

UNITED STATES NUCLEAR REGULATORY COMMISSION

COMMONWEALTH EDISON COMPANY

DRESDEN NUCLEAR POWER STATION, UNIT 2

DOCKET NO. 50-237

ENVIRONMENTAL ASSESSMENT AND FINDING OF

NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (the Commission) is considering issuance of a schedular exemption from the requirements of 10 CFR 50 to Commonwealth Edison Company (CECo, the licensee) for the Dresden Nuclear Power Station, Unit 2, located in Grundy County, Illinois.

ENVIRONMENTAL ASSESSMENT

Identification of Proposed Action

The proposed action would grant a schedular exemption from the requirements of Section III.D.2.(a) and III.D.3 (Type B and type C tests, respectively) of Appendix J to 10 CFR Part 50 relating to the primary reactor containment leakage testing for water cooled reactors. The purpose of the tests is to assure that leakage through primary reactor containment shall not exceed allowable leakage rate values as specified in the Technical Specifications and that periodic surveillance is performed.

The Need for the Proposed Action

By letter dated May 27, 1992, the licensee requested, pursuant to 10 CFR 50.12(a), a one time schedular exemption for Dresden Unit 2 from the 24-month local leak rate test interval for certain Type B and C leak rate test required by 10 CFR Part 50, Appendix J, Sections III.D.2(a) and III.D.3. The exemption

is requested to support the current outage schedule and to avoid the potential for an earlier reactor shutdown.

As a result of an unusually long refuel outage prior to the start of this operating cycle and several unanticipated and lengthy maintenance outages, the total number of days in which the Dresden Unit 2 reactor will be critical this cycle has been reduced considerably. This reduction in the total number of days of operation will not allow complete fuel utilization to be achieved by the originally scheduled refuel outage in September 1992. This incomplete utilization of fuel will cause an increase in excess reactivity during the next fuel cycle. Additionally, if a separate forced outage is imposed to perform testing and operation was not resumed until the fuel was utilized, CECO and its customers would bear the substantial replacement power costs incurred to provide alternate supplies of power during the outage period. In order to rectify these concerns, CECO proposes to reschedule the Dresden Unit 2 refuel outage from September 1992 to January 1993. Increasing the interval between refueling outages will cause Dresden Unit 2 to exceed the 24-month Type B and C leak rate testing surveillance interval required for Type B and C leak rate tests which can not be performed during reactor operation.

Environmental Impacts of the Proposed Action

The proposed action includes exemptions from performing certain Type B and C tests for a maximum period of 122 days beyond the 24-month test interval. As stated in 10 CFR Part 50, Appendix J, the purpose of the primary containment leak rate testing requirements is to ensure that leakage rates are maintained within the Technical Specification requirements and to assure that proper maintenance and repair is performed throughout the service life of the

containment boundary components. The requested exemption is consistent with the intent of 10 CFR 50, Appendix J, in that it represents a one time only schedular extension of short duration. The required leak tests will still be performed to assess compliance with Technical Specification requirements, albeit later, and to assure that any required maintenance or repair is performed. As noted in Sections III.D.2 and III.D.3 of Appendix J, it was intended that the testing be performed during refueling outages or other convenient intervals. Extending the 24-month interval by a small amount to reach the next refueling outage will not significantly impact the integrity of the containment boundary and, therefore, will not significantly impact the consequences of an accident or transient in the unlikely event of such an occurrence during the 122 day extended period.

The exemption request is further supported by the information provided in the application. CECO has identified those Type B and C volumes which will be leak tested during reactor operation. In addition, CECO has identified those volumes that will be leak tested should a forced outage of suitable duration occur prior to January 4, 1993 (122 day maximum exemption request). These commitments reduce the number of volumes which need an exemption and the length of time for which an exemption would be required should a forced outage of sufficient duration occur. CECO has also provided the testing methodology which will be used if forced outages occur. In order to provide an added margin of safety and to account for possible increases in the leakage rates of untested volumes during the relatively short period of the exemption, Dresden will impose an administrative limit for maximum pathway leakage of 85 percent of $0.6L_0$ for the remaining Unit 2 fuel cycle.

Past Unit 2 local leak rate test data have, in general, demonstrated good leak rate test results. The current maximum pathway leakage rate for Dresden Unit 2, as determined through Type B and C leak rate testing is 333.53 standard cubic feet per hour (scfh). This value is approximately 68 percent of the Technical Specification limit of 488.45 scfh ($0.6L_0$). As a result of additional maintenance being performed on various pathways during Cycle 13, the current leakage rate has been reduced from the previous outage "As Left" leakage rate of 362.29 scfh. In addition, the previous outage "As Left" total minimum pathway leakage rate for Type B and C testable penetration was 126.69 scfh. This value is approximately 21 percent of the Technical Specification limit of 610.56 scfh ($0.75L_0$). By using the minimum pathway methodology, a conservative measurement of the actual leakage expected through a pathway under post-accident conditions can be determined. The minimum pathway data from the last two Unit 2 refuel outages also indicates that on a minimum pathway basis, the quality of primary containment does not degrade excessively through the course of the fuel cycle. In addition, the previous outage "As Left" Integrated Leak Rate Test, completed on December 18, 1990, indicated that the primary containment overall integrated leakage rate, which obtains the summation of all potential leakage paths including containment welds, valves, fittings, and penetrations, was 0.8128 weight percent per day plus the calculated leak rate of 0.7428 weight percent per day plus the leakage rate of all nonvented pathways and the leakage compensation for the change in the drywell sump levels. This value is approximately 67 percent of the limit specified in the Technical Specifications (1.2 weight percent per day or $0.75 L_0$).

The above data, along with the station imposed limit for maximum pathway leakage, provide a basis for showing that the probability of exceeding the off site dose rates established in 10 CFR 100 will not be increased by extending the current 24-month Type B and C testing interval for a maximum of 122 days. The proposed exemption does not affect plant nonradiological effluents and has no other environmental impact. Therefore, the Commission concludes there are no measurable environmental impacts associated with the proposed exemption.

Alternative to the Proposed Action

Since the Commission has concluded there is no measurable environmental impact associated with the proposed exemption, any alternatives with equal or greater environmental impact need not be evaluated. The principal alternative to the exemption would be to require rigid compliance with the requirements of Section III.D.2(a) and III.D.3 of Appendix J to 10 CFR Part 50. Such action would not enhance the protection of the environment and would result in unjustified costs for the licensee.

Alternative Use of Resources

This action does not involve the use of resources not considered previously in the Final Environmental Statement for Dresden, Units 2 and 3 dated November 1973.

Agencies and Persons Consulted

The NRC staff reviewed the licensee's request and did not consult other agencies or persons.

FINDINGS OF NO SIGNIFICANT IMPACT

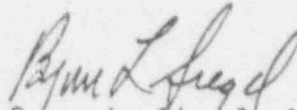
The Commission has determined not to prepare an environmental impact statement for the proposed exemption.

Based upon the foregoing environmental assessment, the NRC staff concludes that the proposed action will not have a significant effect on the quality of the human environment.

For further details with respect to this proposed action, see the licensee's request for exemption dated May 27, 1992, which is available for public inspection at the Commission's Public Document Room, the Gelman Building, 2120 L Street, N.W., Washington D.C. and at the Morris Public Library, 604 Liberty Street, Morris, Illinois 60451.

Dated at Rockville, Maryland, this 14th day of July 1992.

FOR THE NUCLEAR REGULATORY COMMISSION



Byron L. Siegel, Acting Director
Project Directorate III-2
Division of Reactor Projects III/IV/V
Office of Nuclear Reactor Regulation