ENCLOSURE 1

Dresden Unit 1 Revised Technical Specification Pages

Revised Pages

87
91
98
102

New Page

91a

1399 121

NOTE: During the outage beginning November, 1978, to decontaminate the primary system, the requirement of 3.7.A.1 is not applicable when all fuel is removed from the reactor and the containment.

d. The test duration shall not be less than 24 hours for integrated leak rate measurements, but shall be extended to a sufficient period of time to verify, by measuring the quantity of air required to return to the starting point (or other methods of equivalent sensitivity), the validity and accuracy of the leak rate results.

e. Acceptance Criteria for IPCLT

(1) The maximum allowable leak rate L_p, shall not exceed 0.4 weight percent of the contained air per 24 hours at a pressure of 20 psig.

(2) The allowable operational leak rate, $L_{to}(20)$, which shall be met prior to resumption of power operation following a test (either as measured or following repairs and retest) shall not exceed $0.75\ L_p$.

f. Corrective Action for IPCLT

If leak repairs are necessary to meet the allowable operational leak rate, the integrated leak rate test need not be repeated provided local leakage measurements are conducted and the leak rate differences prior to and after repairs, when corrected to the test pressure and

1399 120

Bases:

3.7

A. Primary Containment - The integrity of the primary containment and operation of the emergency core spray system in combination, limit the off-site doses to values less than those in 10 CFR 100 in the event of a break in the primary system piping. Thus, containment integrity is specified whenever the potential for violation of the primary reactor system integrity exists. Concern about such a violation exists whenever the reactor is critical and above atmospheric pressure. In addition, even during periods when the reactor is shutdown, primary containment integrity is required to ensure fission products would be contained in the event of a refueling accident or large spill of radioactive water from the primary system. If no work is being done in the primary containment which has the potential for release of radioactivity, containment integrity is not required.

With all fuel removed from the reactor, any volatile activities which could be released during the chemical cleaning outage beginning in November, 1978, would be minimal. Normal sphere ventilation flow would ensure that airborne activity would be conveyed to the stack, and the stack gas monitor will be in service. Chemical cleaning procedures will be established for dumping the cleaning solution to receiving tanks in case of significant leakage from the primary system and to ensure that any leakage of liquids to the sphere will be contained within the sphere. Therefore, based on the above, primary containment integrity is not required for the November, 1978 chemical cleaning outage when no fuel is in the containment.

1399 125

B. Primary Containment Isolating Valves
Isolation valves are provided on lines penetrating the primary containment and open to free space of the containment. Closure of one of the valves in each line would be sufficient to maintain containmant integrity. Automatic initiation is required to minimize the potential leakage paths from the containment in the event of a loss of coolant accident.

The primary containment has a design temperature and pressure of 325°F and 29.5 psig, respectively. In addition, the containment was designed for a maximum leakage of 0.5% (by weight) per day at 37 psi. For the largest break, the maximum containment pressure is approximately 20 psig which is less than design pressure and containment leakage should be less than 0.4%/day, which is specified at 20 psig.

The allowable leakage rate at 20 psig is calculated from the containment design leakage rate of 0.5% (by weight) per day at 37 psig by using the following equation:

$$L_T + La\ (^{P}t/pa)1/2$$

1399 124

3.8 LIMITING CONDITION FOR OPERATION	4.8 SURVEILLANCE REQUIREMENT
3. Two independent samples from a tank shall be taken and analyzed and the valve line-up checked prior to discharge of liquid effluents from that tank.	3. The performance and results of independent samples and valve checks shall be logged.
4. If the limits of 3.8.C cannot be met, radioactive liquid effluents shall not be released.	
D. Radioactive Waste Storage The maximum amount of radioactivity in liquid storage in all Dresden Stations above grade tanks shall not exceed 90 curies. If these conditions cannot be met the stored liquid shall be recycled within 24 hours to below grade tanks. All tanks located within the seismic portion of the Chemical Cleaning Building are not considered above grade storage.	D. Radioactive Waste Storage A sample from each of the above-grade liquid waste tanks shall be taken, analyzed, and recorded every 72 hours. If no additions to a tank have been made since the last sample, the tank need not be sampled until the next addition.
E. General It is expected that releases of radioactive material in effluents will be kept at small fractions of the limits specified in Section 20.106 of 10 CFR Part 20. At the same time the licensee is permitted the flexibility of operation, compatible with considerations of health and safety, to assure that the public is provided a dependable source of power even under unusual operating conditions which may temporarily result in releases higher than such small fractions, but still	E. General 1. Operating procedures shall be developed and used, and equipment which has been installed to maintain control over radioactive materials in gaseous and liquid effluents produced during normal reactor operations, including expected operational occurrences, shall be maintained and used, to keep levels of radioactive material in effluents released to unrestricted areas as low as is reasonably achievable. The environmental monitoring program given in Table 4.8.1 shall be conducted.

1399 123

The assumptions used by the AEC staff for these calculations were: (1) On-site meteorological data were used for the most critical 22.5 degree sector. (2) No building wake credit was used. (3) To consider possible reconcentration effects a reduction factor of 700 was applied to allow for the milk production and consumption mode of uptake.

B. Mechanical Vacuum Pump- The purpose of isolating the mechanical vacuum pump line is to limit release of activity from the main condenser. During an accident, fission products would be transported from the reactor through the main steamline to the main condenser.

C. Liquid Effluents - Liquid effluent release rate will be controlled in terms of the concentration in the discharge canal. In the case of unidentified mixtures, such concentration limit is based on assumption that the entire content is made up of the most restrictive isotope in accordance with 10 CFR 20. Such a limit assures that even if a person obtained all of his daily water intake from such a source, the resultant dose would not exceed that specified in 10 CFR 20. Since no such use of the discharge canal is made and considerable natural dilution occurs prior to any location where such doses could occur, this assures that off-side doses from this source will be far less than the limits specified in 10 CFR 20.

D. Radioactive Liquid Waste Storage - The maixmum gross radioactivity in liquid storage in the specified tanks has been limited on the basis of an accidental spill from all stated tanks due to a seismic event great enough to damage them. The Chemical Cleaning Building is seismically qualified and designed to contain a simultaneous spill from all the contaminated liquid storage tanks housed within. Assuming a low river flow of 3100 ft^3/sec, a day period over which the radioactive liquid wastes are diluted in the river, and consumption of the water by individuals at standard man consumption rate (3000 ml/day), the single intake by an individual would not exceed one-third the yearly intake allowable by 10 CFR 20 for unidentified radioisotopes (1×10^{-7} uCi/ml). The factor of 3 was applied to 10 CFR 20 limits as recommended for situations in which population groups could be exposed.

The sampling frequency has been established so that if the maximum amount of gross radioactivity is exceeded, action can be taken to reduce the radioactivity to a level below the specified limit.

E. Environmental Radiological Monitoring Program - The environmental radiological monitoring program is designed to:

1. Provide data on measurable levels of radiation and radioactive materials in the environment in order to evaluate the calculational models used to relate the quantities of radioactive material released in effluents to the radiation doses received by individuals via the principal pathways of exposure;

1399 128