

CONTAINMENT SYSTEMS

SUPPRESSION POOL SPRAY

LIMITING CONDITION FOR OPERATION

3.6.2.2 The suppression pool spray mode of the residual heat removal (RHR) system shall be OPERABLE with two independent loops, each loop consisting of:

- a. One OPERABLE RHR pump, and
- b. An OPERABLE flow path capable of recirculating water from the suppression chamber through an RHR heat exchanger.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

- a. With one suppression pool spray loop inoperable, restore the inoperable loop to OPERABLE status within 72 hours[#] or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With both suppression pool spray loops inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN* within the next 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.2 The suppression pool spray mode of the RHR system shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position.
- b. By verifying that each of the required RHR pumps develops a flow of 10,000 +0, -250 gpm per Specification 4.6.2.3.b.
- c. At least once per 5 years by performing an air or water flow test through the spray header and each nozzle to verify that the flow path is unobstructed.

*Whenever both RHR subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

During the installation of the RHR SW modifications in the Susquehanna SES Unit 2 Fourth Refueling and Inspection Outage, this time is extended to 7 days.



CONTAINMENT SYSTEMS

SUPPRESSION POOL COOLING

LIMITING CONDITION FOR OPERATION

3.6.2.3 The suppression pool cooling mode of the residual heat removal (RHR) system shall be OPERABLE with two independent loops, each loop consisting of:

- a. One OPERABLE RHR pump; and
- b. An OPERABLE flow path capable of recirculating water from the suppression chamber through an RHR heat exchanger.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

- a. With one suppression pool cooling loop inoperable, restore the inoperable loop to OPERABLE status within 72 hours[#] or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With both suppression pool cooling loops inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN* within the next 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.3 The suppression pool cooling mode of the RHR system shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position.
- b. By verifying that each of the required RHR pumps develops a flow of 10,000 +0, -250 gpm on recirculation flow through the RHR heat exchanger and the suppression pool when tested pursuant to Specification 4.0.5.

*Whenever both RHR subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

During the installation of the RHR SW modifications in the Susquehanna SES Unit 2 Fourth Refueling and Inspection Outage, this time is extended to 7 days.



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3/4.7 PLANT SYSTEMS

3/4.7.1 SERVICE WATER SYSTEMS

RESIDUAL HEAT REMOVAL SERVICE WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.1 Two independent residual heat removal service water (RHRSW) system subsystems shall be OPERABLE with each subsystem comprised of:

- a. One OPERABLE RHRSW pump*, and
- b. An OPERABLE flow path capable of taking suction from the spray pond and transferring the water through one RHR heat exchanger.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4, and 5.**

ACTION:

- a. In OPERATIONAL CONDITION 1, 2 or 3:

- # 1. With one RHRSW subsystem inoperable, restore the inoperable subsystem to OPERABLE status with at least one OPERABLE pump* within 72 hours* or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
 2. With both RHRSW subsystems inoperable, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN*** within the following 24 hours.
- b. In OPERATIONAL CONDITION 3 or 4 with the RHRSW subsystem, which is associated with an RHR loop required OPERABLE by Specification 3.4.9.1 or 3.4.9.2, inoperable, declare the associated RHR loop inoperable and take the ACTION required by Specification 3.4.9.1 or 3.4.9.2, as applicable.
 - c. In OPERATIONAL CONDITION 5 with one RHRSW subsystem, which is associated with an RHR system required OPERABLE by Specification 3.9.11.1 or 3.9.11.2, inoperable, declare the associated RHR system inoperable and take the ACTION required by Specification 3.9.11.1 or 3.9.11.2, as applicable.

SURVEILLANCE REQUIREMENTS

4.7.1.1 Each residual heat removal service water system subsystem shall be demonstrated OPERABLE at least once per 31 days by verifying that each valve in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position.

*May not be a pump required for Unit 2.

**See Specification 3.9.11.1 and 3.9.11.2 for applicability.

***Whenever both RHRSW subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

During the installation of the RHRSW modifications in the Susquehanna SES Unit 2 Fourth Refueling and Inspection Outage, this time is extended to 7 days.

PLANT SYSTEMS

EMERGENCY SERVICE WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 Two independent emergency service water system loops shall be OPERABLE with each loop comprised of:

- a. Two OPERABLE emergency service water pumps, and
- b. An OPERABLE flow path capable of taking suction from the spray pond and transferring the water to the associated safety related equipment.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4, 5 and *.

ACTION:

- a. In OPERATIONAL CONDITION 1, 2, or 3:
 - 1.# With one emergency service water pump inoperable, restore the inoperable pump to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
 - 2. With two emergency service water pumps inoperable, restore at least one inoperable pump to OPERABLE status within 72 hours ^{AA} or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
 - 3. With one emergency service water system loop otherwise inoperable, restore the inoperable loop to OPERABLE status with at least one OPERABLE pump within 72 hours ^{##} or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. In OPERATIONAL CONDITION 4, 5 or *:
 - 1. With one pump in an emergency service water system loop inoperable, verify adequate cooling capability remains available for the diesel generators required to be operable by Specification 3.8.1.2 or declare the affected diesel generator(s) inoperable and take the ACTION required by Specification 3.8.1.2.
 - 2. With two pumps in an emergency service water system loop inoperable or with the loop otherwise inoperable declare the associated safety related equipment inoperable (except diesel generators), and follow the applicable ACTION statements. Verify adequate cooling remains available for the diesel generators required to be operable by Specification 3.8.1.2 or declare the affected diesel generator(s) inoperable and take the ACTION required by Specification 3.8.1.2.

*When handling irradiated fuel in the secondary containment.

#When any diesel generator is removed from service in order to do work associated with tying in the additional diesel generator and its associated emergency service water pump is inoperable, Action a.1 shall read as follows:

- a.1 With one emergency service water pump inoperable, restore the inoperable pump to OPERABLE status when its associated diesel generator is restored to OPERABLE status per Specification 3.8.1.1.

During the installation of the RHRSW modifications in the Susquehanna SES Unit 2 Fourth Refueling and Inspection Outage this time is extended to 7 days provided the two inoperable pumps are in the inoperable loop.

During the installation of the RHRSW modifications in the Susquehanna SES Unit 2 Fourth Refueling and Inspection Outage, this time is extended to 7 days.

CONTAINMENT SYSTEMS

SUPPRESSION POOL SPRAY

LIMITING CONDITION FOR OPERATION

3.6.2.2 The suppression pool spray mode of the residual heat removal (RHR) system shall be OPERABLE with two independent loops, each loop consisting of:

- a. One OPERABLE RHR pump, and
- b. An OPERABLE flow path capable of recirculating water from the suppression chamber through an RHR heat exchanger.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

- a. With one suppression pool spray loop inoperable, restore the inoperable loop to OPERABLE status within 72 hours [#] or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With both suppression pool spray loops inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN* within the next 24 hours.

SURVEILLANCE REQUIREMENTS

4.6.2.2 The suppression pool spray mode of the RHR system shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position.
- b. By verifying that each of the required RHR pumps develops a flow of 10,000 +0, -250 gpm per Specification 4.6.2.3.b.
- c. At least once per 5 years by performing an air or water flow test through the spray header and each nozzle to verify that the flow path is unobstructed.

*Whenever both RHR subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

During the installation of the RHR SW modifications in the Susquehanna SES Unit 1 Fifth Refueling and Inspection Outage, this time is extended to 7 days.

CONTAINMENT SYSTEMS

SUPPRESSION POOL COOLING

LIMITING CONDITION FOR OPERATION

3.6.2.3 The suppression pool cooling mode of the residual heat removal (RHR) system shall be OPERABLE with two independent loops, each loop consisting of:

- a. One OPERABLE RHR pump; and
- b. An OPERABLE flow path capable of recirculating water from the suppression chamber through an RHR heat exchanger.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2 and 3.

ACTION:

- a. With one suppression pool cooling loop inoperable, restore the inoperable loop to OPERABLE status within 72 hours ~~or be in at least~~ # HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
- b. With both suppression pool cooling loops inoperable, be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN* within the next 24 hours.

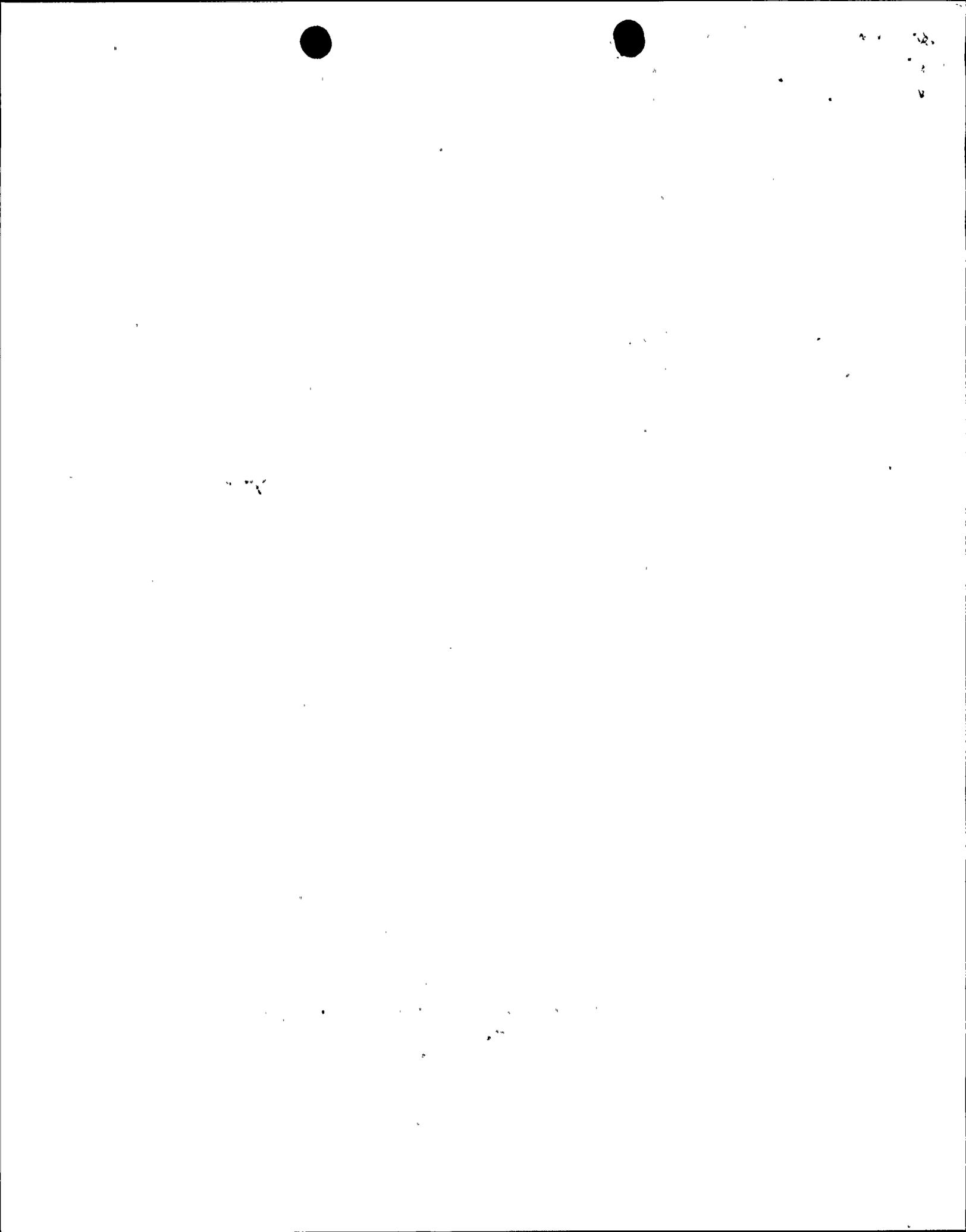
SURVEILLANCE REQUIREMENTS

4.6.2.3 The suppression pool cooling mode of the RHR system shall be demonstrated OPERABLE:

- a. At least once per 31 days by verifying that each valve, manual, power operated or automatic, in the flow path that is not locked, sealed or otherwise secured in position, is in its correct position.
- b. By verifying that each of the required RHR pumps develops a flow of 10,000 +0, -250 gpm on recirculation flow through the RHR heat exchanger and the suppression pool when tested pursuant to Specification 4.0.5.

*Whenever both RHR subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

During the installation of the RHR SW modifications in the Susquehanna SES Unit 1 Fifth Refueling and Inspection Outage, this time is extended to 7 days.



3/4.7 PLANT SYSTEMS

3/4.7.1 SERVICE WATER SYSTEMS

RESIDUAL HEAT REMOVAL SERVICE WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.1 Two independent residual heat removal service water (RHRSW) system subsystems shall be OPERABLE with each subsystem comprised of:

- a. One OPERABLE RHRSW pump*, and
- b. An OPERABLE flow path capable of taking suction from the spray pond and transferring the water through one RHR heat exchanger.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4, and 5**.

ACTION:

- a. In OPERATIONAL CONDITION 1, 2, or 3:
 1. With one RHRSW subsystem inoperable, restore the inoperable subsystem to OPERABLE status with at least one OPERABLE pump* within 72 hours[#] or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
 2. With both RHRSW subsystems inoperable, be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN*** within the following 24 hours.
- b. In OPERATIONAL CONDITION 3 or 4 with the RHRSW subsystem, which is associated with an RHR loop required OPERABLE by Specification 3.4.9.1 or 3.4.9.2, inoperable, declare the associated RHR loop inoperable and take the ACTION required by Specification 3.4.9.1 or 3.4.9.2, as applicable.
- c. In OPERATIONAL CONDITION 5 with one RHRSW subsystem, which is associated with an RHR system required OPERABLE by Specification 3.9.11.1 or 3.9.11.2, inoperable, declare the associated RHR system inoperable and take the ACTION required by Specification 3.9.11.1 or 3.9.11.2, as applicable.

SURVEILLANCE REQUIREMENTS

4.7.1.1 Each residual heat removal service water system subsystem shall be demonstrated OPERABLE at least once per 31 days by verifying that each valve in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

*May not be a pump required for Unit 1.

**See Specifications 3.9.11.1 and 3.9.11.2 for applicability.

***Whenever both RHRSW subsystems are inoperable, if unable to attain COLD SHUTDOWN as required by this ACTION, maintain reactor coolant temperature as low as practical by use of alternate heat removal methods.

During the installation of the RHRSW modifications in the Susquehanna SES Unit 1 Fifth Refueling and Inspection Outage, this time is extended to 7 days.

PLANT SYSTEMS

EMERGENCY SERVICE WATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 Two independent emergency service water system loops shall be OPERABLE with each loop comprised of:

- a. Two OPERABLE emergency service water pumps, and
- b. An OPERABLE flow path capable of taking suction from the spray pond and transferring the water to the associated safety-related equipment.

APPLICABILITY: OPERATIONAL CONDITIONS 1, 2, 3, 4, 5, and *.

ACTION:

- a. In OPERATIONAL CONDITION 1, 2, or 3:
 - 1.# With one emergency service water pump inoperable, restore the inoperable pump to OPERABLE status within 7 days or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
 - 2. With two emergency service water pumps inoperable, restore at least one inoperable pump to OPERABLE status within 72 hours^{AA} or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours.
 - 3. With one emergency service water system loop otherwise inoperable, restore the inoperable loop to OPERABLE status with at least one OPERABLE pump within 72 hours^{##} or be in at least HOT SHUTDOWN within the next 12 hours and in COLD SHUTDOWN within the following 24 hours. ##
- b. In OPERATIONAL CONDITION 4, 5 or *:
 - 1. With one pump in an emergency service water system loop inoperable, verify adequate cooling capability remains available for the diesel generators required to be operable by Specification 3.8.1.2 or declare the affected diesel generator(s) inoperable and take the ACTION required by Specification 3.8.1.2.
 - 2. With two pumps in an emergency service water system loop inoperable or with the loop otherwise inoperable declare the associated safety related equipment inoperable (except diesel generators), and follow the applicable ACTION statements. Verify adequate cooling remains available for the diesel generators required to be operable by Specification 3.8.1.2 or declare the affected diesel generator(s) inoperable and take the ACTION required by Specification 3.8.1.2.

*When handling irradiated fuel in the secondary containment.

#When any diesel generator is removed from service in order to do work associated with tying in the additional diesel generator and its associated emergency service water pump is inoperable, Action a.1 shall read as follows:

- a.1 With one emergency service water pump inoperable, restore the inoperable pump to OPERABLE status when its associated diesel generator is restored to OPERABLE status per Specification 3.8.1.1.



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★ During the installation of the RHR SW modifications in the Susquehanna SES Unit 1 Fifth Refueling and Inspection Outage, this time is extended to 7 days provided the two inoperable pumps are in the inoperable loop.

During the installation of the RHR SW modifications in the Susquehanna SES Unit 1 Fifth Refueling and Inspection Outage, this time is extended to 7 days.

