DEQ seeks further study of ‘SempraSafe’ Plan

Salt Lake City, Utah – The Division of Radiation Control (DRC) has requested EnergySolutions to update its performance assessment on its ‘SempraSafe’ proposal – radioactive resins that has been thermally treated in Tennessee to create a Class A waste – before it can dispose of more than 40,000 cubic feet a year of this waste at its low-level radioactive waste facility in Tooele County.

Rusty Lundberg, director of DRC and executive secretary of the Radiation Control Board (RCB), said a public comment period will be in January on the need for an updated performance assessment, an action that is necessary because of new provisions to a rule the RCB adopted earlier this year that requires further analysis on certain types of wastes that may fall within what the Nuclear Regulatory Commission (NRC) considers “large-scale blending operations.”

“Considering the fact the SempraSafe waste will be disposed of in significant quantities, we feel that more scrutiny is needed to provide the public the confidence it needs that the waste can be disposed of safely at its Clive facility,” Lundberg said.

EnergySolutions is seeking approval to dispose of waste produced by Studsvik’s facility in Tennessee. The SempraSafe process is a joint venture between EnergySolutions and Studsvik to process US-generated low-level radioactive ion-exchange resins from nuclear power plants through Studsvik's THOR® process. This process treats the ion-exchange resins using a thermal process in order to treat the organic material, creating a residue containing carbon and metal oxides. The residue is more physically stable after the treated process. It’s then placed in containers for shipment and disposal at its Clive Facility in Tooele County.

EnergySolutions already has a license to receive the treated radioactive resins as long as the waste meets the Class A standards for disposal. The issue at hand is the large volume of treated waste the company seeks to dispose at its facility.

In evaluating EnergySolutions’ proposal, the DRC revisited the company’s performance assessment it did in 2000 and found it did not address NRC’s revised guidance regarding a
site-specific performance analysis.

“Accordingly, the science associated with preparing and conducting a performance assessment (PA) has progressed significantly since the original PA was completed,” Lundberg said in a letter sent to EnergySolutions today.

He directed EnergySolutions to submit a revised PA by Dec. 30, 2012 and limit its disposal of not more than 40,000 cubic feet a year of the thermally-processed SempraSafe ion exchange resins until a final determination is made regarding the updated performance assessment. The annual limit represents about 1 percent of the total volume of waste disposed on an annual basis at its facility.

“It is significantly less than the volume considered by the Radiation Control Board in setting the 10 percent threshold in the new rule as well as the NRC in issuing its guidance regarding large-scale blending proposals so it is very cautionary and protective of public health.”

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