

104/JTG/82/10/22/0

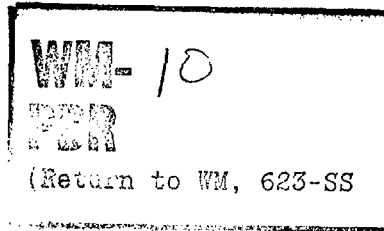
- 1 - OCT 25 1982

DISTRIBUTION

WMHT r/f
NMSS r/f
CF
JBMARTIN
REBROWNING
MBELL
ALDOMARE
HJMILLER
PJJUSTUS
JGREEVES & r/f
TVerma

WMHT: 3104/01.1

Mr. Jerry Rowe
Golder Associates
2950 Northup Way
Bellevue, WA 98004



Dear Mr. Rowe:

Enclosed are four additional SIA's for the BWIP. To help NRC prepare for writing the SCA chapter on groundwater and to help organize the content of the appendices and SIA's, please prepare and bring with you to the meeting of November 1, 1982 a draft of these SIA's.

The action taken by this letter is considered to be within the scope of the current contract NRC-02-82-045. No change to costs or delivery of contracted products are authorized. Please notify me immediately if you believe this letter would result in changes to costs or delivery of contract products.

If you have any questions, please contact me on (301) 427-⁴⁶⁸⁰~~4541~~ of WMHT.

Sincerely,

ORIGINAL SIGNED BY

Tilak R. Verma, Ph.D.
High-Level Waste Technical
Development Branch
Division of Waste Management

Enclosures:
SIA's (four)

8303300271 821025
PDR WASTE PDR
WM-10

OFC :	WMHT :	WMHT :	WMHT :	:	:	:
NAME :	JGreeves:ls	PSJustus	TVerma	:	:	:
DATE :	82/10/22	10/22/82	10/22/82	:	:	:

00108

Issue No.

1. Name of the Site: BWIP

2. Statement of the Issue:

4.3.3 What are the physical conditions (e.g., temperature pressure, stress, etc.) anticipated in and around the underground facility through time?

3. Importance of the Issue to Repository Performance:

4. Portions of 10 CFR 60 That Are Directly Connected To The Issue:

60.21(c)(1)(i)

detailed information shall include

(c) The geomechanical properties and conditions, including pore pressure and ambient stress conditions;

(d) The hydrogeologic properties and conditions

60.133(f)

...design of the underground facility shall incorporate excavation methods that will reduce the potential for creating a preferential pathway for groundwater or radioactive waste migration...

5. Summary of the Present State of Knowledge, With Analysis of Uncertainties:
6. Summary of the Additional Information Needed to Resolve the Issue By the Time of Construction Authorization Application:
7. Summary of the Planned Approaches to Testing, Tests, Test Methods, and Investigations to Provide the Information Needs of (6):
8. Analysis of (7) As To Completeness, Practicality and Likelihood of Success:

References:

ISSUE NO.

1. Name of the Site: BWIP

2. Statement of the Issue:

4.3.1.1 What will be the rate of groundwater inflow into the repository-

3. Importance of the Issue to Repository Performance:

4. Portions of 10 CFR 60 That Are Directly Connected To The Issue:

60.21(c)(1)(i)

detailed information shall include

(c) The geomechanical properties and conditions, including pore pressure and ambient stress conditions;

(d) The hydrogeologic properties and conditions

60.133 (e)

(1) Subsurface openings shall be designed so that operations can be carried out safely and the retrievability option maintained.

- (2) Subsurface openings shall be designed to reduce the potential for deleterious rock movement or fracturing of overlying or surrounding rock.

60.133(f)

...design of the underground facility shall incorporate excavation methods that will reduce the potential for creating a preferential pathway for groundwater or radioactive waste migration...

5. Summary of the Present State of Knowledge, With Analysis of Uncertainties:
6. Summary of the Additional Information Needed to Resolve the Issue By the Time of Construction Authorization Application:
7. Summary of the Planned Approaches to Testing, Tests, Test Methods, and Investigations to Provide the Information Needs of (6):

8. Analysis of (7) As To Completeness, Practicality and Likelihood of
of Success:

References:

Issue No.

1. Name of the Site: BWIP

2. Statement of the Issue:

4.4.3.1 What are the physical conditions (e.g., temperature, pressure, stress, permeability, etc.) anticipated in the backfill through time?

3. Importance of the Issue to Repository Performance:

4. Portions of 10 CFR 60 That Are Directly Connected To The Issue:

60.113(a)(1)(ii)(B)

The release rate of any radionuclide following the containment period shall not exceed on part in 100,000 per year

5. Summary of the Present State of Knowledge, With Analysis of Uncertainties:

6. Summary of the Additional Information Needed to Resolve the Issue By the Time of Construction Authorization Application:
7. Summary of the Planned Approaches to Testing, Tests, Test Methods, and Investigations to Provide the Information Needs of (6):
8. Analysis of (7) As To Completeness, Practicality and Likelihood of of Success:

References:

Issue No.

1. Name of the Site: BWIP

2. Statement of the Issue:

4.3.1 How does construction modify the groundwater flow characteristics in and around the underground facility?

3. Importance of the Issue to Repository Performance:

4. Portions of 10 CFR 60 That Are Directly Connected To The Issue:

60.21(c)(1)(i)

detailed information shall include

(c) The geomechanical properties and conditions, including pore pressure and ambient stress conditions;

(d) The hydrogeologic properties and conditions

60.133 (e)

(1) Subsurface openings shall be designed so that operations can be carried out safely and the retrievability option maintained.

- (2) Subsurface openings shall be designed to reduce the potential for deleterious rock movement or fracturing of overlying or surrounding rock.

60.133(f)

...design of the underground facility shall incorporate excavation methods that will reduce the potential for creating a preferential pathway for groundwater or radioactive waste migration...

5. Summary of the Present State of Knowledge, With Analysis of Uncertainties:
6. Summary of the Additional Information Needed to Resolve the Issue By the Time of Construction Authorization Application:
7. Summary of the Planned Approaches to Testing, Tests, Test Methods, and Investigations to Provide the Information Needs of (6):

8. Analysis of (7) As To Completeness, Practicality and Likelihood of
of Success:

References: