


Approval <i>W F. Kitchens</i>	Vogtle Electric Generating Plant NUCLEAR OPERATIONS	 Georgia Power	Procedure No. 10006-
Date 7/17/85	Unit <u>COMMON</u>		Revision No. 1
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REACTOR TRIP REVIEW 19

1.0 PURPOSE

This procedure provides instructions to collect and document pertinent information concerning Reactor Trips, to determine their cause, and to ascertain the status and proper functioning of safety-related equipment necessary to make the determination that the affected Unit can be restarted safely.

2.0 DEFINITIONS

2.1 Condition I

The cause of the trip is known and has been corrected; all safety-related equipment functioned properly during the trip.

2.2 Condition II

The cause of the trip is not known and/or some safety-related equipment functioned in an abnormal or degraded manner during the trip.

3.0 INSTRUCTIONS

Figure 1 provides a flow chart that may be used as a general guide for completing a "Reactor Trip Report", Data Sheet 1, and making the determination that the affected unit can be restarted safely.

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PDR ADDCK 05000424
E PDR

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3.1 PRECAUTIONS

3.1.1 Reactor trips and ensuing transients to stable conditions must be carefully evaluated to ensure malfunctions are identified prior to authorizing unit startup.

3.1.2 Any malfunctions (either equipment or operator related) must be carefully evaluated to ensure that necessary corrective actions have been implemented prior to authorizing unit startup. This includes satisfactory functional testing of repaired equipment, required surveillances completed, or initiation of required follow up actions.

3.1.3 If any time during the post trip review it is determined that a safety related action that should have occurred when its appropriate set point was reached did not, notify the On-Shift Operations Supervisor (OSOS).

3.2 FREQUENCY

3.2.1 A "Reactor Trip Report" Data Sheet 1 shall be completed as soon as practical whenever a reactor trip has occurred with more than one control rod withdrawn and fuel in the vessel. (Does not include rod drop time testing.)

3.3 REACTOR TRIP REPORT

3.3.1 As soon as practical following a reactor trip, the Shift Technical Advisor shall complete a "Reactor Trip Report" Data Sheet 1. Any abnormality should be recorded. Its significance can be determined during the review. For items that cannot be verified, indicate so on the trip report and why. In the absence of an STA, the Operations Supervisor shall designate someone to complete the report.

3.3.2 The STA and On-Shift Operations Supervisor shall analyze the event to determine its cause and the following:

- a. Did all major safety-related and other important equipment involved in the trip operate as expected?

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- b. Is it acceptable to restart the reactor? They shall look beyond the obvious indications to diagnose the cause of the event and evaluate the plant response. They shall review available information thoroughly, looking for: (1) abnormal indications or degraded trends in equipment performance, (2) events occurring out of the normal or anticipated sequence, (3) failed or degraded response of equipment to control signals, (4) unusual chemistry results or radiation readings, and (5) unanticipated alarms.

- 3.3.3 Reactor Trip Personnel Statements, Data Sheet 2 should be completed by the persons involved with the trip and included with the Reactor Trip Report, Data Sheet 1. Reactor Trip Personnel Statements may be completed by individuals or groups of individuals as long as it promotes an accurate event reconstruction.
- 3.3.4 The Shift Technical Advisor and the On-Shift Operations Supervisor are responsible for event classification (the Operations Superintendent will resolve disagreements). For Condition I trips the On-Shift Operations Supervisor has authority to restart the reactor. For Condition II trips only the General Manager, or his designee, can authorize reactor restart.
- 3.3.5 If the cause of the trip or significant aspects of the trip recovery are not understood, a more thorough investigation must be made until the cause of the trip is known or has been investigated to the fullest reasonable extent before permission to startup shall be authorized. If the cause is not known, only the General Manager, or his designee, can authorize unit startup. The On-Shift Operations Supervisor has the authority to contact other departments to aid in the investigation.

NOTE

The STA and On-Shift Operations Supervisor may change their initial classification of a reactor trip if more information becomes available.

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3.3.6 Procedures requiring revision or requests for personnel training, that are necessary to comply with required corrective actions, should be initiated using Action Item Tracking Forms. The corrective action description should reference the Action Item Number. Procedure revision or requested personnel training should not delay unit restart unless deemed necessary by the On-Shift Operations Supervisor.

3.3.7 "Reactor Trip Reports" for Condition II trips will be reviewed by the Plant Review Board. The Operations Superintendent will ensure that PRB review of such reports is scheduled in a timely manner. This is intended to keep the PRB aware of reactor trips involving possible safety concerns. PRB review of "Reactor Trip Reports" is not required prior to reactor restart.

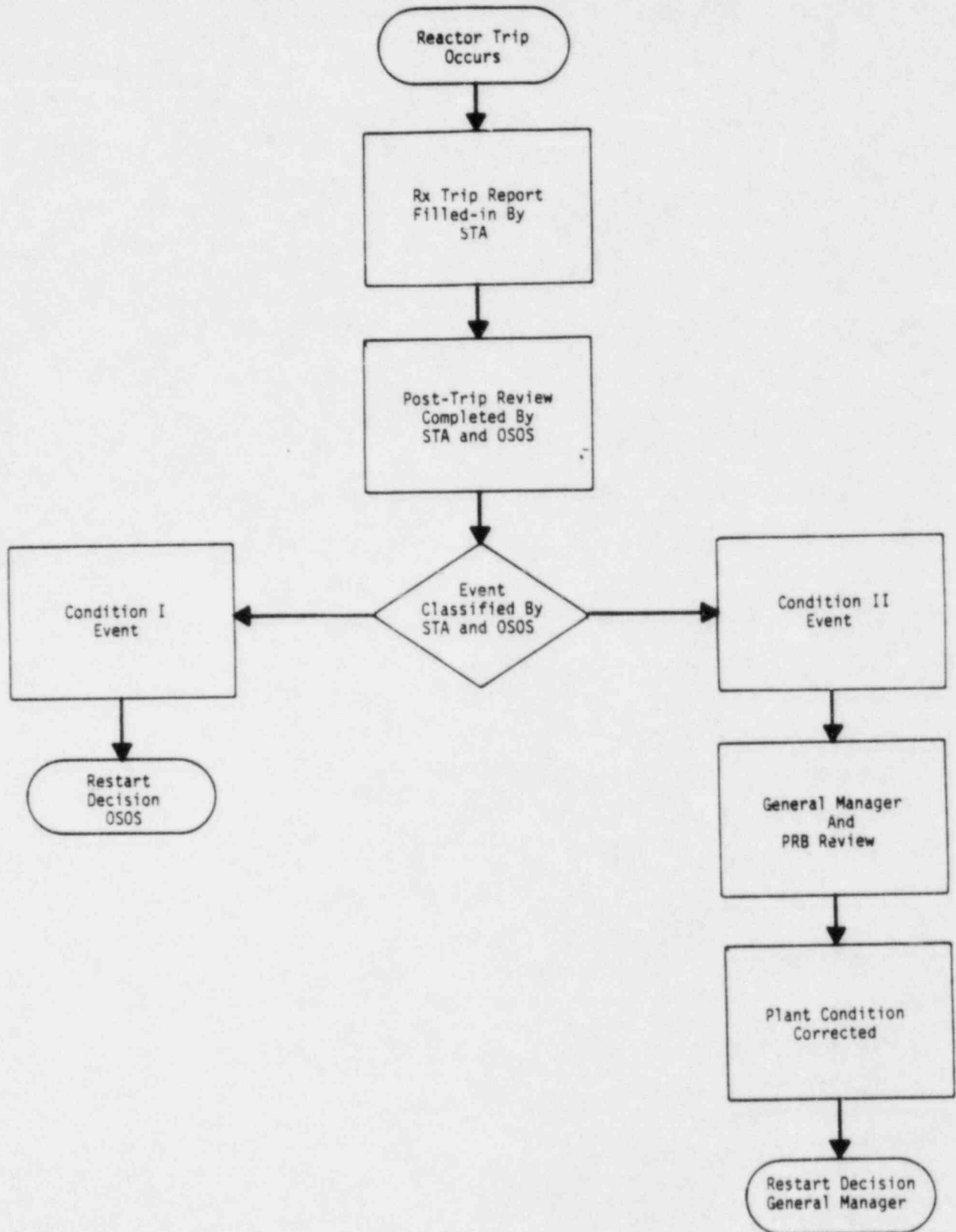
3.4 REPORT NUMBERING

Each "Reactor Trip Report" will be assigned a sequential number with the unit number and last two digits of the current year preceding the assigned number (e.g. 1-84-XXX). The sequence will begin at X-XX-001 (e.g. 1-84-001) at the beginning of each year. Each unit Shift Supervisor will be responsible for keeping a log of "Reactor Trip Reports" Data Sheet 4 and assigning the sequential number. The log will be kept in the Control Room and updated as each trip occurs.

3.5 REPORT DISTRIBUTION

The On-Shift Operations Supervisor shall forward the "Reactor Trip Report" to the Operations Superintendent for review. The report is then sent to Document Control where copies are made and routed to the General Manager, PRB Chairman and all department superintendents for their information. The original will be kept by Document Control for the life of the plant.

END OF PROCEDURE TEXT



REACTOR TRIP REPORT FLOW CHART

Figure 1

DATA SHEET 1
REACTOR TRIP REPORT

UNIT NO. _____

REPORT NO. _____
TRIP DATE _____
TRIP TIME _____

1. SHIFT PERSONNEL

OSOS _____

SS _____

RO _____

PO _____

STA _____

Other persons involved: _____

2. PRETRIP CONDITIONS

a. Mode _____

Reactor Power _____

Boron Concentration _____ PPM

Reactor Coolant System Pressure _____ PSIG

RCS T_{avg} _____ °F

Pressurizer Level _____

Reactor Coolant Pumps Operating _____

Steam Generator Levels 1 _____ 2 _____ 3 _____ 4 _____

Generator Electrical Load _____ MWE

DATA SHEET 1

b. Off Normal Status Of Plant Systems
Of Safety Systems:

c. Tests and Surveillances in Progress:

d. Operations in progress at time of Reactor Trip:

3. POST TRIP CONDITIONS

a. RPS Operation

First out annunciator _____

List of RPS channels actuated

DATA SHEET 1

Did the Reactor Trip result from an automatic or manual trip? (Circle one): Auto Manual

Comment:

Did all Reactor Trip Breakers open, and all rod banks fully insert? (Circle one)

Yes No

If no explain:

Did RPS channels actuate conservatively with respect to their intended set points? (Circle one)

Yes No

If no, explain and describe instruments:

Based on available information and above evaluation did the RPS function correctly? (Circle one)

Yes No

If no, describe corrective action required and reference any supporting documentation:

DATA SHEET 1

b. ESFAS Operation

Was ESFAS actuation required? (Circle one)

Yes No

Comment: _____

How was ESFAS actuated (Circle one)

AUTO MANUAL N/A

List the ESFAS channels actuated: _____

If two or more ESFAS channels monitoring the same variable reached an ESFAS setpoint, did the ESFAS components actuate without undue delay? (Circle one)

Yes No

If no describe: _____

Based on available information and the above evaluation did all ESFAS components perform correctly? (Circle one)

Yes No

If no, describe corrective actions and reference supporting documentation: _____

DATA SHEET 1

4. PLANT RESPONSE

a. Documentation

Attached

Plant Computer Alarm Printout YES NO

Plant Computer Pre/Post Trip Logs YES NO

ERF Computer Printouts YES NO

Recorder Chart reproductions YES NO

If yes, specify: _____

ERF Computer Trend Prints YES NO

If yes, specify: _____

b. Plant response

MAX

MIN

PRZR Pressure _____

PRZR Level _____

Tavg _____

SG1 Level _____

SG2 Level _____

SG3 Level _____

SG4 Level _____

SG Pressure _____

Did PRZR PORV's open YES NO

Did PRZR Safety Valves open YES NO

Sheet 6 of 11

DATA SHEET 1

Did SG ARVs open

YES

NO

Did SG Safety Valves open

YES

NO

Explain any abnormal responses: _____

c. Was any other plant equipment malfunction noticed?

Comment: _____

5. TRIP IDENTIFICATION AND REVIEW

a. Sequence of Events.

Prepare a written sequence of events using Data Sheet 3 from available data and attach to this report.

b. Trip Identification

Root Cause of the reactor trip was: _____

DATA SHEET 1

If the root cause of the trip is not apparent, describe the evaluation in progress and organizations responsible for the evaluation.

What corrective actions have been completed or are in progress to correct the root cause of the trip transient? _____

Identify any off normal occurrences that accompanied the trip. _____

Did all automatic functions perform correctly?
(Circle one)

Yes

No

If no, describe corrective action and reference supporting documentation. _____

DATA SHEET 1

Did the procedures used adequately cover the required actions? (Circle one)

Yes

No

If no, describe required corrective action and reference the action tracking item number used to initiate procedure correction. _____

Did the operators adequately handle the event? (Circle one)

Yes

No

NOTE

The purpose of this step is to identify weaknesses in training for the purpose of feedback to operators. Do not address specific cases of possible personal error. Specific cases of possible personal error shall be brought to the attention of the OSOS or the Operations Superintendent as appropriate.

If no, describe the corrective action required and Plant Operating Orders or Action Tracking item numbers used to initiate retraining or other actions.

Was an Emergency Plan EAL reached? Describe level involved (NUE, Alert, Site Area, General).

DATA SHEET 1

Technical Specifications have been reviewed, and entry into the following LCO's was made as the result of this incident:

<u>LCO#</u>	<u>DESCRIPTION</u>	<u>INITIAL (STA)</u>
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_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

6. TRIP CLASSIFICATION AND STARTUP AUTHORIZATION

a. Trip Classification

The reactor trip on _____ at _____:_____ is a
Date Time
condition (circle one):

I II

Signature indicates agreement with condition.

Shift Technical Advisor		/	Date	Time
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On-Shift Operations Supervisor		/	Date	Time
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DATA SHEET 1

b. Startup Authorization

For condition I events the On-Shift Operations Supervisor has authority to authorize Unit Startup.

I recognize that the previous trip is a condition I event and permission is given to perform Unit

affected unit

On-Shift Operations Supervisor

Date

Time

For condition II events only the General Manager, or his designee, can authorize reactor restart.

Permission is granted to start-up Unit

(affected unit)

General Manager

Date

Time

Comment:

DATA SHEET 2

REACTOR TRIP PERSONNEL STATEMENT

REPORT NO. _____
TRIP DATE _____
TRIP TIME _____

1. Summarize the sequence of events and actions taken.

2. Did any automatic system malfunction or require operator intervention?

3. Did this reactor trip reveal any procedural inadequacies?

DATA SHEET 2

4. If this trip occurred again, what would you do differently?

5. Are there any lessons learned from this trip that you believe should be included in training?

6. Comments:

Signature

Title

Date

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