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BY

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Pending anticipated United States Environmental Protection Agency (USEPA) rulemaking activity, the practice at the Nevada Test Site (NTS) regarding fluorescent tube disposal was crushing and holding the material in drums until a disposal resolution was developed. Since proper management and characterization of fluorescent lamps had been an issue since February 1993, the Nevada Division of Environmental Protection (NDEP) Bureau of Federal Facilities (BoFF), directed Reynolds Electrical & Engineering Co., Inc. (REECo), the prime contractor to the Department of Energy (DOE) for management of activity at the NTS, to propose a plan for properly managing the fluorescent tubes. On June 10, 1993, a proposed plan was drafted and accepted by the NDEP/BoFF.

During out-briefs from audits conducted by NDEP after June 10, 1993, the issue was consistently raised that the possibility of improperly stored potential hazardous waste did exist with respect to the crushed fluorescent tube management plan approved by the NDEP. However, analytical data from other industries was inconsistent for detection of mercury. On August 3, 1994, the NDEP/BoFF directed REECo to properly characterize the waste with concurrence from the DOE Environmental Protection Division. Crushed fluorescent tubes were not a hazardous waste, but approved management controls of the waste were in place. The REECo Waste Operations Department was contacted and a sample and analysis plan was implemented.

Using one of the methods identified in 40 Code of Federal Regulations (CFR) 261 Appendix I (American Society of Testing Materials, Method D140-70, as updated), three drums were chosen using a random number generator. A sample was taken from the center of each drum which was identified as a representative sample. The analytical data indicates that the Toxicity Characteristic Leaching Procedure metal concentrations were not above regulatory in any of the samples, therefore, the crushed tubes were not considered hazardous waste. On November 9, 1994, formal documentation was received from NDEP directing REECo to dispose of the crushed tubes in permitted sanitary landfills onsite. To further clarify the issue, all mercury-containing lamps such as high pressure sodium, mercury vapor, and metal halide lamps may also be disposed of as nonhazardous waste. This decision was based on the USEPA definition of mercury-containing material.

It is important to recognize that regulations regarding the disposal of fluorescent tubes may be different in each state. At the NTS, this effort was viewed as a disposal milestone.