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NRC STAFF PROPOSES \$125,000 FINE AGAINST COMMONWEALTH EDISON CO.
FOR VIOLATIONS ASSOCIATED WITH STEAM ACCIDENT AT QUAD CITIES
STATION

The Nuclear Regulatory Commission staff has proposed a \$125,000 fine against Commonwealth Edison Company for safety violations which led to a steam release accident during a test at the Quad Cities Nuclear Power Station. Five workers were injured in the accident, which occurred on June 9, 1993, at Unit 1 of the station.

The two-unit Quad Cities Station is located at Cordova, Illinois. The accident occurred during a routine test of a high pressure emergency cooling water pump, which is driven by a steam turbine. Water had accumulated in the turbine casing prior to the test. When the pump was tested, pressure increased due to the water and ruptured discs designed to protect the turbine exhaust piping.

Water and steam were released through the ruptured discs into the room housing the equipment, injuring the five workers who were nearby. One worker was hospitalized for several days; the others were released after treatment.

The water and steam contained low levels of radioactivity, but there was no measurable release of radioactivity from the plant. The workers received low-level skin contamination, but the radioactive contamination was subsequently removed.

The accumulation of water was caused by a malfunctioning drain level switch in the drain system for the turbine piping.

The NRC inspectors determined that Commonwealth Edison had failed previously to correct deficiencies with the high pressure emergency cooling system level switches. A series of plant work requests had identified problems with the switches; the reactor manufacturer had issued an advisory recommending replacement of the switches with an improved switch; and a maintenance study by company personnel recommended testing and calibration of the switches at 18-month intervals but the recommendation was not followed.

The company was cited for failure to take adequate corrective action on the level switch problem. Three additional violations were identified: failure to notify workers near the high pressure system turbine of the impending test, as required; failure to adequately brief reactor operators on the planned test; and having an inadequate procedure for draining moisture from the turbine system.

In notifying the company of the fine, NRC Regional Administrator John B. Martin stated: "The most significant failure [by Quad Cities management] was that engineering personnel did not fully understand the system's design and vulnerabilities, and did not insist that steam drain system problems were properly addressed."

He added that "...management effectiveness in maintaining safety system reliability has been poor at Quad Cities."

Commonwealth Edison has until October 21, 1993, to pay the fine or to protest it. If the fine is protested and subsequently imposed by the NRC staff, the company may request a hearing.

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