Waste Management Options to be Considered

Materials Recycle and Re-use

There are a number of metals on-site that could be recycled if they are clean or can be cleaned to free-release standards.

- Potential metals: copper, nickel, steel, aluminum
- Other materials: concrete (for use as road base or fill)
- Recycling benefits:
  - Creates jobs
  - Minimizes waste volumes
  - Conserves natural resources
- Some converters/equipment reserved for DOE-Paducah's use as spare parts
- DOE moratorium allows only non-contaminated materials from non-rad areas to be released to the public; materials from rad areas could be recycled in a controlled use scenario (e.g., re-used at another DOE facility)
- Between 2002 and 2008, DOE cleaned and recycled or sold 15,067 metric tons of uranium that had been contaminated with technetium

Buildings Re-use

The decontamination and re-use of buildings and equipment of economic value and with limited contamination may be possible.

- Many buildings are too contaminated to be re-used; contaminants include: radionuclides, PCB's, TCE, and asbestos
- The process buildings lack heating system (equipment provided the heat)
- A few buildings with little or no contamination may be available for re-use, such as:
  - Administration Buildings
  - Warehouses
  - Block buildings
- Non-contaminated equipment may include pumps and cooling tower fans

Public input will be a critical factor in making waste disposition decisions

Minimization plus Off-site Disposal

Off-site Disposal is possible at appropriately-licensed facilities. Waste minimization is important to reduce costs of shipping and disposal and to reduce the total space dedicated to disposal.

- Minimize volume by reducing size (crushing, cutting, disassembling) or recycling/re-use
- Ship non-contaminated building debris to local landfill
- Ship rad contaminated wastes to Nevada Test Site or to Clive, UT
- Challenges include transporting across state lines, transportation safety and security risks
- Significant disposal fees and long-haul transport costs would be incurred
- Advantage would be that wastes are no longer on site

Minimization plus On-site Disposal

On-site Disposal would have to be done in a facility that was carefully engineered to protect groundwater and the environment. Waste minimization would be important to reduce the overall cost and size of the facility.

- Volume could be minimized by reducing size (crushing, cutting, disassembling) or recycling/re-use
- Facility would need to be designed to safely contain RCRA, TSCA, and low-level radioactive wastes
- Trucks transporting off-site fill/clay would increase traffic and wear on local roads
- Construction and long-term operation/maintenance costs would be incurred, but no disposal fees or long-haul transport costs
- Area used for an on-site disposal facility would not be available for other uses

EM Environmental Management

safety ◆ performance ◆ cleanup ◆ closure