

REISSUANCE OF STEIN LTR ON SCC

- 1 -

OCT 04 1989

Mr. Ralph Stein, Associate Director
 for Systems Integration and Regulations
 Office of Civilian Radioactive Waste Management
 U. S. Department of Energy, RW 30
 Washington, D.C. 20545

Dear Mr. Stein:

SUBJECT: REISSUANCE OF SUMMARY OF DISCUSSION AT THE AUGUST 29, 1989 TECHNICAL
 EXCHANGE ON "SUBSTANTIALLY COMPLETE CONTAINMENT (SCC)"

Enclosed you will find a complete copy of the previously issued record of discussions transmitted to you in my letter dated September 22, 1989. This record documents the discussions that took place during the August 29, 1989 technical exchange between the members of the staff of the U. S. Nuclear Regulatory Commission and the U. S. Department of Energy in the area of SCC. We have discovered that due to an error in reproduction, the first page of the subject document was inadvertently omitted. None of the attachments to the record of discussion, which were previously provided, are being retransmitted because these were complete in my initial letter.

We apologize for any inconvenience. Please feel free to contact Brian Thomas of my staff on (301) 492-0435, if you have any questions regarding this matter.

Sincerely,

/s/ by Halonich

for: John J. Linehan, Director
 Repository Licensing and Quality
 Assurance Project Directorate
 Division of High-Level Waste Management

Enclosure: As stated

cc: R. Loux, State of Nevada
 C. Gertz, DOE/NV
 S. Bradhurst, Nye County
 M. Baughman, Lincoln County
 D. Bechtel, Clark County
 K. Turner, GAO

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REISSUANCE OF STEIN LTR ON SCC

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ENCLOSURE

Documentation of Discussions
at Technical Exchange on "Substantially Complete Containment."

On August 29, 1989, members of the staff of the U. S. Nuclear Regulatory Commission (NRC), the U. S. Department of Energy (DOE) and the State of Nevada engaged in a technical exchange of information in the area of "substantially complete containment (SCC)." This documentation of the discussions was coordinated between the NRC and DOE staff. The State of Nevada did not provide any verbal or written statement for inclusion in this document. The list of attendees for the technical exchange is provided by Attachment 1.

Both regulatory and technical concepts and ideas regarding SCC were discussed. The participants agreed that the technical exchange discussions were very productive and that future interactions in this area would be beneficial. The major discussion centered on concerns and uncertainties regarding approaches to establishing qualitative and quantitative criteria to meet the SCC requirement of 10 CFR Part 60. Other discussions covered the staff's point papers on SCC, the DOE review of the point papers, and ongoing DOE activities in the area of SCC. Also discussed were the ongoing activities of NRC contractors in the area of SCC including the Center for Nuclear Waste Regulatory Analyses (CNWRA) and the National Institute of Standards and Technology (NIST).

DOE provided an explanation of its current position on SCC. Presentation material used in this discussion is provided in Attachment 2, "Outline For Presentation On Substantially Complete Containment." The discussion regarding this presentation was focused principally on DOE's interpretation of SCC with respect to its desire to establish qualitative design objectives on SCC that are complemented by quantitative performance goals for radionuclide release from the waste package.

The NRC staff presented its program to explore the feasibility of: 1) establishing quantitative criteria for SCC; 2) establishing the higher-order "elements-of-proof;" and 3) identifying feasible methods for dealing with the various uncertainties involved with any prediction of performance over long time periods. The NRC staff also identified a workshop sponsored by its contractor where DOE, the State of Nevada, and affected units of local governments could participate if they chose. The CNWRA and NIST jointly presented the discussion on elements of proof. Information used in the technical exchange for discussion in these areas is provided in Attachment 3.

Next, the NRC staff presented its position taken in the Site Characterization Analysis (SCA) point papers on SCC. Information used for discussion in the meeting is provided in Attachment 4. This information is taken from the NRC staff SCA point papers on SCC.

Finally, the NRC staff discussed its ongoing materials research program activities that are being conducted by the CNWRA, NIST, and Cortest. The discussion was focused on the materials degradation area and related areas of thermohydrology,

and geochemical effects of the environment on candidate waste package materials. Specifically, the discussion was focused on the absence of testing material degradation due to radiation. There were no handouts available for this discussion.

Brian E. Thomas 9/21/89
Brian E. Thomas, Project Manager
Repository Licensing and Quality
Assurance Project Directorate
Division of High-Level Waste
Management
U. S. Nuclear Regulatory Commission

Edward Appel for 9/21/89
Gordon Appel, Chief
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