This is the fourth in a series of reports issued by the Oregon Department of Energy for the purpose of updating the status of the Lakeview Remedial Action Project. Persons interested in reviewing this report on a regular basis should contact Dave Markley at (503) 378-4906.

Cooperative Agreement

The Oregon Department of Energy (on behalf of Oregon) and the U.S. Department of Energy (on behalf of the Federal Government) signed the Lakeview Cooperative Agreement on June 29. The agreement was then sent to the U.S. Nuclear Regulatory Commission (NRC) for concurrence. Concurrence is essential since NRC must license the disposal site chosen at Lakeview. NRC formally concurred with the cooperative agreement July 24. Copies of the cooperative agreement have been distributed to the Energy Facility Siting Council, the Local Advisory Committee, and the Lakeview Public Library.

State Program Support

During July, the Legislative Emergency Board met and approved a full-time position dedicated to the Lakeview Remedial Action Project. The position will be funded 90 percent by U.S. DOE and 10 percent by the State.

Dave Markley, program manager with the Oregon Department of Energy, Siting and Regulation Division, was appointed to the position August 16. Dave has been associated with the Lakeview Project since 1982 and has 10 years of related radiological experience as a consultant and project manager with the Federal government and private industry.

Alternate Site Selection

On July 18, the U.S. Department of Energy proposed to the Lakeview Advisory Committee seven areas for relocation of radioactive wastes. Six areas were approved by the committee for further study. These areas are shown on the attached map.

Subsequent field studies by federal government contractors concluded that areas "B" and "G" appeared to offer the best disposal possibilities.
Area "B" is located approximately 6 miles north of Lakeview in the northern part of the Goose Lake Valley on lands adjacent to the Fremont National Forest. Area "B" is characterized by gently sloping terrain, and no perennial streamflow. Ground cover consists of sagebrush and bunch grasses.

Area "G" is located 15 miles (21 road miles) northeast of Lakeview at the limits of the study region. Area "G" is also characterized by gently sloping terrain and no perennial streamflow. Ground cover consists of high stands of sagebrush and intermittent volcanic rock.

The Oregon Department of Energy reviewed the federal proposals and on August 30 provided the following recommendations:

1. Area "E" (the original mine sites) is recommended because: (1) it is the origin of the radioactive waste; (2) it would allow the consolidation of two existing radioactive waste sites into one area; (3) it is remote from residential areas; (4) it is largely surrounded by federal land; (5) it is a contaminated site which would benefit from remedial action; and (6) it is supported by the Local Advisory Committee.

2. Areas "B" and "G" are acceptable for alternate site selection providing that the federal government acquire adequate buffer around the disposal sites. A buffer is necessary to protect public health and safety because both of these sites would be surrounded by private land.

Detailed technical data will be collected at the alternate disposal sites during this summer field season. Following analysis of the data a "preferred site" will be chosen for relocation of the radioactive waste.

**Millsite Environmental Surveys**

Environmental data was collected at the uranium mill site and surrounding property during July and August. All work was competed with the exception of indoor radon measurements (which will be collected during winter) and characterization of an underground mill conveyor. The following paragraphs detail the work accomplished.

Subsurface radiological sampling was begun July 17. A total of seven tailings, seven evaporation pond, and six mill area drill holes were completed and sampled. Bulk sample pits were dug at three tailings and one evaporation pond location. The purpose for subsurface sampling is to 1) Determine the radioactive content of materials in the tailings, evaporation ponds, and any soil underlying these areas, and 2) Determine the soil properties of the material (such as its ability to transmit radon gas) so that the disposal site is properly engineered to isolate radioactivity from the environment.
Surface radiological samples not previously collected during the March field effort were collected during July. Approximately 150 samples were collected, primarily in the evaporation pond area, and sent to the lab for analysis. The purpose for surface soils sampling is to determine the extent and level of contamination caused by wind and water erosion of the tailings.

Hydrologic test wells were completed southwest of the evaporation ponds and tested during July. The hydrologic tests are designed to measure the production of underground aquifers, the rate of groundwater movement, and direction of groundwater flow. The information derived from these tests provides guidance on where to place groundwater monitoring wells.

Twenty-three groundwater monitoring wells at 11 locations around the tailings and evaporation ponds were completed and are currently being sampled. Six nearby domestic wells, six additional monitoring wells, and four surface water samples upstream and downstream from the site are also being collected. Water samples will be analyzed for approximately 40 constituents, including radioactive elements and heavy metals. The purpose for water sampling is to determine the extent and level of contamination caused by surface runoff or leaching of the tailings into streams or groundwater, respectively. Additional water samples will be taken at the monitor well locations periodically over the next year to determine seasonal effects on groundwater quality.

**Alternate Site Environmental Surveys**

In July, detailed characterization of alternate disposal sites was initiated. Geologic, hydrologic and soils samples will be collected at each site and analyzed by laboratories over the next three months.

Sixteen drill holes are planned at each site to determine the geologic characteristics of the site. Approximately half of these holes will be developed into groundwater monitoring wells. Springs, stock ponds, streams, and other nearby surface water will also be sampled. Eight test pits will be dug at each site and the soils will be analyzed for their engineering properties. Archeological and biological surveys of each site will be conducted in October.

**Public Participation Process**

The Lakeview Local Advisory Committee met in Lakeview July 18. Thirty-four persons attended the meeting. Minutes of the meeting are attached to this report.

The sole agenda item was the review of U.S. DOE alternate disposal site recommendations. U.S. DOE proposed seven alternate areas for consideration. After presentations from U.S. DOE and testimony from interested citizens, the Committee made the following recommendations:
1. Eliminate one alternate disposal area from further consideration due to its close proximity to multiple existing residences. This area (Area "A") was located approximately five miles west of Lakeview.

2. Proceed with the remaining six areas. These areas include the original mine sites, three areas north of Lakeview, and two areas east of Lakeview per the Advisory Committee's previous recommendation. These six areas are shown on the enclosed map.

The Committee additionally agreed that selection of two or three specific sites within the remaining six areas should be made by the State together with U.S. DOE and its contractors in a timely fashion.

The next Committee meeting will be held in Lakeview September 11 for the purpose of touring the proposed alternate disposal sites. Public meetings are tentatively scheduled October 2 to review work progress and proposed development of environmental documents, and solicit public comments on the content of the environmental documents.
LAKEVIEW REMEDIAL ACTION COMMITTEE
July 18, 1984
Minutes

The meeting was held July 18, 1984, at the Lake County Community Center. The meeting convened at 7:00 p.m. The attendance sheet is attached. The meeting was taped and minutes transcribed and summarized from the tape.

Purpose of Meeting

Gordon Tracy, Chairman, opened the meeting by stating the purpose of the night's meeting. The meeting's purpose was to decide on the acceptability of the U.S. DOE-proposed alternate site areas, thereby providing guidance to U.S. DOE concerning their summer field effort.

Activity Status Report

Dave Markley, ODOE, presented the activity status report. Markley reviewed the recent activities associated with: 1) the Cooperative Agreement, 2) millsite field surveys, 3) alternate site selection, 4) the public review process, and 5) project staffing. An outline of the status report is attached.

New Committee Representative

Tracy introduced and welcomed Don Lindsey, whom the County Commissioners have recently appointed to the Lakeview Remedial Action Committee.

Alternate Site Selection Process Review

Mark Matthews, U.S. DOE, provided a short historic overview of the alternate site selection process. He commended the committee for their "major contribution to this process" and noted U.S. DOE's responsiveness to committee recommendations.

Bill Taber, Jacobs Engineering, provided a technical review of the alternate site selection process and proposed consideration of seven sites (identified as Areas A, B, C, D, E, F and G), followed by a question and answer period.

Markley reiterated the purpose of the meeting and solicited committee and public comments.
Janine Cannon, County Planning, stated that the U.S. DOE proposals gave the diversity of location that the Committee sought at the last meeting. Cannon inquired about the lack of a "public parcel" for consideration. Bill Taber responded that all lands were evaluated against the criteria.

Several property owners, whose homes are located west of Lakeview, strongly objected to further consideration of Area "A".

George Carlon, County Commissioner, made a motion that Area "A" be eliminated from further consideration. Vickie Devines, Precision Pine, seconded. The motion passed without dissent.

Carlon then made a motion that the Committee approve Areas B, C, D, E, F and G for continued study by U.S. DOE. Art Shear, County Commissioner, seconded. The motion passed without dissent.

Markley requested the Committee to allow U.S. DOE and the State to make subsequent site selections (within the six areas) outside of the Committee process. Such decisions would be made between U.S. DOE, the State, and the individual property owner. The Committee approved this recommendation by general consent.

Future Meeting

Matthews and Leon Stepp, Jacobs Engineering, estimated they would have information on the alternate sites to share with the Committee in two months. The next meeting is tentatively scheduled for September.

The meeting adjourned at 9:00 p.m.

Attachment
LAKEVIEW ACTIVITY STATUS REPORT
July 18, 1984

I. Cooperative Agreement
   * Agreement signed June 29th in Lakeview
   * Agreement submitted to NRC July 3rd

II. Millsite Field Surveys
   * Preliminary data made available to Markley July 10 & 11 in Albuquerque
   * Defer presentation & discussion to a future meeting
   * Field work currently continuing including:
     - well drilling
     - hydrologic/water quality data collection
     - test pits
     - additional radiological sampling

III. Alternate Site Selection
   * U.S. DOE & its contractors have spent considerable effort to respond to committee recommendations
   * The sole agenda item: review Phase III & IV recommendations & provide direction for U.S. DOE contractors to proceed w/summer field activity
   * U.S. DOE & contractors are prepared to present multiple siting areas for committee approval as well as approval to commence field work at specific sites within those areas.
   * State has met w/U.S. DOE concerning Phase IV work & recommended that the original mine sites be given full consideration because of their unique history and their potential as a politically and socially acceptable disposal site.

IV. Public Process
   * June 28, 29 -- EFSC meeting in Lakeview during which the Council toured the millsite and mines and solicited public comment in a formal meeting.
   * July 13 -- congressman Bob Smith held town meeting in Lakeview, during which he discussed the Lakeview Remedial Action Project. Public comments at the meeting did not address this subject.
   * Beginning w/tonight's meeting, hoping to provide more complete record of meeting.

V. Staffing
   * UDOE has made request to Legislative E-Board for a full-time position to work w/the community, advisory committee, and the Federal government on the Lakeview Project.
   * Request will be reviewed by the E-Board July 19th.

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## Local Advisory Committee Meeting
### Attendance Roster
#### July 18, 1984

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<td>Dave Markley</td>
<td>Salem</td>
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<td>Treva &amp; Chuck Kelley</td>
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<td>Mark &amp; Sherry Stringer</td>
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<td>Gene William</td>
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