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PRC SECG-SECT.11.10 (BASIS) 000	1	A	1	H	98257
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SALEM GENERATING STATION
EVENT CLASSIFICATION GUIDE TECHNICAL BASIS
January 23, 2001

CHANGE PAGES FOR
REVISION #09

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The Table of Contents forms a general guide to the current revision of each section and attachment of the Salem ECG Technical Basis. The changes that are made in this TOC Revision #09 are shown below.

1. Check that your revision packet is complete.
2. Add the revised documents.
3. Remove and recycle the outdated material listed below.

ADD			REMOVE		
<u>Pages</u>	<u>Description</u>	<u>Rev.</u>	<u>Pages</u>	<u>Description</u>	<u>Rev.</u>
ALL	TOC	09	ALL	TOC	08
All	EAL Section 11.1	01	All	EAL Section 11.1	00
All	EAL Section 11.2	02	All	EAL Section 11.2	01
All	EAL Section 11.3	02	All	EAL Section 11.3	01
All	EAL Section 11.4	01	All	EAL Section 11.4	00
All	EAL Section 11.5	01	All	EAL Section 11.5	00
All	EAL Section 11.6	01	All	EAL Section 11.6	00
All	EAL Section 11.7	02	All	EAL Section 11.7	01
All	EAL Section 11.8	01	All	EAL Section 11.8	00
All	EAL Section 11.9	02	All	EAL Section 11.9	01
All	EAL Section 11.10	01	All	EAL Section 11.10	00

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SIGNATURE PAGEPrepared By: Paul Duke

(If Editorial Revisions Only, Last Approved Revision)

1/15/01
DateSection/Attachments Revised: 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7, 11.8, 11.9, 11.10

(List Non Editorial Only - Section/Attachments)

Reviewed By: *William L. Detrich*

Station Qualified Reviewer

01/15/01
DateReviewed By: *John P. Notetaker*

Department Manager

01/16/01
DateReviewed By: *William Fox GS*Manager - Licensing
(Reportable Action Level (Section 11))01/17/01
DateReviewed By: *G. W. Sumner*

Manager - EP, & IT

1-18-01
DateReviewed By: NAManager - Quality Assurance
(If Applicable)
Date**SORC Review and Station Approvals**NA
Mtg. No. Salem Chairman*David F. Hudson* 01/18/01
Vice President - Nuclear OperationsNA
DateNA
DateEffective Date of this Revision: 01/23/01
Date

11.0 Reportable Action Levels

11.1 Technical Specifications

REPORTABLE ACTION LEVEL - 11.1.1.a

IC INITIATION OF ANY UNIT SHUTDOWN REQUIRED BY THE TECHNICAL SPECIFICATIONS [10CFR50.72(b)(2)(i)]

RAL

Unit shutdown is INITIATED to comply with Technical Specifications

MODE - 1, 2

BASIS

This RAL addresses the conditions requiring a four hour report in accordance with 10CFR50.72(b)(2)(i). This RAL is intended to capture those events for which a Technical Specification required shutdown is initiated. Thus, this RAL ensures that the NRC is provided with early warning of safety significant conditions serious enough to warrant a plant shutdown.

Unit shutdown INITIATED is defined as the performance of any action(s) to start reducing reactor power to achieve a plant shutdown as required by technical specifications. This includes any means of power reduction such as rod insertion or boron concentration changes. This includes initiation of any shutdown due to expected inability to restore equipment prior to exceeding the LCO action time. As a practical matter, in order to meet the time limits for reporting under § 50.72, the reporting decision should sometimes be based on such expectations.

A reduction of power for some other purpose, not constituting initiation of a shutdown required by Technical Specifications, is not reportable under this RAL. This includes reducing power for the purpose of repairing a component or stabilizing plant operation in accordance with plant procedures.

For example: The plant has seven days to fix a component or be shut down. If the plant shuts down (not required by T/S yet), the component is fixed, and the plant returns to power prior to the end of the seven day period, it need not be reported IAW 10CFR50.72.

REFERENCES

10CFR50.72(b)(2)(i)
NUREG-1022, Rev. 2

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11.0 Reportable Action Levels

11.1 Technical Specifications

REPORTABLE ACTION LEVEL - 11.1.1.b

IC EXCEEDING ANY TECHNICAL SPECIFICATION SAFETY LIMIT
[10CFR50.36(c)(1), TS 6.7.1.b]

RAL

Exceeding EITHER one of the following Technical Specification Safety Limits:

- T/S 2.1.1, Thermal Power, Pressurizer Pressure, Coolant Temperature combination
- T/S 2.1.2, RCS Pressure

MODE - 1, 2, 3, 4, 5 (as applicable in T/S)

BASIS

This RAL addresses the conditions requiring a one hour report IAW 10CFR50.36(c)(1) which states that exceeding a Technical Specification (T/S) Safety limit requires going to Hot Standby (Mode 3) by T/S (or, if already in Modes 3, 4, or 5, a restoration of RCS pressure to within its limits within 5 minutes).

For ANY Mode of Operation, exceeding EITHER Safety Limit in T/S Section 2.1 shall be reported under this RAL.

REFERENCES

10CFR50.36(c)(1)
T/S 6.7

11.0 Reportable Action Levels

11.1 Technical Specifications

REPORTABLE ACTION LEVEL - 11.1.1.c

IC ANY DEVIATION FROM T/S OR LICENSE CONDITION PURSUANT TO 10CFR50.54(x) [10CFR50.72(b)(1)]

RAL

Deviation from written procedures because no action consistent with Technical Specifications or license condition can provide adequate or equivalent protection in an emergency (see NC.NA-AP.ZZ-0005(Q) for guidance on deviation from procedures)

MODE - All

BASIS

This RAL addresses conditions that require a one hour report in accordance with 10CFR50.72(b)(1). 10CFR50.54(x) generally permits licensees to take reasonable action in an emergency even though the action departs from license conditions or plant Technical Specifications if,

- 1) the action is immediately needed to protect the public health and safety, including site personnel, AND
- 2) NO action consistent with the license conditions and Technical Specifications is immediately apparent that can provide adequate or equivalent protection.

Such action requires, at a minimum, prior approval by a licensed Senior Reactor Operator who is a member of the Operating Shift of the affected Unit.

Refer to NC.NA-AP.ZZ-0005(Q), Station Operating Practices, for more information concerning the use of 10CFR50.54(x).

REFERENCES

10CFR50.54(x)
10CFR50.54(y)
10CFR50.72(b)(1)
NC.NA-AP.ZZ-0005(Q)
NUREG-1022, Rev. 2

11.0 Reportable Action Levels

11.1 Technical Specifications

REPORTABLE ACTION LEVEL - 11.1.2.a

IC STEAM GENERATOR TUBE INSPECTIONS WHICH FALL INTO CATEGORY C-3 THAT HAVE BEEN EVALUATED FOR REPORTABILITY
[10CFR50.72(b)(3)(ii); T/S 4.4.5.2(6.2)]

RAL

Results of S/G tube inspections which fall into Category C-3 of T/S 4.4.5.2 (Unit 1) or T/S 4.4.6.2 (Unit 2)

AND

An Engineering Evaluation has determined that it is reportable pursuant to 10CFR50.72(b)(3)(ii)

MODE - 5, 6, Defueled

BASIS

T/S 4.4.5.5c (U-1) and 4.4.6.5c (U-2) Category C-3 require that the results of any Steam Generator Tube inspections that are performed while in Mode 5, 6 or defueled be evaluated for Steam Generator operability before exiting these Modes.

10CFR50.72(b)(3)(ii) requires an eight hour report on any event that results in a principal safety barrier being seriously degraded or the nuclear power plant being in an unanalyzed condition that significantly degrades plant safety. Steam generator tube degradation is considered serious if the tubing fails to meet the following two performance criteria:

- (a) Steam generator tubing shall retain structural integrity over the full range of normal operating conditions (including startup, operation in the power range, hot standby, and cooldown and all anticipated transients included in the design specification) and design basis accidents. This includes retaining a margin of 3.0 against burst under normal steady state full power operation and a margin of 1.4 against burst under the limiting design basis accident concurrent with a safe shutdown earthquake.
- (b) The primary to secondary accident induced leakage rate for the limiting design basis accident, other than a steam generator tube rupture, shall not exceed the leakage rate assumed in the accident analysis in terms of total leakage rate for all steam generators and leakage rate for an individual steam generator.

REFERENCES

10CFR50.72(b)(3)(ii)
NUREG-1022, Rev. 2
TS 4.4.5.5c(U/1)
TS 4.4.6.5c(U/2)

11.0 Reportable Action Levels

11.1 Technical Specifications

REPORTABLE ACTION LEVEL - 11.1.2.b

IC ABNORMAL DEGRADATION OF THE CONTAINMENT STRUCTURE
DETECTED DURING SHUTDOWN THAT HAS BEEN EVALUATED FOR
REPORTABILITY [10CFR50.72(b)(3)(ii); T/S 4.6.1.6.2]

RAL

Any abnormal degradation of the Containment structure detected by visual inspection of
exposed accessible interior and exterior surfaces during shutdown

AND

An Engineering Evaluation has determined that it is reportable pursuant to
10CFR50.72(b)(3)(ii)

MODE - 3, 4, 5, 6, Defueled

BASIS

This RAL is based on the reporting requirements of 10CFR50.72(b)(3)(ii), which requires an
eight hour report for any event or condition that results in a principal safety barrier being
seriously degraded or the nuclear power plant being in an unanalyzed condition that significantly
degrades plant safety.

REFERENCES

10CFR50.72 (b)(3)(ii)
NUREG-1022, Rev. 2
T/S 4.6.1.6.2

11.0 Reportable Action Levels

11.1 Technical Specifications

REPORTABLE ACTION LEVEL - 11.1.3.a

IC VIOLATION OF THE REQUIREMENTS CONTAINED IN THE OPERATING LICENSE [Salem Unit 2 Operating License, Sections 2.I]

RAL

Violation of ANY one of the requirements contained in Section 2.C (Items 3 through 25) or Section 2E, 2F, or 2G of the Salem Unit 2 Operating License

MODE - All

BASIS

This RAL addresses the conditions for a twenty-four hour report in accordance with Item 2.I of the Operating License of SGS Unit 2.

SGS Unit 1 Facility Operating License does not contain similar reporting criteria.

REFERENCES

Salem Unit 2 Facility Operating License, Sections 2.C and 2.I

11.0 Reportable Action Levels

11.1 Technical Specifications

REPORTABLE ACTION LEVEL - 11.1.3.b

IC ANY EVENT REQUIRING AN ENGINEERING EVALUATION BY TECHNICAL SPECIFICATIONS OR COMMITMENT

[U1 T/S 3.4.9.1, 3.4.9.2, 3.4.7, 3.7.9, JAN 1983, LTR TO NRC, 3.7.2.1]

[U2 T/S 3.4.10.1, 3.4.10.2, 3.4.8, 3.7.9, JAN 1983, LTR TO NRC, 3.7.2]

RAL

As judged by the OS/EDO, ANY one of the following conditions have been satisfied:

- Any of the T/S LCOs for RCS or PZR heatup or cooldown rates **are exceeded**
- The concentration of either chloride or fluoride in the RCS is **in excess** of its Steady State Limit for **more than 24 hours** or **in excess of its Transient Limit**, thereby requiring an engineering evaluation to determine the effects of the out of limit condition on the structural integrity of the RCS
- **One or more** snubbers are found to be INOPERABLE and require an engineering evaluation performed in accordance with T.S.4.7.9 action statement
- Any PZR code safety valve **discharges**
- The temperature of EITHER the Primary or Secondary Coolant in any S/G $\leq 70^0$ F WHEN the pressure of either the Primary or Secondary Coolant in the S/G is > 200 psig

MODE - All

BASIS

NOTE: This event may be reportable to the NRC based on other RALs or EALs. Refer to any other RAL or EAL reporting requirements that are applicable and implement those notifications in parallel with initiating an Engineering Evaluation.

These events require an Engineering Evaluation of the effects of the transient on plant materials and future operation. This RAL ensures that timely internal notification is initiated to implement the evaluations.

REFERENCES

1. [T/S 3.4. 9.1 OR 9.2] U1
[T/S 3.4.10.1 OR 10.2] U2
2. T/S 3.4.7 U1
T/S 3.4.8 U2
3. T/S 3.7.9
4. JAN 1983, LTR TO NRC
5. T/S 3.7.2.1 U1
T/S 3.7.2 U2

11.0 Reportable Action Levels

11.2 Degraded or Unanalyzed Condition

REPORTABLE ACTION LEVEL - 11.2.1.a

IC ANY EVENT OR CONDITION DURING OPERATION THAT RESULTS IN THE CONDITION OF THE PLANT BEING SERIOUSLY DEGRADED
[10CFR50.72(b)(3)(ii)]

RAL

As judged by the OS/EDO, an event or condition that results in ANY one of the following:

- The condition of the plant, including its principal safety barriers, being seriously degraded
- The plant being in an unanalyzed condition that significantly degrades plant safety

MODE - ALL

BASIS

Reporting at the component, system, and structure level is required per the above condition.

The condition of the plant, including its principal safety barriers, being seriously degraded includes material (e.g., metallurgical or chemical) problems that cause abnormal degradation of or stress upon the principal safety barriers, (Fuel Clad, RCS, Containment). Examples include:

- Fuel clad failure in reactor or spent fuel pool that exceed expected values, or that are unique or wide spread, or that are caused by unexpected factors.
- Cracks and breaks in RCS piping, reactor vessel or major RCS components.
- Significant welding or material defects in the RCS.
- Serious temperature or pressure transients.
- Loss of containment function or integrity including excessive containment leakage, loss of containment isolation valve function, loss of containment cooling.
- Serious steam generator tube degradation (see RAL 11.1.2.a).

The plant being in an unanalyzed condition that significantly compromises plant safety refers to conditions potentially affecting a system, structure or component which are more than of a minor safety significance. It is not intended that this Action level (RAL) apply to minor variations in parameters or to problems concerning single pieces of equipment. The NRC understands that PSEG Nuclear will use engineering judgment and experience to determine if an unanalyzed condition exist.

When applying engineering judgment, if there is doubt as to whether to report or not, the NRC recommends that the licensee make the report.

REFERENCES

10CFR50.72(b)(3)(ii)
NUREG 1022, Rev. 2

11.0 Reportable Action Levels

11.2 Degraded or Unanalyzed Condition

REPORTABLE ACTION LEVEL - 11.2.2.b

IC EVENT/CONDITION THAT AT THE TIME OF DISCOVERY COULD HAVE PREVENTED CERTAIN SAFETY FUNCTIONS [10CFR50.72 (b)(3)(v)]

RAL

Any event or condition that **at the time of discovery could have prevented** the fulfillment of the safety function of structures or systems that are needed to perform ANY one of the following:

- Control the release of radioactive material
- Shutdown the reactor and maintain it in a safe shutdown condition
- Remove residual heat
- Mitigate the consequences of an accident

MODE - All

BASIS

The intent of this RAL is to require reporting of events or conditions that could have prevented systems from performing their safety functions (actually or potentially) regardless of whether the system was needed at the time, or whether an alternate system or means was available to perform the safety function. If the event or condition could have prevented fulfillment of the safety function at the time of discovery, an ENS notification is required. If it could have prevented fulfillment of the safety function at any time within three years of the date of discovery, an LER is required.

In determining the reportability of an event or condition that affects a system, it is not necessary to assume an additional random single failure in that system; however, it is necessary to consider other existing plant conditions.

This RAL covers an event or condition where structures, components or trains of a Safety System could have failed to perform their intended functions because of:

- One or more personnel errors including procedure violations or inadequate maintenance.
- Design analysis, fabrication, equipment qualification, construction, or procedural deficiencies.
- Equipment failure if the failure constitutes a condition where there is reasonable doubt that the redundant train or channel is operable.

Note: For systems with 3 or more trains, the failure of ≥ 2 trains should be reported if, in your judgment, the functional capability of the overall system is/was jeopardized.

For a single train safety system, loss of the single train would prevent the fulfillment of the safety function of that system and is therefore reportable even though the plant technical specifications may allow such a condition to exist for a limited time.

Individual component failure need not be reported under this RAL if redundant equipment in the same system was operable and available to perform the required safety function.

REFERENCES

10CFR50.72 (b)(3)(v)
NUREG 1022, Rev. 2

11.0 Reportable Action Levels**11.3 System Actuations****REPORTABLE ACTION LEVEL - 11.3.1**

IC ANY EVENT THAT RESULTS OR SHOULD HAVE RESULTED IN ECCS DISCHARGE INTO THE RCS AS THE RESULT OF A VALID SIGNAL EXCEPT WHEN THE ACTUATION RESULTS FROM AND IS PART OF A PRE-PLANNED SEQUENCE DURING TESTING OR REACTOR OPERATION
[10CFR50.72(b)(2)(iv)(A)]

RAL

Valid SI Actuation signal received (or demanded)

AND

ANY ECCS Pump start or Accumulator depressurization that results in or should have resulted in, discharge to the RCS

AND

Actuation is NOT part of a pre-planned sequence during testing or reactor operation.

MODE - All**BASIS**

Those events that result in either automatic or manual SI actuation or would have resulted in SI actuation if some component had not failed or an operator action had not been taken are reportable.

For example, while performing a RCS cooldown following a controlled Reactor Shutdown, a Main Steam Line ΔP SI is inadvertently generated. However, the Charging Pumps fail to start and RCS pressure remains above the SI Pump shutoff head pressure. Although no ECCS discharge to the vessel occurred, the event is reportable.

A **valid** signal refers to actual plant conditions or parameters satisfying the requirements for SI initiation. Valid actuations also include intentional manual actuations unless the actuation is part of a preplanned test. Excluded from this reporting requirement would be those instances in which instrument drift, spurious signals, human error or other invalid signals caused SI actuation (e.g. jarring a cabinet, an error in the use of jumpers or lifted leads, error in actuation of controls switches, or equipment failures or radio frequency interference).

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Preplanned actuations are those which are expected to actually occur due to preplanned activities covered by procedures. Such actuations are those for which a procedural step or other appropriate documentation indicates the specific actuation is actually expected to occur. Control room personnel are aware of the specific signal generation before its occurrence or indication in the control room.

IF the SI Actuation discharges or should have discharged into the RCS as result of an INVALID signal, THEN a report under this RAL is not required.

REFERENCES

SGS UFSAR
10CFR50.72(b)(2)(iv)(A)
10CFR50.73
NUREG 1022, Rev. 2

11.0 Reportable Action Levels

11.3 System Actuations

REPORTABLE ACTION LEVEL - 11.3.2

IC ACTUATION OF THE REACTOR PROTECTION SYSTEM WHEN CRITICAL
EXCEPT PREPLANNED [10CFR50.72(b)(2)(iv)(B)]

RAL

Any event or condition that results in actuation of the reactor protection system (RPS) when critical, except when the actuation results from and is part of a preplanned sequence during testing or reactor operation

MODE - 1, 2

BASIS

An event involving a critical scram is reportable under RAL 11.3.2 unless it resulted from and was part of a pre-planned sequence. Manual RPS actuation in anticipation of receiving an automatic RPS actuation is reportable.

Preplanned actuations are those which are expected to actually occur due to preplanned activities covered by procedures. Such actuations are those for which a procedural step or other appropriate documentation indicates the specific actuation is actually expected to occur. Control room personnel are aware of the specific signal generation before its occurrence or indication in the control room.

REFERENCES

10CFR50.72(b)(2)(iv)(B)
10CFR50.73
NUREG-1022, Rev. 2

11.0 Reportable Action Levels

11.3 System Actuations

REPORTABLE ACTION LEVEL - 11.3.3

IC VALID ACTUATION OF LISTED SYSTEM EXCEPT PREPLANNED
[10CFR50.72(b)(3)(iv)(A)]

RAL

Any event or condition that results in valid actuation of any system listed in Technical Basis 11.3.3 except when the actuation results from and is part of a pre-planned sequence during testing or reactor operation

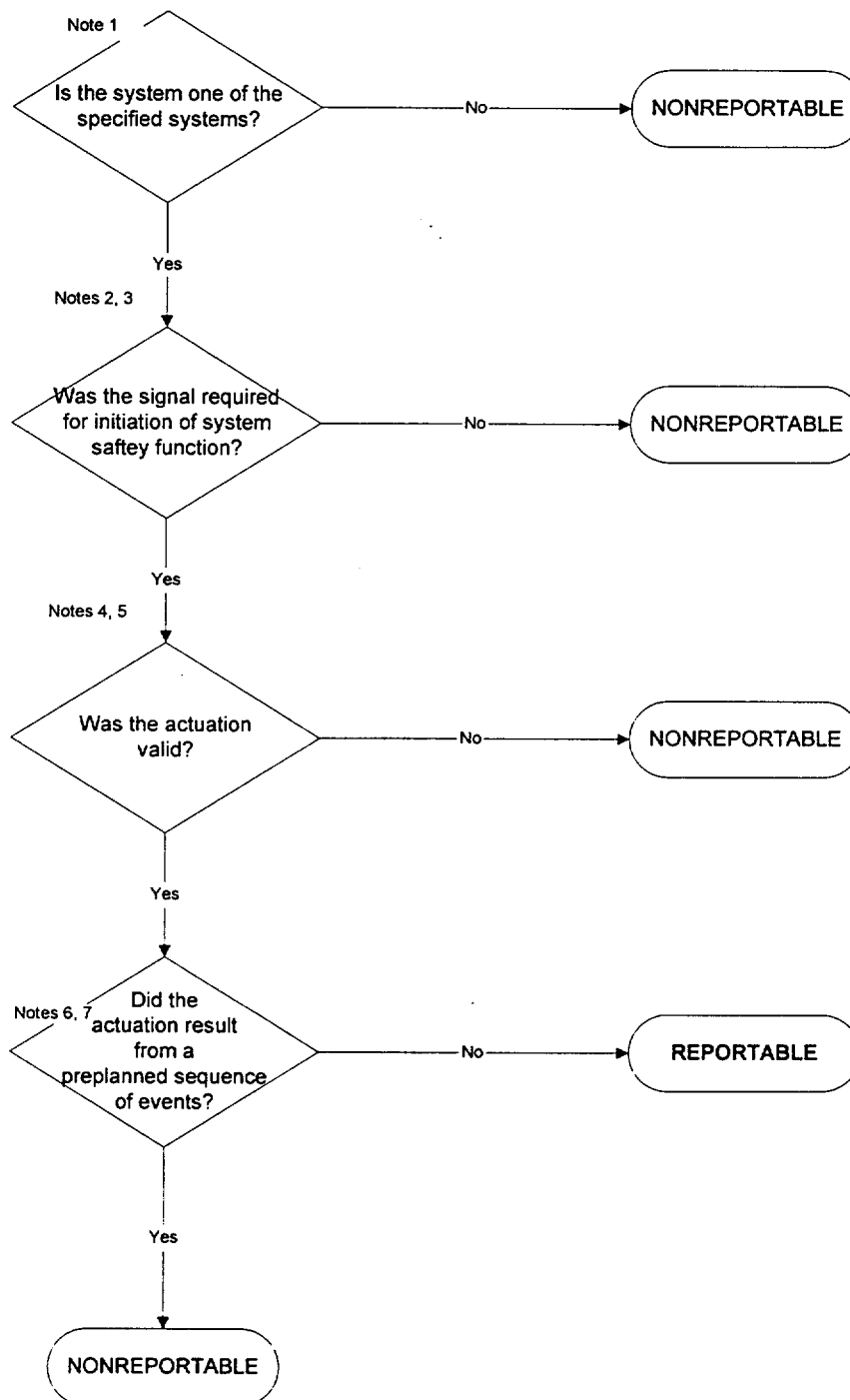
OPERATIONAL CONDITION - All

BASIS

An eight hour report is required for all valid actuation of any of the systems named in 10 CFR 50.72(b)(3)(iv)(B) unless the actuation resulted from and was part of a pre-planned sequence during testing or reactor operation. Except for critical scrams, invalid actuations are not reportable by telephone under 10 CFR 50.72.

The system actuation flow chart provides guidance to determine reportability.

SYSTEM ACTUATION FLOW CHART



NOTES

1. Systems for which this RAL applies are listed on page 4.
2. See Technical Specification 3/4.3.2, ESF Actuation System Instrumentation (signals required for initiation of system safety function).
3. An ESF signal actuates equipment to mitigate the consequences of an accident, assure safe shutdown, minimize radioactive releases, etc. Process signals provided to protect equipment or as the result of good engineering judgment for system operating requirements (e.g., low flow starts, low suction pressure pump trips) are not ESF signals. If an actuation signal occurs, but distinction between "ESF" and "Process" cannot be determined immediately, the actuation is considered reportable. Retraction should be considered later, if necessary.
4. Valid actuations are those actuations that result from VALID SIGNALS or from intentional manual initiation, unless it is part of a preplanned test. Valid signals are those signals that are initiated in response to actual plant conditions or parameters satisfying the requirement for initiation of the safety function of the system.

An "actuation" is considered valid even if the resultant function (e.g., reactor trip) has already been accomplished as a result of a prior actuation or a plant evolution, such as a routine shutdown.

5. Invalid actuations are by definition those that do not meet the criteria for being valid. Invalid actuations include instrument drift, spurious signals, human error, jarring a cabinet, an error in the use of jumpers or lifted leads, an error in the actuation of switches or controls, equipment failure, or radio frequency interference.
6. Manual system actuation to mitigate the consequences of an accident, assuring safe shutdown of plant is reportable. Manual actuation as directed by normal operating or test procedures is not reportable.
7. Preplanned actuations are those which are expected to actually occur due to preplanned activities covered by procedures. Such actuations are those for which a procedural step or other appropriate documentation indicates the specific actuation that is actually expected to occur. Control room personnel are aware of the specific signal generation before its occurrence or indication in the control room.

Applicable Systems and Components

NOTE: Numbers in parentheses indicate UFSAR Chapter

Reactor Protection System (unless reported under RAL 11.3.2)

Containment Systems (6.2)

Containment Heat Removal (6.2.2)

Containment Isolation System* (6.2.4)

ECCS (6.3)

Residual Heat Removal

Safety Injection System

Plant Systems

Auxiliary Feedwater

Emergency AC Electrical Power (8.3)

* Containment isolation valves in more than one system or multiple MSIVs

REFERENCES

SGS UFSAR

10CFR50.72(b)(3)(iv)(A)

10CFR50.73

NUREG 1022, Rev. 2

11.0 Reportable Action Levels

11.4 Personnel Safety / Overexposure

REPORTABLE ACTION LEVEL - 11.4.1

IC ANY INCIDENT OR EVENT INVOLVING BYPRODUCT, SOURCE, OR SPECIAL
NUCLEAR MATERIAL CAUSING ANY OF THE LISTED RESULTS
[10CFR20.2202(a)]

RAL

PERSONNEL OVEREXPOSURE or potential for overexposure as indicated by ANY one of the following:

- **TEDE exposure** \geq **25 Rem**
- **LDE exposure** \geq **75 Rem**
- **SDE exposure** \geq **250 Rem**
- Release of radioactive material inside or outside of a Restricted Area so that, had an individual been present for 24 hours, the individual could have received ≥ 5 times the occupational ALI (Annual Limit of Intake) which would usually equate to ≥ 25 Rem **CEDE**. This **DOES NOT** apply to areas where personnel are NOT normally stationed during routine operations

MODE - All

BASIS

This RAL addresses those conditions requiring an immediate report IAW 10CFR20.2202(a). Annual Limits on Intake (ALI) are discussed in Appendix B of 10CFR20.

Terms:

TEDE = Total Effective Dose Equivalent (integrated dose that consists of the sum of the external dose equivalent (DDE) and committed effective dose equivalent (CEDE).
LDE = Lens Dose Equivalent (dose equivalent to the eye)
SDE = Shallow Dose Equivalent (dose equivalent to the skin or extremities)
CEDE = Committed Effective Dose Equivalent
ALI = Annual Limit of Intake

REFERENCES

10CFR20.2202(a)
10CFR20, App. B

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11.0 Reportable Action Levels

11.4 Personnel Safety / Overexposure

REPORTABLE ACTION LEVEL - 11.4.2.a

IC ANY INCIDENT OR EVENT INVOLVING LOSS OF CONTROL OF LICENSED MATERIAL CAUSING ANY OF THE LISTED RESULTS [10CFR20.2202(b)]

RAL

PERSONNEL OVEREXPOSURE or potential for overexposure, as indicated by ANY one of the following:

- **TEDE exposure** > **5 Rem**
- **LDE exposure** > **15 Rem**
- **SDE exposure** > **50 Rem**
- Release of radioactive material inside or outside of a Restricted Area so that had an individual been present for 24 hours the individual could have received > **1** times the occupational ALI (Annual Limit of Intake) which would usually equate to > **5 Rem CEDE**. This DOES NOT apply to areas where personnel are NOT normally stationed during routine operations.

MODE - All

BASIS

This RAL addresses those conditions requiring a 24 hour report IAW 10CFR20.2202(b). Annual Limits on Intake (ALI) are discussed in Appendix B of 10CFR20.

However, because events that result in acute personnel overexposure may result in media interest or notifications to other government agencies, the RAL will result in a 4 hour report IAW 10CFR50.72(b)(2)(xi).

Terms: (The below listed terms are defined in RAL 11.4.1)

TEDE =	Total Effective Dose Equivalent
LDE =	Lens Dose Equivalent
SDE =	Shallow Dose Equivalent
CEDE =	Committed Effective Dose Equivalent
ALI =	Annual Limit of Intake

REFERENCES

10CFR20.2202(b)
10CFR20, App. B
10CFR50.72(b)(2)(xi)

11.0 Reportable Action Levels

11.4 Personnel Safety / Overexposure

REPORTABLE ACTION LEVEL - 11.4.2.b

IC ONSITE FATALITY [10CFR50.72(b)(2)(xi)]

RAL

Any fatality has occurred within the Owner Controlled Area (OCA)
--

MODE - All

BASIS

The above condition is reportable because an "Onsite" fatality will most likely involve notification of other government agencies and may involve the media. Other government agencies and the media often rely on the NRC for an independent explanation of the safety implication of events at nuclear power plants; therefore, timely NRC notification is required.

In this RAL, the normal definition of ONSITE which pertains to the PROTECTED AREA is expanded to include the entire OWNER CONTROLLED AREA (OCA) due to anticipated media interest in any fatality of an individual working at the site (i.e., Artificial Island)

REFERENCES

10CFR50.72(b)(2)(xi)
NUREG 1022, Rev.2

11.0 Reportable Action Levels

11.4 Personnel Safety / Overexposure

REPORTABLE ACTION LEVEL - 11.4.2.c

IC RADIOACTIVELY CONTAMINATED PERSON TRANSPORTED FROM THE SITE TO AN OFFSITE MEDICAL FACILITY FOR TREATMENT [10CFR50.72(b)(3)(xii)]

RAL

Transportation of a radioactively contaminated or **potentially contaminated individual** from the site to an offsite medical facility for treatment.

MODE - All

BASIS

This RAL addresses the conditions requiring an eight hour report in accordance with 10CFR50.72(b)(3)(xii). Transportation of a radioactively contaminated individual to an offsite medical facility has the potential for spreading the contamination to individuals and institutions that are not trained or prepared to deal with radioactive materials. The NRC requires notification of any event with the potential to contaminate Unrestricted Areas in the public domain.

A **potentially contaminated individual** means a person who, due to injuries or first aid treatments cannot be adequately surveyed for contamination prior to transport to an offsite medical facility.

REFERENCES

10CFR50.72(b)(3)(xii)
NUREG 1022, Rev. 2

11.0 Reportable Action Levels

11.4 Personnel Safety / Overexposure

REPORTABLE ACTION LEVEL - 11.4.3.a

IC SIGNIFICANT FITNESS FOR DUTY EVENTS [10CFR26.73]

RAL

Any event that is determined to be reportable by the Medical Review Officer (MRO) or designee IAW PSEG Nuclear's Fitness for Duty Program (NC.NA-AP.ZZ-0042(Q))

AND

The reportable details of the event are made available to the OS by the MRO or designee.

MODE - All

BASIS

NC.NA-AP.ZZ-0042(Q) provides the guidance to determine reportability of Significant Fitness for Duty event which requires a 24 hour report IAW 10CFR26.73. Only the Medical Review Officer or designee may determine reportability of these events for PSEG Nuclear, unless the event has safeguards significance, in which case the determination to report is made by Security.

REFERENCES

NC.NA-AP.ZZ-0042(Q)
10CFR26.73

11.0 Reportable Action Levels

11.4 Personnel Safety / Overexposure

REPORTABLE ACTION LEVEL - 11.4.3.b

IC FITNESS FOR DUTY PROGRAM: FALSE POSITIVE DUE TO ADMINISTRATIVE ERROR (BLIND TEST BY LAB) [10CFR26, APP. A, 2.8(e)(5)]

RAL

The occurrence of a false positive error on a blind lab performance test specimen under 10CFR26 as determined by the Medical Review Officer (MRO) IAW PSEG Nuclear's Fitness for Duty Program (NC.NA-AP.ZZ-0042(Q))

AND

The reportable details of the event are made available to the OS by the MRO or designee.

MODE - All

BASIS

NC.NA-AP.ZZ-0042(Q) provides the guidance to determine reportability of administrative errors occurring in the lab testing program which requires a 24 hour report IAW 10CFR26.

Blind Quality Control proficiency monitoring of DHHS LABS are performed on a regular basis. Any occurrence of a false positive error which, after investigation by the MRO, is determined to be the result of an administrative error (clerical, sample mix-up, etc.) is reportable to the NRC.

Only the Medical Review Officer or designee may determine reportability of these events for PSEG Nuclear.

REFERENCES

NC.NA-AP.ZZ-0042(Q)
10CFR26, Appendix A 2.8(e)(5)

11.0 Reportable Action Levels

11.5 Environmental / State Notifications

REPORTABLE ACTION LEVEL - 11.5.2.a

IC SPILL/DISCHARGE OF ANY NON-RADIOACTIVE HAZARDOUS SUBSTANCE
[10CFR50.72(b)(2)(xi); N.J.A.C. 7:1E]

RAL

Spill/discharge of an industrial chemical or petroleum product outside of a Plant Structure within the Owner Controlled Area (OCA) that results in EITHER one of the following:

- Spill / discharge that has passed through the engineered fill and into the ground water as confirmed by Licensing
- Spill / discharge that CANNOT be cleaned up within **24 hours** and no contact with groundwater is suspected

NOTE:

This event MAY require IMMEDIATE (15 minute) notifications. DO NOT delay implementation of Attachment 16.

MODE - All

BASIS

This RAL addresses the conditions requiring reports IAW PSEG Nuclear's DPCC/DCR Plan. The intent of this RAL is to direct IMMEDIATE implementation of ECG Attachment 16, which will provide further direction on reportability based upon the nature of the Spill/Discharge as well as the expertise of Environmental Licensing personnel concerning requirements.

REFERENCES

10CFR50.72(b)(2)(xi)
N.J.A.C. 7:1E
DPCC/DCR Plan, Part III

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11.0 Reportable Action Levels

11.5 Environmental / State Notifications

REPORTABLE ACTION LEVEL - 11.5.2.b

IC SPILL/DISCHARGE OF ANY NON-RADIOACTIVE HAZARDOUS SUBSTANCE INTO OR UPON THE RIVER [10CFR50.72(b)(2) (vi); N.J.A.C.7:1E]

RAL

EITHER one of the following events occur:

- Observation of a spill/discharge of an **industrial chemical** or **petroleum product** from on-site into the Delaware River or into a storm drain
- Observation of an oil slick on the Delaware River from any source.

NOTE:

This event MAY require IMMEDIATE (15 minute) notifications. DO NOT delay implementation of Attachment 16.

MODE - All

BASIS

This RAL addresses the conditions requiring reports IAW PSEG Nuclear's DPCC/DCR Plan. The intent of this RAL is to direct IMMEDIATE implementation of ECG Attachment 16, which will provide further direction on reportability based upon the nature of the Spill/Discharge as well as the expertise of Environmental Licensing personnel concerning requirements.

REFERENCES

10CFR50.72(b)(2)(xi)

N.J.A.C.7:1E

DPCC/DCR Plan, Part III

11.0 Reportable Action Levels

11.5 Environmental / State Notifications

REPORTABLE ACTION LEVEL - 11.5.2.c

IC UNUSUAL OR IMPORTANT ENVIRONMENTAL EVENTS
[ENVIRONMENTAL PROTECTION PLAN SECTION 4.1]

RAL

As judged by the OS/EDO ANY one of the following events has occurred:

- Unusually large fish kill
- Protected aquatic species impinge on Circulating or Service Water intake screens (e.g., sea turtle, sturgeon) as reported by Site personnel
- Any occurrence of an unusual or important event that indicates or could result in significant environmental impact casually related to plant operation; such as the following:
 - Onsite plant or animal disease outbreaks
 - Mortality or unusual occurrence of any species protected by the Endangered Species Act of 1973
 - Increase in nuisance organisms or conditions
 - Excessive bird impactation
 - NJPDES Permit violations
 - Excessive opacity (smoke)

MODE - All

BASIS

This RAL addresses the conditions requiring reports IAW the Environmental Protection Plan. Final determination or reportability will be made by Environmental Licensing as a result of implementing Attachment 15.

REFERENCES

SGS Technical Specifications, ENVIRONMENTAL PROTECTION PLAN

11.0 Reportable Action Levels

11.5 Environmental / State Notifications

REPORTABLE ACTION LEVEL - 11.5.3

IC BOILER OR PRESSURE VESSEL EXPLOSION OR PERSONAL INJURY [N.J.A.C. 5:11-3.11]

RAL

EITHER one of the following events occur:

- Personal injury due to an **occurrence** to a boiler or pressure vessel
- A boiler or pressure vessel **explosion**

MODE - All

BASIS

This RAL addresses the conditions requiring notifications following occurrences to boilers and pressure vessels.

An **occurrence** means any event which reduces the pressure containing capability of, or requires immediate repair to, a boiler or pressure vessel, exclusive of normal wear on the equipment. Per NC.NA-AP.ZZ-0026(Q), this is understood to mean through wall leakage conditions, permanent deformation to a boiler or pressure vessel resulting from transient conditions or service degradation and/or rupture conditions.

An **explosion** is a catastrophic failure of a boiler or pressure vessel that imparts energy of sufficient force to damage or potentially damage permanent plant structures, systems or components.

Immediate notification is required in the event of an **explosion** or a personal injury due to an **occurrence**.

REFERENCES

10CFR50.72(b)(2)(xi)

N.J.A.C.5:11-3.11

Salem ECG 9.3, Explosion

NC.NA-AP.ZZ-0026(Q), NEIL / Jurisdictional Boiler and Machinery Inspection Program

11.0 Reportable Action Levels

11.6 After The Fact

REPORTABLE ACTION LEVEL - 11.6.1

IC EMERGENCY CONDITIONS DISCOVERED AFTER-THE-FACT

RAL

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Discovery of events or conditions that had previously occurred
(event was NOT ongoing at the time of discovery) which EXCEEDED an
Emergency Action Level (EAL) and was NOT declared as an emergency

AND

There are currently NO adverse consequences in progress as a result of the event

MODE - All

BASIS

In the event a condition is discovered to have previously occurred or existed that exceeded an Emergency Action Level threshold, but that no emergency was declared and the basis for the Emergency Classification no longer exists at the time of discovery, then a one hour report is required.

This situation might arise due to a condition existing without detection by operating personnel.

The NRC does not consider actual declaration of the emergency classification to be necessary in these circumstances.

REFERENCES

Salem ECG Introduction Section
NUREG-1022, Rev. 2, Section 3.1.1

11.0 Reportable Action Levels**11.7 Security / Emergency Response Capability****PSE&G
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IC SAFEGUARDS EVENTS THAT ARE DETERMINED TO BE NON-EMERGENCIES,
BUT ARE REPORTABLE TO THE NRC WITHIN ONE HOUR [10CFR73.71(b)(1)]

RAL

Any Non-Emergency safeguards event that is reportable in accordance with 10CFR73.71 as determined by Security (SCP-15)

MODE - All**BASIS**

This RAL addresses the conditions requiring a one hour report in accordance with 10CFR73.71(b)(1). These non-emergency events are outlined in Security Contingency Procedure #15. The on-duty PSEG Nuclear Security Supervisor should provide information concerning the specific event.

REFERENCES

10CFR73.71(b)(1)
NC.SP-AP.SC-0015 (SCP-15)

11.0 Reportable Action Levels

11.7 Security / Emergency Response Capability

REPORTABLE ACTION LEVEL - 11.7.1.b

IC MAJOR LOSS OF EMERGENCY ASSESSMENT CAPABILITY, OFFSITE RESPONSE CAPABILITY, OR OFFSITE COMMUNICATIONS CAPABILITY [10CFR50.72(b)(3)(xiii)]

RAL

OS/EC determines that an event (excluding a scheduled test or preplanned maintenance activity) has occurred that would impair the ability to deal with an accident or emergency as indicated by the Loss of ANY one of the following:

- Nuclear Emergency Telecommunications System (NETS) for > 1 hr
- ENS for > 1 hr in the Control Room, TSC, and EOF (N/A if reported by the NRC)
- More than 17 Offsite Sirens for > 1 hr
- Use of the EOF for > 8 hrs
- All Meteorological data (Salem AND Hope Creek) for > 8 in hrs
- Site access due to Acts of Nature (snow, flood, etc.)

MODE - All

BASIS

NOTE: IF losses are part of a scheduled test or preplanned maintenance activity AND WHEN compensatory actions have been taken, THEN NO report is required.

This RAL addresses conditions that are COMMON to both Salem and Hope Creek and may be reported to the NRC by EITHER station as a Common Site Event.

1. Loss of the NETS or all ENS for > 1 hour directly affects the ability to promptly notify and communicate with the NRC and/or Offsite officials.

IF a total loss of communications capabilities has occurred,
THEN REFER to ECG Section 8.3.

IF notified by the NRC Operations Officer of an inoperable ENS line,
THEN NO further notification is necessary.

2. Loss of Offsite Sirens (>25%) represents a loss of ability to promptly notify a large portion of the population, and warrants an immediate notification. There are 71 offsite sirens in the Plume EPZ and therefore a loss of ≥ 18 is a >25% loss which represents a loss of Offsite Response Capability.
3. Use of the EOF may be vital in responding to an emergency. Loss of use of this facility or its supporting equipment, or ability to staff represents a significant loss of emergency response capability. Equipment losses that occur but still allow the facility to be used SHOULD NOT constitute a loss of the EOF.
4. Loss of meteorological data for an extended period of time limits the ability to predict radiological conditions during an emergency situation. An extended loss warrants notification of the loss of this capability.
5. Limited site access may affect the ability to staff the site personnel and/or emergency response facilities, and the ability of off-site agencies to implement emergency plan requirements.

WHEN site reaction to anticipated conditions is commenced,
THEN notification should be made, if possible.
6. For a partial loss of ENS, the NRC Operations Center should be informed so that repairs can be ordered; but an eight hour report is not required.

REFERENCES

10CFR50.72(b)(3)(xiii)
NUREG-1022, Rev. 2

11.0 Reportable Action Levels

11.7 Security / Emergency Response Capability

REPORTABLE ACTION LEVEL - 11.7.1.c

IC MAJOR LOSS OF EMERGENCY ASSESSMENT CAPABILITY, OFFSITE RESPONSE CAPABILITY, OR OFFSITE COMMUNICATIONS CAPABILITY [10CFR50.72(b)(3)(xiii)]

RAL

OS/EC determines that an event (excluding a scheduled test or preplanned maintenance activity) has occurred that would impair the ability to deal with an accident or emergency as indicated by the Loss of ANY one of the following:

- P250 or Aux Annunciator System for > 24 hrs
- SPDS for > 8 hrs (> 2 CFSTs Inop, not due to plant conditions)
- Use of the TSC for > 8 hrs
- ALL Plant vent radiation effluent monitors with no alternate method of monitoring for > 72 hrs
- More than 75% of the OHAs
- Concurrent multiple accident or emergency condition indicators which in the judgment of the OS significantly impairs assessment capabilities

MODE - All

BASIS

NOTE: IF losses are part of a scheduled test or preplanned maintenance activity AND WHEN compensatory actions have been taken, THEN NO report is required.

1. Loss of the P250 or Aux Annunciator System for a prolonged time is considered a loss of emergency assessment capability.
2. Loss of SPDS for >8 hours (> 2 CFSTs Inop, not due to plant conditions) is considered an event that significantly impairs safety assessment capabilities.

3. Use of the TSC may be vital in responding to an emergency. Loss of use of this facility, or ability to staff represents a significant loss of emergency response capability. Equipment losses that occur but still allow the facility to be used SHOULD NOT constitute a Loss of the TSC.
4. Loss of ALL Plant Vent Effluent Radiation monitors (R41A, B, C and R45B & C) with no alternate method of monitoring for an extended period of time (72 hrs) limits the ability to predict radiological conditions during an emergency situation. An extended loss warrants notification of the loss of this capability.
5. Loss of OHAs for a short period of time (< 15 minutes) is considered a loss of emergency assessment capability in ALL Modes.

IF OHAs are lost or were lost for \geq 15 minutes when in Modes 1-4,
THEN REFER to ECG Section 8.2.
6. Concurrent multiple accident or emergency condition indicators which in the judgment of the OS significantly impairs assessment capabilities is specific to Salem in this RAL.

IF the loss of assessment capability is COMMON to both Salem and Hope Creek,
THEN REFER to RAL 11.7.1.b.
7. If the NRC phone line or modem used for ERDS data transmission is inoperable, the NRC operations center should be informed so that repairs can be ordered. However, an eight hour report is not required.

REFERENCES

10CFR50.72(b)(3)(xiii)
NUREG-1022, Rev. 2

11.0 Reportable Action Levels**11.8 Public Interest****PSE&G
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REPORTABLE ACTION LEVEL - 11.8.2.a

IC UNUSUAL CONDITIONS WARRANTING A NEWS RELEASE OR NOTIFICATION
OF GOVERNMENT AGENCIES [10CFR50.72(b)(2)(xi)]**RAL**

OS/EDO judges that an event or situation has occurred that is related to ANY one of the following:

- The health and safety of the public
- The health and safety of onsite personnel
- Protection of the environment

AND

EITHER one of the following:

- A news release is planned
- Notification to a Local, State or Federal agency has been or will be made

MODE - All**BASIS**

Events that require the NRC to respond due to media or public interest, or other government agency involvement are reportable to the NRC. Examples of the events would include, but not be limited to:

- release of contaminated tools or equipment to public areas
- non-routine releases of radioactive effluents
- inadvertent operation of the offsite siren system
- state agency contacted due to fish kill
- toxic material release from the site

PSEG Nuclear generally does not have to report media and government interaction or notify the NRC of every press release issued unless they are related to, or are perceived by the public or media to be related to, the radiological health and safety of the public or onsite personnel, or protection of the environment.

REFERENCES

10CFR50.72(b)(2)(xi)
NUREG-1022, Rev. 2

11.0 Reportable Action Levels

11.8 Public Interest

REPORTABLE ACTION LEVEL - 11.8.2.b

IC UNUSUAL CONDITIONS DIRECTLY AFFECTING LOWER ALLOWAYS CREEK TOWNSHIP (LACT) [LAC - M.O.U.]

RAL

As judged by the OS/EDO, events which are the responsibility of PSE&G which have or may result in EITHER one of the following:

- Anticipated unusual movement of equipment or personnel which may significantly affect local traffic patterns.
- Onsite events which involve alarms, sirens or other noise which may be heard off-site.

MODE - All

BASIS

This RAL addresses conditions that are otherwise not reportable to the NRC, but are considered to warrant a prompt report IAW the Lower Alloways Creek Township Memorandum of Understanding (M.O.U.) with PSEG Nuclear because they are of local interest only.

IF an NRC report is required by any other EAL or RAL,
THEN REFER to that section of the ECG for action required which will ensure that LAC Township is notified appropriately.

PSEG Nuclear shall notify LAC Township as soon as sufficient details are available, but in no case should this time frame exceed twelve hours. Sufficient details are those needed to convey a general understanding of the condition or event to a lay public.

Four hours is specified in this RAL (rather than the twelve allowed) as a reasonable time period for taking the actions required and well within the agreed time frame of the M.O.U.

REFERENCES

LAC - M.O.U.

11.0 Reportable Action Levels

11.9 Accidental Criticality/Special Nuclear Material /Rad Material Shipments - Releases

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REPORTABLE ACTION LEVEL - 11.9.1.a

IC UNPLANNED / ACCIDENTAL CRITICALITY [10CFR70.52(a)]

RAL

Any unplanned or accidental criticality

MODE - All

BASIS

This RAL is intended to provide immediate notification to the NRC for events which constitute a "loss" of Reactivity Control due to errors in calculations, dilution or mis-operation.

This condition can be detected from the Control Room using available Nuclear Instrumentation by observation of a sustained positive startup rate on the Source or Intermediate Range NIs.

Increases in neutron population due to subcritical multiplication can be expected during Core Alterations and should not be classified using this RAL.

REFERENCES

10CFR70.52(a)

11.0 Reportable Action Levels

11.9 Accidental Criticality/Special Nuclear Material /Rad Material Shipments - Releases

REPORTABLE ACTION LEVEL - 11.9.1.b

IC LOSS AND INVESTIGATION OF THE LOSS OF SPECIAL NUCLEAR MATERIALS/ SPENT FUEL [10CFR70.52(a), 10CFR70.52(b), 10CFR73.71(a)]

RAL

ANY one of the following events occur involving **Special Nuclear Material (SNM)** or Spent Fuel:

- Loss, other than normal operating loss, of SNM
- Actual or attempted theft or unlawful diversion of SNM
- Shipment of **SNM of low strategic significance** or Spent Fuel that is lost or unaccounted for after the estimated time of arrival
- A lost or unaccounted for shipment of **SNM of low strategic significance** or Spent Fuel has been recovered or accounted for

MODE - All

BASIS

This RAL addresses those conditions requiring a one hour report IAW 10CFR70.52(a), 10CFR70.52(b) or 10CFR73.71(a).

Special Nuclear Material (SNM) means (1) plutonium, uranium-233, uranium enriched in the isotope U^{233} or in the isotope U^{235} , and any other material the NRC, pursuant to the provisions of the Atomic Energy Act, determines to be special nuclear material, but does not include source material; or (2) any material enriched by any of the foregoing.

The Special Nuclear Material Control Program described in NC.NA-AP.ZZ-0073(Q) applies to the following items:

- Calibration Sources containing Pu^{239}
- Dunking Chamber(s)
- Gamma-Metric Fission Detectors
- Incore Fission Detectors
- Intermediate Range Monitors (IRMs)
- Local Power Range Monitors (LPRMs)
- Nuclear Fuel Assemblies
- Source Range Monitors (SRMs)

SNM of low strategic significance means:

- (1) Less than an amount of SNM of moderate strategic significance as defined in 10CFR73.2 but more than 15 grams of U^{235} (contained in uranium enriched to 20 percent or more in U^{235}) or 15 grams of U^{233} or 15 grams of plutonium or the combination of 15 grams when computed by the equation,

$$\text{grams} = (\text{grams contained } U^{235}) + (\text{grams plutonium}) + (\text{grams } U^{233}); \text{ or}$$
- (2) Less than 10,000 grams but more than 1,000 grams of U^{235} (contained in uranium enriched to 10 percent or more but less than 20 percent in the U^{235} isotope); or
- (3) 10,000 grams or more of U^{235} (contained in uranium enriched above natural but less than 10 percent in the U^{235} isotope).

10CFR70.52(a), 10CFR70.52(b) and 10CFR74.11 require a one hour report after discovery of a loss or actual or attempted theft or unlawful diversion of SNM. 10CFR73.71(a)(1) requires a one hour report after discovery of a shipment loss, and after recovery of or accounting for a lost shipment.

Examples of a one-hour reportable condition under this RAL would include:

- During the annual physical inventory of SNM, a spare IRM cannot be located in its designated Item Control Area. Attempts by Reactor Engineering to locate the missing item or to find documentation to support its removal are not successful.
- Reactor Engineering reports that a shipment of Nuclear Fuel (SNM of low strategic significance) is unaccounted for at the expected arrival time. The licensed shipper is contacted but cannot promptly account for the shipment delay.

REFERENCES

10CFR70.52(a)
 10CFR70.52(b)
 10CFR73.71(a)
 10CFR74.11

11.0 Reportable Action Levels

11.9 Accidental Criticality/Special Nuclear Material /Rad Material Shipments - Releases

REPORTABLE ACTION LEVEL - 11.9.1.c

IC THEFT OR LOSS OF LICENSED MATERIAL [10CFR20.2201(a)(1)(i)]

RAL

Lost, stolen or missing **licensed material** > 1000 times the quantity specified in 10CFR20 Appendix C, in such circumstances that an exposure could result to persons in **Unrestricted Areas**.

MODE - All

BASIS

This RAL addresses those conditions requiring an immediate report IAW 10CFR20.2201(a)(1)(i).

Licensed material means source material, special nuclear material (SNM), or byproduct material received, possessed, used, or transferred under a general or specific license issued by the NRC pursuant to the regulations in 10CFR20.

Unrestricted Areas are any areas beyond the Minimum Exclusion Area (MEA). (outside the Owner Controlled Area (OCA) boundary)

REFERENCES

10CFR20.2201(a)(1)(i)

11.0 Reportable Action Levels

11.9 Accidental Criticality/Special Nuclear Material /Rad Material Shipments - Releases

REPORTABLE ACTION LEVEL - 11.9.1.e

IC EXCESSIVE CONTAMINATION AND/ OR RADIATION LEVELS ON A PACKAGE
[10CFR20.1906(d)]

RAL

Receipt survey indicates that package contamination / radiation levels equal or exceeds
ANY one of the following:

- 2200 dpm/100 cm²
- 200 mR/hr on contact
- 10 mR/hr at 3 feet

MODE - All

BASIS

This RAL addresses the conditions requiring an immediate report IAW 10CFR20.1906(d).
This requirement refers to values provided in 10CFR71.87(i) for contamination, and to
10CFR71.47 for radiation levels.

10CFR71.87(i) refers to the DOT limit specified in 49CFR173.443. The RAL contamination
level is based on the DOT limit, adjusted for the standard swipe area used at Salem Generating
Station. DOT regulations allow contamination levels up to 10 times the above limits for
Exclusive Use Shipments.

Exclusive Use means the sole use of a conveyance by a single consignor and for which loading
and unloading are carried out with the direction of the consignor or consignee.

REFERENCES

10CFR20.1906(d)
10CFR71.4
10CFR71.47
10CFR71.87(i)
49CFR173.443

11.0 Reportable Action Levels

11.9 Accidental Criticality/Special Nuclear Material /Rad Material Shipments - Releases

REPORTABLE ACTION LEVEL - 11.9.2.a

IC ACCIDENT OCCURRING DURING TRANSPORTATION OF LICENSED
MATERIAL [10CFR71.5(a)(1)(iv)]

RAL

Accidents during the transportation of **radioactive material** which are reported to PSE&G as the shipper that involve (or potentially involve) damage to the cargo.

MODE - All

BASIS

10CFR71.5(a)(1)(iv) refers to 49CFR171.15/16 for transportation of licensed material accident reporting.

Note: Vehicle breakdowns or delays enroute may also be reported by the driver, but are not reportable to the NRC unless an accident is involved (cargo damage).

Radioactive Material means any item, gas, liquid, flowable solid, or material with radioactivity levels in excess of the limits for unconditional release found in Section 5.12.1. of NC.NA-AP.ZZ-0024(Q), Radiation Protection Program.

REFERENCES

10CFR71.5(a)(1)(iv)
49CFR171.15/16
NC.NA-AP.ZZ-0024(Q)

11.0 Reportable Action Levels

11.9 Accidental Criticality/Special Nuclear Material /Rad Material Shipments - Releases

REPORTABLE ACTION LEVEL - 11.9.2.b

IC CONTAMINATION OUTSIDE OF THE RADIOLOGICALLY CONTROLLED AREA
[10CFR50.72(b)(2)(xi)]

RAL

Discovery of a Contaminated Area OUTSIDE of the RCA with removable activity due to **licensed material**

AND

EITHER one of the following:

- Location of Contaminated Area is such that a contaminated person or material may have left the Protected Area
- Location of Contaminated Area is OUTSIDE of Plant Structures **AND** Size of Contaminated Area is LARGE (>100 ft²)

MODE - All

BASIS

The purpose of the RAL is to ensure that the NRC is made aware of issues that may cause heightened public or government concern related to the radiological health and safety of the public or onsite personnel or protection of the environment. These RAL contamination levels are based on the likelihood that a news release and/or notifications to government agencies may need to be made for these conditions.

Examples of conditions that would require classification under this RAL would include:

- Release of contaminated tools, equipment, trash, vehicles, personnel to areas outside the Protected Area.
- Unusual or abnormal release of radioactive effluents. Unusual or abnormal can be considered a release that has the potential to generate public, media, or other government agency attention.

Licensed material means source material, special nuclear material (SNM), or byproduct material received, possessed, used, or transferred under a general or specific license issued by the NRC pursuant to the regulations in 10CFR20.

Contamination due to naturally occurring radioactive material is not reportable under this RAL.

Radiological effluent releases that are >2 times Technical Specifications limits are classified in accordance with ECG Section 6.

REFERENCES

Commitment #: EP95-002
10CFR50.72(b)(2)(xi)
NUREG-1022, Rev. 2

11.0 Reportable Action Levels**11.10 Voluntary Notifications****PSE&G
CONTROL
COPY #**Sec90101**REPORTABLE ACTION LEVEL - 11.10.2**

IC EVENTS/CONDITIONS WARRANT VOLUNTARY/COURTESY NRC
NOTIFICATIONS [10CFR50.72 - VOLUNTARY REPORT]

RAL

In the judgment of the OS,
notification to the NRC is warranted

AND

NO other EALs or RALs appear to be applicable

MODE - All**BASIS**

Salem may make voluntary or courtesy Emergency Notification System (ENS) notifications about events or conditions the NRC may be interested in. This is true when it is unique to our facility, but especially when it appears to have generic implications. The NRC responds to any voluntary notification of an event or condition as its safety significance warrants, regardless of our classification of the reporting requirement.

IF it is determined later that the event IS reportable,
THEN the OS can change the ENS notification to a required notification under the appropriate 10 CFR 50.72 reporting criterion.

Salem may continue with plant operation provided there is a reasonable expectation that the equipment in question is OPERABLE.

WHEN this reasonable expectation no longer exists, **OR** significant doubts begin to arise,
THEN the equipment should be considered INOPERABLE and appropriate actions, including required reporting, should be taken.

In some cases, such as discovery of an existing, but previously unrecognized condition, it may be necessary to undertake an evaluation in order to determine if an event or condition is reportable.

If so, the guidance provided in Generic Letter 91-18, which applies primarily to operability determinations, is appropriate for reportability determinations as well. This guidance indicates that an evaluation should generally proceed on a schedule commensurate with the safety significance of the question.

REFERENCES

Commitment #: EP95-001
Salem ECG Introduction Section
NUREG 1022, Rev. 2
NRC Generic Letter 91-18