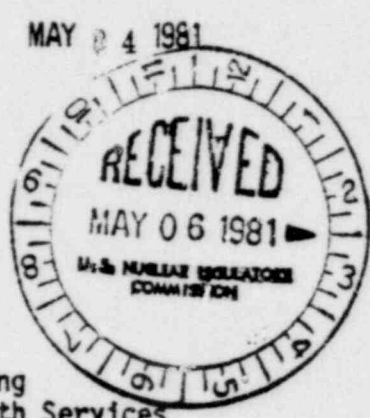


WMUR:DMG  
WM-33



- Distribution:
- Project file
  - PDR
  - Mill file
  - WMUR c/f
  - WMUR r/f
  - WM r/f
  - NMSS r/f
  - DMGillen
  - JJLinehan
  - DEMartin
  - RAScarano
  - REBrowning
  - JBMartin
  - BPFisher
  - HJPettengill

Ms. Nancy P. Kirner  
Radioactive Materials Licensing  
Department of Social and Health Services  
P. O. Box 1788  
Olympia, Washington 98504

Dear Ms. Kirner:

Pursuant to Item No. 17 of our input to the Final Environmental Impact Statement for the Dawn Mining Company Mill Tailings Expansion Project (Condition No. 34 of DSHS License Amendment No. 4), Dawn has submitted various proposals for the design of a leak detection system. We have reviewed the designs and approve of the following proposed system.

A total of fifteen (15) lysimeters will be installed as shown in Figures 1 and 2 of Dawn's letter to you dated March 10, 1981 (copy attached). This letter is a revision of the original leak detection plan transmitted to you by letter dated February 4, 1981. The lysimeters will be spaced 200 feet apart and will be installed at the mid-slope bench to a depth equal to the elevation of the pond bottom. The sampling stations for each lysimeter are located at the crest of the perimeter dike.

In addition, the lysimeter system will be backed up by a series of four groundwater monitoring wells (see Figure 2) located downgradient of the below grade pond in areas that are uncontaminated by the existing seepage from the above grade ponds. These wells will monitor the groundwater for contamination due to any leakage from the below grade pond. The staff has concluded that the configuration of the lysimeters, backed up by the monitoring wells, is sufficient to detect any significant leakage from the below grade pond.

The frequency of monitoring the lysimeters, as proposed by Dawn (quarterly), is not acceptable. The lysimeters should be checked once every two weeks. If no sample is obtained, the lysimeter should be recorded as dry. If a sample is obtained, at least pH, conductivity, iron, manganese, zinc, molybdenum, and sulfate should be checked. Radiochemical analysis should also be required if a sufficient volume of liquid is obtained through the lysimeter. In addition, pre-operational baseline sampling should be required prior to disposal in the pit.

|           |  |  |  |  |  |
|-----------|--|--|--|--|--|
| OFFICE >  |  |  |  |  |  |
| SURNAME > |  |  |  |  |  |
| DATE >    |  |  |  |  |  |

Ms. Nancy P. Kirner

- 2 - MAY 04 1981

If you have any questions regarding this matter, please contact Mr. D. Gillen of my staff at (301) 427-4088.

Sincerely,

Original Signed by:  
R. A. Scarano  
Ross A. Scarano, Chief  
Uranium Recovery Licensing Branch  
Division of Waste Management

Attachment:  
As stated

Case Closed: 33000030A04E

5/1/81 -- MAG II  
Revision No. 1

|         |                 |                |                |  |  |  |  |
|---------|-----------------|----------------|----------------|--|--|--|--|
| OFFICE  | WMUR <i>DMC</i> | WMUR <i>JL</i> | WMUR <i>RS</i> |  |  |  |  |
| SURNAME | DMGillen:mb     | JJLinehan      | RAScarano      |  |  |  |  |
| DATE    | 5/1/81          | 5/3/81         | 4/4/81         |  |  |  |  |