

ENCLOSURE 3

PLANT HATCH-UNITS 1 AND 2
NRC DOCKETS 50-321 AND 50-366
REQUEST TO REVISE TECHNICAL SPECIFICATIONS
SPENT FUEL POOL WATER DEPTH ABOVE IRRADIATED FUEL,
CORRECTION OF ADMINISTRATIVE ERRORS, AND
POST-LOCA RADIATION MONITOR CALIBRATION FREQUENCY

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E3-1

9104180301 910613
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NOTES FOR TABLE 3.2-11

- a. The column entitled "Ref. No." is only for convenience so that a one-to-one relationship can be established between items in Table 3.2-11 and items in Table 4.2-11.
- b. Limiting Conditions for Operation for the Neutron Monitoring System are listed in Table 3.2-7.
- c. With one or more of the monitoring channels inoperable, either restore the inoperable channel(s) to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours.

Continued operation is permissible for seven days from and after the date that one of these parameters is not indicated in the control room. Surveillance of local panels will be substituted for indication in the control room during the seven days.

- d. Drywell and Suppression Chamber Pressure are each recorded on the same recorders. Each output channel has its own recorder.

Drywell and Suppression Chamber air temperature and suppression chamber water temperature are all recorded on the same recorders. Each output channel has its own recorder. Each recorder takes input from several temperature elements.

Hydrogen and Oxygen are indicated on one recorder. The recorder has two pens, one pen for each parameter.

Each channel of the post LOCA radiation monitoring system includes two detectors; one located in the drywell and the other in the suppression chamber. Each detector feeds a signal to a separate log count rate meter. The meter output goes to a two pen recorder. One high radiation level alarm is provided per channel and annunciation of alarm is provided in the control room.

High Range Drywell Pressure and High Range Drywell Radiation are recorded on the same recorders. Each output channel has its own recorder.

- e. In the event that all indications of this parameter is disabled and such indication cannot be restored in six (6) hours, an orderly shutdown shall be initiated and the reactor shall be in a Hot Shutdown condition in six (6) hours and a Cold Shutdown condition in the following eighteen (18) hours.
- f. If either the primary or secondary indication is inoperable, the torus temperature will be monitored at least once per shift to observe any unexplained temperature increase which might be indicative of an open SRV. With both the primary and secondary monitoring channels of two or more SRVs inoperable either restore sufficient inoperable channels such that no more than one SRV has both primary and secondary channels inoperable within 7 days or be in at least hot shutdown within the next 12 hours.

Table 4.2-11

Check and Calibration Minimum Frequency for Instrumentation
Which Provides Surveillance Information

Ref. No. (a)	Instrument	Instrument Check Minimum Frequency (b)	Instrument Calibration Minimum Frequency (c)
1	Reactor Vessel Water Level	Each shift	Once/operating cycle (f)
2	Shroud Water Level	Each shift	Once/operating cycle (f)
3	Reactor Pressure	Each shift	Once/operating cycle (f)
4	Drywell Pressure	Each shift	Every 6 months
5	Drywell Temperature	Each shift	Every 6 months
6	Suppression Chamber Air Temperature	Each shift	Every 6 months
7	Suppression Chamber Water Temperature	Each shift	Every 6 months
8	Suppression Chamber Water Level	Each shift	Every 6 months
9	Suppression Chamber Pressure	Each shift	Every 6 months
10	Rod Position Information System (RPIS)	Each shift	N/A
11	Hydrogen and Oxygen Analyzer	Monthly	Every 3 months
12	Post LOCA Radiation	Each shift	Every 18 months
13	a. Safety/Relief Valve Position Pri- mary Indicator	Monthly	Every 18 months
	b. Safety/Relief Valve Position Secondary Indicator	Monthly	Every 18 months

LIMITING CONDITIONS FOR OPERATION

3.10.C. Core Monitoring During Core Alterations

1. During normal core alterations, two SRMs shall be operable; one in the core quadrant where fuel or control rods are being moved and one in an adjacent quadrant, except as specified in 2 and 3 below.

For an SRM to be considered operable, it shall be inserted to the normal operating level and shall have a minimum of 3 cps with all rods capable of normal insertion fully inserted.

2. Prior to spiral unloading the SRMs shall be proven operable as stated above, however, during spiral unloading the count rate may drop below 3 cps.
3. Prior to spiral reload, up to four (4) fuel assemblies will be loaded into core positions next to each of the 4 SRMs to obtain the required 3 cps. These assemblies may be any which have been shown to meet the criteria for storage in the spent fuel pool. Until these assemblies have been loaded, the 3 cps requirement is not necessary.

D. Spent Fuel Pool Water Level

At least 21 feet of water shall be maintained over the top of irradiated fuel assemblies seated in the spent fuel storage racks.

E. Control Rod Drive Maintenance

1. Requirements for Withdrawal of 1 or 2 Control Rods

A maximum of two control rods separated by at least two control cells in all directions may be withdrawn or removed from the core for the purpose of performing control rod drive maintenance provided that:

- a. The Mode Switch is locked in the REFUEL position. The refueling interlock which prevents more than one control rod from being withdrawn may be bypassed for one of the control rods on which maintenance is being

3.10.C. Core Monitoring During Core Alterations

During normal alterations to the core the SRMs shall be functionally tested and checked for neutron response. Thereafter, while required to be operable, the SRMs will be checked daily for response.

Use of special movable, dunking type detectors during initial fuel loading and major core alterations in place of normal detectors is permissible as long as the detector is connected to the normal SRM circuit.

Prior to spiral unloading or reloading the SRMs shall be functionally tested. Prior to spiral unloading the SRMs should also be checked for neutron response.

D. Spent Fuel Pool Water Level

The water level in the spent fuel pool shall be determined to be at least its minimum required depth at least once per 7 days.

E. Control Rod Drive Maintenance

1. Requirements for Withdrawal of 1 or 2 Control Rods

- a. This surveillance requirement is the same as given in 4.10.A.

3.10.A.2. Fuel Grapple Hoist Load Setting Interlocks

Fuel handling is normally conducted with the fuel grapple hoist. The total load on this hoist when the interlock is required consists of 2/3 weight of the fuel grapple and the fuel assembly. This total is approximately 1500 lbs. in comparison to the load setting of 485 ± 30 lbs.

3. Auxiliary Hoists Load Setting Interlock

Provisions have also been made to allow fuel handling with either of the three auxiliary hoists and still maintain the refueling interlocks. The 485 ± 30 lb load setting of these hoists is adequate to trip the interlock when a fuel bundle is being handled.

B. Fuel Loading

To minimize the possibility of loading fuel into a cell containing no control rods, it is required that all control rods are fully inserted when fuel is being loaded into the reactor core. This requirement assures that during refueling the refueling interlocks, as designed, will prevent inadvertent criticality.

C. Core Monitoring During Core Alterations

The SRMs are provided to monitor the core during periods of Unit shutdown and to guide the operator during refueling operations and Unit startup. Requiring two operable SRMs in or adjacent to any core quadrant where fuel or control rods are being moved assures adequate monitoring of that quadrant during such alterations. The requirements of 3 counts per second provides assurance that neutron flux is being monitored.

During spiral unloading, it is not necessary to maintain 3 cps because core alterations will involve only reactivity removal and will not result in criticality.

The loading of up to four fuel bundles around the SRMs before attaining the 3 cps is permissible because these bundles form a subcritical configuration.

D. Spent Fuel Pool Water Level

The minimum water level in the spent fuel pool shall be maintained at least 21 feet above the top of the upper tie plates of the irradiated fuel assemblies seated in the spent fuel pool racks. This minimum level ensures removal of at least 98.6% of the assumed 10% iodine gas activity released from the rupture of an irradiated fuel assembly. This water depth is consistent with the assumptions for the fuel handling accident analysis outlined in Regulatory Guide 1.25 and the requirements in Standard Review Plan 15.7.4 for radiological releases resulting from that accident.

E. Control Rod Drive Maintenance

During certain periods, it is desirable to perform maintenance on two control rod drives at the same time.

TABLE 3.3.2-1 (Continued)

ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION	VALVE GROUPS OPERATED BY SIGNAL(a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
4. HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION				
a. HPCI Steam Line Flow - High (2E41-N657 A,B)	3	1	1, 2, 3	26
b. HPCI Steam Supply Pressure - Low (2E41-N658 A,B,C,D)	3, 8	2	1, 2, 3	26
c. HPCI Turbine Exhaust Diaphragm Pressure - High (2E41-N655 A,B,C,D)	3	2	1, 2, 3	26
d. HPCI Pipe Penetration Room Temperature - High (2E41-N671 A, B)	3	1	1, 2, 3	26
e. Suppression Pool Area Ambient Temperature - High (2E51-N666 C, D)	3	1	1, 2, 3	26
f. Suppression Pool Area W Temp - High (2E51-N665 C, D; 2E51-N663 C, D; 2E51-N664 C, D)	3	1	1, 2, 3	26
g. Suppression Pool Area Temperature Timer Relays (2E51-M603 A, B)	3 ^(d)	1	1, 2, 3	26
h. Emergency Area Cooler Temperature- High (2E41-N670 A, B)	3	1	1, 2, 3	26
i. Drywell Pressure-High (2E11-N694 C, D)	8	1	1, 2, 3	26
j. Logic Power Monitor (2E41-K1)	NA ^(e)	1	1, 2, 3	27

TABLE 3.8.2.6-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

<u>DEVICE NUMBER AND LOCATION*</u>	<u>SYSTEM/COMPONENT POWERED</u>
13. 600 VAC, MCB, MO 2R24-S011, FR 18C	DRYWELL RETURN AIR FAN 2T47-C001A
14. 600 VAC, MCB, MO 2R24-S013, FR 3B	DRYWELL COOLING UNIT 2T47-B010A
15. 600 VAC, MCB, MO 2R24-S014, FR 8A	DRYWELL COOLING UNIT 2T47-B010B
g. Type 7:	
1. 208 VAC, MCB, MO 2R24-S013, FR 11D	DRYWELL CHEMICAL DRAIN SUMP PUMP 2G11-C101
2. 208 VAC, MCB, MO 2R24-S012, FR 23C	DRYWELL RETURN AIR FAN 2T47-C002B
3. 208 VAC, MCB, MO 2R24-S011, FR 22C	DRYWELL RETURN AIR FAN 2T47-C002A

*MCB - molded case circuit breaker
MO - magnetic only
TM - thermal magnetic

REFUELING OPERATIONS

3/4.9.10 WATER LEVEL - SPENT FUEL STORAGE POOL

LIMITING CONDITION FOR OPERATION

3.9.10 At least 21 feet of water shall be maintained over the top of irradiated fuel assemblies seated in the spent fuel storage pool racks.

APPLICABILITY: Whenever irradiated fuel assemblies are in the spent fuel storage pool.

ACTION:

With the requirements of the above specification not satisfied, suspend all movement of fuel assemblies and crane operations with loads in the spent fuel storage pool area after placing the load in a safe condition. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.10 The water level in the spent fuel storage pool shall be determined to be at least its minimum required depth at least once per 7 days.

REFUELING OPERATIONS

BASES

3/4.9.6 COMMUNICATIONS

The requirement for communications capability ensures that refueling station personnel can be promptly informed of significant changes in the facility status or core reactivity condition during movement of fuel within the reactor pressure vessel.

3/4.9.7 CRANE AND HOIST OPERABILITY

The OPERABILITY requirements of the cranes and hoists used for movement of fuel assemblies ensures that: (1) each has sufficient load capacity to lift a fuel element, and (2) the core internals and pressure vessel are protected from excessive lifting force in the event they are inadvertently engaged during lifting operations.

3/4.9.8 CRANE TRAVEL-SPENT FUEL STORAGE POOL

The restriction on movement of loads in excess of the nominal weight of a fuel element over irradiated fuel assemblies ensures that no more than the contents of one fuel assembly will be ruptured in the event of a fuel handling accident. This assumption is consistent with the activity release assumed in the accident analyses. All fuel loaded into the Edwin I. Hatch Nuclear Plant spent fuel pool shall have an uncontrolled lattice K_∞ less than or equal to the limit for high density fuel racks described in the "General Electric Standard Application for Reactor Fuel" (GESTAR II), NEDE-24011-P-A-8. Alternatively, fuel not described in GESTAR II shall have been analyzed with another NRC approved methodology to ensure conformity to the FSAR design basis for fuel in the spent fuel racks.

3/4.9.9 WATER LEVEL-REACTOR VESSEL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gas activity released from the rupture of an irradiated fuel assembly. This minimum water depth is consistent with the assumptions of the accident analysis.

3/4.9.10 WATER LEVEL-SPENT FUEL STORAGE POOL

The minimum water level in the spent fuel pool shall be maintained at least 21 feet above the top of the upper tie plates of the irradiated fuel assemblies seated in the spent fuel pool racks. This minimum level ensures removal of at least 98.6% of the assumed 10% iodine gas activity released from the rupture of an irradiated fuel assembly. This water depth is consistent with the assumptions for the fuel handling accident analysis outlined in Regulatory Guide 1.25 and the requirements in Standard Review Plan 15.7.4 for radiological releases resulting from that accident.

3/4.9.11 CONTROL ROD REMOVAL

This specification ensures that maintenance or repair of control rods or control rod drives will be performed under conditions that limit the probability of inadvertent criticality. The requirements for simultaneous removal of more than one control rod are more stringent since the SHUTDOWN MARGIN specification provides for the core to remain subcritical with only one control rod fully withdrawn.

3.10.C. Core Monitoring During Core Alterations

1. During normal core alterations, two SRMs shall be operable; one in the core quadrant where fuel or control rods are being moved and one in an adjacent quadrant, except as specified in 2 and 3 below.

For an SRM to be considered operable, it shall be inserted to the normal operating level and shall have a minimum of 3 cps with all rods capable of normal insertion fully inserted.

2. Prior to spiral unloading the SRMs shall be proven operable as stated above, however, during spiral unloading the count rate may drop below 3 cps.
3. Prior to spiral reload, up to four (4) fuel assemblies will be loaded into core positions next to each of the 4 SRMs to obtain the required 3 cps. These assemblies may be any which have been shown to meet the criteria for storage in the spent fuel pool. Until these assemblies have been loaded, the 3 cps requirement is not necessary.

D. Spent Fuel Pool Water Level

Whenever irradiated fuel is stored in the spent fuel pool, the pool water level shall be maintained at or above 8.5 feet above the top of the active fuel.

E. Control Rod Drive Maintenance

1. Requirements for Withdrawal of 1 or 2 Control Rods

A maximum of two control rods separated by at least two control cells in all directions may be withdrawn or removed from the core for the purpose of performing control rod drive maintenance provided that:

- a. The Mode Switch is locked in the REFUEL position. The refueling interlock which prevents more than one control rod from being withdrawn may be bypassed for one of the control rods on which maintenance is being

4.10.C. Core Monitoring During Core Alterations

Prior to making normal alterations to the core the SRMs shall be functionally tested and checked for neutron response. Thereafter, while required to be operable, the SRMs will be checked daily for response.

Use of special movable, dunking type detectors during initial fuel loading and major core alterations in place of normal detectors is permissible as long as the detector is connected to the normal SRM circuit.

Prior to spiral unloading or reloading the SRMs shall be functionally tested. Prior to spiral unloading the SRMs should also be checked for neutron response.

D. Spent Fuel Pool Water Level

Whenever irradiated fuel is stored in the spent fuel pool, the water level shall be checked and recorded daily.

E. Control Rod Drive Maintenance

1. Requirements for Withdrawal of 1 or 2 Control Rods

- a. This surveillance requirement the same as given in 4.10.A.

3.10.A.2. Fuel Grapple Hoist Load Setting Interlocks

Fuel handling is normally conducted with the fuel grapple hoist. The total load on this hoist when the interlock is required consists of the weight of the fuel grapple and the fuel assembly. This total is approximately 1500 lbs. in comparison to the load setting of 485 ± 30 lbs.

3. Auxiliary Hoists Load Setting Interlock

Provisions have also been made to allow fuel handling with either of the three auxiliary hoists and still maintain the refueling interlocks. The 485 ± 30 lb load setting of these hoists is adequate to trip the interlock when a fuel bundle is being handled.

B. Fuel Loading

To minimize the possibility of loading fuel into a cell containing no control rod, it is required that all control rods are fully inserted when fuel is being loaded into the reactor core. This requirement assures that during refueling the refueling interlocks, as designed, will prevent inadvertent criticality.

C. Core Monitoring During Core Alterations

The SRMs are provided to monitor the core during periods of Unit shutdown and to guide the operator during refueling operations and Unit startup. Requiring two operable SRMs in or adjacent to any core quadrant where fuel or control rods are being moved assures adequate monitoring of that quadrant during such alterations. The requirements of 3 counts per second provides assurance that neutron flux is being monitored.

During spiral unloading, it is not necessary to maintain 3 cps because core alterations will involve only reactivity removal and will not result in criticality.

The loading of up to four fuel bundles around the SRMs before attaining the 3 cps is permissible because these bundles form a subcritical configuration.

D. Spent Fuel Pool Water Level

The design of the spent fuel storage pool provides a storage location for 3181 fuel assemblies in the reactor building which ensures adequate shielding, cooling, and the reactivity control of irradiated fuel. An analysis has been performed which shows that a water level at or in excess of eight and one-half feet over the top of the active fuel will provide shielding such that the maximum calculated radiological doses do not exceed the limits of 10 CFR 20. The normal water level provides 14-1/2 feet of additional water shielding. All penetrations of the fuel pool have been installed at such a height that their presence does not provide a possible drainage route that could lower the water level to less than 10 feet above the top of the active fuel. Lines extending below this level are equipped with two check valves in series to prevent inadvertent pool drainage. All fuel loaded into the Edwin I. Hatch Nuclear Plant spent fuel pool shall have an uncontrolled lattice K_{∞} less than or equal to the limit for high-density fuel racks described in the "General Electric Standard Application for Reactor Fuel" (GESTAR II), WFDE-24011-P-A-B. Alternatively, fuel not described in GESTAR II shall have been analyzed with another NRC-approved methodology to ensure conformity to the FSAR design basis for fuel in the spent fuel racks.

E. Control Rod Drive Maintenance

During certain periods, it is desirable to perform maintenance on two control rod drives at the same time.


 INSERT C

TABLE 3.3.2-1 (Continued)
ISOLATION ACTUATION INSTRUMENTATION

TRIP FUNCTION	VALVE GROUPS OPERATED BY SIGNAL(a)	MINIMUM NUMBER OPERABLE CHANNELS PER TRIP SYSTEM(b)(c)	APPLICABLE OPERATIONAL CONDITION	ACTION
4. HIGH PRESSURE COOLANT INJECTION SYSTEM ISOLATION				
a. HPCI Steam Line Flow - High (ZE41-N657 A,B)	3	1	1, 2, 3	26
b. HPCI Steam Supply Pressure - Low (ZE41-N658 A,B,C,D)	3, 8	2	1, 2, 3	26
c. HPCI Turbine Exhaust Diaphragm Pressure - High (ZE41-N655 A,B,C,D)	3	2	1, 2, 3	26
d. HPCI Pipe Penetration Room Temperature - High (ZE41-N671 A, B)	3	1	1, 2, 3	26
e. Suppression Pool Area Ambient Temperature-High (ZE51-N666 C, D)	3	1	1, 2, 3	26
f. Suppression Pool Area W Temp.-High (ZE51-N665 C, D; ZE51-N663 C, D; ZE51-N664 C, D)	3	1	1, 2, 3	26
g. Suppression Pool Area Temperature Timer Relays (ZE51-N603 A, B)	3	1	1, 2, 3	26
h. Emergency Area Cooler Temperature- High (ZE41-N670 A, B)	3	1	1, 2, 3	26
i. Drywell Pressure-High (ZE11-N694 C, D)	8	1	1, 2, 3	26
j. Logic Power Monitor (ZE41-K1)	NA ⁽¹⁾⁽²⁾	1	1, 2, 3	27

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TABLE 3.8.2.6-1 (Continued)

PRIMARY CONTAINMENT PENETRATION CONDUCTOR
OVERCURRENT PROTECTIVE DEVICES

<u>DEVICE NUMBER AND LOCATION*</u>	<u>SYSTEM/COMPONENT POWERED</u>
13. 600 VAC, MCB, MO 2R24-S011, FR 18C	DRYWELL RETURN AIR FAN 2T47-C001A
14. 600 VAC, MCB, MO 2R24-S013, FR 3B	DRYWELL COOLING UNIT 2T47-B010A
15. 600 VAC, MCB, MO 2R24-S014, FR 8A	DRYWELL COOLING UNIT 2T47-B010B
16. 600 VAC, MCB, TM 2R24-S013, FR 3B	DRYWELL COOLING UNIT 2T47-B010A
17. 600 VAC, MCB, TM 2R24-S014, FR 8A	DRYWELL COOLING UNIT 2T47-B010B
g. Type 7:	
1. 208 VAC, MCB, MO 2R24-S013, FR 11D	DRYWELL CHEMICAL DRAIN SUMP PUMP 2G11-C101
2. 208 VAC, MCB, MO 2R24-S012, FR 23C	DRYWELL RETURN AIR FAN 2T47-C002B
3. 208 VAC, MCB, MO 2R24-S011, FR 22C	DRYWELL RETURN AIR FAN 2T47-C002A

*MCB - molded case circuit breaker
MO - magnetic only
TM - thermal magnetic

REFUELING OPERATIONS

3/4 9.10 WATER LEVEL - SPENT FUEL STORAGE POOL

LIMITING CONDITION FOR OPERATION

3.9.10 At least ~~20~~²¹ feet of water shall be maintained over the top of irradiated fuel assemblies seated in the spent fuel storage pool racks.

APPLICABILITY: Whenever irradiated fuel assemblies are in the spent fuel storage pool.

ACTION:

With the requirements of the above specification not satisfied, suspend all movement of fuel assemblies and crane operations with loads in the spent fuel storage pool area after placing the load in a safe condition. The provisions of Specification 3.0.3 are not applicable.

SURVEILLANCE REQUIREMENTS

4.9.10 The water level in the spent fuel storage pool shall be determined to be at least its minimum required depth at least once per 7 days.

REFUELING OPERATIONS

BASES

3/4.9.6 COMMUNICATIONS

The requirement for communications capability ensures that refueling station personnel can be promptly informed of significant changes in the facility status or core reactivity condition during movement of fuel within the reactor pressure vessel.

3/4.9.7 CRANE AND HOIST OPERABILITY

The OPERABILITY requirements of the cranes and hoists used for movement of fuel assemblies ensures that: (1) each has sufficient load capacity to lift a fuel element, and (2) the core internals and pressure vessel are protected from excessive lifting force in the event they are inadvertently engaged during lifting operations.

3/4.9.8 CRANE TRAVEL-SPENT FUEL STORAGE POOL

The restriction on movement of loads in excess of the nominal weight of a fuel element over irradiated fuel assemblies ensures that no more than the contents of one fuel assembly will be ruptured in the event of a fuel handling accident. This assumption is consistent with the activity release assumed in the accident analyses. All fuel loaded into the Edwin I. Hatch Nuclear Plant spent fuel pool shall have an uncontrolled lattice K -less than or equal to the limit for high density fuel racks described in the "General Electric Standard Application for Reactor Fuel" (GESTAR II), NEDE-24011-F-A-8. Alternatively, fuel not described in GESTAR II shall have been analyzed with another NRC-approved methodology to ensure conformity to the FSAR design basis for fuel in the spent fuel racks.

3/4.9.9 and 3/4.9.10 WATER LEVEL-REACTOR VESSEL AND WATER LEVEL-SPENT FUEL STORAGE POOL

The restrictions on minimum water level ensure that sufficient water depth is available to remove 99% of the assumed 10% iodine gas activity released from the rupture of an irradiated fuel assembly. This minimum water depth is ~~consistent with~~ ^{more conservative than} the assumptions of the accident analysis.

3/4.9.10 Water Level - Spent Fuel Storage Pool

3/4.9.11 CONTROL ROD REMOVAL

Insert C

This specification ensures that maintenance or repair of control rods or control rod drives will be performed under conditions that limit the probability of inadvertent criticality. The requirements for simultaneous removal of more than one control rod are more stringent since the SHUTDOWN MARGIN specification provides for the core to remain subcritical with only one control rod fully withdrawn.

INSERT A

At least 21 feet of water shall be maintained over the top of irradiated fuel assemblies seated in the spent fuel storage racks.

INSERT B

The water level in the spent fuel pool shall be determined to be at least its minimum required depth at least once per 7 days.

INSERT C

The minimum water level in the spent fuel pool shall be maintained at least 21 feet above the top of the upper tie plates of the irradiated fuel assemblies seated in the spent fuel pool racks. This minimum level ensures removal of at least 98.6% of the assumed 10% iodine gas activity released from the rupture of an irradiated fuel assembly. This water depth is consistent with the assumptions for the fuel handling accident analysis outlined in Reg Guide 1.25 and the requirements in Standard Review Plan 15.7.4 for radiological releases resulting from that accident.

NOTES FOR TABLE 3.2-11

a. The column entitled "Ref. No." is only for convenience so that a one-to-one relationship can be established between items in Table 3.2-11 and items in Table 4.2-11.

b. Limiting Conditions for Operation for the Neutron Monitoring System are listed in Table 3.2-7.

c. ~~From and after the date that one of these parameters is reduced to one indication, continued operation is permissible during the succeeding thirty days unless such instrumentation is sooner made operable.~~ } Replace with # below

Continued operation is permissible for seven days from and after the date that one of these parameters is not indicated in the control room. Surveillance of local panels will be substituted for indication in the control room during the seven days.

d. Drywell and Suppression Chamber Pressure are each recorded on the same recorders. Each output channel has its own recorder.

Drywell and Suppression Ch. air temperature and suppression chamber water temperature are all recorded on the same recorders. Each output channel has its own recorder. Each recorder takes input from several temperature elements.

Hydrogen and Oxygen are indicated on one recorder. The recorder has two pens, one pen for each parameter.

Each channel of the post LOCA radiation monitoring system includes two detectors; one located in the drywell and the other in the suppression chamber. Each detector feeds a signal to a separate log count rate meter. The meter output goes to a two pen recorder. One high radiation level alarm is provided per channel and annunciation of alarm is provided in the control room.

High Range Drywell Pressure and High Range Drywell Radiation are recorded on the same recorders. Each output channel has its own recorder.

e. In the event that all indications of this parameter is disabled and such indication cannot be restored in six (6) hours, an orderly shutdown shall be initiated and the reactor shall be in a Hot Shutdown condition in six (6) hours and a Cold Shutdown condition in the following eighteen (18) hours.

f. If either the primary or secondary indication is inoperable, the tower temperature will be monitored at least once per shift to observe any unexplained temperature increase which might be indicative of an open SRV. With both the primary and secondary monitoring channels of two or more SRVs inoperable either restore sufficient inoperable channels such that no more than one SRV has both primary and secondary channels inoperable within 7 days or be in at least hot shutdown within the next 12 hours.

* With 1 or more of the monitoring channels inoperable, either restore the inoperable channel(s) to OPERABLE status within 30 days or be in at least HOT SHUTDOWN within the next 12 hours.

Table 4.2-11

Check and Calibration Minimum Frequency for Instrumentation
Which Provides Surveillance Information

Ref. No. (a)	Instrument	Instrument Check Minimum Frequency (b)	Instrument Calibration Minimum Frequency (c)
1	Reactor Vessel Water Level	Each shift	Once/operating cycle (f)
2	Shroud Water Level	Each shift	Once/operating cycle (f)
3	Reactor Pressure	Each shift	Once/operating cycle (f)
4	Drywell Pressure	Each shift	Every 6 months
5	Drywell Temperature	Each shift	Every 6 months
6	Suppression Chamber Air Temperature	Each shift	Every 6 months
7	Suppression Chamber Water Temperature	Each shift	Every 6 months
8	Suppression Chamber Water Level	Each shift	Every 6 months
9	Suppression Chamber Pressure	Each shift	Every 6 months
10	Rod Position Information System (RPIS)	Each shift	N/A
11	Hydrogen and Oxygen Analyzer	Monthly	Every 3 months
12	Post LOCA Radiation	Each shift	Every 18 months
13	a) Safety/Relief Valve Position Pri- mary Indicator	Monthly	Every 18 months
	b) Safety/Relief Valve Position Secondary Indicator	Monthly	Every 18 months

Not part of Doc 91-10