

Center for Nuclear Waste Regulatory Analyses

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December 2, 1994
Contract No. NRC-02-93-005
Account No. 20-5702-221

Nuclear Regulatory Commission
Attn: Mrs. Barbara Meehan
Division of Contracts
Two White Flint North (T7E-33)
11545 Rockville Pike
Rockville, MD 20852

Subject: Submission of Major Milestone 5702-221-510, License Application Review Plan (LARP) Development Report FY94

Dear Mrs. Meehan:

This letter is submitted in fulfillment of the requirements of the subject report.

The purpose of this report is to document the License Application Review Plan (LARP) products and related activities completed during FY94. In addition to Compliance Determination Method (CDM) development, several Compliance Determination Strategies (CDSs) not completed in FY93 were submitted, LARP related procedures were developed and revised, joint NRC/CNWRA LARP development and integration activities were conducted, and other LARP related documents were drafted or prepared.

Details of these accomplishments are provided, as follows.

CDS Development: The CDSs associated with the nature and rates of natural processes favorable conditions were not completed with the other CDSs during FY93 because policy issues needed to be resolved. During FY94, NRC management determined that these favorable conditions evaluations should not include consideration of the effects of emplaced waste, and the associated CDSs were completed and submitted as listed below.

- 3.2.2.1 Favorable Condition: Nature and Rates of Hydrogeologic Processes (IM 20-5702-005-280-002)
- 3.2.3.1 Favorable Condition: Nature and Rates of Geochemical Processes (IM 20-5702-423-401)

CDM Development: In the CDM development process NRC/CNWRA teams collaborated to produce the CDMs, which were reviewed and submitted by the CNWRA to the NRC for acceptance. The following CDMs were submitted as Intermediate Milestones; however, acceptance of some of these by NRC is pending.

- 3.1.1 Description of the Individual Systems and Characteristics of the Site: Geologic System (IM 20-5702-002-420-001)
- 3.1.2 Description of the Individual Systems and Characteristics of the Site: Hydrologic System (IM 20-5702-424-403)
- 3.1.3 Description of the Individual Systems and Characteristics of the Site: Geochemical System (IM 20-5702-424-404)



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- 3.1.4 Description of the Individual Systems and Characteristics of the Site: Climatology and Meteorological System (IM 20-5702-424-405)
- 3.2.1.9 Potentially Adverse Condition: Evidence of Igneous Activity (IM 20-5702-422-404)
- 4.1.1 Description of the GROA Structures, Systems, and Components: Surface Facilities (IM 20-5702-622-403)
- 4.1.2 Description of the GROA Structures, Systems, and Components: Shafts and Ramps (IM 20-5702-022-105)
- 5.1 Description of Engineered Systems and Components that Provide a Barrier Between the Waste and the Geologic Setting (IM 20-5702-522-405)
- 10.0 Quality Assurance (IM 20-5702-222-414)

CDM 4.3, Assessment of Compliance with Design Criteria for Shafts and Ramps, was submitted as an Administrative Item (AD) for review by the NRC and has been returned to the development team with additional guidance for further refinement.

Substantial progress was made on the following CDMs, although these were not submitted in FY94.

- 3.2.1.1 Favorable Condition: Nature and Rates of Physical Processes
- 3.2.1.10 Potentially Adverse Condition: Evidence of Extreme Erosion
- 3.2.2.5 Potentially Adverse Condition: Flooding
- 3.2.4.1 Favorable Condition: Precipitation That is a Small Percentage of Annual Potential Evapotranspiration

The following CDMs underwent development during FY94, but have recently been delayed pending completion of rulemakings that are expected to alter their content. They will be completed to the extent possible and placed on file in FY95 in order to preserve the work that has been done on them to date.

- 1.4 Certification of Safeguards
- 1.5 Physical Security Plan
- 2.7 Nuclear Material Control

LARP-Related Procedures: During FY94, the CDS development procedure (TOP-001-11) and CDM development procedure (TOP-001-13) were revised, and initially issued, respectively. In addition, TOP-001-15, Regulatory Program Database (RPD) Loading, Version Control, and Change Control, was developed to address controls for loading LARP development products into the RPD. Each of these procedures was submitted as an Intermediate Milestone.

LARP Development Activities: A significant amount of effort was applied to reviewing and improving the consistency and integration of CDSs developed in FY93. These activities were conducted in two phases. First, strategies for review types 1, 2, and 3 were reviewed by joint NRC/CNWRA teams. Then, reviews of Key Technical Uncertainties

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(KTUs) associated with review types 4 and 5 were initiated, primarily involving the CNWRA staff. Integration of KTUs is considered to be particularly important, as the KTUs will be used to define and revise research and technical assistance needs and to provide a basis for work prioritization. The results of the integration activities will be reflected in revisions to CDSs and to the KTUs within certain CDSs. CDS revisions are planned in concert with development of the corresponding CDMs.

CNWRA staff also contributed to the preparation of the LARP, Revision 0, for publishing; the LARP Development Plan, issued in November 1993; and to reviews of generic interfaces among categories of review plans.

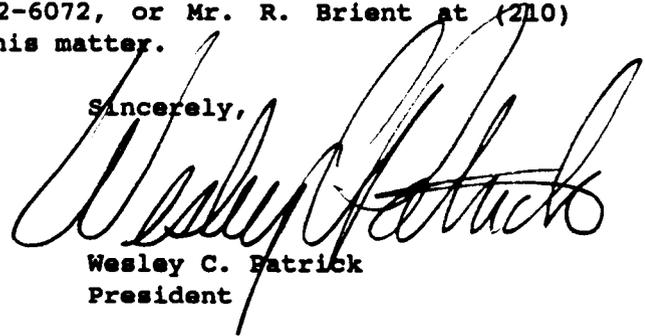
Other LARP-Related Activity: Work commenced on a Crosswalk of Regulatory/Institutional Uncertainties to Regulatory Requirement Topics, and a Procedure for Uncertainty Identification and Resolution.

Special tasking was given to the CNWRA to prepare a draft review plan for the DOE's proposed Multi-Purpose Canister (MPC). The WSE&I Element participated in this effort by assisting in incorporating LARP development procedures and applicable CDSs into this review plan.

As mutually agreed to with Mr. Robert Johnson of your staff, this letter report does not include the text of the LARP products (CDSs and CDMs) developed during FY94. Rather, that text is available in the RPD.

Please contact Dr. A. DeWispelare at (210) 522-6072, or Mr. R. Brient at (210) 522-5537, if you have any questions concerning this matter.

Sincerely,



Wesley C. Patrick
President

WCP/lis

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