United States Department of the Interior

BUREAU OF MINES

SPOKANE RESEARCH CENTER
EAST 315 MONTGOMERY AVENUE
SPOKANE, WASHINGTON 99207

November 26, 1984

Mr. David H. Tiktinsky
U.S. Nuclear Regulatory Commission
Engineering Branch
Division of Waste Management
Office of Nuclear Material Safety
and Safeguards
Washington, DC 20555

Re: Review of "U.S. NRC Draft Generic Technical Position on Design Information Needs in the Site Characterization Plan (SCP)"

Dear Mr. Tiktinsky:

In reviewing the subject document, I feel that the second paragraph of Section 3.1.2 should be removed.

a). "The identification of bases for which structures, systems and components of the geologic repository have been determined to be important to safety" is something that should be done at the time of the SCP. The last half of this sentence allows DOE the option to "identify a plan to do this." Identification of a plan at this point seems very late.

b). Much of the information contained in this paragraph is also contained in Sections 3.2, 3.3, 3.4, and 3.5, and, therefore, seems redundant.

c). Much of this information is overly general in nature, e.g. (1) protection against natural phenomena and environmental conditions (there are many natural phenomena and environmental conditions that don't require any protection); (2) protection against dynamic effects of equipment failure and similar events (does this mean flying equipment parts; what are similar events?); (3) emergency capabilities in event of what?; (5) what is criticality control?; (6) instrument and control systems for what?; and (7) why only the conveyance portion of hoisting systems?

Regarding the foundation investigation plans for the surface facilities (Section 3.2), these plans should incorporate the effects of the repository shafts, particularly if they are placed near the surface structures and freezing has to be employed in sinking.

1714

In Section 3.5, there is the requirement that containment in the waste package be substantially complete for not less than 300 years nor more than 1,000 years after permanent closure. I'm sure that the intent here is for designers to not plan on the engineered barrier holding the waste for more than 1,000 years. However, the way it's stated, it sounds like an engineering barrier lasting in excess of 1,000 years would be unsuitable.

Other than these suggestions, I think the position statement is well written. A small amount of technical editing might be helpful to shorten some of the lengthy sentences into a more concise style of writing.

Sincerely,

Ernest L. Corp
Supv. Mining Engineer