity conducted within a municipality, to the chief executive of the county (or to the Tribal organization if it is to be so located or conducted within an Indian reservation).

[5]4. Section 2.105(a) is amended by adding [a] new paragraphs [~~3~~] (4) and (5), renumbering existing paragraph [~~3~~-end] (4) as [~~4~~-end-~~5~~];] (6) amending the paragraph renumbered as [~~4~~] (6), numbering the existing undesignated paragraph following renumbered paragraph (6) as (7) and adding a new final paragraph (8) to read as follows:

§2.105 Notice of proposed action.

(a) If a hearing is not required by the Act or this chapter, and if the Commission has not found that a hearing is in the public interest, it will, prior to acting thereon, cause to be published in the FEDERAL REGISTER a notice of proposed action with respect to an application for:

* * * * *

~~[(3)]~~ (4) A license to receive and possess high-level radioactive waste at a geologic repository operations area pursuant to Part 60 of this chapter;

(5) An amendment to a license specified in paragraph (a)(4) of this section, or an amendment to a construction authorization granted in proceedings on an application for such a license, when such amendment would authorize actions which may significantly affect the health and safety of the public;
or

~~[(4)-An amendment of a license specified in paragraph (a)(1);-(2); or-(3)-of this section and which involves a significant hazards consideration;-or]~~

~~[(5)]~~ (5) Any other license or amendment as to which the Commission determines that an opportunity for a public hearing should be afforded.

(7) In the case of an application for an operating license for a facility of a type described in §50.21(b) or §50.22 of this chapter or a testing facility, a notice of opportunity for hearing shall be issued as soon as practicable after the application has been accepted.

(J) In the case of an application for a license to receive and possess high-level radioactive waste at a geologic repository operations area, a notice of opportunity for hearing, as required by this paragraph, shall be published prior to Commission action authorizing [construction and also prior to] receipt of such wastes; [at the repository;-this change is in addition to changes proposed in the prior notice] this requirement is in addition to the procedures set out in § 2.101(f)(7) and § 2.104 of this part, which provide for a hearing on the application prior to issuance of a construction authorization.

[6]7. 10 CFR 2.105(e) is amended by to read as follows:

* * * * *

(e) If no request for a hearing or petition for leave to intervene is filed within the time prescribed in the notice, the Director of Nuclear Reactor Regulation or Director of Nuclear Material Safety and Safeguards, as appropriate, may ~~[issues-the-license]~~ take the proposed action, inform the appropriate State and local officials, and cause to be published in the FEDERAL REGISTER a notice of issuance of the license or other action. If a request for a hearing and/or a petition for leave to intervene is filed within the time prescribed in the notice, the Commission or an atomic safety and licensing board designated by the Commission or by the Chairman of the Atomic Safety and Licensing Board Panel will rule on the request and/or petition and the Secretary or the designated atomic safety and licensing board will issue a notice of hearing or an appropriate order.

[7]8. Section 2.106 is amended by adding a new paragraph (c) to read as follows:

§2.106 Notice of issuance.

* * * * *

(c) The Director of Nuclear Material Safety and Safeguards will also cause to be published in the FEDERAL REGISTER notice of, and will inform the State, local, and Tribal officials specified in §2.104(e) of any action with respect to, an application for a license to receive and possess high-level radioactive waste at a geologic repository operations area pursuant to Part 60 of this chapter, or for the amendment to such license for which a notice of proposed action has been previously published.

9. Section 2.764 is amended by revising the caption, by adding a new paragraph (d), and by making conforming changes to paragraphs (a) and (b) to read as follows:

§ 2.764 Immediate effectiveness of certain initial decisions.¹

(a) Except as provided in paragraphs (c) and (d) of this section, an initial decision ***

(b) Except as provided in paragraphs (c) and (d) of this section, the Director of Nuclear Reactor Regulation or Director of Nuclear Material Safety and Safeguards ***

* * * * *

(d) An initial decision directing the issuance of a construction authorization or license under Part 60 of this chapter (relating to disposal of high-level radioactive wastes in geologic repositories) or any amendment to such a license authorizing actions which may significantly affect the health and safety of the public, shall not become effective until review by the Commission has been completed. The Director of Nuclear Material Safety and Safeguards shall not issue a construction authorization or a license under Part 60 of this chapter, or any amendment to such license, until expressly authorized to do so by the Commission.

10. Section 2.780 is amended by adding a new paragraph (g) to read as follows:

§ 2.780 Ex parte communications.

* * * * *

(g) In the case of an application for a license under Part 60 of this chapter (relating to disposal of high-level radioactive wastes in geologic repositories), this Part requires a proceeding on the record

¹The temporary suspension of § 2.764(a) and (b) in certain proceedings and related matters is addressed in Appendix B to this part.

prior to the issuance of a construction authorization. Unless the Commission orders otherwise, the issuance of a construction authorization (or a final decision to deny a construction authorization) shall be deemed, for purposes of this section, to terminate all proceedings on the record then pending before the NRC with respect to such application.

PART 19 - NOTICES, INSTRUCTIONS AND REPORTS TO WORKERS; INSPECTIONS

§19.2 Scope.

[7:]11. Section 19.2 is amended by adding "60," following "35, 40," to read as follows:

The regulations in this part apply to all persons who receive, possess, use, or transfer material licensed by the Nuclear Regulatory Commission pursuant to the regulations in Parts 30 through 35, 40, 60, or 70 of this chapter, including persons licensed to operate a production or utilization facility pursuant to Part 50 of this chapter.

§19.3 Definitions.

[8:]12. Section 19.3(d) is amended by adding "60," following "35, 40," to read as follows:

As used in this part:

* * * * *

(d) "License" means a license issued under the regulations in Parts 30 through 35, 40, 60 or 70 of this chapter, including licenses to operate a production or utilization facility pursuant to Part 50 of this chapter. "Licensee" means the holder of such a license.

PART 20 - STANDARDS FOR PROTECTION AGAINST RADIATION

§20.2 Scope.

13. Section 20.2 is amended by adding "60," following "35, 40," to read as follows:

The regulations in this part apply to all persons who receive, possess, use, or transfer material licensed pursuant to the regulations in Parts 30 through 35, 40, 60 or 70 of this chapter, including persons licensed to operate a production or utilization facility pursuant to Part 50 of this chapter.

§20.3 Definitions.

14. Section 20.3(a)(9) is amended by adding "60," following "30, 40," to read as follows:

(a) As used in this part:

* * * * *

(9) "License" means a license issued under the regulations in Part 30, 40, 60 or 70 of this chapter. "Licensee" means the holder of such license;

§20.301 General requirement.

15. Section 20.301(a) is amended by adding "60," following "30, 40," to read as follows:

No licensee shall dispose of licensed material except:

(a) By transfer to an authorized recipient as provided in the regulations in Part 30, 40, 60, or 70 of this chapter, whichever may be applicable; or

[12-]16. Section 20.408(a) is amended by deleting the word "or" following the phrase "of this chapter;" in paragraph (a)(3), inserting the word "or" following the phrase "of the following quantities:" in paragraph (a)(4), and adding a new paragraph (a)(5) to read as follows:

§20.408 Reports of personnel monitoring on termination of employment or work.

(a) This section applies to each person licensed by the Commission to:

* * * * *

(3) Possess or use at any one time, for purposes of fuel processing, fabricating, or reprocessing, special nuclear material in a quantity exceeding 5,000 grams of contained uranium-235, uranium-233, or plutonium or any combination thereof pursuant to Part 70 of this chapter;

(4) Possess or use at any one time, for processing or manufacturing for distribution pursuant to part 30, 32, or 33 of this chapter, byproduct material in quantities exceeding any one of the following quantities:

| Radionuclide ¹ | Quantity in curies |
|---------------------------|--------------------|
| Cesium = 137..... | 1 |
| Cobalt = 60..... | 1 |
| Gold = 198..... | 100 |
| Iodine = 131..... | 1 |
| Iridium = 192..... | 10 |
| Krypton = 85..... | 1,000 |
| Prometium = 147..... | 10 |
| Techhetium = 99m..... | 1,000 |

¹The Commission may require, as a license condition, or by rule, regulation or order pursuant to § 20.502, reports from licensees who are licensed to use radionuclides not on this list, quantities sufficient to cause comparable radiation levels.

§21.3 Definitions

[14-]18. In 10 CFR Part 21, Sections 21.3 is amended by adding "60," after "40, 50," whenever it appears to read as follows:

(a) "Basic component"...

As used in this part,

* * * * *

(a-1) "Commercial grade item means an item" that is (1) not subject to design or specification requirements that are unique to facilities or activities licensed pursuant to Parts 30, 40, 50, 60, 70, or 71 of this chapter and (2) used in applications other than facilities or activities licensed pursuant to Parts 30, 40, 50, 60, 70, or 71 of this chapter and (3) to be ordered from the manufacturer/supplier on the basis of specifications set forth on the basis of specifications set forth in the manufacturer's published product description (for example a catalog).

* * * * *

(k) "Substantial safety hazard" means a loss of safety function to the extent that there is a major reduction in the degree of protection provided to public health and safety for any facility or activity licensed, other than for export, pursuant to Parts 30, 40, 50, 60, 70 and 71.

§21.21 Notification of failure to comply or existence of a defect.

[15-]19. 10 CFR 21.21(b)(1)(i) and 21.21(b)(1)(ii) are amended by adding "60," after "40, 50," to read as follows:

* * * * *

(b)(1) A director or responsible officer subject to the regulations of this part or a designated person shall notify the Commission when he obtains information reasonably indicating a failure to comply or a defect

affecting: (i) The construction or operation of a facility or an activity within the United States that is subject to the licensing requirements under Parts 30, 40, 50, 60, 70 and 71 and that is within his organization's responsibility or (ii) a basic component that is within his organization's responsibility and is supplied for a facility or an activity within the United States that is subject to the licensing requirements under Parts 30, 40, 50, 60, 70 and 71. The above notification is not required if such individual has actual knowledge that the Commission has been adequately informed of such defect or such failure to comply.

* * * * *

PART 30 - RULES OF GENERAL APPLICABILITY TO LICENSING OF BYPRODUCT MATERIAL

. [16-]20. Section 30.11 is amended by adding a new paragraph (c).

§30.11 Specific exemptions.

* * * * *

(c) The DOE is exempt from the requirements of this part to the extent that its activities are subject to the requirements of Part 60 of this chapter.

PART 40 - DOMESTIC LICENSING OF SOURCE MATERIAL

[17-]21. Section 40.14 is amended by adding a new subsection (c).

§40.14 Specific exemptions.

* * * * *

(c) The DOE is exempt from the requirements of this part to the extent that its activities are subject to the requirements of Part 60 of this chapter.

PART 51 - LICENSING AND REGULATORY POLICY AND PROCEDURES
FOR ENVIRONMENTAL PROTECTION

~~[18-]~~22. Section 51.5(a) is amended by adding new paragraphs (10) and renumbering present paragraph (10) as paragraph (11) to read as follows.

§51.5 Actions requiring preparation of environmental impact statements, negative declarations, environmental impact appraisals; actions excluded.

(a) An environmental impact statement will be prepared and circulated prior to taking any of the following types of actions:

* * * * *

(10) Issuance of a construction authorization for a geologic repository operations area pursuant to Part 60 of this chapter.

~~[(11)--issuance-of-a-license-to-receive-and-possess-high-level-radioactive-waste-at-a-geologic-repository-operations-area-pursuant-to-Part-60-of-this-chapter-]~~

~~[(12)]~~(11) Any other action which the Commission determines is a major Commission action significantly affecting the quality of the human environment.

~~[19-]~~23. Section 51.5(b) is amended by: deleting the word "and" at the end of paragraph (4)(ii) and inserting it at the end of paragraph (4)(iii);

replacing the period at the end of paragraph (4)(iii) with a semicolon; adding a new paragraph (4)(iv); substituting (iv) for (iii) in paragraph (5); inserting "60," following "40, 50," in paragraph (6); and adding [a] new paragraphs (9) and (10). With these changes, § 51.5(b) reads as follows:

* * * * *

(b) Many licensing and regulatory actions of the Commission other than those listed in paragraph (a) may or may not require preparation of an environmental impact statement.

* * * * *

Such other actions include:

* * * * *

(4) Issuance of an amendment which would authorize a significant change in the types or significant increase in the amounts of effluents or a significant increase in the potential for accidental releases of a license for:

* * * * *

(iii) Authorizing commercial radioactive waste disposal by land burial pursuant to Parts 30, 40, and/or 70 of this chapter; and

(iv) The receipt and possession of high-level radioactive waste at a geologic repository operations area pursuant to Part 60 of this chapter.

(5) Renewal of licenses to conduct activities listed in paragraph (b)(4)(i)-(iv) of this section;

* * * * *

(9) Termination of a license for the possession of high-level radioactive waste at a geologic repository operations area at the request of the licensee.

(10) Issuance of a license to receive and possess high-level radioactive waste at a geologic repository operations area pursuant to Part 60 of this chapter.

[20-]24. Section 51.5(d)(3) is amended by adding "60," following "40, 50," to read as follows:

(3) Non-substantive and insignificant amendments (from the standpoint of environmental impact) of Parts 20, 30, 40, 50, 60, 70, 71, 73, 100, or 110 of this chapter; and

* * * * *

[21-]25. Section 51.40 is amended by revising subsection (a) and by adding a new subsection (d) to read as follows:

§51.40 Environmental reports.

(a) Except as provided in paragraphs (b), (c) and (f) of this section, applicants for permits, licenses, and orders, and amendments thereto and renewals thereof, covered by § 51.5(a) shall submit to the Director of Nuclear Reactor Regulation or Director of Nuclear Material Safety and Safeguards, as appropriate, 150 copies of an environmental report which discusses the matters described in § 51.20. Petitioners for rule making covered by § 51.5(a) shall submit to the Director of Standards Development fifty (50) copies of an environmental reports which discusses the matters described in § 51.20.

* * * * *

(d) The DOE, as an applicant for a license to receive and possess radioactive waste at a geologic repository operations area pursuant to Part 60 of this chapter, shall submit at the time of its application or in advance, and at the time of amendments, in the manner provided in §60.22 of this chapter, environmental reports which discuss the matters

described in §51.20. The discussion of alternatives shall include site characterization data for a number of sites in appropriate geologic media so as to aid the Commission in making a comparative evaluation as a basis for arriving at a reasoned decision under NEPA. [*] Such characterization data shall include results of appropriate in situ testing at repository depth unless the Commission finds with respect to a particular site that such testing is not required. The Commission considers the characterization of three sites representing two geologic media at least one of which is not salt to be the minimum necessary to satisfy the requirements of NEPA. (However, in light of the significance of the decision selecting a site for a repository, the Commission fully expects the DOE to submit a wider range of alternatives than the minimum [suggested] required here.)

26. Section 51.41 is amended to read as follows:

§51.41 Administrative procedures.

Except as the context may otherwise require, procedures and measures similar to those described in §§51.22-51.26 will be followed in proceedings for the issuance of materials licenses and other actions covered by §51.5(a) but not covered by §51.20 or 51.21. The procedures followed with respect to materials licenses will reflect the fact that, unlike the licensing of production and utilization facilities, the licensing of materials does not require separate authorizations for construction and operation. In the case of an application for a license to receive and possess high-level radioactive waste at a geologic repository operations

~~[*To satisfy the requirements of NEPA, the Commission anticipates such characterization at a minimum of three sites representing a minimum of two geologic media. However, in light of the significance of the decision selecting a site for a repository, the Commission fully expects the Department to submit a wider range of alternatives than the minimum suggested here.]~~

area pursuant to Part 60 of this chapter, however, the environmental impact statement required by §51.5(a) shall be prepared and circulated prior to the issuance of a construction authorization; the environmental impact statement shall be supplemented prior to issuance of a license to take account of any substantial changes in the activities proposed to be carried out or significant new information regarding the environmental impacts of the proposed activities.

27. A new Part 60 is added to read as follows:

PART 60 - DISPOSAL OF HIGH LEVEL RADIOACTIVE WASTES IN
GEOLOGIC REPOSITORIES

SUBPART A - GENERAL PROVISIONS

Section

- 60.1 Purpose and scope.
- 60.2 Definitions.
- 60.3 License required.
- 60.4 Communications.
- 60.5 Interpretations.
- 60.6 Exemptions.
- 60.7 License not required for certain preliminary activities.

SUBPART B - LICENSES
PREAPPLICATION REVIEW

- 60.11 Site characterization report.

LICENSE APPLICATIONS

- 60.21 Content of application.
- 60.22 Filing and distribution of application.
- 60.23 Elimination of repetition.
- 60.24 Updating of application and environmental report.

CONSTRUCTION AUTHORIZATION

- 60.31 Construction authorization.
- 60.32 Conditions of construction authorization.
- 60.33 Amendment of construction authorization.

LICENSE ISSUANCE AND AMENDMENT

- 60.41 Standards for issuance of a license.
- 60.42 Conditions of license.
- 60.43 License specifications.
- 60.44 Changes, tests, and experiments.
- 60.45 Amendment of license.
- 60.46 Particular activities requiring license amendment.

DECOMMISSIONING

- 60.51 License amendment to decommission.
- 60.52 Termination of license.

SUBPART C - PARTICIPATION BY STATE GOVERNMENTS AND
INDIAN TRIBES

- 60.61 Site review.
- 60.62 Filing of proposals for State participation.
- 60.63 Approval of proposals.
- 60.64 Participation by Indian tribes.
- 60.65 Coordination.

SUBPART D - RECORDS, REPORTS, TESTS, AND INSPECTIONS

- 60.71 Records and reports.
- 60.72 Tests.
- 60.73 Inspections.

Authority: Secs. 51, 53, 62, 63, 65, 81, 161b., f., i., o., p., 182, 183, Pub. L. 83-703, as amended, 68 Stat. 929, 930, 932, 933, 935, 948, 953, 954, as amended (42 U.S.C. 2071, 2073, 2092, 2093, 2095, 2111, 2201, 222, 2233); Secs. 202, 206, Pub. L. 93-438, 88 Stat. 1244, 1246 (42 U.S.C. 5842, 5846); Sec. 14, P.L. 95-601 (42 U.S.C. 2021a); Sec. 102(2)(c), Pub. L. 91-190, 83 Stat. 853 (42 U.S.C. 4332).

For the purposes of Sec. 223, 68 Stat. 958, as amended, 42 U.S.C. 2273, §§60.71 to 60.73 are issued under Sec. 161o., 68 Stat. 950, as amended (42 U.S.C. 2201(o)).

10 CFR PART 60

DISPOSAL OF HIGH-LEVEL RADIOACTIVE WASTES IN
GEOLOGIC REPOSITORIES

Subpart A - General Provisions

§60.1 Purpose and scope.

This part prescribes rules governing the licensing of the U.S. Department of Energy to receive and possess source, special nuclear, and byproduct

material at a geologic repository operations area. This part does not apply to any activity licensed under another part of this chapter.

§60.2 Definitions.

As used in this part:

(a) "Candidate area" means a geologic and hydrologic system within which a geologic repository may be located.

(b) "Commencement of construction" means clearing of land, surface or subsurface excavation, or other substantial action that would adversely affect the environment of a site, but does not include changes desirable for the temporary use of the land for public recreational uses, site characterization activities, other preconstruction monitoring and investigation necessary to establish background information related to the suitability of a site or to the protection of environmental values, or procurement or manufacture of components of the geologic repository operations area.

~~(c)~~(c) [Department]"DOE" means the U.S. Department of Energy or its duly authorized representatives.

~~(d)~~(d) "Decommissioning", or "permanent closure", means final backfilling of subsurface facilities, sealing of shafts, and decontamination and dismantlement of surface facilities.

(e) "Disposal" means [~~that the Commission has determined that the emplaced wastes are, and will continue to be, isolated from the biosphere and there is no need to retrieve them for the protection of the public health and safety~~] the isolation of radioactive wastes from the biosphere.

(f) "Director" means the Director of the U.S. Nuclear Regulatory Commission's Office of Nuclear Material Safety and Safeguards.

(g) "Geologic repository" means a system which is intended to be used for, or may be used for, the disposal of radioactive wastes in excavated geologic formations. A geologic repository includes (1) the geologic repository operations area and (2) all surface and subsurface areas where natural events or activities of man may change the extent to which radioactive wastes are effectively isolated from the biosphere.

(h) "Geologic repository operations area" means an HLW facility that is part of a geologic repository, including both surface and subsurface areas, where waste handling activities are conducted.

(i) "High-level radioactive waste" or "HLW" means (1) irradiated reactor fuel, (2) liquid wastes resulting from the operation of the first cycle solvent extraction system, or equivalent, and the concentrated wastes from subsequent extraction cycles, or equivalent, in a facility for reprocessing irradiated reactor fuel, and (3) solids into which such liquid wastes have been converted.

(j) "HLW facility" means a facility subject to the licensing and related regulatory authority of the Commission pursuant to Sections 202(3) and 202(4) of the Energy Reorganization Act of 1974 (88 Stat 1244).*

(k) "Indian Tribe" means an Indian tribe as defined in the Indian Self-Determination and Education Assistance Act (Public Law 93-638).

~~(k)~~(l) "Important to safety," with reference to structures, systems, and components, means those structures, systems, and components that

* These are DOE "facilities used primarily for the receipt and storage of high-level radioactive wastes resulting from activities licensed under such act [the Atomic Energy Act]" and "Retrievable Surface Storage Facilities and other facilities authorized for the express purpose of subsequent long-term storage of high-level radioactive wastes generated by [DOE], which are not used for, or are part of, research and development activities."

provide reasonable assurance that radioactive waste can be received, handled, and stored without undue risk to the health and safety of the public.

~~(f)(9)~~(m) "Public Document Room" means the place at 1717 H Street NW, Washington, D.C., at which records of the Commission will ordinarily be made available for public inspection and any other place, the location of which has been published in the FEDERAL REGISTER, at which public records of the Commission pertaining to a particular geologic repository are made available for public inspection.

~~(f)(7)~~(n) "Radioactive waste" means HLW and any other radioactive materials other than HLW that are received for emplacement in a geologic repository.

(o) "Site characterization" means the program of exploration and research, both in the laboratory and in the field, undertaken to establish the geologic conditions and the ranges of those parameters of a particular site relevant to the procedures under this part. Site characterization includes borings, surface excavations, excavation of exploratory shafts, limited subsurface lateral excavations and borings, and in situ testing needed to determine the suitability of the site for a geologic repository, but does not include preliminary borings and geophysical testing needed to decide whether site characterization should be undertaken.

~~(f)(7)-"Traceability"-means-the-ability,-through-the-use-of-container-identification-and-preparation-and-maintenance-of-appropriate records,-to-define-a-step-by-step-history-of-any-radioactive-waste-]~~

(p) "Tribal organization" means a Tribal organization as defined in the Indian Self-Determination and Education Assistance Act (Public Law 93-638).

§60.3 License required.

(a) [~~The Department~~] DOE shall not receive or possess source, special nuclear, or byproduct material at a geologic repository operations area except as authorized by a license issued by the Commission pursuant to this part.

(b) [~~The Department~~] DOE shall not commence construction of a geologic repository operations area unless it has filed an application with the Commission and has obtained construction authorization as provided in this part. Failure to comply with this requirement shall be grounds for denial of a license.

§60.4 Communications.

Except where otherwise specified, all communications and reports concerning the regulations in this part and applications filed under them should be addressed to the Director of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Communications, reports, and applications may be delivered in person at the Commission's offices at 1717 H Street NW, Washington, D.C., or 7915 Eastern Avenue, Silver Spring, Maryland.

§60.5 Interpretations.

Except as specifically authorized by the Commission, in writing, no interpretation of the meaning of the regulations in this part by any officer or employee of the Commission other than a written interpretation by the General Counsel will be considered binding upon the Commission.

§60.6 Exemptions.

The Commission may, upon application by [~~the Department~~] DOE, any interested person, or upon its own initiative, grant such exemptions

from the requirements of the regulations in this part as it determines are authorized by law, will not endanger life or property or the common defense and security, and are otherwise in the public interest.

§60.7 License not required for certain preliminary activities.

The requirement for a license set forth in §60.3(a) of this part is not applicable to the extent that DOE receives and possesses source, special nuclear, and byproduct material at a geologic repository:

- (a) For purposes of site characterization; or
- (b) For use, during site characterization or construction, as components of radiographic, radiation monitoring, or similar equipment or instrumentation.

Subpart B - Licenses

Preapplication Review

§60.11 Site characterization report.

- (a) As early as possible after commencement of planning for a particular geologic repository operations area, and prior to site characterization, the DOE shall submit to the Director a site characterization report. The report shall include* (1) a description of the site to be characterized; (2) the criteria used to arrive at the candidate area; (3) the method by which the site was selected for site characterization; (4) identification and location of alternative media and sites at which [the] DOE intends to conduct site characterization and for which [the] DOE

*To the extent that the information indicated in items 2 through 5 appears in an Environmental Impact Statement prepared by DOE for site characterization at the named site, it may be incorporated into DOE's site characterization report by reference.

anticipates submitting subsequent site characterization reports; (5) a description of the decision process by which the site was selected for characterization, including the means used to obtain public, Indian tribal and State views during selection; (6) a description of the site characterization program including (i) the extent of [any] planned excavation [any] and plans for in situ testing, (ii) a conceptual design of a repository appropriate to the named site in sufficient detail to allow assessment of the site characterization program with respect to investigation activities which address the ability of the site to host a repository and isolate radioactive waste, or which may affect such ability, and (iii) provisions to control any adverse, safety-related effects from site characterization including appropriate quality assurance programs; (7) a description of the quality assurance program to be applied to data collection; and (8) any issues related to the site selection, alternative candidate areas or sites, or design of the geologic repository operations area which the DOE wishes the NRC staff to review. Also included shall be a description of the research and development activities being conducted by [the] DOE which deal with the waste form[s] and packaging which may be considered appropriate for the site[s] to be characterized, including research planned or underway to evaluate the performance of such waste forms and packaging.

(b) The Director shall cause to be published in the FEDERAL REGISTER a notice that the information submitted under paragraph (a) of this section has been received and that a staff review of that information has begun. The notice shall identify the site selected for site characterization and alternate areas being considered by [the] DOE and

shall advise that consultation may be requested by State and local governments and Tribal organizations in accordance with Subpart C of this part.

(c) The Director shall make available a copy of the above information at the Public Document Room. The Director also shall transmit copies and the published notice of receipt thereof to the Governor and legislature of the State and to the chief executive of the municipality in which a site to be characterized is located (or if it is not located within a municipality, then to the chief executive of the county, or to the Tribal organization if it is to be located within an Indian reservation) and to the Governors of any contiguous States.

(d) The Director shall prepare a draft site characterization analysis which shall discuss the items cited in paragraph (a) of this section. The Director shall publish a notice of availability of the draft site characterization analysis and a request for comment in the Federal Register. Copies shall be made available at the Public Document Room. The Director shall also transmit copies to the Governor and legislature of the State and the chief executive of the municipality in which a site to be characterized is located (or if it is not located within a municipality, then to the chief executive of the county, or to the Tribal organization if it is to be located within an Indian reservation) and to the Governors of any contiguous States.

(e) A reasonable period, not less than 90 days, shall be allowed for comment on the draft site characterization analysis. The Director shall then prepare a final site characterization analysis which shall take into account comments received and any additional information

acquired during the comment period. Included in the final site characterization analysis shall be either an opinion by the Director that he has no objection to the DOE's site characterization program, if such an opinion is appropriate, or specific objections of the Director to [the] DOE's proceeding with characterization of the named site. In addition, the Director may make specific recommendations to [the] DOE on the matters pertinent to this section. A copy of the final site characterization analysis and the Director's opinion will be transmitted to DOE.

(f) Neither issuance of a final site characterization analysis nor the opinion by the Director shall constitute a commitment to issue any authorization or license or in any way affect the authority of the Commission, the Atomic Safety and Licensing Appeal Board, Atomic Safety and Licensing Boards, other presiding officers, or the Director, in any proceeding under Subpart G of Part 2 of this chapter. If [the-Department] DOE prepares an environmental impact statement with respect to site characterization activities proposed for a particular site, it should consider NRC's site characterization analyses before publishing its final environmental impact statement with respect to site characterization activities proposed for that particular site.

(g) During site characterization, [the-Department] DOE [should] shall inform the Director by semiannual report and by other report on any topic related to site characterization if requested by the Director, of the progress of the site characterization and waste form research and development. [~~including-schedules-as-appropriate~~] The semiannual reports should include the results of site characterization studies, the identification of new issues, plans for additional studies to resolve new issues, elimination of planned studies no longer necessary, identification of decision

points reached and modification to schedules where appropriate. Also reported should be the DOE's progress in developing the design of a geologic repository operations area appropriate for the site being characterized, noting when key design parameters or features which depend upon the results of site characterization will be established. During this time, NRC staff ~~[should-]~~ shall be permitted to visit and inspect the site~~(s)~~ and observe excavations, borings, and in situ tests as they are done. ~~[inasmuch as these site characterization activities could have adverse impact upon site safety; failure by the Department to involve the Commission in the manner described here and to accommodate the recommendations of the Director could result in denial of the subsequent license application:]~~

(h) The Director may ~~[respond from time to time]~~ comment at any time in writing to ~~[the]~~ DOE, expressing his current views on ~~[questions raised in the semiannual reports referred to above]~~ any aspect of site characterization. Comments received from States in accordance with §60.61 shall be considered by the Director in formulating his views. All correspondence between ~~[the Department]~~ DOE and the NRC including the reports cited in paragraph (g) shall be placed in the Public Document Room.

(i) The activities described in paragraphs (a) through (h) above constitute informal conference between a prospective applicant and the staff, as described in §2.101(a)(1) of this chapter, and are not part of a proceeding under the Atomic Energy Act of 1954, as amended.

License Applications

§ 60.21 Content of application.

(a) An application shall consist of general information and a safety analysis report. An environmental report shall be prepared in accordance with Part 51 of this chapter and shall accompany the application. Any Restricted Data or National Security Information shall be separated from unclassified information.

(b) The general information shall include:

(1) A general description of the proposed geologic repository identifying the [proposed-site] location of the geologic repository operations area, the general character of the proposed activities, and the basis for the exercise of licensing authority by the Commission.

(2) Proposed schedules for construction, receipt of waste, and emplacement of wastes at the proposed geologic repository operations area.

(3) A certification that ~~[the-Department]~~ DOE will provide at the geologic repository operations area such safeguards as it requires at comparable surface facilities (of ~~[the]~~ DOE) to promote the common defense and security.

(4) A description of site characterization work actually conducted by DOE at all sites considered in the application and, as appropriate, explanations of why such work differed from the description of the site characterization program described in the Site Characterization Report for each site.

(c) The safety analysis report shall include:

(1) A description and analysis of the site at which the proposed geologic repository operations area is to be located with appropriate

attention to those features that might affect facility design and performance. The assessment shall contain an analysis of the geology, geophysics, hydrology, geochemistry, and meteorology of the site and the major design structures, systems, and components, both surface and subsurface, that bear significantly on the suitability of the geologic repository for disposal of radioactive waste. It will be assumed that operations at the geologic repository operations area will be carried out at the maximum capacity and rate of receipt of radioactive waste stated in the application.

(2) A description and discussion of the design, both surface and subsurface, of the geologic repository operations area including: (i) the principal design criteria and their relationship to any general ~~[criteria]~~ performance objectives promulgated by the Commission, (ii) the design bases and the relation of the design bases to the principal design criteria, (iii) information relative to materials of construction (including geologic media, general arrangement, and approximate dimensions), and (iv) codes and standards that ~~[the Department]~~ DOE proposes to apply to the design and construction of the geologic repository operations area.

(3) A description and analysis of the design and performance requirements for structures, systems, and components of the geologic repository which are important to safety. The analysis and evaluation shall consider (i) the margins of safety under normal conditions and under conditions that may result from anticipated operational occurrences, including those of natural origin; (ii) the adequacy of structures, systems, and components provided for the prevention of accidents and mitigation of the consequences of accidents, including those caused by natural phenomena; and (iii) the effectiveness of engineered and natural barriers,

including barriers that may not be themselves a part of the geologic repository operations area, against the release of radioactive material to the environment.

(4) A description of the quality assurance program to be applied to the design, fabrication, inspection, construction, testing, and operation of the structures, systems, and components of the geologic repository operations area important to safety.*

(5) A description of the kind, amount, and specifications of the radioactive material proposed to be received and possessed at the geologic repository operations area.

(6) An identification and justification for the selection of those variables, conditions, or other items which are determined to be probable subjects of license specifications. Special attention shall be given to those items that may significantly influence the final design.

(7) A description of the program for control and monitoring of radioactive effluents and occupational radiation exposures to maintain such effluents and exposures in accordance with the requirements of Part 20 of this chapter.

(8) A description of the controls that the applicant will apply to restrict access and to regulate land use at the geologic repository operations area and adjacent areas.

(9) Plans for coping with radiological emergencies at any time prior to completion of decommissioning the geologic repository operations area.

* The criteria in Appendix B of Part 50 of this chapter will be used by the Commission in determining the adequacy of the quality assurance program.

(10) A description of the nuclear material control and accounting program.

(11) A description of design considerations that are intended to facilitate decommissioning of the facility.

(12) A description of plans for retrieval and alternate storage of the radioactive wastes should the geologic repository prove to be unsuitable for disposal of radioactive wastes.

(13) An identification of the natural resources at the site, the exploitation of which could affect the ability of the site to isolate radioactive wastes.

~~(13)~~(14) An identification of those structures, systems, and components of the geologic repository, both surface and subsurface, which require research and development to confirm the adequacy of design. For systems, structures, and components important to safety, the DOE shall provide a detailed description of the programs designed to resolve safety questions, including a schedule indicating when these questions will be resolved.

~~(14)~~(15) The following information concerning activities at the geologic repository operations area:

(i) The organizational structure of ~~[the-Department]~~ DOE, offsite and onsite, including a description of any delegations of authority and assignments of responsibilities, whether in the form of regulations, administrative directives, contract provisions, or otherwise.

(ii) ~~[Managerial-and-administrative-controls]~~ The quality assurance program to be used to ensure safety.

(iii) Identification of key positions which are assigned responsibility for safety at and operation of the geologic repository operations area.

- (iv) Personnel qualifications and training requirements.
- (v) Plans for startup activities and startup testing.
- (vi) Plans for conduct of normal activities, including maintenance, surveillance, and periodic testing of structures, systems, and components of the geologic repository operations area.
- (vii) Plans for decommissioning.
- (viii) Plans for any uses of the geologic repository operations area for purposes other than disposal of radioactive wastes, with an analysis of the effects, if any, that such uses may have upon the operation of the structures, systems, and components important to safety.

§ 60.22 Filing and distribution of application.

(a) An application for a license to receive and possess source, special nuclear, or byproduct material in a geologic repository at a site which has been characterized, and an accompanying environmental report, and any amendments thereto, shall be filed in triplicate with the Director and shall be signed by the Secretary of Energy or his authorized representative.

(b) Each portion of such application and environmental report and any amendments shall be accompanied by 30 additional copies. Another 120 copies shall be retained by [~~the Department~~] DOE for distribution in accordance with written instructions from the Director or his designee.

(c) [~~the Department~~] DOE shall, upon notification of the appointment of an Atomic Safety and Licensing Board, update the application and environmental report, eliminating all superseded information and serve them as directed by the board. In addition, at that time [~~the Department~~] DOE shall serve one such copy on the Atomic Safety and Licensing Appeal Panel.

Any subsequent amendments to the application or environmental report shall be served in the same manner.

(d) At the time of filing of an application and environmental report, and any amendments thereto, one copy shall be made available in an appropriate location near the site of the proposed geologic repository (which shall be a public document room, if one has been established) for inspection by the public and updated as amendments to the application or environmental report are made. [This] An updated copy shall be produced at any public hearing on the application for use by any parties to the proceeding.

(e) The [Department] DOE shall certify that the updated copies of the application and environmental report, as referred to in paragraphs (c) and (d), contain the current contents of such documents submitted in accordance with the requirements of this part.

§ 60.23 Elimination of competition.

In its application, environmental report, or site characterization report, the [Department] DOE may incorporate by reference information contained in previous applications, statements, or reports filed with the Commission: PROVIDED, that such references are clear and specific and that copies of the information so incorporated are available in [each] the public document room located near the site of the proposed geologic repository.

§ 60.24 Updating of application and environmental report.

(a) The application and environmental report shall be as complete as possible in the light of information that is reasonably available at the time of [submission] docketing.

(b) The [Department] DOE shall update its application in a timely manner so as to permit the Commission to review, prior to issuance of a license:

(1) Additional geologic, geophysical, geochemical hydrologic, meteorologic and other data obtained during construction.

(2) Conformance of construction of structures, systems, and components with the design.

(3) Results of research programs carried out to confirm the adequacy of designs.

(4) Other information bearing on the Commission's issuance of a license that was not available at the time a construction authorization was issued.

(c) The [Department] DOE shall update its environmental report in a timely manner so as to permit the Commission to review, prior to issuance of a license, the environmental impacts of any substantial changes in the activities proposed to be carried out or any significant new information regarding the environmental impacts of activities previously proposed.

Construction Authorization

§ 60.31 Construction authorization.

Upon review and consideration of an application and environmental report submitted under this part, the Commission may authorize construction if it determines:

(a) Safety: That there is reasonable assurance that the types and amounts of [~~wastes~~]radioactive materials described in the application

can be received, possessed, and disposed of in a repository of the design proposed without unreasonable risk to the health and safety of the public. In arriving at this determination, the Commission shall consider whether:

(1) The [Department] DOE has described the proposed geologic repository including but not limited to (i) the geologic, geophysical, geochemical and hydrologic characteristics of the site; (ii) the kinds and quantities of radioactive waste to be received, possessed, stored, and disposed of in the geologic repository; (iii) the principal architectural and engineering criteria for the design of the geologic repository operations area; (iv) construction procedures which may affect the capability of the geologic repository to serve its intended function; and (v) features or components incorporated in the design for the protection of the health and safety of the public.

(2) The site and design comply with the criteria contained in Subparts E and F of this part.

(3) The [Department's] DOE's quality assurance program complies with the requirements of Subpart G of this part.

(4) The [Department's] DOE's personnel training program complies with the criteria contained in Subpart H of this part.

(5) The [Department's] DOE's emergency plan complies with the criteria contained in Subpart I of this part.

(6) The [Department's] DOE's proposed operating procedures to protect health and to minimize danger to life or property are adequate.

(b) Common defense and security: That there is reasonable assurance that the activities proposed in the application will not be inimical to the common defense and security.

(c) Environmental: That, after weighing the environmental, economic, technical and other benefits against environmental costs and considering [~~reasonable~~] available alternatives, the action called for is issuance of the construction authorization[~~:-~~], with any appropriate conditions to protect environmental values.

§ 60.32 Conditions of construction authorization.

(a) A construction authorization shall include such conditions as the Commission finds to be necessary to protect the health and safety of the public, the common defense and security, or environmental values.

(b) The Commission [~~may;-at-its-discretion;~~] will incorporate in the construction authorization provisions requiring the [Department] DOE to furnish periodic or special reports regarding: (1) progress of construction, (2) any site data obtained during construction which are not within the predicted limits upon which the facility design was based, (3) any deficiencies in design and construction which, if uncorrected, could adversely affect safety at any future time, and (4) results of research and development programs being conducted to resolve safety questions.

(c) The construction authorization will explicitly state those features of the repository cited in the application deemed by the Commission to be so essential to the protection of the public health and safety that they may not be altered during subsequent construction without prior approval from the Commission.

[~~(c)~~](d) A construction authorization shall be subject to the limitation that a license to receive and possess source, special nuclear, or byproduct material at the geologic repository operations area shall not

be issued by the Commission until (1) the [~~Department~~] DOE has updated its application as specified in §60.24, and (2) the Commission has made the findings stated in §60.41.

§60.33 Amendment of construction authorization.

(a) An application for amendment of a construction authorization shall be filed with the Commission fully describing any changes desired and following as far as applicable the format prescribed [~~for construction authorization applications~~] in §60.21.

(b) In determining whether an amendment of a construction authorization will be approved, the Commission will be guided by the considerations which govern the issuance of the initial construction authorization, to the extent applicable.

License Issuance and Amendment

§60.41 Standards for issuance of a license.

A license to receive and possess source, special nuclear, or byproduct material at a geologic repository operations area may be issued by the Commission upon finding that:

(a) Construction of the geologic repository operations area has been substantially completed in conformity with the application as amended, the provisions of the Atomic Energy Act, and the rules and regulations of the Commission. Construction may be deemed to be substantially complete for the purposes of this paragraph if the construction of (1) surface and interconnecting structures, systems, and components, and (2) any underground storage space required for initial operation are substantially complete.

(b) The activities to be conducted at the geologic repository operations area will be in conformity with the application as amended, the provisions of the Atomic Energy Act and the Energy Reorganization Act, and the rules and regulations of the Commission.

(c) The issuance of the license will not be inimical to the common defense and security and will not constitute an unreasonable risk to the health and safety of the public.

(d) All applicable requirements of Part 51 have been satisfied.

§60.42 Conditions of license.

(a) A license issued pursuant to this part shall include such conditions, including license specifications, as the Commission finds to be necessary to protect the health and safety of the public, the common defense and security, and environmental values.

(b) Whether stated therein or not, the following shall be deemed conditions in every license issued:

(1) The license shall be subject to revocation, suspension, modification, or amendment for cause as provided by the Atomic Energy Act and the Commission's regulations.

(2) The [Department] DOE shall at any time while the license is in effect, upon written request of the Commission, submit written statements to enable the Commission to determine whether or not the license should be modified, suspended or revoked.

(3) The license shall be subject to the provisions of the Atomic Energy Act now or hereafter in effect and to all rules, regulations, and orders of the Commission. The terms and conditions of the license shall be subject to amendment, revision, or modification, by reason of amendments

to or by reason of rules, regulations, and orders issued in accordance with the terms of the Atomic Energy Act.

(c) Each license shall be deemed to contain the provisions set forth in Section 183 b-d, inclusive, of the Atomic Energy Act, whether or not these provisions are expressly set forth in the license.

§60.43 License specifications.

(a) A license issued under this part shall include license conditions derived from the analyses and evaluations included in the application, including amendments made before a license is issued, together with such additional conditions as the Commission finds appropriate.

(b) License conditions shall include items in the following categories:

(1) Restrictions as to the physical and chemical form and radioisotopic content of radioactive waste.

(2) Restrictions as to size, shape, and materials and methods of construction of radioactive waste packaging.

~~[(3)--Restrictions-as-to-the-location;-size;-configuration;-construction-and-physical-characteristics-(e.g.:-physical;-chemical-and-thermal-properties)-of-the-storage-medium:]~~

~~[(4)](3)~~ Restrictions as to the amount of waste permitted per unit volume of storage space considering the physical characteristics of both the waste and the storage medium.

~~[(5)](4)~~ Requirements relating to test, calibration, or inspection to assure that the foregoing restrictions are observed.

~~[(6)](5)~~ Controls to be applied to restrict access and to avoid disturbance to the geologic repository operations area and adjacent areas.

[f7d](5) Administrative controls, which are the provisions relating to organization and management, procedures, recordkeeping, review and audit, and reporting necessary to assure that activities at the facility are conducted in a safe manner and in conformity with the other license specifications.

§60.44 Changes, tests, and experiments.

(a)(1) Following authorization to receive and possess source, special nuclear, or byproduct material at a geologic repository operations area, the DOE may (i) make changes in the geologic repository operations area as described in the application, (ii) make changes in the procedures as described in the application, and (iii) conduct tests or experiments not described in the application, without prior Commission approval, provided the change, test, or experiment involves neither a change in the license conditions incorporated in the license nor an unreviewed safety question.

(2) A proposed change, test, or experiment shall be deemed to involve an unreviewed safety question if (i) the likelihood of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the application is increased, (ii) the possibility of an accident or malfunction of a different type than any previously evaluated in the application is created, or (iii) the margin of safety as defined in the basis for any license condition is reduced.

(b) The [Department] DOE shall maintain records of changes in the geologic repository operations area and of changes in procedures made pursuant to this section, to the extent that such changes constitute changes in the geologic repository operations area or procedures as described in the application. Records of tests and experiments carried out pursuant to paragraph (a) of this section shall also be maintained.

These records shall include a written safety evaluation which provides the basis for the determination that the change, test, or experiment does not involve an unreviewed safety question. The [Department] DOE shall prepare annually, or at such shorter intervals as may be specified in the license, a report containing a brief description of such changes, tests, and experiments, including a summary of the safety evaluation of each. The [Department] DOE shall furnish the report to the appropriate NRC Regional Office shown in Appendix D of Part 20 of this chapter with a copy to the Director of Inspection and Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Any report submitted pursuant to this paragraph shall be made a part of the public record of the licensing proceeding.

§60.45 Amendment of license.

(a) An application for amendment of a license may be filed with the Commission fully describing the changes desired and following as far as applicable the format prescribed for license applications.

(b) In determining whether an amendment of a license will be approved, the Commission will be guided by the considerations that govern the issuance of the initial license, to the extent applicable.

§60.46 Particular activities requiring license amendment.

(a) Unless expressly authorized in the license, an amendment of the license shall be required with respect to any of the following activities:

(1) Any action which would make emplaced high-level radioactive waste irretrievable or which would substantially increase the difficulty of retrieving such emplaced waste.

(2) Dismantling of structures.

(3) Removal or reduction of controls applied to restrict access to or to avoid disturbance of the geologic repository operations area or adjacent areas.

(4) Destruction or disposal of records required to be maintained under the provisions of this part.

(5) Any substantial change to the design or operating procedures from that specified in the license.

(6) Decommissioning.

(b) An application for such an amendment shall be filed, and shall be reviewed, in accordance with the provisions of §60.45.

Decommissioning

§60.51 License amendment to decommission.

(a) The [Department] DOE shall submit an application to amend the license prior to decommissioning. The application shall consist of an update of the license application and environmental report submitted under §§60.21 and 60.22, including:

(1) A description of the program for post-decommissioning monitoring of the geologic repository.

(2) A detailed description of the measures to be employed--such as land use controls, construction of monuments, and preservation of records--to regulate or prevent activities that could impair the long-term isolation of emplaced waste within the geologic repository and to assure that relevant information will be preserved for the use of future generations.

(3) Geologic, geophysical, geochemical, hydrologic, and other site data that are obtained during the operational period pertinent to the long-term isolation of emplaced radioactive wastes.

(4) The results of test, experiments, and any other analyses relating to backfill of excavated areas, shaft sealing, waste interaction with emplacement media, and any other tests, experiments, or analysis pertinent to the long-term isolation of emplaced wastes within the geologic repository.

(5) Any substantial revision of plans for decommissioning.

(6) Other information bearing upon decommissioning that was not available at the time a license was issued.

(b) The [Department] DOE shall update its environmental report in a timely manner so as to permit the Commission to review, prior to issuance of an amendment, substantial changes in the decommissioning activities proposed to be carried out or significant new information regarding the environmental impacts of such decommissioning.

§60.52 Termination of license.

(a) Following decommissioning, the [Department] DOE may apply for an amendment to terminate the license.

(b) Such application shall be filed, and will be reviewed, in accordance with the provisions of §60.45 and this section.

(c) A license shall be terminated only when the Commission finds with respect to the geologic repository:

(1) That the final disposition of radioactive wastes has been made in conformance with the [Department's] DOE's plan, as amended and approved as part of the license.

(2) That the final state of the geologic repository operations area site conforms to the [Department's] DOE's decommissioning plans, as amended and approved as part of the license.

(3) That the termination of the license is authorized by law, including Sections 57, 62, and 81 of the Atomic Energy Act, as amended.

Subpart C - Participation by State Governments and
Indian Tribes

§60.61 Site review.

(a) Upon publication in the FEDERAL REGISTER of a notice that the [Department] DOE has selected a site for site characterization, in accordance with §60.11(b), and upon the request of a State, the Director shall make available NRC staff to consult with representatives of State, Indian tribal and local governments to keep them informed of the Director's view on the progress of site characterization and to notify them of any subsequent meetings or further consultations with the [Department] DOE.

(b) Requests for consultation shall be made in writing to the Director.

(c) The Director also shall respond to written questions or comments from the State, Indian tribal and local governments as appropriate, on the information submitted by the [Department] DOE in accordance with §60.11 of this part. Copies of such questions or comments and their responses shall be made available in the Public Document Room and shall be transmitted to the [Department] DOE.

§60.62 Filing of proposals for State participation.

(a) Consultation under §60.61 may include, among other things, a review of applicable NRC regulations, licensing procedures, potential schedules, and the type and scope of State activities in the license review permitted by law. In addition, staff shall be made available to cooperate with the State in developing proposals for participation by the State.

(b) States potentially affected by siting of a geologic repository operations area at a site that has been selected for characterization may submit to the Director a proposal for State participation in the review of the site characterization report and/or license application. A State's proposal to participate may be submitted at any time prior to docketing of an application or up to 120 days thereafter.

(c) Proposals for participation in the review shall be signed by the Governor of the State submitting the proposal and shall at a minimum contain the following information:

(1) A general description of how the State wishes to participate in the review, specifically identifying those issues which it wishes to review.

(2) A description of material and information which the State plans to submit to the NRC staff for consideration in the review. A tentative schedule referencing steps in the review and calendar dates for planned submittals should be included.

(3) A description including funding estimates of any work that the State proposes to perform for the Commission, under contract, in support of the review.

(4) A description of State plans to facilitate local government and citizen participation.

(5) A preliminary estimate of the types and extent of impacts which the State expects should a geologic repository be located at the site in question.

(6) If the State desires educational or information services (seminars, public meetings) or other actions on the part of NRC, such as establishing additional public document rooms or employment or exchange

of State personnel under the Intergovernmental Personnel Act, these shall be included with the proposal.

§60.63 Approval of proposals.

(a) The Director shall arrange for a meeting between the representatives of the State and the NRC staff to discuss any proposal submitted under §60.62(b), with a view to identifying any modifications that may contribute to the effective participation by the State.

(b) Subject to the availability of funds, the Director shall approve all or any part of a proposal, as it may be modified through the meeting described above, if he determines that:

(1) The proposed activities are suitable in light of the type and magnitude of impacts which the State may bear, and

(2) The proposed activities (i) will enhance communications between NRC and the State, (ii) will contribute productively to the license review, and (iii) are authorized by law.

(c) The decision of the Director shall be transmitted in writing to the Governor of the originating State. A copy of the decision shall be made available at the Public Document Room. If all or any part of a proposal is rejected, the decision shall state the reason for the rejection.

(d) A copy of all proposals received shall be made available at the Public Document Room.

§60.64 Participation by Indian tribes.

(a) Any Indian tribe which is potentially affected by siting of a geologic repository operations area at a site that has been selected for characterization may:

(1) Request consultation, as provided with respect to States under §60.61.

(2) Submit proposals for participation, as provided with respect to States under §60.62, except that such proposals shall be signed by the chief executive (or other specifically authorized representative) of the Tribal organization.

(b) The Director shall respond to such requests or proposal in the manner provided in this subpart, except that decisions under §60.63 shall be transmitted in writing to the chief executive (or other specifically authorized representative) of the Tribal organization.

(c) Any request or proposal under this section shall be accompanied by such documentation as may be needed to determine the eligibility of the Indian tribe or the specific authority of its representatives.

§60.65 Coordination.

The Director may take into account the desirability of avoiding duplication of effort in taking action on multiple proposals submitted pursuant to the provisions of this Subpart to the extent this can be accomplished without substantial prejudice to the parties concerned.

Subpart D - Records, Reports, Tests, and Inspections

§60.71 Records and reports.

(a) The [Department] DOE shall maintain such records and make such reports in connection with the licensed activity as may be required by the conditions of the license or by rules, regulations, and orders of the Commission as authorized by the Atomic Energy Act and the Energy Reorganization Act.

(b) Records of the receipt, handling, and disposition of radioactive waste at a geologic repository operations area shall contain sufficient information to ~~[assure-traceability-]~~ provide a complete history of the movement of the waste from the shipper through all phases of storage and disposal.

(c) The [Department] DOE shall promptly notify the Commission of each deficiency found in the site characteristics, and design and construction of the geologic repository operations area which, were it to remain uncorrected, could (1) be a substantial safety hazard, (2) represent a significant deviation from the design criteria and design bases stated in the application, or (3) represent a [significant] deviation from the conditions stated in the terms of a construction authorization or the license, including license specifications. The notification shall be in the form of a written report, copies of which shall be sent to the Director and to the appropriate Nuclear Regulatory Commission Inspection and Enforcement Regional Office listed in Appendix ~~[A-to-Part-73]~~ D of Part 20 of this chapter.

§60.72 Tests.

The [Department] DOE shall perform, or permit the Commission to perform, such tests as the Commission deems appropriate or ~~[are]~~ necessary for the administration of the regulations in this part. These may include tests of (a) radioactive waste, (b) the geologic repository including its structures, systems, and components, (c) radiation detection and monitoring instruments, and (d) other equipment and devices used in connection with the receipt, handling, or storage of radioactive waste.

§60.73 Inspections.

(a) The [Department] DOE shall allow the Commission to inspect the premises of the geologic repository operations area and adjacent areas to which the [Department] DOE has rights of access.

(b) The [Department] DOE shall make available to the Commission for inspection, upon reasonable notice, records kept by the [Department] DOE pertaining to activities under this part.

(c)(1) The DOE shall upon request by the Director, Office of Inspection and Enforcement, provide rent-free office space for the exclusive use of the Commission inspection personnel. Heat, air conditioning, light, electrical outlets and janitorial services shall be furnished by DOE. The office shall be convenient to and have full access to the facility and shall provide the inspector both visual and acoustic privacy.

(2) The space provided shall be adequate to accommodate a full-time inspector, a part-time secretary and transient NRC personnel and will be generally commensurate with other office facilities at the site. A space of 250 square feet either within the site's office complex or in an office trailer or other on site space is suggested as a guide. For sites containing multiple facilities, additional space may be requested to accommodate additional full-time inspector(s). The office space that is provided shall be subject to the approval of the Director, Office of Inspection and Enforcement. All furniture, supplies and communication equipment will be furnished by the Commission.

(3) DOE shall afford any NRC resident inspector assigned to that site, or other NRC inspectors identified by the Regional Director as

likely to inspect the facility, immediate unfettered access, equivalent to access provided regular plant employees, following proper identification and compliance with applicable access control measures for security, radiological protection and personal safety.

PART 70 - DOMESTIC LICENSING OF SPECIAL NUCLEAR MATERIAL

[29-]25. Section 70.14 is amended by adding a section (c).

§70.14 Specific exemptions.

* * * * *

(c) The [Department] DOE is exempt from the requirements of the regulations in this part to the extent that its activities are subject to the requirements of Part 60 of the chapter.

(Amendments to all parts issued pursuant to citations of authority presently codified or, in the case of 10 CFR Part 60, as proposed to be codified.)

Dated at Washington, D.C. this _____ day of _____, 1981.

For the U.S. Nuclear Regulatory Commission.

Samuel J. Chilk
Secretary of the Commission



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

December 10, 1980

MEMORANDUM FOR:

Chairman Ahearne
Commissioner Gilinsky
Commissioner Hendrie
Commissioner Bradford

FROM:



Leonard Bickwit, Jr., General Counsel

SUBJECT:

FINAL RULE -- 10 CFR PART 60 -- "DISPOSAL OF
HIGH-LEVEL RADIOACTIVE WASTES IN GEOLOGIC
REPOSITORIES" -- LICENSING PROCEDURES (80-474A/B/C)

Staff has requested that you approve publication of the final rule to be codified as the part of 10 CFR Part 60 "Disposal of High-Level Radioactive Waste in Geologic Repositories" dealing with licensing procedures. We believe that the following legal issues associated with the Staff proposal require Commission consideration.

1. NRC Deference to DOE on Common Defense and Security Matters

Section 60.37(b) would provide that before issuing a construction authorization to DOE, NRC would have to find reasonable assurance that DOE's activities will not be inimical to the common defense and security. Section 60.32(a) would explicitly authorize the NRC to include in a DOE license conditions necessary for protection of the common defense and security. However, Staff believes that the NRC may rely on DOE to protect the common defense and security because the legislative history of the Energy Reorganization Act shows that NRC's role is limited to protection of the public health and safety. See Staff Response to Comment 59, Appendix B, p. 44; Rule Preamble, pg. 15. Consequently, Staff does not intend to perform a substantive review of DOE's proposed activities for the purposes of protecting common defense and security. The legal concept that NRC must defer to DOE on all common defense and security matters was explored and rejected in connection with the Commission decision in the clearance rule proceeding. In our view, complete reliance on DOE would not

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Enclosure B

be consistent with the NRC's licensing responsibilities under the Energy Reorganization Act and Atomic Energy Act. Although Congress may have been more concerned with public health and safety at the time it enacted the Energy Reorganization Act, that Act did not abrogate NRC responsibility for protecting common defense and security with regard to licenseable DOE waste disposal activities. Accordingly, we believe that the Statement of Consideration and Comment Analysis should be amended to delete Staff's statement of reliance on DOE in these matters. If the Commission believes that common defense and security matters warrant special treatment, we suggest that the rule be amended to provide for certification to the Commission prior to litigation of common defense and security issues.

2. Alternative Sites

In numerous places Staff specifically disavows use of the Atomic Energy Act as a source of legal authority for requesting information on alternative sites. See Rule Preamble, p. 8; Staff Responses to Comments 13, 28, 33, Appendix B, pp. 8, 20, 24; Analysis of State Planning Council Comments, pg. 11. There are no judicial decisions that would preclude NRC from relying on the Atomic Energy Act as authority for considering alternatives to mitigate radiological safety impacts. Moreover, use of the Atomic Energy Act would make logical sense to the extent that the safety review of proposed repository sites focuses on maximizing the use of site geology as a barrier to the spread of radionuclides as opposed to measuring the site against fixed quantitative standards. We would prefer language that would at least preserve the argument that the Atomic Energy Act may serve as a source of authority.

At the last Commission meeting there was some discussion of site "banking". See Transcript pp. 68-72. Staff stated that the intent of the rule was that once the minimum number of sites were characterized for purposes of filing an initial application, subsequent applications could be filed for other sites on the initial list without characterizing any additional sites. We believe that such a practice could violate NEPA if carried to the logical end of permitting applications to be filed for all "acceptable" sites within the original slate without any further consideration of alternatives. If the Commission wishes to avoid sequential alternative site reviews, we suggest that the minimum number of sites to be characterized

be selected with a specific view toward two or three, rather than one repository application. In this way the initial alternative site review would provide NEPA support for the "program" of several sequential repository applications over the course of some years. Even if this were done, however, additional alternatives would need to be considered if significant new information were to develop.

3. Nature of Construction Authorization

Since the license contemplated by Section 202 of the Energy Reorganization Act is a materials license and not a production or utilization facility license, a construction authorization is not, strictly speaking, a license of the type contemplated by the Atomic Energy Act. See Staff Response to Comment 99, Enclosure B, pg. 67. Thus, as presently drafted, the conforming amendments to Parts 20 and 21 would not subject DOE to these regulations until issuance of a license to store and dispose of nuclear materials at the repository. However, the rule is ambiguous whether the enforcement provisions of subpart B of 10 CFR Part 2 apply to DOE after it has received a construction authorization but before it has received a repository license. We suggest that the regulations be clarified to indicate the extent which the provisions of subpart B of Part 2 apply to DOE once DOE has received a construction authorization. The Commission should realize in this regard that while "violation" of a construction authorization could lead to ultimate denial of the license to store and dispose of wastes, it could not lead to certain enforcement actions under subpart B such as civil penalties.

Finally, 10 CFR Part 60 is presently drafted so that the notice of hearing on the application that requests construction authorization initiates a licensing proceeding that is not finally terminated until final NRC action on the license to store and dispose of wastes in the repository. This means that a formal adjudicatory proceeding, with a presiding atomic safety and licensing board and application of the ex parte rules, will be pending all during repository construction. This result appears to flow from the nature of the one-step materials licensing process. However, other forms of proceeding may be possible and we would be willing to discuss this more with OELD if the Commission is interested in pursuing some different direction.

cc: OPE
SECY
EDO
ELD

Enclosure B



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

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December 18, 1980

OFFICE OF THE
 COMMISSIONER

MEMO TO: Chairman Ahearne
 Commissioner Gilinsky
 Commissioner Hendrie

FROM: Peter A. Bradford *P.B.*

SUBJECT: SECY-80-474 FINAL RULE - 10 CFR PART 60, "DISPOSAL OF
 HIGH-LEVEL RADIOACTIVE WASTES IN GEOLOGIC REPOSITORIES -
 LICENSING PROCEDURES"

I suggest the following modifications to the rule:

1. The "Supplementary Information" and the analysis of public comments both indicate that NRC is only requiring alternatives because of its NEPA responsibilities. In fact, however, any site is going to have positive and negative factors relevant to its suitability as a permanent repository. Accordingly, it appears that even without NEPA, we would require an analysis of alternatives in order to make a safety judgment about the merits of a particular site. To the extent that our preference among alternatives flows from safety or technical considerations, there is no reason to have constrained ourselves by basing this evaluation solely on NEPA.

The OGC memo of December 10 indicates, "There are no judicial decisions that would preclude NRC from relying on the Atomic Energy Act as authority for considering alternatives to mitigate radiological safety impacts." I think that we should exercise this authority explicitly in the rule, presumably in Section 60.21.

2. The rule states that the Commission fully expects DOE to submit a wider range of alternatives than the minimum suggested in the rule. Additionally, USGS states that in situ testing will be necessary at four to five sites and notes that resources will not be wasted since, if character-suitable, it can be reserved for for the first repository. The site characterization be undertaken three geologic environments, unless agreement is granted by the Commission. This would permit us and DOE to meet repository sites two and three site characterization of further discussed in OGC's December 10 memo.

DUPLICATE DOCUMENT

Entire document previously
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No. of pages: 4

Enclosure C



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

January 6, 1981

MEMORANDUM FOR: Chairman Ahearne
Commissioner Gilinsky
Commissioner Hendrie
Commissioner Bradford

FROM: Edward J. Hanrahan *EJH*

SUBJECT: FINAL RULE - 10 CFR PART 60 "DISPOSAL OF HIGH LEVEL
RADIOACTIVE WASTES IN GEOLOGIC REPOSITORIES - LICENSING
PROCEDURES"

Staff has requested approval of publication of the final rule as part of 10 CFR Part 60, "Disposal of High Level Radioactive Wastes in Geologic Repositories" dealing with licensing procedures. I believe that certain procedural aspects of the final rule deserve further Commission consideration.

The briefings have highlighted the informal interactions between NRC and DOE staff at various points in the decision-making process related to the licensing of DOE facilities. Among the prominent points of contact will be the resolution of outstanding differences between NRC and DOE during the site characterization review process prior to a hearing on construction authorization - in a manner similar to NRC - applicant interaction prior to a CP hearing during the reactor licensing process.

This close but informal NRC involvement is an outgrowth of a decision made a year ago in SECY-79-580 to enable NRC to review and influence DOE's exploration and testing program at as early a stage as possible. At the time, the Commission considered several alternatives providing for preliminary licensing decisions of a formal nature prior to exploration and testing by DOE, and decided in favor of early and informal extensive NRC staff involvement in DOE's site characterization process. Staff acknowledged disadvantages in informal vs. formal interaction such as: the potential commitment of money prior to a licensing decision, potential for delay of the repository development schedule, the absence of NRC formal authority over DOE's site characterization activities, and possible criticism of NRC for denying the states and the public effective participation in a formal licensing process at the site characterization stage. On balance, staff believed that the alternative selected would

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

January 6, 1981

MEMORANDUM FOR: Chairman Ahearne
Commissioner Gilinsky
Commissioner Hendrie
Commissioner Bradford

FROM: *EB* Leonard Bickwit, Jr.
General Counsel

SUBJECT: SECY-80-474 - LANGUAGE CHANGES FOR PART
60 DEALING WITH COMMON DEFENSE AND SECURITY
MATTERS

Set forth below are draft language changes requested by the Commission for the Part 60 final rulemaking that would address OGC concerns regarding NRC deference to DOE on common defense and security matters. The draft language changes are based on the approach adopted by NRC in dealing with FEMA on emergency plans. The changes are to the original text of SECY-80-474.

1. Rule preamble, page 15 of Enclosure A: Replace bottom paragraph with the following:

"The Commission has declined to modify the common defense and security finding which one commenter characterized to be 'so vague as to be of no consequence.' The proposed 'inimicality' findings, §§ 60.31(b) and 60.41(c), reflect the legal standards set forth in the Atomic Energy Act, in particular Section 57c(2) thereof. The concerns here related generally to protection of classified information and materials, protection against loss or diversion of nuclear waste materials from the repository, and protection against radiological sabotage at the repository. Detailed regulations appear in other parts of this chapter on protection of classified matters and no further special provisions appear to be required for Part 60. See 10 CFR Part 2, subpart I, Part 25, Part 95. Radiation hazards associated with high level radioactive wastes make them inherently unattractive as a target for diversion, and therefore

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Enclosure E

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no detailed provisions appear to be warranted at this time for protection against loss or diversion. The rule has been amended to require DOE to describe the elements of its plan to protect against sabotage. However, DOE, as a Federal agency operating under the Atomic Energy Act, has its own obligation to promote the common defense and security. Indeed DOE is responsible under the Atomic Energy Act for protection of materials and facilities far more sensitive from a safeguards standpoint than nuclear waste materials. Therefore the rule provides that a DOE certification that its repository operations area safeguards are equal to those at comparable DOE surface facilities shall constitute a rebuttable presumption on the question of inimicality to the common defense and security.

2. Rule section 60.21(b)(3), page 43 of Enclosure A: Add the following at the end of paragraph (b).

"A description of the physical security plan for protection against radiological sabotage. Since the radiation hazards associated with high level wastes make them inherently unattractive as a target for theft or diversion, no detailed information need be submitted on protection against theft or diversion."

3. Rule section 60.31(b) and 60.41(c), pages 50 and 52 of Enclosure A: Add the following at the end of the current text:

"A DOE certification that it will provide at the geologic repository operations ~~area~~ such safeguards as it requires at comparable DOE surface facilities to promote the common defense and security will constitute a rebuttable presumption of non-inimicality to the common defense and security."

cc: OPE
 SECY
 EDO
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Department of Energy
Washington, D.C. 20585

April 9 1980

Honorable John F. Ahearne
Chairman
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Chairman:

This is to confirm the discussions between Sheldon Meyers and Colin Beath of my staff and William Dircks of the Commission and members of his staff regarding Department concerns with the proposed regulations governing the disposal of high-level radioactive waste (10 CFR Part 60).

As discussed during the meeting, the Department does not believe that the final version of the proposed regulations and the analysis by the Commission staff of comments received on the draft regulations have adequately addressed concerns raised by the Department in the letter of March 3, 1980, from Sheldon Meyers to Mr. Samuel Chilk.

In previous comments, the Department requested that the proposed regulations be amended so as not to be inconsistent with the Department's responsibilities for site investigations, consultation and concurrence with the States and determination of suitable sites. The Department still believes that the Part 60 being offered for Commission affirmation still reflects such inconsistency by attempting to extend the Commission's authority into the conduct of the Department's research and development programs. For example, section 60.11 contains a broad, continuing requirement for the Department to report semi-annually to the Director, Office of Nuclear Materials Safety and Safeguards, on the Department's site characterization program and provides for the Director's continuing critique of the Department's program. We believe that such action is unwarranted and beyond the intent of Congress in enacting section 202 of the Energy Reorganization Act of 1974.

During the discussions between our staffs, we also pointed out the potential for redundant interactions with State and local officials and the general public. For example, the Department intends to hold public meetings in an affected State and in the vicinity of any site proposed for detailed site evaluation prior to submitting the Site Characterization Report to the Commission. The Department, of course, also will have had a continuing relationship with State and local officials. Therefore, we are of the opinion, and we believe the Commission staff has agreed, that it would be inappropriate to hold additional hearings on the Site Characterization Report.

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Enclosure F

Finally, we believe that the participants at the meeting agreed that required information need not be duplicated in a Site Characterization Report if such information already appears in other Department documents that are available to the public.

In addition to these points of concern discussed at the meeting, we believe some additional Department concerns should also be addressed in the regulations.

We believe Part 60 should be clarified in various parts to remove any implication that the Commission requires information on specific waste streams from the Department's individual facilities, or requires involvement in the Department's nuclear weapons, materials production, interim management of defense nuclear waste, and research and development activities. The Department is concerned that some portions of these regulations may exceed the Commission's statutory authority which in this case is section 202(3) and (4) of the Energy Reorganization of 1974.

Within these principles, the Department recognizes the Commission's need to have knowledge of the waste forms to be emplaced in a licensed repository and, therefore, will continue to share with the Commission staff the results of applicable research and development on radioactive waste form and packaging development.

We request that the Commission accommodate the Department's views on the above outlined problems prior to issuing a final rule.

Sincerely,

