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April 27, 1990
Fort St. Vrain
Unit No. 1
P-90137

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop P1-37
Washington, D.C. 20555

DOCKET NO: 50-267

SUBJECT: ABNORMAL OPERATING AND EMERGENCY
OPERATING PROCEDURE DISTRIBUTION

Gentlemen:

We are transmitting herein the following:

Issue 55 of AOP-INTRO	Issue 59 of AOP-K-1
Issue 57 of AOP-A	Issue 56 of AOP-K-2
Issue 57 of AOP-B	Issue 57 of AOP-L
Issue 55 of AOP-D-1	Issue 56 of AOP-N
Issue 57 of AOP-H-1	Issue 57 of AOP-P
Issue 57 of AOP-H-2	Issue 57 Last of AOP-EP Q
Issue 57 of AOP-H-3	Issue 3 of EOP-1

Two copies of these procedures have also been transmitted to Region IV, Emergency Response Coordinator, in accordance with 10CFR50.54(q) (Reference P-90138).

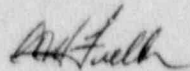
In accordance with 10CFR50.54(q), we have determined that the changes in these issues do not decrease the effectiveness of the Fort St. Vrain Emergency Plans and the plans, as changed, continue to meet the intent of 10CFR50.47(b) and 10CFR50 Appendix E.

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If difficulties or questions arise in filing these procedures, please contact Mr. M. H. Holmes at (303) 480-6960.

Sincerely,



Charles H. Fuller
Manager, Nuclear Production
Fort St. Vrain Nuclear
Generating Station

CHF/jgr

Attachments

cc: Robert Farrell
Senior Resident Inspector
Fort St. Vrain

Renee Millison
Senior Emergency Planning Specialist
Fort St. Vrain

ABNORMAL OPERATING PROCEDURES

NO.	SUBJECT	ISSUE NUMBER	EFFECTIVE DATE
INTRO	Abnormal Operating Procedures Introduction	55	04-19-90
A	Moisture In-Leakage	57	04-19-90
B	Reactor Scram	57	04-19-90
B-2	DELETED		01-09-88
C	Loop Shutdown	57-Last	03-28-90
D-1	Single Circulator Trip	55	04-19-90
D-2	Three Circulator Trips	54-Last	03-21-90
E	Abnormal Reactor Power Change	56-Last	03-28-90
F-1	Main Turbine Emergencies	58-Last	03-28-90
F-2	Low Condenser Vacuum Turbine Trip	55-Last	03-28-90
F-3	Loss of Outside Power and Turbine Trip	55-Last	03-28-90
F-4	Loss of Outside Power and Turbine Trip with Failure of One Diesel Generator Set to Start	55-Last	03-28-90
G	Loss of Active Core Cooling	56-Last	03-28-90
H-1	Abnormal Radioactive Liquid Waste From Plant	57	04-19-90
H-2	Abnormal Radioactive Gas Release From Plant	56	06-30-89
H-3	High Activity in the Plant	57	04-19-90
I	Discussion of Fire	55	06-30-89
J	DELETED		05-14-82
K-1	Environmental Disturbances - Earthquake	59	04-19-90
K-2	Environmental Disturbances - Tornado	56	04-19-90

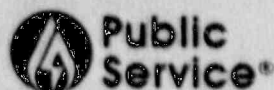


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PUBLIC SERVICE COMPANY OF COLORADO

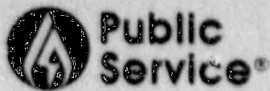
04/19/90

ABNORMAL OPERATING PROCEDURES

NO.	SUBJECT	ISSUE NUMBER	EFFECTIVE DATE
L	Loss of an Instrument Air Header	57	04-19-90
M	Loss of Hydraulic Power	56-Last	03-21-90
N	Loss of an Instrument Bus	56	04-19-90
P	Loss of a D.C. Bus	57	04-19-90
Q	Steam Leak or Inadvertent Lifting of Steam Relief Valve	56	06-30-89
R	Loss of Access to Control Room	54	06-30-89
S	Loss of HVAC to 480 Volt Switchgear Room	54-Last	03-28-90
CLASS	Event and Emergency Classification Overview	7	07-26-89

ABNORMAL OPERATING PROCEDURES

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F-4	Loss of Outside Power and Turbine Trip with Failure of One Diesel Generator Set to Start	55-Last	03-28-90
G	Loss of Active Core Cooling	56-Last	03-28-90
H-1	Abnormal Radioactive Liquid Waste From Plant	57	04-19-90
H-2	Abnormal Radioactive Gas Release From Plant	57	04-25-90
H-3	High Activity in the Plant	57	04-19-90
I	Discussion of Fire	55	06-30-89
J	DELETED		05-14-82
K-1	Environmental Disturbances - Earthquake	59	04-19-90
K-2	Environmental Disturbances - Tornado	56	04-19-90



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04/25/90

ABNORMAL OPERATING PROCEDURES

NO.	SUBJECT	ISSUE NUMBER	EFFECTIVE DATE
L	Loss of an Instrument Air Header	57	04-19-90
M	Loss of Hydraulic Power	56-Last	03-21-90
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DEC 1

TITLE: ABNORMAL OPERATING PROCEDURES INTRODUCTION

RESPONSIBLE FOR	<i>M. E. Demiston</i>			
AUTHORIZED BY	<i>[Signature]</i>			
PORC REVIEW	PORC 877 APR 11 1990			EFFECTIVE DATE 4-12-90
DCCF NUMBER (S)	90-0200			19 ⁵⁰ 1990

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VERIFY ISSUE STATUS
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I. FUNCTION:

The Abnormal Operating Procedures provide instructions for the operating staff to return systems and equipment to normal following the use of the Emergency Operating Procedures.

Each Abnormal Operating Procedure provides the operator with the symptoms needed to determine that an abnormal condition does exist and the operator actions which he must perform to prevent further deterioration of plant parameters or to return the plant to normal. It is no longer necessary that the symptoms and immediate actions be committed to memory. Immediate actions are now included in the Emergency Operating Procedure (EOP) set.

Each Abnormal Operating Procedure also includes the actions required to return the plant to a more normal condition and/or to cope with further slowly developing deterioration of plant parameters. The actions also contain steps requiring more complex reasoning or analysis.

The Abnormal Operating Procedure are an integral part of the overall FSV emergency preparedness program. The Abnormal Operating Procedure have been structured so as to facilitate the transition from Abnormal Operating Procedure to the appropriate RERP implementing procedure or event reporting procedure with minimal delay or confusion. In order to further aid with classification and reporting decision making, an "Event and Emergency Classification Overview" procedure is provided at the back of this document. This procedure discusses the classification systems, provides guidelines for event classification, serves as a reference for pertinent reporting or activation tables, and provides a summary table that discusses reporting/activation requirements for all symptoms presented in these Abnormal Operating Procedure.

The Abnormal Operating Procedure are intentionally brief to be suitable for implementation. To provide the background and explanation required for study and understanding of the procedures by the operators, separate appendices have been prepared. The appendices are indexed and titled to correspond to the Abnormal Operating Procedure they support. It should be emphasized, however, that the appendices are study guides only and are neither needed, nor intended, for use during abnormal plant conditions.



II. FORMAT:

Each Abnormal Operating Procedure is presented in a symptom - action matrix format consisting of symptoms, and operator actions. Symptoms include plant conditions, alarms, and indications that are associated with the condition. The operator actions are few, and as brief as possible to stop the degradation of conditions, mitigate their consequences, and allow the operators time to evaluate the situation.

The symptom - action matrix presentation format was selected for a number of reasons, as follows:

- A. It provides an abbreviated presentation of symptoms and operator actions which must be readily usable during an abnormal plant condition.
- B. It allows specific operator actions to be identified against specific alarms or plant conditions; and,
- C. It does not preclude the use of precautionary notes or caution statements where deemed appropriate.

An additional feature of the symptom-action Matrix format is that it permits east end (turbine) and west end (reactor) operator actions to be identified as follows:

West S.S. East		
xx	xx	xx

When an action statement includes multiple steps involving both east end and west end operator actions, both sides of the block are marked. When an action statement pertains to only the east or west end operator action(s), only that portion of the block is marked. This presentation format does not preclude, for example, an east end operator performing a west end action when appropriate during an abnormal condition. Actions or decisions to be performed by the Shift Supervisor are marked in the center of the block.

III. ADMINISTRATIVE RULES:

- A. It shall be the responsibility of the Shift Supervisor or the reactor operator to terminate defueling activities down when the safety of the reactor is in jeopardy or a reactor protection circuit setpoint has been exceeded.



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- B. It shall be the responsibility of the Shift Supervisor to investigate an unexplained count rate change and report his findings to the Station Manager or Superintendent of Operations.
- C. It shall be the responsibility of all employees to gain a working knowledge of the Technical Specifications as they apply to specific job requirements, and to take appropriate steps to assure compliance with them.

IV. ALARMS AND NOTIFICATION OF EMERGENCIES:

- A. The audible alarm system in the control room, referred to in the procedure as an "alarm" or "common alarm", is an automatically actuated annunciator system with three distinct alarm sounds. They are:
 - (1) A "Siren" indicating reactor scram;
 - (2) A "Bell" indicating loop shutdown, circulator trip; and,
 - (3) A "Horn" indicating any equipment system abnormalities, and I-09 alarm.

As required, the control room annunciator alerts the operating staff to an abnormal condition in the plant. The reactor operator has control over the duration and silencing of all alarms.

- B. The plant emergency alarm consists of two distinct sounds. These sounds will be broadcast over the plant Gai-Tronics system to warn personnel of an emergency in the plant. The two alarms are:
 - (1) Siren - general alarm to indicate fire or other emergency.
 - (2) Yelping - radiation alarm.

The plant emergency alarm is activated by operating personnel in the control room. All personnel, upon hearing the alarm, shall report immediately to their pre-assigned emergency station for accountability and further instructions as designated in Administrative Procedure G-5, "Personnel Emergency Response". Visitors shall be escorted to the security building for signout and exit from the plant.

The Shift Supervisor shall, as soon as possible, announce over the Gai-Tronics system, the nature of the emergency, and any pertinent instructions to the plant personnel.



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V. COMMUNICATIONS:

During an emergency situation requiring removal of plant personnel from the plant to either an onsite or offsite location, communication lines shall be established as described in the Radiological Emergency Response Plan.

VI. SUPPORT PERSONNEL:

In the event that any emergency condition exists which requires notification of plant management, the Shift Supervisor, or his designee, shall notify a member of plant management (denoted in the Control Room implementing procedure), who shall be responsible for the notification of the remaining plant management personnel and department supervisors.

VII. COMMITMENTS:

None