

**OVERVIEW OF THE YUCCA MOUNTAIN LICENSING PROCESS**

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**ABSTRACT**

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This paper presents an overview of the licensing process for a Yucca Mountain repository for high-level radioactive waste and spent nuclear fuel. The paper discusses the steps in the licensing proceeding, the roles of the participants, the licensing and hearing requirements contained in the Code of Federal Regulations. A description of the Nuclear Regulatory Commission (NRC) staff acceptance and compliance reviews of the Department of Energy (DOE) application for a construction authorization and a license to receive and possess high-level radioactive waste and spent nuclear fuel is provided. The paper also includes a detailed description of the hearing process.

**INTRODUCTION**

The Department of Energy (DOE) is required under the Nuclear Waste Policy Act of 1982, as amended, to submit a license application to the NRC for development of a high-level radioactive waste repository at Yucca Mountain. NRC authority to regulate the Yucca Mountain repository comes from the Atomic Energy Act of 1954, as amended; the Energy Reorganization Act of 1974, as amended; and the Nuclear Waste Policy Act, as amended.

The Code of Federal Regulations is a codification of the general and permanent rules published in the Federal Register by the Executive departments and agencies of the Federal Government. Title 10 of the Code of Federal Regulations (CFR) Part 63, *Disposal of High-Level Radioactive Wastes in a Geologic Repository at Yucca Mountain, Nevada*, contains the NRC regulatory requirements for the Yucca Mountain repository. Part 63 specifies that DOE shall not: receive or possess spent nuclear fuel or high-level radioactive waste except as authorized by a license issued by the NRC; nor shall DOE begin construction of a geologic repository unless it has filed an application with the NRC and has obtained a construction authorization. Failure to comply with this requirement is grounds for denial of a license; however, limited, supporting procurement and construction activities may be authorized by the NRC prior to the issuance of a construction authorization.

The DOE's license application for the Yucca Mountain repository, as required by 10 CFR Part 63, will contain "General Information," a "Safety Analysis Report," and is required to be accompanied by the DOE's final environmental impact statement for the repository. The Nuclear Waste Policy Act requires that, in connection with the issuance of a construction authorization and license for the Yucca Mountain repository, the NRC adopt, to the extent practicable, the final environmental impact statement prepared by the DOE. The NRC is required to prepare an environmental evaluation only for any areas where it cannot adopt the DOE final environmental impact statement.

The NRC will conduct a proceeding to review the DOE's license application for a construction authorization. At the conclusion of the proceeding, the NRC will decide whether or not to issue a construction authorization. If the NRC approves, DOE may begin construction of the repository. Midway through construction and as required by 10 CFR Part 63.24, the DOE will update its application and request a license to receive and possess high-level nuclear waste and spent nuclear fuel. The NRC will then conduct another proceeding to review this license amendment request. If the NRC approves, the DOE may begin waste receipt at the repository. The general procedures for the issuance of a construction authorization; a license to receive and possess waste; and to amend a construction authorization and a

license, are contained in 10 CFR Part 2, Subpart A. 10 CFR Part 2, Subpart J, contains specific procedures for the issuance of a construction authorization and a license for the receipt and possession of high-level radioactive waste at the Yucca Mountain repository. Three outcomes are available to the NRC at the conclusion of the licensing proceeding. NRC can grant the construction authorization or license. NRC can grant the construction authorization or license subject to conditions. NRC can deny construction authorization or license.

### **Steps in the Yucca Mountain Licensing Proceeding**

The major steps in the Yucca Mountain licensing proceeding include in chronological order establishment and population of the Yucca Mountain Licensing Support Network; the DOE submittal of the Yucca Mountain license application; NRC conduct of an acceptance review of the license application; if acceptable the NRC will docket the license application and issue a notice of the evidentiary hearing required by 10 CFR Part 2. Requests to Intervene are required to be submitted by interested parties within 30 days of the notice of the hearing. The discovery process proceeds in parallel with the NRC staff compliance review of the license application. At the completion of its review, the NRC staff issues a safety evaluation report; the evidentiary hearing(s) are conducted by the Atomic Safety and Licensing Board; the Atomic Safety and Licensing Board issues an initial Decision; and the NRC Commissioners issue a final Decision on the construction authorization. Midway through construction the DOE will update its license application and request a license to receive and possess high-level nuclear waste and spent nuclear fuel. The NRC will then conduct a second proceeding to review this license amendment request. Once the DOE's updated license application is accepted for compliance review, a notice of the hearing for the license to receive and possess high-level waste and spent nuclear fuel will be issued. Petitions from potential interveners will be considered on their merits. At the completion of the NRC staff compliance review the staff will issue a second safety evaluation report; a hearing will be conducted by the Atomic Safety and Licensing Board; the Atomic Safety and Licensing Board will issue an initial decision on the license to receive and possess high-level nuclear waste and spent nuclear fuel; and the NRC Commissioners will issue a final decision. If the NRC approves, the DOE may then begin waste receipt at the repository.

### **Yucca Mountain Licensing Support Network**

The DOE is required to make available, no later than six months in advance of submitting the Yucca Mountain license application an electronic file, including a bibliographic header, for all information upon which the DOE intends to rely and/or to cite in support of its position in the licensing proceeding; any information that is known to, and in the possession of, or developed by the DOE that is relevant to, but does not support, that information or the DOE's position; and all reports and studies, prepared by or on behalf of the DOE, including all related "circulated drafts," relevant to both the license application and the issues prescribed in the Topical Guidelines in Regulatory Guide 3.69, regardless of whether they will be relied upon and/or cited by the DOE.

The NRC is required to make its information available no later than thirty days after the DOE certifies its information is complete. Each other potential party, interested governmental participant or party is required to make its information available no later than ninety days after the DOE certification.

### **Participants in the Proceeding**

The participants in the Yucca Mountain licensing proceeding include the DOE as the applicant for the Yucca Mountain construction authorization; the NRC technical review staff; intervener(s); interested governmental participants; the Atomic Safety and Licensing Board headed by the Presiding Officer; and the NRC Commissioners.

**The DOE Role**

The DOE's role in the Yucca Mountain licensing proceeding is to engage in pre-license application interactions with the NRC technical review staff to build confidence on the part of the staff that DOE will submit a license application that is acceptable for docketing. The DOE will prepare the license application consistent with the 10 CFR Part 63 license requirements; meet QA requirements applicable to the data, software, models and analyses supporting the license application; and work to achieve and maintain a safety culture. The DOE is required to place the DOE documents relevant to the license application into the Licensing Support Network.

The DOE's license application must be signed by the Secretary of Energy or the Secretary's authorized representative (the Secretary has authorized the Office of Civilian Radioactive Waste Management Director of Repository Development to sign the license application) and must be filed in triplicate with the Director, Nuclear Materials Safety and Safeguards.

The DOE is required to submit 30 additional copies of the license application and the final environmental impact statement and retain another 120 copies for distribution in accordance with written instructions from the Director, Nuclear Materials Safety and Safeguards.

On notification of the appointment of an Atomic Safety and Licensing Board, the DOE is required by 10 CFR 63.22 to update the application, eliminating all superseded information, and supplement the final environmental impact statement if necessary, and serve the updated application and supplemental final environmental impact statement as directed by the Atomic Safety and Licensing Board. Any subsequent amendments to the application or supplements to the final environmental impact statement must be served in the same manner.

When the license application is filed, copies must be made available in the DOE's public reading rooms near the Yucca Mountain site for inspection by the public. These copies are required to be updated as amendments to the application are made. The final environmental impact statement and any supplements are also required to be made available. An updated copy of the application, and the final environmental impact statement and supplements, must also be produced at the Yucca Mountain licensing hearing for use by any party to the proceeding.

Following the submittal of the license application, the DOE will facilitate and support NRC technical staff compliance review by responding to NRC requests for additional information and supporting NRC inspection activities. The DOE bears the burden of proof to show that the design and performance of the repository is safe, to demonstrate that regulations are met, and to ensure continued compliance with the regulations. In parallel with the NRC compliance review of the license application the DOE will conduct discovery and respond to discovery requests. At the completion of the NRC compliance review and issuance of a Safety Evaluation Report, the DOE will defend the license application and address admitted contentions at the evidentiary hearing.

**The NRC Staff Role**

The mission of the NRC is to ensure adequate protection of the public health and safety, the common defense and security and, and the environment in the use of nuclear materials in the United States. NRC's standard of safety for the Yucca Mountain repository is reasonable assurance/reasonable expectation of adequate protection.

NRC is providing regulatory oversight for the Yucca Mountain repository at the direction of Congress in the Nuclear Waste Policy Act and the Energy Policy Act of 1992.

The NRC technical staff role in the Yucca Mountain licensing proceeding is to engage in pre-license application interactions with the DOE. The NRC, like the DOE and other interested parties, is required to place relevant NRC documents into the Licensing Support Network.

The Division of High Level Waste Management in NRC's Office of Nuclear Materials Safety and Safeguards directs the NRC's program for the regulation of the DOE High-Level Waste repository program. The Division of High Level Waste Management responsibilities include issuing regulations and guidance; review and comment on DOE's site characterization and design activities; assessment of the completeness and acceptability of DOE's license application; issuing the construction authorization, oversight of construction of the repository; issuing the license to receive and possess waste, oversight of repository operations and authorization of closure and decommissioning of the repository. During the licensing process the Division of High Level Waste Management performs the acceptance review of the license application assessing its completeness and acceptability for beginning a compliance review. Division of High Level Waste Management staffers document their review of the License Application in a safety evaluation report which serves as the NRC's principal testimony in the Yucca Mountain licensing hearing.

The NRC's regulatory role is to apply the applicable regulations and guidance, and to review the Yucca Mountain license application to determine if it demonstrates compliance with the regulations. The NRC will impose any License conditions considered necessary to meet the reasonable assurance and reasonable expectation determinations for issuance of the construction authorization and license.

The Yucca Mountain Review Plan provides the NRC staff with guidance for the review of the DOE license application. The NRC staff will also use the Yucca Mountain Review Plan as guidance to review any amendments to the license application and, potentially, applications to amend the construction authorization and license. The purpose of the Yucca Mountain Review Plan is to provide uniform standards for the NRC staff reviews. The Yucca Mountain Review Plan is designed to focus the NRC staff review on determining if the Yucca Mountain repository can be constructed and operated, and waste received and possessed, in compliance with the applicable NRC regulations. The Yucca Mountain Review Plan does not have the force of a regulation and compliance with the Yucca Mountain Review Plan is not required. Methods and solutions different from those specified in the Yucca Mountain Review Plan will be acceptable if the DOE demonstrates in the license application that it has complied with regulatory requirements. The Yucca Mountain Review Plan provides guidance to the NRC staff on areas for review, review methods, acceptance criteria, and evaluation findings for documenting compliance with the applicable sections of 10 CFR Part 63. The Yucca Mountain Review Plan is risk-informed and performance-based. This, in conjunction with the performance-based nature of 10 CFR Part 63, will focus the NRC staff review on those aspects of repository design and performance most important to public and employee health and safety. The NRC staff review, using the guidance in the Yucca Mountain Review Plan, is to consider the safety strategy of the DOE consistent with the NRC policy on risk-informed, performance-based regulations in which risk insights, engineering analysis, expert judgment, the principle of defense-in-depth, and safety margins, are to be incorporated in licensing decisions.

The NRC staff will conduct an acceptance review of DOE's license application for docketing in accordance with the provisions of 10 CFR 2.101(f). To allow the NRC staff to determine whether the application is complete and acceptable for docketing, it will initially be treated as a tendered document, and a copy will be placed in the NRC's Public Document Room for public inspection. The DOE is required to submit twenty copies of the license application to facilitate the acceptance review. NRC will consider the application complete and acceptable for docketing if the information provided in the license application is complete, describes investigation and physical examination of the regional and site conditions, and includes analyses and design information to demonstrate that the applicable Yucca

Mountain Review Plan acceptance criteria will be met. The docketing acceptance review does not determine the technical adequacy of the submitted information.

The NRC expects the staff to complete the acceptance review within 3 months. The NRC will then inform DOE of the results of the review, along with a projected schedule for the remainder of the review. The NRC staff can accept the application for review; or identify deficiencies in the application and request the additional information, needed to make the application complete, to be submitted within a specified period; or reject the application if the staff find it contains insufficient information to support a detailed compliance review. If deficiencies are limited, the staff could proceed with a detailed compliance review while awaiting additional specific information from the DOE. The NRC staff decision to accept or reject an application is expected to be made in writing 90 days following receipt of the license application and would be based on consideration of the submitted information and the importance of any missing information for beginning the detailed technical review. Detailed technical questions can be included if any are identified during the acceptance review.

Once the NRC staff determines that the DOE's license application is acceptable for docketing, the DOE will be requested to submit to the Director, Nuclear Materials Safety and Safeguards additional copies of the license application and final environmental impact statement as required by 10 CFR 63.22; serve a copy of the license application and environmental impact statement on the chief executive of Nye County; and make direct distribution of additional copies to Federal, State, Indian Tribe, and local officials in accordance with the requirements of 10 CFR 63.22, and written instructions from the Director, Nuclear Materials Safety and Safeguards. These copies of the license application and final environmental impact statement are required to be completely assembled documents, identified by the docket number. Subsequently distributed amendments to the application, however, may include revised pages and the recipients are responsible for inserting the revised pages.

The tendered license application will be formally docketed upon receipt by the Director, Nuclear Materials Safety and Safeguards of the required additional copies. The date of docketing is the date when the required copies are received by the Director, Nuclear Materials Safety and Safeguards. Within ten (10) days after docketing, the DOE is then required to submit to the Director, Nuclear Materials Safety and Safeguards a written statement that distribution of the specified additional copies to Federal, State, Indian Tribe, and local officials has been completed. In accordance with 10 CFR 2.101 distribution of the additional copies is considered to be complete as of the time the copies are deposited in the mail.

Following acceptance of the license application, the NRC staff will then begin a detailed compliance review of the license application against the review and acceptance criteria in the NRC's Yucca Mountain Review Plan and prepare a safety evaluation report documenting the results and conclusions of their review. The NRC staff will evaluate whether the license application meets the applicable regulations based on a review of only what is in the application and supporting materials. NRC staff audit calculations may be performed in limited situations, where DOE has made unique proposals involving new methods or assumptions. Otherwise, the NRC staff will review the application to verify that assumptions are justified, methods used are acceptable and applicable over the range presented, models are properly applied, and results are acceptable. The NRC staff may also do bounding calculations, performance assessments, and confirmatory analyses using process-level models. When the NRC staff identifies areas where the DOE has not provided sufficient information to make a regulatory conclusion, requests for additional information will be forwarded to the DOE. The DOE and the NRC staff will interact on the responses to the requests for additional information either through conference calls or public meetings. These interactions are to facilitate a complete and satisfactory DOE response to the requests for additional information. NRC's stated goal is to prepare only one round of requests for additional information. If DOE fails to provide the requested information within thirty (30) days from the

date of the request, or within such other time as may be specified, the Director, Nuclear Materials Safety and Safeguards could issue a notice of denial of the application pursuant to 10 CFR 2.108.

While the DOE is addressing requests for additional information, NRC the staff will continue their compliance review and begin drafting portions of the safety evaluation report. The content of the NRC staff safety evaluation report is to be based on the guidance provided in the Yucca Mountain Review Plan. Any limits and restrictions imposed as a condition of approval of the construction authorization or license is to be specified in the safety evaluation report and the license. The format for the safety evaluation report will follow the structure of the Yucca Mountain Review Plan. The safety evaluation report is to describe the information the NRC staff reviewed, provide the technical basis for the staff conclusion regarding compliance with the applicable regulations, and state findings at the conclusion of each section. During the course of this review, the staff will publish its safety evaluation report, and possibly one or more supplements. The safety evaluation report and supplements will contain evaluation findings and conclusions reached during the review and any license conditions.

The safety evaluation report may contain Open Items, i.e., items that remain outstanding at the time of publication of the safety evaluation report or an safety evaluation report supplement, and which will be addressed in a later supplement. These items will remain open until the staff has completed its review and reached a final position. The safety evaluation report may also contain Confirmatory Items, i.e., items that are resolved to the NRC staff's satisfaction during the review, but for which confirmatory information is needed from the DOE before the staff could close the item. Not all confirmatory items need to be resolved before issuance of the construction authorization. Some may require information from construction activities. These will be tracked by the NRC staff through the inspection process.

The NRC staff may also identify license conditions to be incorporated into the construction authorization. License conditions may be used by the NRC to ensure that specific requirements are met. A license condition may be in the form of a condition in the body of the license, or a license specification that outlines the operational limits of the repository (derived from analyses and evaluations in the license application), which is appended to the construction authorization or the license to receive and possess. The NRC notes in the Yucca Mountain Review Plan that any license commitment made by the DOE in the license application that is relied on by the NRC staff to make a regulatory finding should be included as a license condition.

The NRC staff is expected to issue the safety evaluation report one and a half years following docketing of the license application.

In parallel with the review of the license application the NRC staff will respond to and conduct discovery of other parties to the Yucca Mountain licensing proceeding. The NRC staff will then defend their safety evaluation report and address admitted contentions at the evidentiary hearings.

### **Roles of Interveners**

Throughout the course of the licensing proceeding the interveners will observe and review NRC and DOE interactions and information; formulate and file proposed contentions; conduct and defend discovery requests; and eventually litigate contentions at the Yucca Mountain evidentiary hearing.

Any person whose interest may be affected by a proceeding on the DOE's application for a license to receive and possess high-level radioactive waste at the Yucca Mountain repository, and who desires to participate as a party, is required by 10 CFR 2.1014 to file a written petition for leave to intervene. Petitions for intervention, and any request to participate as an interested governmental agency, must be

filed within thirty days after the publication of the notice of hearing in the *Federal Register*. Late filings will not be considered except under extraordinary circumstances. A petition for leave to intervene is required by 10 CFR 2.1014 to include:

- A statement of the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding, including the reasons why the petitioner should be permitted to intervene;
- A list of the contentions that the petitioner desires to have litigated;
- With respect to each contention:
  - A specific statement of the issue of law or fact to be raised or controverted.
  - A brief explanation of the basis of the contention.
  - A concise statement of the alleged facts or expert opinion that support the contention and on which the petitioner intends to rely in proving the contention at the hearing, together with references to those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion.
  - Sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. This showing must include reference to the specific documentary material that provides a basis for the contention, or if the petitioner believes that any documentary material fails to contain information on a relevant matter as required by law, the identification of each failure and the supporting reasons for the petitioner's belief. In determining whether a genuine dispute exists on a material issue of law or fact, a dispositive factor shall be whether the contention, if proven, would be of no consequence in the proceeding because it would not entitle the petitioner to relief.
  - The specific regulatory or statutory requirement to which the contention is relevant.

Units of local government will be permitted to intervene given that they file valid contentions. All other petitioners must demonstrate standing by addressing the following factors, among other things:

- The nature of the petitioner's right under the Atomic Energy Act to be made a party to the proceeding;
- The nature and extent of the petitioner's property, financial, or other interest in the proceeding; and
- The possible effect of any order that may be entered in the proceeding on the petitioner's interest.

The Atomic Safety and Licensing Board will provide representatives of an interested State (e.g. California, Utah, etc), county, municipality, and Indian Tribes, an opportunity to participate in the Yucca Mountain proceeding and to introduce evidence, cross examine witnesses, and file proposed findings without requiring them to take a position with respect to any admitted contention. They may also file petitions for review by the NRC Commissioners and file briefs "*amicus curiae*" on any matter taken up by the Commission for review.

**Presiding Officer(s) Role**

The Atomic Safety and Licensing Board will consist of one or more three-person panels of administrative law judges headed by a Presiding Officer, responsible for procedure, with the remaining members chosen for technical expertise on the issues being adjudicated. The Atomic Safety and Licensing Board rules on the admission of intervenor contentions and conducts trial-type hearings on the issues. The proceedings are overseen by the NRC Commissioners.

The Atomic Safety and Licensing Board drafts findings of fact and conclusions of law and issues an initial decision regarding issuance of the construction authorization. The initial decision may be appealed to the NRC Commissioners.

The Presiding Officer is a member of the Atomic Safety and Licensing Board Panel. There will be one Presiding Officer for the pre-license application submittal Licensing Support Network phase and at least one three person Atomic Safety and Licensing Board headed by a Presiding Officer for the evidentiary hearing phase.

The Presiding Officer's role includes: supervising the population and use of the Licensing Support Network; issuing decisions on motions regarding intervention petitions, discovery, and summary disposition; presiding at the evidentiary hearings; and issuing the Initial Decision on the construction authorization.

**The NRC Commissioner's Role**

The NRC Commissioners review decisions and actions of the Presiding Officer(s), as needed; conduct supervisory review of contested issues in the proceeding; and issue the Final Decision on the construction authorization and the DOE's subsequent license amendment request to receive and possess high level waste.

**Phases of the Yucca Mountain Licensing Proceeding**

There are three principal phases of the Yucca Mountain licensing proceeding: discovery, the evidentiary hearings, and the NRC Commissioner's decision. The overall schedule for these activities is set in Appendix D to 10CFR Part 2. Pre-license application discovery begins six months before the license application is submitted with the certification of the Licensing Support Network by the DOE. Post-license application discovery runs for 23 months (690 days) after the license application is docketed. The evidentiary hearings begin 24 months (day 720) after the license application is docketed and are scheduled to end 3 months later (day 810). The Final Decision is scheduled to be issued by the Commission 3 yrs. (day 1125) after license application is docketed.

The Director, Nuclear Materials Safety and Safeguards will publish in the Federal Register a notice of docketing and give notice of docketing to the governor of Nevada. The notice of docketing will state that the NRC finds that a hearing, prior to issuance of a construction authorization, is required in the public interest, and, as required by 10 CFR 2.104(a), include:

- The time, place, and nature of the prehearing conference;
- The authority under which the hearing is to be held;
- The matters of fact and law to be considered; and

- The time within which answers to the notice shall be filed.

### **Use Of The Electronic Docket During The Proceeding**

The official docket of the Yucca Mountain proceeding will be maintained by the Secretary of the Commission. Once the license application is docketed and can be accessed in electronic form, the Secretary will establish an electronic docket to contain the official record materials of the licensing proceeding in searchable full text or by header and image, as appropriate. The electronic docket is to contain a list of all exhibits, showing where in the transcript each was marked for identification and where it was received into evidence or rejected. Transcripts will be entered into the electronic docket on a daily basis in order to provide next-day availability at the hearing.

All filings in the adjudicatory proceeding are required to be transmitted electronically by the submitter to the Presiding Officer, parties, and the Secretary of the Commission, according to established format requirements.

Online access to the electronic docket, including any Protective Order Files, is to be available to the Presiding Officer, the representatives of the parties and interested governmental participants, and the witnesses while testifying, for use during the hearing. Use of paper copy and other images will also be permitted at the hearing.

### **First Prehearing Conference**

Approximately seventy days after the notice of hearing is published, the Presiding Officer will direct the parties, interested governmental participants, and any petitioners for intervention to appear at the first prehearing conference to:

1. Identify the key issues in the proceeding;
2. Take any steps necessary for further identification of issues;
3. Allow the Presiding Officer to consider petitions for intervention and make preliminary or final determinations as to the parties and interested governmental participants;
4. Establish a schedule for further actions in the proceeding; and
5. Establish a discovery schedule for discovery for the proceeding taking into consideration the three year time schedule specified in the Nuclear Waste Policy Act.

### **Second Prehearing Conference**

No later than thirty days after the NRC staff's safety evaluation report is issued, the Presiding Officer shall direct the parties and interested governmental participants to appear at a second prehearing conference to consider:

- Amended contentions;
- Simplification, clarification, and specification of the issues;

- Stipulations and admissions of fact and of the contents and authenticity of documents to avoid unnecessary proof;
- Identification of witnesses and other steps to expedite the presentation of evidence;
- The setting of a hearing schedule;
- Establish a discovery schedule for discovery for the proceeding taking into consideration the three year time schedule specified in the Nuclear Waste Policy Act; and
- Other matters as may aid in the orderly disposition of the proceeding.

### **Discovery**

Discovery principally takes the form of document requests, interrogatories, and depositions. The licensing support network is being developed to facilitate timely pre-license application document discovery. The Licensing Support Network is an internet based system which eventually will contain all potential party documents relevant to the licensing process. The Licensing Support Network will be open to review by the public and potential parties, with priority given to parties, 6 months in advance of license application submission to NRC.

Parties, potential parties, and interested governmental participants in the Yucca Mountain licensing proceeding are authorized to obtain discovery regarding any matter, not privileged, which is relevant to the licensing of the Yucca Mountain repository, whether it relates to the claim or defense of the person seeking discovery or to the claim or defense of any other person, by the following methods:

- Access to the documentary material made available through the Licensing Support Network;
- Access and entry to the Yucca Mountain site for inspection, access to raw data, etc.;
- Access to, or the production of, copies of documentary material for which only bibliographic headers are available through the Licensing Support Network;
- Depositions upon oral examination; and
- Interrogatories and depositions upon written questions.

All discovery, except for interrogatories and depositions, begins during the prelicensing phase. Interrogatories and depositions begin after the issuance of the first pre-hearing conference order and are limited to the issues defined in that order.

Nonparties may be subpoenaed for document production.

The post-license application submittal discovery will consist mainly of interrogatories and depositions. Interrogatories are Written questions served on other parties with a written or oral response required. Depositions involve the questioning of potential witnesses or other interested persons. Deponents are required to provide any additional documentary materials (e.g., drafts, personal records) relevant to the subject matter of the deposition. Deponents provide answers under oath.

## **Depositions**

Any party or interested governmental participant desiring to take the testimony of any person by deposition on oral examination can upon reasonable notice in writing to every other party and interested governmental participant, to the person to be examined, and to the Presiding Officer of the proposed time and place; the name of the person or persons to be deposed, or if a name is not known, a general description sufficient to identify the person or the class or group to which the person belongs, the matters upon which each person will be deposed and the name or title of the officer before whom the deposition is to be taken.

A deposition may be taken before any officer authorized to administer oaths by the laws of the United States or of the place where the deposition is to be taken.

Deponents may be represented and advised by legal counsel. Deponents are sworn and examination and cross-examination proceed as at a hearing. Questions are recorded and answers taken down in the words of the deponent. The deponent signs the deposition and an electronic copy is transmitted for entry into the electronic docket.

A deposition is not a part of the evidentiary record in the hearing unless it is placed in evidence.

The NRC staff is required to make available one or more witnesses designated by the Executive Director for Operations, for oral examination at the hearing or on deposition regarding any matter, not privileged, which is relevant to the issues in the proceeding. The attendance and testimony of the Commissioners and named NRC personnel at a hearing or on deposition cannot be ordered by the Presiding Officer, by subpoena or otherwise.

## **Evidentiary Hearings**

The purpose of the Yucca Mountain evidentiary hearings is to allow affected parties to present and defend evidence in support of their position(s) on contested issues. Testimony and documentary evidence constitute the official record on which the Atomic Safety and Licensing Board will make its decision regarding issuance of a construction authorization. This hearing is similar to any hearing in a civil court of law. Parties submit advance, written, direct testimony of their witnesses on the hearing docket. Parties identify, in advance, documents they intend to submit in support of their position. The rules of evidence are similar to those of a civil court. Witnesses are subject to cross-examination by the other parties. The Presiding Officers Initial Decision is based on the preponderance of evidence. In order for the schedule for the hearings specified in 10CFR Part 2 Appendix D to be maintained NRC is expected to constitute multiple, possibly simultaneous Atomic Safety and Licensing Boards and hearings.

The Atomic Safety and Licensing Board will provide representatives of an interested State (e.g. California, Utah, etc), county, municipality, and Indian Tribes, an opportunity to participate in the Yucca Mountain proceeding and to introduce evidence, cross examine witnesses, and file proposed findings without requiring them to take a position with respect to any admitted contention. They may also file petitions for review by the NRC Commissioners and file briefs "amicus curiae" on any matter taken up by the Commission for review.

Parties to the proceeding may file proposed findings of fact and conclusions of law, briefs and a proposed form or order of decision within the time specified:

- DOE shall, within thirty (30) days after the record is closed, file proposed findings of fact and conclusions of law and briefs, and a proposed form of order or decision.

- Other parties may file proposed findings, conclusions of law and briefs within forty (40) days after the record is closed.
- The NRC staff may file proposed findings, conclusions of law and briefs within fifty (50) days after the record is closed.

Proposed findings of fact must be confined to the material issues of fact presented on the record. Proposed conclusions of law restricted to material issues of law or discretion presented on the record. An intervenor's proposed findings of fact and conclusions of law must be confined to issues which that party placed in controversy in the proceeding.

### **The Commission's Final Decision**

The Atomic Safety and Licensing Board issues an initial decision regarding the construction authorization.

Within forty (40) days after the date of the Atomic Safety and Licensing Board's initial decision or within thirty (30) days after a petition for review of the decision has been filed under 10 CFR 786 (b), whichever is greater, the NRC Commissioners may review the decision on its own motion, unless the NRC Commissioners extends the time for its review.

Within fifteen (15) days after the date of the Atomic Safety and Licensing Board's full or partial initial decision a party may file a petition for review with the NRC Commissioners on the grounds specified in 10 CFR 786(b)(4). The filing of a petition for review is mandatory for a party to exhaust its administrative remedies before seeking judicial review.

A petition for review must contain the following:

- A concise summary of the decision or action of which review is sought;
- A statement (including the record citation) where the matters of fact or law raised in the petition for review were previously raised before the Atomic Safety and Licensing Board and, if they were not why they could not have been raised;
- A concise statement why in the petitioner's view the decision or action is erroneous; and
- A concise statement why NRC Commissioners review should be exercised.

Any other party to the proceeding may, within ten (10) days after service of a petition for review, file an answer supporting or opposing Commission review. This answer should also address the matters in the original petition to the extent appropriate. The petitioning party shall have no right to reply, except as permitted by the Commission.

The NRC Commissioners may grant a petition for review if the petitioner demonstrates:

- A finding of material fact is clearly erroneous or in conflict with a finding as to the same fact in a different proceeding;
- A necessary legal conclusion is without governing precedent or is a departure from or contrary to established law;

- A substantial and important question of law, policy or discretion has been raised;
- The conduct of the proceeding involved a prejudicial procedural error; or
- Any other consideration that the Commission may deem to be in the public interest.

A petition for review will not be granted if it relies on matters that could have been, but were not raised before Atomic Safety and Licensing Board. If the Commission does not act on a petition to review within thirty (30) days, the petition shall be considered to be denied. If a petition for review is granted, the Commission will issue an order specifying the issues to be reviewed and designating the parties to the review proceeding and direct that appropriate briefs be filed, oral argument be held, or both.

Petitions for reconsideration of NRC Commissioners decisions granting or denying review will not be entertained. A petition for reconsideration of a Commission decision after review may be filed within ten (10) days. If a petition for reconsideration is filed, the Commission decision is not final until the petition is decided.

Neither the filing nor the granting of a petition for review will stay the effect of the decision of the Atomic Safety and Licensing Board, unless otherwise ordered by the NRC Commissioners.

The Commissioners issue the final decision. The Commission's decision is subject to appeal to federal appellate courts.+



Charles Sauer

07/07/2004 01:22 PM

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To: Georgeta Radulescu/YM/RWDOE@CRWMS  
cc: Document and Impact Reviews@CRWMS, Ernest Stemley/YM/RWDOE@CRWMS, Thomas Sauer/YM/RWDOE@CRWMS  
Subject: shielding calc review

User Filed as: Excl/AdminMgmt-14-4/QA:N/A

As attached:



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