**Section 391.450 Land Reclamation Projects**

a) Land reclamation projects are acceptable alternatives for sludge application and disposal and require an Agency permit. Reclamation would involve the restoration or improvement of land conditions to the point where vegetation can be sustained. In most cases, the application rate of sludge is much greater than agronomic application rates. The applicant's design of reclamation projects and site conditions must be comprehensive and sufficiently detailed to comply with provisions of the Act and this part.

b) The applicant shall include the following items in a permit application:

1) The applicant shall state the name(s) and addresses of the owner(s) of the site and the operator(s) of the site.

2) The applicant shall describe the site conditions including:

A) Hydrogeology;

B) Groundwater quality;

C) Soil characteristics;

D) Topography;

E) Drainage patterns;

F) Mine refuse piles.

3) The applicant shall describe the method of site preparation including an evaluation of the following alternatives:

A) Grading;

B) Diking;

C) Terraces;

D) Sediment traps;

E) Run-on control;

F) Run-off and erosion control;

G) Stream relocation.

4) The applicant shall describe the methods for transportation and storage included in the design in accordance with Subpart C.

5) The applicant shall specify the distance to habitation and potable water supplies.

6) The applicant shall specify the sludge application criteria including:

A) Application rate;

B) Equipment;

C) Methods;

D) Nutrient and heavy metal loadings;

E) Buffer areas in accordance with Section 391.403.

7) The applicant shall specify procedures for site operation and maintenance including:

A) Vegetation or crop grown and its ultimate use;

B) Existing ponded site water disposal or reuse;

C) Adjustment of soil and sludge mixture pH;

D) Monitoring networks;

i) Soil,

ii) Groundwater,

iii) Plant tissue.

8) The applicant shall describe its proposed recordkeeping procedures.

9) The applicant shall determine whether its proposed project complies with federal and state mining laws.

c) The permittee shall file an annual operating report with the Agency and shall make such other reports as required in their permit. The annual report shall include as a minimum the following information:

1) Dates of sludge application;

2) Amount of sludge applied;

3) Crops grown and their ultimate use;

4) Sludge source and analyses;

5) Groundwater monitoring results;

6) Soil monitoring results;

7) Plant tissue monitoring results;

8) Precipitation events and dates;

9) Specific operating constraints.