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NRC ISSUES CONFIRMATORY ORDER FOR USEC PLANT IN KENTUCKY

The Nuclear Regulatory Commission has issued an order to the U.S. Enrichment Corporation (USEC) confirming the company's commitment to install seismic modifications in two buildings at its Paducah, Kentucky, Gaseous Diffusion Plant by September 30. The company will put into place certain administrative controls until the modifications are completed.

The Paducah facility enriches uranium hexafluoride gas in the uranium-235 isotope, so that the material can be used as nuclear fuel in civilian nuclear power plants.

The confirmatory order results from a USEC report to the NRC that some equipment at the facility would not adequately withstand an earthquake. In addition, USEC indicated that the company's seismic accident scenario for the plant underestimated the amount of liquid uranium hexafluoride that might be contained in certain tanks (called "accumulators") at the facility. The presence of more uranium than anticipated could mean that, in case of an earthquake, more radioactive material could be released to the environment than previously expected.

Liquid uranium hexafluoride normally flows at the end of the enrichment process into (1) shipping cylinders used to transport the enriched uranium material for further processing, or (2) tailings tanks containing depleted uranium not useful for commercial nuclear power plants. When the transportation cylinders or depleted uranium tanks are full, the liquid uranium hexafluoride flows into the accumulators.

USEC agreed to install seismic modifications to equipment containing liquid uranium hexafluoride in Buildings C-31-31-A and C-315 at the Paducah facility. The modifications will increase the ability of the equipment to withstand earthquakes.

Until the modifications are completed, USEC agreed to implement administrative controls, including:

(1) Access to Buildings C-310/310A and C-315 will be limited to persons essential to operations and inspections and persons performing the modifications.

(2) When liquid hexafluoride has flowed into the on-line accumulator in either building for more than one hour (which would result in about 2000 pounds of liquid uranium hexafluoride in the accumulator in building C-310A, and about 5,000 pounds for building C-3150), USEC will notify the plant shift superintendent. The superintendent will initiate high-priority actions to shorten unscheduled outages (which can cause more uranium to flow into the accumulators). The company will also begin tracking quantities of liquid in the accumulators, take actions to reduce uranium flow through the system so as to minimize accumulator use as appropriate, and notify the NRC.

(3) If the calculated amount of liquid uranium hexafluoride in the accumulator reaches 4,000 pounds in Building C-310A, or 10,000 pounds in Building C-315, the flow of liquid uranium hexafluoride will be stopped immediately.

The NRC determined that installation of the seismic modifications by September 30 and the additional administrative controls in the interim will provide reasonable protection of public health and safety.

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