

SOUTH CAROLINA ELECTRIC AND GAS COMPANY

VIRGIL C. SUMMER NUCLEAR STATION

NUCLEAR OPERATIONS

**NON CONTROLLED  
COPY**

STATION ADMINISTRATIVE PROCEDURE

OFF-NORMAL OCCURRENCE EVALUATION,  
REPORTING AND RESOLUTION

SAP-132

REVISION 1

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ATTACHMENTS

- Attachment I - Off-Normal Occurrence Report Form
- Attachment II - NRC One Hour Notifications
- Attachment III - NRC Facsimile Data Transmittal

## 1.0 PURPOSE

This procedure defines administrative controls used to gather information, materials, etc. to conduct investigations and evaluations, and for preparing reports for all off-normal occurrences including Reactor Trips at the Station.

## 2.0 SCOPE

This procedure provides a standard approach for gathering information, conducting investigations and evaluations, and preparing applicable reports by documenting Off-Normal Occurrences at the Station. This procedure includes a mechanism for performing the following Technical Specification Requirements:

- (1) Technical Specification 6.5.1.6(f) - Plant Safety Review Committee (PSRC) review of violations of codes, regulations, orders, Technical Specifications, or Operating License requirements having nuclear safety significance or reports of abnormal degradation of systems designed to contain radioactive material.
- (2) Technical Specification 6.5.1.6(g) - PSRC review of reports of significant operating abnormalities or deviations from normal and expected performance of plant equipment that affect nuclear safety.
- (3) Technical Specification 6.5.1.6(h) - PSRC review of all written reports concerning events requiring 24-hour notification to the Commission.
- (4) Technical Specification 6.5.1.6(i) - PSRC review of all recognized indications of an unanticipated deficiency in some aspect of design or operation of safety related structures, systems, or components.
- (5) Technical Specification 6.5.1.6(l) - PSRC review of items which may constitute a potential nuclear safety hazard as identified during review of facility operations.
- (6) Technical Specification 6.5.1.6(n) - PSRC review of the unexpected offsite release of radioactive material and the report as described in 6.9.1.13(e).
- (7) Technical Specification 6.6 - NRC Reportable Occurrence Action Requirements

This procedures also includes provisions for the maintenance of a Master List of Reporting Requirements.

### 3.0 REFERENCES

- 3.1 Nuclear Operations Department Management Directive Numbers 9 and 10.
- 3.2 Virgil C. Summer Nuclear Station Technical Specifications (6.2.3.1, 6.5, 6.6, 6.7, 6.10).
- 3.3 ANSI 18.7, 1976, Paragraph 4.3.4(4).
- 3.4 NRC Regulatory Guide 1.16, Revision 4.

### 4.0 DEFINITIONS

- 4.1 Off-Normal Occurrences - An Off-Normal Occurrence is defined as an incident which could have a potentially adverse effect on the facility or the health and safety of staff or public.
- 4.2 Off-Normal Occurrence Report - The internal tracking mechanism utilized to document the cause of and means of prevention of occurrences, as addressed in the scope of this procedure (Attachment I).
- 4.3 Licensee Event Report (LER) - A written report to the NRC, filed to provide notification, for specific types of occurrences as defined by Technical Specification Section 6.6.
- 4.4 Master List of Reporting Requirements - A compilation of all reporting requirements as defined in Technical Specifications, Operating License, Code of Federal Regulations, or other Licenses and permits, which are incumbent on the Station Manager for preparation and submittal. The list shall include as a minimum the following:
  - (1) Identification of Reporting Requirements
  - (2) Reference to specific requirements
  - (3) Designated originator of the report



- (4) Frequency or other time restraint for submittal
- (5) Addressee of report
- 4.5 Reactor Trip Report - A compilation of specified documents and information initiated following a Reactor Trip.

## 5.0 RESPONSIBILITY

- 5.1 Any station personnel who suspects or identifies an off-normal occurrence is required to complete Section I of Attachment I in accordance with this procedure.
- 5.2 The Shift Supervisor is responsible for:
  - 5.2.1 Reviewing suspected or identified off-normal occurrences.
  - 5.2.2 Implementing corrective action to place the plant in a safe condition as required.
  - 5.2.3 Evaluating events for reportability per the Master List of Reporting Requirements and initiating one hour notifications in accordance with 10CFR50.72.
  - 5.2.4 Advising the Management Duty Supervisor of existing conditions for reportability considerations.
  - 5.2.5 Completing Section II of the Off-normal Report Form (Attachment I).
  - 5.2.6 Initiating Reactor Trip Reports.
- 5.3 The Management Duty Supervisor is responsible for:
  - 5.3.1 Reviewing suspected or identified Off-normal Occurrences during other than normal working hours.
  - 5.3.2 Evaluating occurrences for prompt notification to the NRC and performing notification as required.
  - 5.3.3 Advising Station Management of reportable items, as required.
- 5.4 The Assistant Managers or designee(s) are responsible for:
  - 5.4.1 Evaluating Off-Normal Occurrences under their scope.

- 5.4.2 Participating in decisions on possible reportable items under their scope, when available.
  - 5.4.3 Providing Cause and Corrective Action to prevent recurrence when requested.
  - 5.4.4 Initiate or verify existence of a Nonconformance Notice, or PAD MWR, as appropriate, for items that adversely affect hardware.
  - 5.4.5 Insuring that all corrective actions within their assigned areas are completed within their required time frames.
  - 5.4.6 Evaluating activities under their scope of responsibilities to determine if any occurrences warrant initiation of an Off-Normal Occurrence Report.
- 5.5 The Technical Services Coordinator or designee is responsible for:
- 5.5.1 Logging, routing and tracking Off-Normal Occurrence Reports.
  - 5.5.2 Coordinating the preparation of the final draft LER's and transmitting them to Nuclear Licensing within the required time frames.
  - 5.5.3 Maintaining the Off-Normal Occurrence Report File and transmitting records to the Permanent Records System.
  - 5.5.4 Scheduling the required reports to the Plant Safety Review Committee (PSRC) for review.
  - 5.5.5 Clarifying any discrepancies that may surface as a result of draft LER transmittals.
  - 5.5.6 Maintaining the Master List of Reporting Requirements.
  - 5.5.7 Performing final evaluation of Off-Normal Occurrences for reportability after all information has been reviewed.
- 5.6 The Station Manager or designee is responsible for:

- 5.6.1 Approval of the final disposition of Off-Normal Occurrences in accordance with Technical Specification 6.5.3(d).
- 5.6.2 Assigning appropriate plant personnel to conduct investigations, etc., when responsibility is not predetermined.
- 5.6.3 Reviewing and authorizing transmittals of all reports to Nuclear Licensing.
- 5.6.4 Approving the Master List of Reporting Requirements.
- 5.7 The Plant Safety Review Committee is responsible for:
  - 5.7.1 Reviewing all Off-Normal Occurrence Reports.
  - 5.7.2 Reviewing all written reports of events which require 24-hour notification to the NRC prior to submittal.
  - 5.7.3 Reviewing Reactor Trip Reports and associated Independent Safety Engineering Group Reports within 14 days of the Reactor Trip.
- 5.8 The Independent Safety Engineering Group is responsible for reviewing all Reactor Trip Reports and preparing a written report to be reviewed by the PSRC within 14 days of the occurrence.
- 5.9 The Shift Technical Advisor is responsible for performing Preliminary Reactor Trip Reviews as described in 6.4.4.

## 6.C PROCEDURE

- 6.1 Identification of an Off-normal Occurrence
  - 6.1.1 Whenever an Off-Normal Occurrence Condition is identified, it shall be promptly documented by completing Section I of Attachment I as follows (if occurrence is a Reactor Trip, go to Section 6.4). The description of the occurrence shall include as applicable:
    - A. Detailed description of Occurrence including time and date.



- B. Any documents involved (i.e., STP's FSAR, Operating Procedures, applicable Technical Specifications, licenses, permits, etc. Attach copies of pertinent documents when possible).
  - C. Names of individuals knowledgeable of the event for future reference.
  - D. Name and Identification Number of affected equipment, structures, components.
  - E. Plant Mode of operation including Power Level.
  - F. Other plant conditions that are pertinent to the occurrence.
- 6.1.2 Upon completion of Section I of Attachment I, the Off-Normal Occurrence (ONO) shall be taken to the Shift Supervisor.
- 6.1.3 The Shift Supervisor shall review the occurrence and take the necessary immediate corrective action to place the plant in a safe condition. This action is to be documented on Section II of Attachment I including identification of any required Removal and Restoration (R&R) entry, MWR or NCN.
- 6.1.4 The Shift Supervisor shall evaluate the condition for reportability (see Master List of Reporting Requirements) and determine if NRC notification per 10CFR50.72 is required. If 10CFR50.72 notification is required, the Shift Supervisor shall ensure that Attachment II is completed, and notify the Management Duty Supervisor (MDS) or the Assistant Manager, Operations for concurrence. The Shift Supervisor shall ensure that the NRC Emergency Operations Center is notified within one hour of the occurrence.

NOTE: If the MDS cannot be reached, or if sufficient time is not available, the NRC Notification shall be made without MDS concurrence.

6.1.5 If the occurrence is not reportable under 10CFR50.72, the MDS or the Assistant Manager, Operations shall be promptly notified. The MDS or the Assistant Manager, Operations shall review the occurrence for Prompt (24-hour) NRC reportability. If the occurrence requires Prompt notification, the MDS or Assistant Manager, Operations shall insure that the required telephone notification is made within 24 hours and that the confirming facsimile (Attachment III) is submitted no later than the first working day subsequent to the occurrence.

6.1.6 All Off-Normal Occurrence Reports are submitted to the Technical Services Coordinator (TSC) for logging, tracking, additional investigation, and NRC Report preparation.

## 6.2 Investigation and Report Preparation

6.2.1 The Technical Services Coordinator or designee receives the ONO, reviews it for reportability, assigns an ONO number, determines the due date for the NRC Report and logs the ONO into the Tracking System. A copy of the ONO will be sent to the applicable Assistant Manager(s) for information. The ONO is submitted to the Station Manager for his review.

6.2.2 The TSC shall be responsible for performing investigations as necessary to gather all facts concerning the occurrence. The appropriate Assistant Manager(s) may be requested to assist in the investigations, and assist in determining corrective actions as necessary.

6.2.3 The TSC shall be responsible for the preparation of a Final Report for submittal to the Station Manager. If the occurrence is reportable to the NRC, the report should be reviewed by the responsible discipline supervisor and submitted to the Manager, Nuclear Licensing, for transmittal to the NRC in accordance with Nuclear Licensing Procedures.

6.2.4 The TSC shall schedule Off-Normal Reports to the PSRC for review in accordance with Section 6.3.

## 6.3 Plant Safety Review Committee Review

6.3.1 The PSRC shall review all Off-Normal Occurrence Reports.

6.3.2 The PSRC shall review all 14-day reports prior to submittal to Nuclear Licensing.

6.4 Reactor Trip Occurrences

6.4.1 The Shift Supervisor shall report each Reactor Trip in accordance with 10CFR50.72 (see Master Reporting List) as follows:

- A. Complete Attachment II.
- B. Notify the MDS or the Assistant Manager Operations and obtain his concurrence.
- C. Notify the NRC Operations Center.

6.4.2 The MDS or the Assistant Manager Operations shall review the occurrence for Prompt reportability in accordance with 6.1.5.

6.4.3 The following documentation shall be assembled to compile a Reactor Trip Report:

- A. Section I of Attachment I (ONO).
- B. Attachment II - NRC Notification.
- C. Significant Plant Parameters in addition to those on ONO Section I (see EOP-5, Attachment I).
  - 1. Reactor Coolant System Tavg.
  - 2. Reactor Coolant System Pressure.
  - 3. Operation(s) in progress at the time of trip.
  - 4. First out annunciator.
  - 5. The opening of any Pressurizer or Main Steam PORV's or safety valves.

- D. Plant Process Computer Alarm Printout, if available.
- E. Plant Process Computer Post Trip Review - If not available, include copies of Recorder Charts for (1) Pressurizer Level, (2) Pressurizer Pressure, (3) Steam Pressure, (4) Steam Generator Levels, (5) other pertinent parameters.
- F. Technical Support Center Computer Post Trip Review Printout, if available.
- G. Statements from personnel involved, as necessary.

#### 6.4.4 Preliminary Review of Occurrence

- 6.4.4.1 The Shift Supervisor, Control Room Foreman, and the Reactor Operator shall review the Reactor Trip Report and determine:
  - 1. The cause of the trip, if possible.
  - 2. If the cause of the trip still exists.
  - 3. If the event requires implementation of the Emergency Plan.
  - 4. If any Limiting Safety System settings have been exceeded.
  - 5. If any Safety Limit has been exceeded.
- 6.4.4.2 The Shift Technical Advisor (STA) shall independently review the following:
  - A. Plant Process Computer Sequence of Events Printout.
    - 1. Ascertain the cause of each item on the printout.
    - 2. Verify that Reactor Trip Breakers opened as required.

NOTE: If the Reactor Trip Breakers failed to operate as required, the NRC Licensing Project Manager shall be notified within the first working day after the failure.

3. Verify that the Manual Reactor Trip actuated.
  4. Verify Turbine Trip, as required.
  5. Verify Emergency Feedwater Start, as required.
  6. Verify Feedwater Isolation, as required.
  7. Verify Steam Line Isolation, as required.
  8. Verify other safety equipment, started as required.
- B. Plant Process Computer Alarm Printout for at least ten minutes before and thirty minutes following the trip to ascertain the cause of each alarm, and determine that any required automatic actions functioned properly.
- C. Technical Support Center Post Trip Review Printout to verify that no discrepancies exist with the Plant Process Computer Sequence of Events, and Alarm Printouts, and that there are no additional events that require explanation.
- D. Plant Process Computer Post Trip Review Printout to verify that critical plant parameters responded normally to the trip.
- 6.4.4.3 The STA shall then independently determine:
1. The ultimate cause of the Trip.



2. If any Limiting Safety System Setting has been exceeded.
3. If any Safety Limit has been exceeded.
4. If the event requires implementation of the Emergency Plan.

6.4.4.4 If all of the following conditions are satisfied, the Plant may be restarted and returned to Power:

- A. The STA, and the Shift Supervisor, Control Room Foreman and Reactor Operator have independently determined and are in agreement as to the cause of the Trip.
- B. All questions resulting from the Reactor Trip Report Review and any other discrepancies noted have been resolved with proper corrective actions taken.
- C. There are no outstanding Technical Specification Limiting Conditions for Operations Action Statements that preclude Mode escalation.
- D. Concurrence from Plant Management (either the Station Manager, Assistant Manager, Operations, or the Supervisor Operations).

6.4.4.5 If the cause of the trip cannot be determined, or if there are outstanding discrepancies, entry into Mode 2 is prohibited until concurrence is obtained from the Station Manager. The Station Manager may, at his discretion, convene a PSRC meeting to review the occurrence (if the Station Manager is not available, the next higher available level of management must approve the Restart).

6.4.5 Operating Experience and NRC Reportability Review

- 6.4.5.1 The Reactor Trip Report shall be forwarded to the Technical Services Coordinator. He shall review the occurrence to identify if any NRC written reports are required. If any subsequent reports are required, they will be processed per Section 6.2.
- 6.4.5.2 The TSC shall transmit a copy of the Reactor Trip Report to the Independent Safety Review Group (ISEG) for review. ISEG shall prepare a written report to be reviewed by the PSRC within 14 days following the trip.
- 6.4.5.3 The PSRC will review the Reactor Trip Report and the ISEG Report within 14 days following the trip.

## 7.0 FIGURES

- 7.1 None

## 8.0 RECORDS

- 8.1 All records generated in accordance with this procedure shall be maintained by the Technical Services Coordinator as part of the Off-normal Occurrence File, and will be transmitted to the Permanent Records System as appropriate.

VIRGIL C. SUMMER NUCLEAR STATION  
OFF-NORMAL OCCURRENCE

SAP-132  
ATTACHMENT I  
PAGE 1 OF 2  
REVISION 1

Report Number \_\_\_\_\_

I. IDENTIFICATION OF OCCURRENCE

Date \_\_\_\_\_ Time \_\_\_\_\_ Plant Mode \_\_\_\_\_

Power Level \_\_\_\_\_ Equip ID No. \_\_\_\_\_ Equip Name \_\_\_\_\_

Documents Involved \_\_\_\_\_

Knowledgeable Personnel Involved \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

Activities in progress \_\_\_\_\_

Detailed Description of Occurrence

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Report Originator \_\_\_\_\_

II. IMMEDIATE CORRECTIVE ACTION

R&R No. \_\_\_\_\_ MWR No. \_\_\_\_\_ NCN No. \_\_\_\_\_

REPORTABILITY DETERMINATION AND NOTIFICATION

Applicable Regulation ☐ TECH. SPEC. ☐ OTHER ☐

State Applicable Regulation & Report Requirement

Type of Report: ☐ - 1 hour ☐ - 24 hour ☐ - 30 day ☐ - Other  
☐ - Not Reportable

Confirming Telex Required (MDS): ☐ Yes ☐ No Due By \_\_\_\_\_

Followup Report Required (TSC): ☐ Yes ☐ No Due By \_\_\_\_\_

Shift Supervisor \_\_\_\_\_ MDS \_\_\_\_\_

TSC \_\_\_\_\_

III.	<u>STATION MANAGER REVIEW</u>
STA. MGR.	Responsible Asst. Manager _____
	Comments _____ _____ _____
	STATION MANAGER _____
IV.	<u>INVESTIGATION</u>
TSC/ASST. MGRS.	Cause of Occurrence _____ _____ _____
	Probable Consequences _____ _____ _____
	Corrective Action Taken To Prevent Recurrence _____ _____ _____
	Technical Services Coordinator _____ Asst. Mgr. (If Required) _____
V.	<u>STATION MANAGER REVIEW</u>
STA. MGR.	Licensee Event Report <input type="checkbox"/> Yes <input type="checkbox"/> No
	Comments _____ _____ _____
	Station Mgr. (Signature not required if _____ Date _____ Report Submitted to Nuclear Licensing)
VI.	<u>PSRC REVIEW</u>
PSRC	Meeting No. _____ Meeting Date _____
	Comments _____ _____ _____
	Comments Resolved _____ Asst. Mgr. _____ PSRC Chairman _____





## VIRGIL C. SUMMER NUCLEAR STATION

Telephone  
(803) 345-5209  
(803) 634-2011

NRC FACSIMILE DATA TRANSMITTAL

SUMMARY OF TELEPHONE REPORT \_\_\_\_\_

MANAGER, V. C. SUMMER NUCLEAR STATION/DATE