

BASALT WASTE ISOLATION PROJECT INSTITUTIONAL INTERACTIONS

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ABSTRACT

The Nuclear Waste Policy Act (NWPA) of 1982 (Public Law 97-425) states that "it is essential that Host States, Affected Indian Tribes, and the Public participate in the planning and development of geologic repositories, which are being evaluated by the U. S. Department of Energy." This paper will discuss some of the activities associated with the institutional interactions the Basalt Waste Isolation Project has been involved with over the past several years and at the present time.

HISTORY

The Basalt Waste Isolation Project, or BWIP, is a component of the U. S. Department of Energy's (DOE's) Office of Civilian Radioactive Waste Management (OCRWM) Program, which is responsible for assessing the feasibility of using the basalts beneath the Hanford Site in south-central Washington State as a nuclear waste repository. The prime contractor to DOE for BWIP is Rockwell International, Rockwell Hanford Operations. The BWIP activities are currently in the research and development stage and include studies in characterization of geology and hydrology of the basalts, geochemistry of the expected basalt environment, hydrothermal testing of waste forms and packages, conceptual design of a repository, heater and block tests at the Near-Surface Test Facility, performance measures and models, and the design and construction of an exploratory shaft. The principal borehole at Hanford, which identified the proposed site for an exploratory shaft, was completed in May 1982, and the exploratory shaft starter hole was begun in November 1982. Further drilling of the exploratory shaft has been delayed since passage of the NWPA.

From 1977 to 1982, research and development activities were conducted as part of the BWIP. Results of these studies were documented in the BWIP Site Characterization Report (SCR) issued in November 1982, as required by the procedural rule of 10 CFR 60. The purpose of the SCR was to present the current status of the project and to identify future activities to be carried out to obtain the data needed to determine if the Hanford Site met the qualifications of a potential repository site.

In 1983, the U. S. Nuclear Regulatory Commission (NRC) prepared an analysis of the SCR, and documented for the DOE the issues the NRC considers important regarding the characterization program to assess the suitability of the basalt site. In addition, the DOE has received comments from the State of Washington, the U. S. Geological Survey (USGS), the Yakima Indian Nation, special interest groups, and members of the public. The BWIP evaluated and dispositioned the comments in consultation with the participating parties. The BWIP is presently conducting ongoing characterization activities and preparing a Site Characterization Plan (SCP) which is responsive to the resolution of these comments.

The NWPA provides a number of procedural requirements (i.e., siting guidelines, a mission plan, environmental assessments, site characterization plans, etc.) that have resulted in reprogramming of a number of BWIP activities. The siting guidelines and draft environmental assessments were issued in December 1984.

STATE OF WASHINGTON INTERACTIONS

The State of Washington and the DOE have been discussing the management of high-level waste disposal at Hanford for more than five years. In 1979, the Intergovernmental Basalt Waste Isolation Project Working Group was formed to provide a formal mechanism to keep the State of Washington fully aware of the status of the BWIP. With the establishment of the State of Washington High-Level Nuclear Waste Management Task Force by Governor Spellman in August 1982, the objectives of the working group were transferred to the task force. In May 1983, the Governor signed legislation which established the Nuclear Waste Policy Review Board and the Advisory Council, with responsibility for consultation covering the BWIP. The State of Washington Department of Ecology was the state organization responsible for implementing the provisions of the NWPA, and providing a status of the BWIP activities on a timely basis. In March 1984, legislation was passed by the State which transferred this overview function to the Nuclear Waste Board. The Board remains the State of Washington organization that DOE interfaces with on BWIP activities, with assistance by the Department of Ecology. Day-to-day coordination and consultation activities associated with the BWIP continue to be handled by the Board with the assistance of the Department of Ecology.

The DOE has assigned priority to the implementation of the provisions of the NWPA relating to a participatory role by the State of Washington. The State has received a financial assistance grant so that it can conduct the overview of the BWIP activities in accordance with the NWPA. In addition to the financial assistance grant the DOE provided to the Nuclear Waste Board and Advisory Council, the State of Washington Legislature has been provided a separate grant by DOE. This grant provides funds for additional and independent review by the Legislature and its staff.

In July 1983, the State of Washington and the DOE identified respective negotiating teams to negotiate a Consultation and Cooperation (C&C) Agreement in accordance with requirements of the NWPA. Since July 1983, a number of meetings have been held by the teams, and a number of issues have been identified which the State believes should be resolved prior to consummation of the C&C Agreement. The State of Washington scheduled hearings throughout the State in February 1985, to describe what the C&C Agreement contains, and also to obtain from the public comments and concerns which can be considered in the final C&C Agreement. These hearings were postponed and have not been held to date.

The State of Washington has been involved with the BWIP in an active role through the attendance at project briefings, meetings, etc., held with the NRC, USGS, and other organizations. In addition, the State also reviews project documentation and provides comments to DOE where appropriate. The Nuclear Waste Board and Advisory Council hold monthly meetings in Olympia, Washington, which BWIP staff attend and provide support whenever called upon to clarify or provide information covering project activities.

Many briefings and tours covering BWIP activities and facilities have been provided at the request of State agencies, commissions, departments, and Legislative groups.

The Nuclear Waste Board and Advisory Council have acquired the services of a subcontractor who, among many other tasks, is assisting the State in its technical reviews of the program and developing a public information program by which the State plans to inform the public about BWIP activities and provide other information as requested by interested citizens. The DOE-BWIP staff provides assistance to the State as requested in performing these consultation and public information programs.

The State of Washington operates a Reference Information Center in Lacey, Washington. The prime function of this center is to have and make available BWIP documents which the interested public may wish to review. With the assistance of the BWIP, essentially all BWIP documents are currently available, or are planned to be available, at the State of Washington Reference Information Center at Lacey.

AFFECTED INDIAN TRIBES

Yakima Indian Nation

Pursuant to the NWPA, the U. S. Department of Interior (DOI) notified DOE's Secretary Hodel (letter DOI to DOE, dated 3/30/83) that the Yakima Indian Nation was an Affected Indian Tribe and, therefore, full status as required by the NWPA should be afforded the Yakima Indian Nation by the DOE.

In July 1983, the Yakima Indian Nation and the DOE held their first meeting to discuss the potential for a financial assistance grant and the requirements for a C&C Agreement. In later discussions, the Yakimas decided not to negotiate a C&C Agreement until after the State of Washington and the DOE reached agreement. However, a financial assistance grant was established effective July 1983, and the Yakima Indian Nation has been involved with the BWIP in an active role through the attendance at project briefings, meetings, etc., held with the NRC, USGS, and other organizations. In addition, they also review project documentation and provide comments to DOE.

To support the Yakima Indian Nation's review of BWIP activities, they have contracted for a number of consultants with expertise in the areas of hydrology, geochemistry, geohydrology, etc.

Umatilla Confederated Tribes

In July 1983, the DOI notified DOE Secretary Hodel (letter DOI to DOE, dated 7/13/83) that the Confederated Tribes of the Umatilla Indian Reservation were also an Affected Tribe as set forth in the NWPA. In January 1984, representatives of the Umatilla Confederated Tribes were provided a briefing covering the BWIP activities, and preliminary discussions were held covering future proposals by the Umatillas. In May 1984, a financial assistance grant was established which provided funding to the Umatillas to identify what project activities they would be involved with and what level of overview they planned to conduct. Before the grant was in place, the Umatilla Indians' project participation was limited; however, since establishment of the grant, participation by them and their consultants has been more extensive. There have been no C&C discussions with the Umatillas, and preliminary discussions with the Umatillas indicate they do not wish to enter into a C&C Agreement at this time.

Nez Perce Tribe

In September 1984, the DOI notified DOE Secretary Hodel (letter DOI to DOE, dated 9/17/84) that the Nez Perce Tribe of the Nez Perce Indian Reservation in Idaho was also an Affected Tribe as set forth in the NWPA. In November 1984, representatives of the Nez Perce Tribe were provided a briefing covering the BWIP activities, and preliminary discussions were held covering future proposals by the Nez Perce Tribe. In December 1984, a financial assistance grant was established, which provided for the Nez Perce to identify what project activities they should be involved with and what level of overview they planned to conduct. Before the grant was in place, the Nez Perce Tribe's participation in the project was limited. The Nez Perce have not indicated a desire to begin C&C negotiations with the DOE.

OTHER FEDERAL AGENCIES

U. S. Geological Survey (USGS)

The USGS has provided varying degrees of support to the BWIP during the lifetime of the project. This support has included direct assistance to the project through interagency agreements covering the hydrologic and geologic activities during the initial years of the project.

The USGS also provided early reviews of the project through the DOE Technical Review Group. As noted earlier, the USGS was requested by the DOE to review the BWIP SCR, and provided comments primarily covering the geoscience disciplines. A number of meetings were held with the USGS to discuss these comments and, through a number of interactions, agreement was reached on disposition of the USGS comments. During the past two or three years, the USGS has been working with the BWIP through the Hydrologic Interagency Working Group to review and assist in development of models to be used in the characterization of the basalts in the Cold Creek Syncline, the area on the Hanford Site being considered for a potential repository. In addition, the USGS and DOE are currently holding meetings to

review planned program and results in specific technical disciplines such as hydrology, tectonics, geochemistry, geology, etc. The DOE plans to continue this exchange with the USGS and to work with them to receive their advice and resolve concerns covering the technical areas associated with the BWIP.

Nuclear Regulatory Commission (NRC)

The DOE has held meetings and discussions covering BWIP activities with the NRC since 1978. During the past two or three years, these discussions have been more focused, and many more interactions have occurred. A number of meetings have been held with the NRC covering geology, tectonics, hydrology, performance assessment, waste package, geochemistry, engineering designs, quality assurance, etc. As noted earlier, the NRC provided many comments covering the BWIP SCR. The DOE and NRC have had numerous interactions to discuss the BWIP's disposition of the NRC comments. In addition, the NRC has assigned a full-time on site representative to the BWIP to maintain day-to-day communications with the project staff. As required by the NWA and 10 CFR 60, the DOE will continue to provide project information to the NRC during the site characterization and construction phases, if the BWIP is selected for these phases of the repository program.

U. S. Environmental Protection Agency (EPA)

Most all of the interactions which the DOE has with the EPA are performed by the DOE Headquarters (HQ) staff. The BWIPO provides support to DOE HQ for review and comment of EPA regulations.

Mine Safety and Health Administration (MSHA)

Support by MSHA included participation at a safety meeting to discuss mine safety, safety equipment operation, etc. The DOE has held discussions with MSHA staff covering levels of support that they might provide during construction of the BWIP underground facilities. However, no decision has been made in terms of future project support to be provided by MSHA.

U. S. Bureau of Mines

During the early years of the project, the Bureau of Mines provided an overview of the BWIP activities through the DOE Technical Review Group. Currently, the Bureau provides no support to BWIP.

OTHER STATES

State of Oregon

In 1978 and 1979, the State of Oregon, under contract to Rockwell, provided support to the BWIP in limited geologic reconnaissance work associated with the basalts in the State of Oregon. Other activities have included tours and briefings for State of Oregon officials. In addition, the State of Oregon submitted a request for a financial assistance grant in 1983, which was not funded by the DOE.

State of Idaho

In 1978 and 1979, the State of Idaho, under contract to Rockwell, provided support to the BWIP in performing limited geologic reconnaissance work associated with the basalts in the State of Idaho. Tours and briefings have been provided to State of Idaho citizens, when requested.

PEER AND TECHNICAL REVIEWS

National Academy of Sciences (NAS)

In 1981, the NAS Waste Isolation Systems Panel held a number of meetings with the BWIP to discuss status of the project. The panel also obtained technical information covering BWIP which was used as part of the NAS report, issued in 1983, covering all the DOE geologic repository projects. Informal discussions continue to be held with some members of the panel.

Advisory Committee on Reactor Safeguards (ACRS) - Waste Management Subcommittee

In 1983, the DOE held meetings and discussions with the ACRS Waste Management Subcommittee in Washington, DC, and at Richland, Washington. The purpose of the meetings was to provide the current status of the BWIP. The subcommittee provided a number of comments during the exchange, which are being considered by the BWIP in formulating the project objectives.

Technical Review Group (TRG)

Since early 1979, peer review groups have provided a review of the BWIP activities and assistance in establishing project objectives. During the past three or four years, membership and focus of the technical review groups have changed to provide more effective support covering most of the project activities. The current BWIP TRG participants include technical experts from universities, private consultants, industry, governmental agencies, etc. The TRG meets with DOE periodically (on a monthly basis) to provide support in establishing project goals.

PUBLIC

News Media

Tours and briefings are provided to the news media as requested. In addition, the BWIP makes information available about all project activities. Many television, radio, and newspaper interviews are provided when requested. The news media are also notified of all BWIP events. Examples include public information meetings, release of the draft Environmental Assessment document, draft EA public briefings, formal public hearings, DOE/NRC meetings, etc.

Public

The BWIP has conducted a number of public information meetings in Washington and Oregon, with the objective of providing the latest status of the project, identifying the future project activities, answering questions by the public during the meetings, and providing information that the public may desire. In addition, many tours and briefings of BWIP facilities and activities are provided as requested.

Reading Room

As part of the Hanford Science Center, a reading room containing most all of the BWIP documents has been established. The documents are available for public review. Many project documents such as Environmental Assessments, Site Characterization Reports, and many others are also provided upon request. In addition, and as noted earlier, the State

of Washington's Reference Information Center in Lacey, Washington, makes available the same sort of BWIP documents.

SUMMARY

Many interactions by the BWIP have been performed during the life of the project with the organizations identified in this paper. These interactions have taken the form of reviews of documents and reports by the public, state and federal agencies, affected Indian Tribes, and many others. They have

also included meetings, briefings, hearings, and tours of BWIP facilities, by these groups and organizations. The objective of BWIP is to conduct an open information program and make available all data to those who wish to see it.

The extensive interaction process presently taking place is a major step in implementing the requirements of the NWPA for involvement by federal agencies, state, affected Indian Tribes, and the public. These actions will continue through the life of the project to allow for full participation in the nation's repository selection process.