**Section 605.80 Method of Disposal**

The Agency shall select as a contractor a proposer who is capable of designing, constructing, operating, and closing a low-level radioactive waste disposal facility that does not incorporate the use of shallow land burial or deep well injection and that will further the objective of providing *for the management of these wastes in the safest manner possible and in a manner that creates the least risk to human health and the environment of Illinois* [420 ILCS 20/2(b)]. For purposes of this Section, shallow land burial has the same definition ascribed in Section 3 of the Act. The Agency will establish whether a proposer is capable of designing such a facility by evaluating a reference facility design submitted by the proposer as part of its proposal. The reference facility design shall briefly and concisely describe for consideration by the Agency the proposer's concept of the best available technology that is economically reasonable, technologically feasible, and environmentally sound for the disposal of low-level radioactive waste. The reference facility design shall include schematic drawings and narrative descriptions only in sufficient detail to permit an evaluation by the Agency of the technical merit of the design and the knowledge and expertise of the proposer. The reference facility design shall specifically address the role and performance of the engineered features in enhancing long-term isolation, monitoring, retrievability or remedial action and minimizing exposure to personnel. Reference facility designs shall be evaluated according to the following criteria:

a) Disposal Facility Design

1) To determine whether the proposer has demonstrated an ability to meet the design constraints of 32 Ill. Adm. Code 601 and the Act, the Agency will request each proposer to submit a reference facility design.

2) To make this determination, the Agency will then evaluate the reference design to determine whether the proposer has applied the following criteria:

A) Incorporation of multiple engineered features to provide structural integrity, prevent release of material from engineered containment, and provide radiation shielding;

B) Incorporation of design elements that reduce the amount of waste on site and not permanently disposed of and that minimize the time waste is held on site prior to disposal;

C) Promotion of worker safety, including minimization of worker radiation dose to as low as is reasonably achievable;

D) Disposal capacity sufficient to accommodate the anticipated waste volume;

E) Ability of the facility to accommodate waste that is of unusual volume or shape;

F) Ability of the facility to accommodate mixed waste (i.e., waste that has both radioactive and chemically hazardous components); and

G) Flexibility to accommodate waste streams and volumes not currently identified.

b) Operating Plan. When evaluating the proposer's operating plan, the Agency will evaluate the adequacy of the proposer's procedures for:

1) Inspection of packages;

2) Treatment of wastes for disposal;

3) Personnel monitoring;

4) Environmental monitoring, specifically monitoring of air, groundwater, and soil;

5) Contingency planning;

6) Maintaining records of the source and type of waste received for disposal; and

7) Continual in situ testing of the design and construction of disposal units, research and development of improved methods of disposal, and application of those methods.

c) Closure Plan. The Agency will evaluate the adequacy of the proposer's plan for satisfying the closure requirements of 32 Ill. Adm. Code 601.

(Source: Amended at 37 Ill. Reg. 12414, effective July 19, 2013)