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1.24 $\overline{E}$ - AVERAGE DISINTEGRATION ENERGY

$\overline{E}$ shall be the average (weighted in proportion to the concentration of each radionuclide in the reactor coolant at the time of sampling) of the sum of the average beta and gamma energies per disintegration (in MeV) for isotopes, other than iodines, with half lives greater than 30 minutes, making up at least 95% of the total noniodine activity in the coolant.

1.25 HEAVY LOADS

Any load in excess of the nominal weight of a fuel and control rod assembly and associated handling tool. For the purpose of this specification, HEAVY LOADS will be defined as loads in excess of 2000 pounds.

5. At least ONE residual heat removal pump shall be in operation, unless Tavg is less than 160 F.

6. When the reactor vessel head is removed and fuel is in the vessel, the minimum boron concentration of 1950 ppm or higher, sufficient to maintain the reactor subcritical by 10% Δk/k in the cold condition with all rods inserted shall be maintained in the reactor coolant system and the concentration shall be verified daily.

7. Direct communication between the control room and the refueling cavity manipulator crane shall be available during refueling operation.

8. The spent fuel cask shall not be moved over spent fuel, and only one spent fuel assembly will be handled at one time over the reactor or the spent fuel pit.

9. Fuel which has been discharged from a reactor will not be moved outside the containment in fewer than 100 hours after shutdown.

If any one of the above specified limiting conditions for refueling is not met, refueling shall cease until specified limits are met, and there shall be no operations which may increase reactivity.

10. HEAVY LOADS shall be prohibited from travel over irradiated fuel assemblies in the spent fuel pool*. With the requirements of this specification not satisfied, place the crane load in a safe condition.

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* The temporary construction crane to be used for the rerack operation may be carried over irradiated fuel to facilitate installation of the crane. Lift rigs which meet the design and operational requirements of NUREG 0612 "Control of Heavy Loads at Nuclear Power Plants" will be used while performing this installation.

3.12 CASK HANDLING

Applicability: Applies to limitations during cask handling.

Objective: To minimize the possibility of an accident during cask handling operations that would affect the health and safety of the public.

Specifications: During cask handling operations:

(1) The spent fuel cask shall not be moved into the spent fuel pit until all the spent fuel in the pit has decayed for a minimum of one thousand (1,000) hours.

(2) Only a single element cask may be moved into the spent fuel pit.

(3) A fuel assembly shall not be removed from the spent fuel pit in a shipping cask until it has decayed for a minimum of one hundred and twenty (120) days.*

(4) HEAVY LOADS shall be prohibited from travel over irradiated fuel assemblies in the spent fuel pool. (Refer to T.S. 3.10.10)

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* The Region 10 fuel which was in the Unit 3 reactor during the period of April 19, 1981 through April 24, 1981 may be removed from the Unit 3 spent fuel pit in a shipping cask after a minimum decay period of ninety-five (95) days.

B3.10 BASES FOR LIMITING CONDITIONS FOR OPERATION, REFUELING

Detailed instructions, safety precautions and the design of the fuel handling equipment, incorporating built-in interlocks and safety features, provide assurance that no incident could occur during the refueling operations that would result in a hazard to public health and safety.(1) Whenever changes are not being made in core geometry one flux monitor is sufficient. This permits maintenance of the instrumentation. Continuous monitoring of radiation levels and neutron flux provides immediate indication of an unsafe condition. The residual heat pump is used to maintain a uniform boron concentration.

A boron concentration of 1950 ppm was sufficient to maintain the reactor subcritical by at least 10% $\Delta k/k$ in the cold condition with all rods inserted, and also maintained the core subcritical with no control rods inserted, for the first core design.(2) The required boron concentration may increase depending on the subsequent core design.

The control room operator will be able to inform the manipulator operator of any impending unsafe condition detected from the control board indicators during fuel movement.

The cask crane interlocks prevent cask handling above spent fuel. An excess weight interlock is provided on the spent fuel bridge crane hoist to prevent movement of more than one fuel assembly at a time. The spent fuel transfer mechanism can accommodate only one fuel assembly at a time.

The restriction on movement of HEAVY LOADS over irradiated fuel assemblies in the spent fuel pool* ensures that in the event this load is dropped (1) the activity release will be limited to that contained in a single fuel assembly, and (2) any possible distortion of fuel in the storage racks will not result in a critical array. This assumption is consistent with the activity release assumed in the FSAR. For the purpose of this specification, HEAVY LOADS are defined as loads greater than 2000 pounds.(3) (Refer to T.S. 1.25.)

References:

(1) FSAR - Section 9.5
(2) FSAR Table 3.2.1-1
(3) FSAR Table 3.2.3-1

* The temporary construction crane to be used for the rerack operation may be carried over irradiated fuel to facilitate installation of the crane. Lift rigs which meet the design and operational requirements of NUREG 0612 "Control of Heavy Loads at Nuclear Power Plants" will be used while performing this installation.

B3.12 BASES FOR LIMITING CONDITIONS FOR OPERATION, CASK HANDLING

Limiting spent fuel decay time to a minimum of 1,000 hours prior to moving a spent fuel cask into the spent fuel pit will ensure that potential offsite doses are a fraction of 10 CFR Part 100 limits should a dropped cask strike the stored fuel assemblies.

The restriction to allow only a single element cask to be moved into the spent fuel pit will ensure the maintenance of water inventory in the unlikely event of an uncontrolled cask descent. Use of a single element cask which nominally weighs about twenty-five tons will also increase crane safety margins by about a factor of four.

Requiring the spent fuel decay time be at least 120 days prior to moving a fuel assembly outside the fuel storage pit in a shipping cask will ensure that potential offsite doses are a fraction of 10 CFR 100 limits should a dropped cask and ruptured fuel assembly release activity directly to the atmosphere.

The restriction on movement of HEAVY LOADS over irradiated fuel assemblies in the spent fuel pool ensures that in the event this load is dropped (1) the activity release will be limited to that contained in a single fuel assembly, and (2) any possible distortion of fuel in the storage racks will not result in a critical array. This assumption is consistent with the activity release assumed in the FSAR. For the purpose of this specification, HEAVY LOADS are defined as loads greater than 2000 pounds.(1) (Refer to T.S. 1.25 and T.S. B3.10)

References:

(1) FSAR Table 3.2.3-1

STATE OF FLORIDA)
) ss.
COUNTY OF DADE)

J. W. Williams, Jr., being first duly sworn, deposes and says:

That he is Group Vice President of Florida Power & Light Company, the licensee herein;

That he has executed the foregoing document; that the statements made in this document are true and correct to the best of his knowledge, information, and belief, and that he is authorized to execute the document on behalf of said Licensee.

J. W. Williams, Jr.

Subscribed and sworn to before me this 27 day of April, 1984.

NOTARY PUBLIC, in and for the County of Dade, State of Florida.

NOTARY PUBLIC STATE OF FLORIDA
MY COMMISSION EXPIRES MAR 12 1986
BONDED THRU GENERAL INS. UND.

My commission expires: