

PREPARING FOR LOW-LEVEL WASTE DISPOSAL FACILITY LICENSING – THE PLANNING STAGE

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ABSTRACT

As Nuclear Regulatory Commission Agreement States across the country approach the need to review license applications for new low-level waste disposal facilities, a number of issues have arisen. The State of North Carolina Department of Environment, Health and Natural Resources, Division of Radiation Protection, is responsible for licensing the new facility that will serve the disposal needs of the Southeast Interstate Low-Level Waste Compact. The licensing review will assess compliance for the first time with North Carolina's low-level waste regulations. That review is targeted to be completed within a 14.5-month period, and will involve many other state and local agencies in addition to the Division.

Facing this situation, the Division has elected to prepare in advance a "roadmap" to the license review process that will serve as guidance for its managers, reviewers, cooperating agencies, and contractors. The license review planning document will form the basis for license review preparations, coordination, training, and guidance to the applicant and other interested parties about the license review process. This paper, describing the planning process, has been prepared by the Division's license review manager, and two of the contractor team members that are supporting the license review.

The plan outlines the steps to be taken by the review team in pre-licensing consultation, receipt of a license application, completeness review, and detailed review. The interrogatory process is defined. The plan describes training, quality assurance, and organizational provisions, as well as plans for providing for full public participation in the license review process and for documentation of the license review results. The paper addresses some of the issues that arise in such a planning process, and discusses the types of organizational and management objectives that are contained in the plan.

INTRODUCTION

Responsibility to evaluate a license application for North Carolina's low-level radioactive waste disposal facility rests with the Department of Environment, Health and Natural Resources (DEHNR). Within DEHNR, that responsibility is vested in the Division of Radiation Protection (DRP).

The review process is a complex and challenging task. Comprehensive new low-level waste licensing regulations are in place, and no new facility in the country has yet been licensed under the new regulatory regime. In addition to a standard evaluation of the adequacy of information submitted by the applicant, the regulations also require evaluation of overall performance of the proposed facility and operation vis-a-vis stringent long-term performance objectives. At least 13 other agencies with regulatory requirements applicable to the facility have been identified, all with their own regulations, guidance, and evaluation processes.

The counties in which the potential sites are located, through their legislated review committees, are playing an active role. DRP will conduct a regulatory review process that is open to public input and scrutiny. There is thus a need to coordinate the review process with numerous other parties. In addition, the State of North Carolina has committed to a 14.5-month target schedule for the license review process, a highly ambitious timeframe.

In preparation for this responsibility, DRP prepared a license review management plan that will guide its licensing

review activities. The plan has been prepared to address those challenges by providing a management framework for the entire license review process, from qualification and training of the team through documentation of the DRP's licensing decision. The plan recognizes that the licensing decision may result in DRP either approving the application for license issuance or denying a license for the facility, based on the results of the thorough license application review.

ROLES, RESPONSIBILITIES AND AUTHORITIES

Primary responsibility for licensing rests with DRP, under authorization from the U.S. Nuclear Regulatory Commission's Agreement State Program. Many other divisions within DEHNR, and other federal, state and local agencies, also have a role in the license application review. A Coordination Task Force has been formed by DRP to ensure that suitable expertise and resources are applied to the review. DRP is also operating in close coordination with the site designation review committees formed in the communities where potential sites are located.

The North Carolina Low-Level Radioactive Waste Management Authority (the Authority) has responsibility for development of a new disposal facility to meet the needs of North Carolina and the other party states to the Southeast Interstate Compact. The Authority has contracted with Chem-Nuclear Systems, Inc. (CNSI) to site, design, license, construct, operate, and close the facility. CNSI will be the applicant for a license from DRP. The Authority is responsible for preparing

an environmental impact statement for the disposal facility in compliance with the North Carolina Environmental Policy Act.

LEGAL AND REGULATORY FRAMEWORK

The statutory basis for review of the license application is Chapter 104E of the General Statutes of North Carolina, the *North Carolina Radiation Protection Act*. The statute designates DEHNR as the responsible licensing agency, and authorizes low-level radioactive waste regulations to be promulgated by the Radiation Protection Commission.

The primary regulations applicable to licensing the low-level radioactive waste disposal facility are located in Title 15A, Chapter 11, of the North Carolina Administrative Code. Other regulations that will support the licensing decision include requirements pertaining to the protection of water and air quality, sediments, and forests and woodlands. Regulations for surveying and mapping are applicable, as well as for protection of prime agricultural and forest lands. Protection of cultural resources and historic places is regulated, as is construction of access roads onto the state highway system. Construction and sanitary permits are applicable at the county level. Any impacts on wetlands must be permitted by the U.S. Army Corps of Engineers.

In addition to the regulatory requirements described above, there are a number of other state agencies that will serve in a cooperating review role in the license review process.

To allow these diverse and numerous regulatory requirements to effectively be used in the license application review, the plan includes a set of regulatory matrices. These matrices define each regulatory requirement applicable to the review process and relate them to available regulatory guidance. The license application review team will be able to use the matrices to familiarize itself with all applicable regulations. In addition, the matrices can be used as a checklist to ensure that, during the review process, all applicable requirements have been addressed and, ultimately, satisfied.

LICENSE REVIEW PROCESS

The license review process is defined to include all DRP activities from pre-licensing consultation with the applicant through a licensing decision. If a license is granted, the process includes oversight of CNSI's construction process and preparations for operation, culminating in approval to accept waste at the facility. The license review process is presented in the form of a graphic work breakdown structure, which then serves as the basis for the review process. The steps in the license review process are identified and described.

Those steps include the following:

- **Pre-Licensing Consultation** - Prior to receipt of a license application, DRP is reviewing CNSI's site characterization results, preparing for the license review, and defining the form of information required of the applicant. DRP will informally review draft sections of the license application as they are completed in order to expedite the formal review of the full license application. The informal review of draft sections will include both a completeness review and a detailed technical review. The results, however, will not constitute preapproval of the application either in whole or in part. Such approval can-

not occur until the full application has been received and reviewed as a whole.

- **Application Submittal** - With receipt of a license application from CNSI, DRP will notify the municipal officials in the site locations. A license review checklist is provided to serve as a tracking system for the completeness review and subsequent license review activities. A public meeting or meetings will be held by DRP to inform citizens about the application review process and to seek their input about the license application.
- **Completeness Review** - DRP will perform a 30-day completeness review of the application. CNSI will be advised of any areas where the application is incomplete such that the application can be supplemented prior to detailed review of the entire application. Criteria for assessing completeness will be prepared in advance of the completeness review, designed to ensure that all information required by the regulations has been addressed in the application.
- **Detailed Review** - Detailed review will take place after the application has been determined by DRP to be complete. Reviewers will be qualified in conformance with the program's quality assurance program, trained in the requirements of the license review, and supplied with necessary regulatory information and guidance. A section leader will be assigned to each section of the license application to coordinate the review activities, develop interrogatories, and focus preparation of review results in the form of findings of regulatory compliance. A small integration team of senior-level licensing specialists will support the license review manager by reviewing material from section leaders, contributing to the preparation of a coordinated safety evaluation report (SER) that integrates findings across all sections to reach overall licensing findings.
- **Agency and Public Review, Comment and Hearing** - Prior to issuance of a licensing decision, DRP will make the draft SER, the draft license, and license conditions available for review. A public hearing will be held in the site community and a public comment period will be announced. DRP will consider all public comments in reaching a licensing decision, and will issue a summary document that responds to the comments received.
- **Issuance of Other Permits and Approvals** - The DRP operating license for the disposal facility, if issued, will represent the primary regulatory approval. In addition, however, DRP will verify that CNSI has received other permits and approvals needed prior to license issuance.
- **License Decision Documentation** - DRP will prepare a final SER to document its decision to issue or not issue a license to CNSI. If the decision is to license the facility, the license and license conditions will be issued in final form, and all institutional arrangements and financial documentation completed. DRP will distribute copies of the license.

- **Pre-Operational Reviews and Inspections** - If a license is issued, CNSI will proceed to construct the facility. DRP will review continuing environmental monitoring results. DRP will also inspect the construction of the facility, and will conduct a final inspection prior to authorizing CNSI to accept the first waste shipment.
- **DRP Internal Programs Development** - There are several ongoing activities that DRP will perform in order to prepare for its regulatory responsibilities. These include finalizing site access rules and generator access licensing and inspection regulations, determining what type of waste will be prohibited from the facility, detailing the plans for recordkeeping and reporting, and preparing cost estimates for facility closure and institutional control. DRP will determine its final plans for inspecting, testing, and overseeing the facility operation.
- **Quality Assurance** - DRP will implement a comprehensive quality assurance program for review of the license application. The program will ensure that qualified reviewers participate in the review and that established procedures and recordkeeping practices are maintained at every step of the license review.
- **Project Management** - Management of the license review team will be a DRP responsibility, including coordination with other agencies, management of contractors, and management of the DRP license review team.

LICENSE REVIEW TEAM ORGANIZATION

Lead responsibility for the license review process rests with the DRP Director, supported by the Deputy Director. Reporting directly to the Deputy Director is the DRP license review manager, with day-to-day management responsibility for the entire review effort. A senior-level integration team will support the license review manager in integrating the varying aspects of the review process, as will a set of section review leaders and a quality assurance manager.

SCHEDULE

Meeting the 14.5-month schedule for the license application review will require strict adherence to ambitious schedules. Key milestones in the project schedule include:

- Receipt of license application - December 31, 1993
- Finish completeness review - January 31, 1994
- Develop SER findings - July 1994

- Draft SER for review - October 1994
- Issue license decision - March 1995

SUMMARY AND CONCLUSIONS

The primary challenges important to a successful license application review process in North Carolina include:

- Submittal of a complete license application by the applicant by December 31, 1993.
- Completing the complex, lengthy review process within a 14.5-month target timeframe, triggered by receipt of the license application
- Coordinating the many agencies that will be involved from a regulatory standpoint and as technical resources to DRP
- Meshing the license review process with the State Environmental Protection Act requirements for preparation of an environmental impact statement, public review, etc.
- Providing for effective, meaningful involvement of country governments and the public throughout the process

The license review management plan will help DRP meet these challenges. By clearly defining all requirements, and providing an organizational structure that supports efficient, stringent review activities, DRP is prepared to move quickly when the license application is received. A rigorous, defensible, well-documented license review process will be conducted in compliance with the plan. Mechanisms for coordinating all involved parties are in place (e.g., the agency Coordination Task Force, legislated local review committees). The plan will serve to educate the personnel of other agencies who will play a pivotal role in the review process, but who may have little or no initial familiarity with the radioactive waste regulatory framework. And it will serve as a central point of reference as the review proceeds, allowing for evaluation of progress and performance against its planned activities.

All personnel who will be involved in license review activities will receive training in the license review management process prior to beginning review of applicant materials. This early mobilization of the review team, strengthened by a detailed and thorough plan for conducting the review, will launch the review process in the right direction. Recognizing the challenges of North Carolina's situation, DRP is confident that this approach will optimize its ability to meet those challenges.