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PRC HECG-HECG-TOC-BASIS 000	17	A	1	H	135526
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HOPE CREEK GENERATING STATION
EVENT CLASSIFICATION GUIDE TECHNICAL BASIS
April 19, 2002

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CHANGE PAGES FOR
REVISION #17

The Table of Contents forms a general guide to the current revision of each section and attachment of the Hope Creek ECG Technical Basis. The changes that are made in this TOC Revision #17 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 Remove and recycle the outdated material listed below.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	17	All	TOC	16
All	Section 11.3	05	All	Section 11.3	04

**HOPE CREEK ECG TECHNICAL BASIS
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ii	Glossary of Acronyms & Abbreviations	00	5	01/21/97
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2.0	RCS Challenge	00	8	01/21/97
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REVISION SUMMARY

Biennial Review Performed: Yes No

- 11.3.3 Technical Basis - added statement that an actuation cannot be considered invalid if it results from an actual system parameter reaching its set point.

SIGNATURE PAGE

Prepared By: Paul Duke
(If Editorial Revisions Only, Last Approved Revision)

03/29/02
Date

Section/Attachments Revised: Section 11.3
(List Non-Editorial Only - Section/Attachments)

Date

Reviewed By: 
10CFR50.54q Effectiveness Reviewer

3/28/02
Date

Reviewed By: 
Department Manager

04/11/02
Date

Reviewed By: John Nagle for G. Salamon
Manager - Licensing

4/8/02
Date

(Reportable Action Level (Section 11) and associated Attachments marked by "L")

Reviewed By: 
Emergency Preparedness Manager

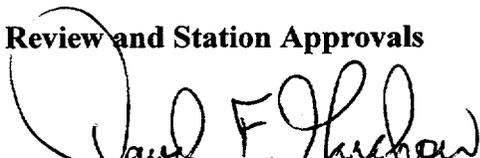
4/08/02
Date

Reviewed By: N/A
Manager - Quality Assessment - NBU
(If Applicable)

Date

SORC Review and Station Approvals

N/A
Mtg. No. Hope Creek Chairman


Vice President - Nuclear Operations

N/A
Date

4/12/02
Date

Effective Date of this Revision: 4/19/02
Date

11.0 Reportable Action Levels

11.3 System Actuations

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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 ACTION RESULTS FROM AND IS PART OF A PRE-PLANNED SEQUENCE DURING TESTING OR REACTOR OPERATION
[10CFR50.72(b)(2)(iv)(A)]

RAL

Valid ECCS Actuation, Manual or Automatic, has or should have occurred

AND

ECCS Actuation results or should have resulted in discharge to the vessel

AND

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

OPERATIONAL CONDITION - All

BASIS

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

For example, if a valid ECCS signal was generated by plant conditions and the operator put all ECCS pumps in pull-to-lock position, although no ECCS discharge to the vessel occurred, the event is reportable.

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

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. Manual actuations as directed by abnormal or emergency operating procedures (i.e., not part of a preplanned test or operational evolution) are reportable.

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

REFERENCES

HCGS UFSAR
10 CFR 50.72(b)(2)(iv)(A)
10 CFR 50.73
NUREG-1022, Rev. 2, section 3.2.6

11.0 Reportable Action Levels

11.3 System Actuations

REPORTABLE ACTION LEVEL - 11.3.2

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

RAL

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

OPERATIONAL CONDITION - 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

10 CFR 50.72(b)(2)(iv)(B)
10 CFR 50.73
NUREG-1022, Rev. 2 section 3.2.6

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

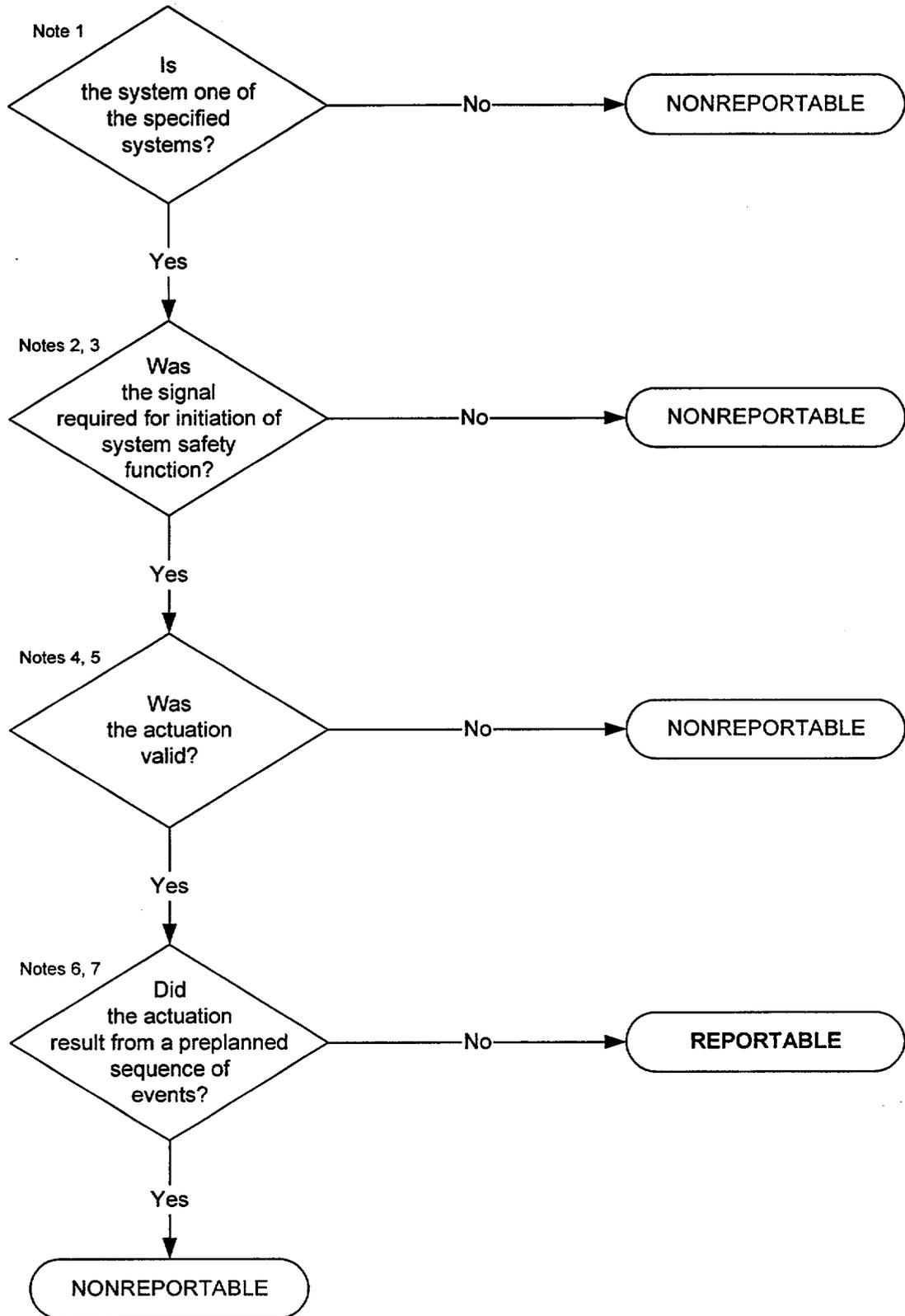
BASIS

An eight hour report is required for a 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 (RAL 11.3.2), 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

CD-096F



NOTES

1. Systems for which this RAL applies are listed on page 4.
2. See page 4 for the list of reportable actuation signals (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 SCRAM) 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 can 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. Invalid actuations do not include actuations from the sensor by measurement of an actual physical system parameter that was at its setpoint.
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. Manual actuations as directed by abnormal or emergency operating procedures (i.e., not part of a preplanned test or operational evolution) are 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.

10 CFR 50.72(b)(3)(iv)(B) Specified Systems

NOTE: Numbers in parentheses indicate UFSAR Chapter

RPS (unless reported under RAL 11.3.2)

Reactor Protection System

PCIS (6.2)

Containment Heat Removal

ECCS (6.3)

HPCI

ADS

Core Spray

LPCI

Plant Systems

MSIVs (5.4.5)*

RCIC

Emergency AC Electrical Power

AC Power Systems (8.3.1)

DG Systems (9.5.4 - 9.5.8)

ESF Components

Primary Containment (6.1)*

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

Hope Creek Reportable Actuation Signals

(FSAR Table 7.3-15)

RPS (unless reported under RAL 11.3.2)

ANY RPS Trip Function (TS Table 3.3.1-1)

PCIS/ECCS/Plant Systems/ Power Systems

Hi Drywell Pressure

Reactor High Pressure

Low Reactor Water Level (Level 2)

Low Reactor Water Level (Level 1)

Reactor Building Exhaust Hi Rad

Refuel Floor Exhaust Hi Rad

Bus Under voltage

Reactor building/suppression chamber

high differential pressure

Suppression chamber/drywell high

differential pressure

LPCI injection valve pressure

Automatic Depressurization System

Core Spray pump discharge line flow

RHR pump discharge line flow

MSIV Isolation

Hi Steam Line Flow

Low Condenser Vacuum

Low Steam Pressure (Run Mode)

Low Reactor Water Level (Level 1)

Steam Tunnel Temperature

Main Steam Line Hi Rad

REFERENCES

CD - 096F

HCGS UFSAR

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

10CFR50.73

NUREG-1022, Rev. 2, section 3.2.6