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FOR IMMEDIATE RELEASE

NRC PROPOSES $165,000 CIVIL PENALTY FOR BOSTON EDISON COMPANY FOR VARIETY OF VIOLATIONS AT PILGRIM NUCLEAR POWER PLANT

The Nuclear Regulatory Commission has proposed a $165,000 fine against Boston Edison Company for multiple violations of agency requirements at the Pilgrim nuclear power plant. Boston Edison owns and operates the boiling-water reactor in Plymouth, Mass.

Among the violations, identified during three NRC inspections conducted between May 14, 1997, and January 6, are multiple failures to promptly find problems and/or promptly and effectively correct them once discovered. In addition, the agency found violations of the plant's design control requirements.

Specifically, one of the violations stems from a modification to piping inside the containment building, the large, protective reinforced-concrete structure that surrounds the reactor and related components. The change, performed in 1984, involved the installation of insulation on recirculation loop piping.

As a result of the modification, there was an increased probability of a malfunction of emergency core cooling system pumps, which would be needed to keep the reactor core covered and cooled following an accident, because of insulation debris collecting on the pumps' suction strainers. Boston Edison asserted that the increased pressure that would exist inside the containment building in the aftermath of an accident would prevent such clogging and ensure that the pumps would properly operate.

The NRC found that the utility failed to recognize the increased probability of a malfunction and that the safety evaluation performed to support the modification incorrectly concluded it could be implemented without first obtaining the NRC's approval.

Another violation relates to microprocessors used to control transformers which provide power to safety-related instruments. The NRC found that a design flaw introduced an unintended trip, or automatic shutdown, function into the computer

components. On April 1, 1997, that feature caused two transformers to lose power. After that event occurred, the NRC determined that Boston Edison had not performed an adequate safety evaluation to check whether the replacement of the microprocessors could involve an unresolved safety question, or a problem that had not been previously reviewed by NRC.

Lastly, the NRC found seven other violations involving problems that were not identified and/or not corrected. The violations represent the utility's failure to take action to resolve programmatic weaknesses in its design control and safety evaluation processes. They include:

- Operation of the plant with salt service water system inlet temperatures that were higher than design limits. The system uses water from the ocean to cool plant components.

- A single-failure vulnerability in the design of the salt service water system. The NRC requires that plant systems have redundant, or backup, features so that if a failure occurs they will not be rendered unusable.

- A failure to translate into procedures the design requirement that non-essential reactor building closed cooling water system loads be isolated during accident conditions. The isolation would be needed to help prevent the escape of radioactivity from the reactor building in the event of an accident.

- A failure to adequately translate into procedures residual heat removal system design flow rates for containment building heat removal. The system would be used to cool the reactor and containment building following an accident. For example, no analysis was performed to demonstrate that flow rates of greater than 5,100 gallons per minute would not exceed the design limitations of the system's heat exchangers.

- Deficiencies in emergency diesel generator loading calculations and procedures. The generators would be needed to provide power to plant safety systems if off-site power was lost and must "load," or energize, within a specified period of time.

- Operation of the emergency diesel generators at ambient temperatures higher than the design limit.

- Inaccuracies in the environmental qualification for electric equipment important to safety located in the drywell, a cylindrical, concrete shield that surrounds the reactor. Environmental qualification refers to the process of making sure equipment would be able to operate despite the harsh conditions that would exist following an accident.

In addition to the above Severity Level 3 violations (NRC violations range from

Severity Levels 1 to 4, with 1 being the most significant), the agency also cited the utility for four Severity Level 4 infractions involving failure to report conditions outside of the design basis of the plant. No fine is being issued in conjunction with those violations.

NRC Region 1 Administrator Hubert J. Miller, in a letter to Boston Edison regarding the enforcement action, wrote that the agency was concerned the plant was operated outside of its NRC-approved licensing bases because of "an apparent fundamental misunderstanding of what constitutes a change to the design and licensing bases. While there was no resultant adverse safety consequences in any of these cases, the potential existed that, had a design basis accident occurred, safety-related equipment and systems were not assured of accomplishing their design functions.

"Additionally," Mr. Miller continued, "the failure to identify and/or correct these conditions adverse to quality is of significant regulatory concern because the NRC relies upon licensees to operate the plant within the approved licensing basis and to correctly assess changes to the plant or its operations to assure that unreviewed safety questions do not exist."

Boston Edison has 30 days to pay the fine or to request in writing that all or part of the penalty be withdrawn.

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