**Section 332.60 Technical Information**

The application shall contain technical information demonstrating that the technical criteria of this Part will be met. Specifically, the application shall contain:

a) A description of the characteristics of the proposed licensed site as determined by selection and characterization activities. The description shall include, but need not be limited to, the following:

1) Topography, geology, geochemistry, geotechnology, seismology, hydrology, climatology, meteorology, radioactivity, toxicology and ecology;

2) History, archaeology and demography;

3) Local economy and land usage;

4) Known natural and mineral resources;

5) Proposed and available modes of transportation; and

6) A list of all endangered plant and animal species on the site and within 10 km.

b) A description of the design features of the source material milling facility and byproduct material surface impoundment and disposal area. The description shall include the following:

1) Surface and groundwater management;

2) Effluent discharges and monitoring;

3) Licensed site access protection;

4) Occupational exposure control;

5) Licensed site monitoring, closure and maintenance; and

6) Buffer zone adequacy for monitoring and potential mitigative measures.

c) A description of the design criteria and their relationship to the technical criteria.

d) A description of the natural events or phenomena, such as winds and rainstorms, tornadoes, earthquakes and extreme temperatures, used for the design and their relationship to the design criteria.

e) A description of codes and standards which the applicant has applied to the design and which will apply to construction of the source material milling facility, and any byproduct material surface impoundment and disposal area.

f) A description of the construction and operation of any byproduct material surface impoundment and disposal area. The description shall include as a minimum:

1) Method of construction;

2) Method for emplacement of byproduct material within a surface impoundment or disposal area;

3) Procedures for and areas of waste segregation;

4) Types of access control barriers;

5) Engineering quality control program;

6) Construction quality assurance program;

7) Methods and areas of waste storage;

8) Onsite traffic and drainage systems; and

9) Methods to control surface water and groundwater and precipitation access to the byproduct material.

g) A description of methods to be employed in the handling and disposal of the byproduct material including dewatering and neutralizing such materials that, because of physical or chemical properties, might affect meeting the technical criteria of this Part.

h) A description of the licensed site closure plan, including those design features which are intended to facilitate closure and to eliminate the need for active maintenance.

i) A description of the kind, amount, source, classification and specifications of the radioactive material proposed to be received, possessed, processed and disposed of at the source material milling facility, any byproduct material surface impoundment and any disposal area.

j) A description of the quality assurance program for the determination of natural characteristics of the licensed site and for the maintenance of quality control during the design, construction, operation, reclamation, decontamination, stabilization and closure of the licensed site. Audits and managerial controls including criteria and standards shall be incorporated in this program.

k) A description of the radiation safety program for controlling and monitoring radioactive effluents to ensure compliance with the technical criteria in Section 332.170 of this Part and 32 Ill. Adm. Code 340; occupational radiation exposure to ensure compliance with the requirements of 32 Ill. Adm. Code 340; and to control contamination of personnel, vehicles, equipment, buildings and the site. Both routine operations and accidents shall be addressed. The program description shall include procedures, instrumentation, facilities and equipment.

l) A description of the environmental monitoring program designed to provide data to evaluate potential health and environmental impacts and the plan for taking corrective measures if migration is indicated. Components of an environmental monitoring program generally include:

1) the sampling of air, for particulate and gaseous emissions;

2) the sampling of surface water and groundwater;

3) the sampling of soil and sediment;

4) the sampling of vegetation and animals;

5) the sampling of total radon and its daughters;

6) the sampling of direct radiation with both passive integrating devices and survey instruments; and

7) other environmental analysis that might be indicated as a result of site specific conditions.

m) A description of the proposed methods of decontamination, relcamation, stabilization and postclosure activities within the licensed site.

n) A description of each emission source and emission control device incorporated into the source material milling operations. The description shall also include the efficiency, calibration procedures and maintenance schedules for emission control devices.

o) A description of the licensee's procedure for monitoring all pathways of exposure (i.e., ingestion, inhalation, external exposures) to workers and the public. The frequency of monitoring for each pathway shall be site specific and designed to demonstrate compliance with the criteria of Section 332.170 of this Part and 32 Ill. Adm. Code 340.

p) A description of the administrative procedures that the applicant will apply to control activities at the source material milling facility and any byproduct material surface impoundment, and disposal area including, but not limited to, organization and lines of authority, management audit programs and internal inspection programs.

q) An estimate of the environmental effects of accidents on each operation.

r) A description of regional and site specific characteristics which have seasonal or cyclical variations, including the range of variations and average values. The site specific preoperational monitoring data must be based on data collected during a one year (four consecutive seasons) period or longer. This data shall be collected prior to any alteration of the environment by changes in topography, drainage or construction of the milling facility and waste disposal system.

s) A report describing methodology, calibration procedures, quality control and data analysis for each type of measurement shall be included in the application.

(Source: Amended at 21 Ill. Reg. 3897, effective March 13, 1997)