

Waste Treatment Complex ABKL for Leningrad Nuclear Power Plant



On 17th of January 2002, Leningrad NPP signed the Contract with NUKEM regarding planning and delivery of processing plants and systems for the Complex for treatment and conditioning of solid and combustible liquid radwaste. The Contract is financed by Power Organization „Rosenergoatom“. The Contract value is 20.5 Million Euro.

The Contract relevant systems and plants are:

- Facility for taking-over, handling and transportation of solid waste within limit of supply specified in an enclosure 1
- Facility for radiological solid waste separation to the category 1 (low-level) and 2 (intermediate level)
- Sorting plant for solid waste of category 1
- Facility for crushing of solid waste
- Incineration plant for low level solid and liquid waste
- Compaction plant for solid waste
- Emission control system for measurement of chemical and radiological characteristics of off-gas from Incineration plant
- Drum Meter GME

The Waste Treatment Complex will process 3,562 m³ of low level waste and 613 m³ of intermediate level waste per year. The waste will be transported by 1m³- Container with bottom discharge to the Waste Treatment Complex building and emptied there into the stainless steel bath. The waste will be sorted by means of Remote Radiological Separation Device into category 1 - low level and 2 - intermediate level.

The waste of category 1 will be sorted into combustible solid waste, compactable solid waste and metal waste. The combustible waste will be bagged, packaged into cask, transported to Incineration plant and burned there. Ash from the Incineration plant will be filled into drums and pressed in the Compaction plant. The compactable waste will be collected into drums, after possible crushing, pre-compacted as far as possible and pressed in the Compaction plant. Thereby arising pellets will be brought into casks. The metal waste will be collected, packed into casks and delivered to the Customer for the subsequent treatment. The oil/water emulsion of category 1 will be transported by

customer in the small drums to the Incineration plant and continuously burned together with solid waste in small quantity.

After radiological waste separation in the category 1, and after possible crushing, all solid waste of category 2 will be collected into drums and pressed in the Compaction plant.

Drum Meter (GME) is used for measurement of cylindrical waste drums filled with radwaste of defined dimension, as well as for analysis and reporting of measurement results. After measuring, the waste drum will be delivered to the Customer for Transportation to the Storage plant.

Scheduled time for Commissioning of Waste Treatment Complex is the mid of the year 2008.