EMERGENCY OPERATING PROCEDURES
WRITERS GUIDE

NINE MILE POINT NUCLEAR POWER PLANT
UNIT II

ATTACHMENT 2

TABLE OF CONTENTS

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Section

1.0 PURPOSE

The purpose of this document is to provide administrative and technical guidance on the preparation of Emergency Operating Procedures (EOPs).

2.0 SCOPE

This procedure applies to the writing and revision of all Emergency Operating Procedures, in both text and flow chart format.

3.0 REFERENCES

3.1 INPO 82-017

3.2 NUREG 0899

3.3 ANS 3.2 1982 - Section 5.2

4.0 EOP DESIGNATION AND NUMBERING

EOPs are procedures that govern the plant operation during emergency conditions and specify operator actions to be taken to return the plant to a stable condition.

Each plant procedure shall be uniquely identified. This identification permits easy administration of the process of procedure preparation, review, revision, distribution, and operator use.

4.1 Title Page

Every EOP shall have a Title Page (see Figure 1). The primary purposes of this Title Page are (1) to identify the procedure and (2) to identify the authorized revision. To identify the procedure, a descriptive title is to be used that also designates the scope. This page is not numbered.

The Title Page shall contain the following information (see Figure 1):

1) The name of the company.

2) The name of the unit or station.

3) The title and number of the procedure.

4.1 (Cont)

4) A tabulation of titles and names of all persons approving the procedure or revision with provision for entering signatures and dates of approval.

5) Approval of a revision as indicated by date and initials under the revision numbers of a previously signed title page.

6) A summary of pages with a listing of all pages, figures and attachments included in the approved revision.

4.2 Procedure Designation

Emergency Operating Procedures shall be designated EOP.

4.3 Procedure Numbering

A procedure description designator will follow the procedure designator.

Example N2-EOP-RL

------Procedure Description Designator

---------Procedure Type Designator

----------Applicable Unit

4.4 Revision Numbering and Designation

Two digits following the abbreviation "Rev" will be used to designate the revision number of the emergency operating procedure.

Example Rev 01

--------Revision Number

----------Abbreviation

To identify the most recent revision to the text of an EOP, a change bar located in the right margin alongside the text change will be used.

4.5 Page Identification and Numbering

Each page of the procedure will be identified by (1) the procedure designator and number, (2) Page number specified as "Page ____of____", 3) The revision number, and 4) The revision date.

The procedure designator and number and the page number will be within the bottom margin at the right margin. The revision number and date will be within the bottom margin at the left margin (see Figure 2).

5.0 PROCEDURE FORMAT

5.1 Procedure Organization

The procedure organization will be as follows:

1) The Title Page (See Section 4.1).

2) ENTRY CONDITIONS Page - EOPs which require entry conditions will contain an ENTRY CONDITIONS Page. It will be Page 1 of the procedure. It will contain the procedure title, the entry conditions, and a list of the EOPs which must be concurrently executed (See Figure 2).

3) PROCEDURE - The procedure will contain the instruction and action guidance for the operator.

5.2 Operator Action Format

A combination of single and dual column format will be used. Dual column format is used when operator action is contingent on a specific decision, based on interpretation of parameters and conditions. The left column will contain the instructions for the decision process. The right column will contain the contingent actions. A single column will be utilized when the decision/action format is not applcable (See Figure 3).

Each page shall have the title centered in the top margin and enclosed in dashed lines (Figure 3).

5.3 Procedure Step Numbering

Letters and Arabic numerals will be used for numbering sections and subsections in the following format. The first level section numbers will be preceded by the specific procedure designator.

RL 1. First-Level Section Number
RL 2. First-Level Section Number
2.1 Second-Level Section Number
2.1.1 (Subsection)
2.2 Second-Level Section Number
2.2.1 (Subsection)
RL 3. First-Level Section Number

Parallel constructon between columns for each section and subsection will be used where applicable. (See Figure 3). The action step contingent on the decision (two column format) will be numbered with the same number as the decision step from which it is entered.

6.0 WRITING INSTRUCTIONAL STEPS

6.1 Instruction Step Length and Content

Instruction steps will be concise and precise. Conciseness denotes brevity; preciseness means exactly defined. Thus, instructions should be short and exact. General rules to be used in meeting these objectives are as follows:

1) Instruction steps should deal with only one idea.

2) Short, simple sentences or phrases should be used in preference to long, compound, or complex sentences.

3) Complex evolutions should be prescribed in a series of steps, with each step made as simple as practicable.

4) Operator actions should be specifically stated. This includes identification of exactly what is to be done.

5) For instructional steps that involve an action verb relating to three or more objects, the objects will be listed with space provided for operator checkoff: i.e., 1. Close valve
2.1 MOV-1 ☐
2.2 MOV-2 ☐
2.3 MOV-3 ☐

6) Limits should be expressed quantitatively whenever possible (refer to Subsection 7.5.)

6.1 (Cont.)

7) Identification of components and parts should be precise.

8) Instruction content should be written to communicate to the user.

9) Expected results of routine tasks need not be stated.

10) Avoid using time to initiate operator actions. Operator actions should be related to plant parameters.

11) When anticipated system response may adversely affect instrument indications, describe the conditions that will likely introduce instrument error.

6.1.1 Dual Column Format - Instruction Column

The left-hand column of the dual-column format will contain the decisions based on parameters or equipment availability on which actions are contingent. The following rules are established for this column, in addition to the general rules above.

1) Expected indications should be presented in this column.

2) Information necessary for a decision shall be readily available to the operator.

6.1.2 Dual Column Format - Actions Column

Contingency actions will be presented in the right-hand column of the dual-column format. Contingency actions are operator actions that should be taken in the event a stated condition, event, or parameter does not represent or achieve the expected result. The need for contingency action occurs as a result of verification, observation, confirmation and monitoring.

An action statement which evokes an override statement (See Section 6.1.4) in one or more procedures shall be capitalized. For example:

THEN EMERGENCY DEPRESSURIZATION IS REQUIRED.

Contingency actions will be specified for each circumstance in which the expected results or actions might not be achieved. The contingency actions should identify, as appropriate, directions to override automatic controls and to initiate manually what is normally automatically initiated.

6.1.3 Single Column Format - When operator actions are not contingent on a decision a single column format will be used.

6.1.4 Override Statement

An override statement contains a condition or set of conditions which requires an operator to discontinue a set of instuctions/actions and enter or concurrently execute a different set. An override statement will typically start with: "IF while executing the following steps ...".

These statements require the operator to be cognizant of the possible existance of the override conditions while executing procdure instructions/actions.

As an aid to the operator lines will be used in the left margin to indicate possible override condition. The line will start at a bracket at the left side of the override condition, and extend (from page to page if required) to all steps effected. Because more than one override statement might be involved, the lines will be unique, the left-most being the first encountered.

6.2 Use of Logic Terms

The logic terms AND, OR, NOT, IF, IF NOT, BEFORE, WHEN, and THEN are often necessary to describe precisely a set of conditions or sequence of actions. When logic statements are used, logic terms will be capitalized and underlined so that all the conditions are clear to the operator.

Use logic terms as follows:

1) When attention should be called to combinations of conditions, the word AND shall be placed between the description of each condition.

2) The word OR shall be used when calling attention to alternative conditions or combinations of conditions. The use of the word OR shall always be in the inclusive sense. To specify the exclusive "OR," the following may be used: "either A OR B but not both."

3) When action steps are contingent upon certain conditions or combinations of conditions (dual column), the step shall begin with the word IF or WHEN or BEFORE followed by a description of the condition or conditions. IF is used for a possible condition. WHEN is used for an expected conditon. BEFORE is used to imply that the condition must be anticipated.

4) At any point in a logic statement where actions are contingent on a decision completed at that point, the use of an arrow (→) will indicate a possible shift to action(s) in the right column. The associated action step will be the same number as, and directly adjacent to the final instruction step. It will be a THEN statement.

6.2 (Cont.)

5) In an instruction step which involves a decision based on multiple logic statements, logic words (AND, OR) will be within the text of a single logic statement, and between sections of text (logic statements) which need to be addressed separately to make the decision. IF, WHEN, BEFORE may precede each logic statement if required for clarification. For example:

RL1. IF Reactor Water Level is > 0 in. AND Reactor Pressure is < 150 psig, □

OR

IF Drywell Pressure is < 1 psig, □ →

6) Use of IF NOT should be limited to those cases in which the operator must respond to the second to two possible conditions. IF should be used to specify the first condition.

7) THEN shall be used at the beginning of an action step to instruct the operator to execute the step as the result on a decision.

6.3 Use of Cautionary Information and Notes

Cautionary information can be considered in two fundamental categories: those that apply to the entire procedure and those that apply to a portion or a specific step of the procedure. Those that apply to the entire procedure are called "PRECAUTIONS" and are covered in operator training. Those that apply to a portion of a procedure are called "CAUTIONS" and are placed immediately before the procedural steps to which they apply.

Cautions shall be indented approximately 1/2 inch on both sides of the text and shall be boxed as shown in the Example CAUTION (Figure 3). This placement of cautions helps ensure that the procedure user observes the caution before performing the step. It should be used to denote a potential hazard to equipment or personnel associated with or consequent to the subsequent step. Two blank lines should be used between cautions and text. Cautions should not be located between second level steps.

If additional information other than cautions is necessary to support an action instruction, a NOTE should be used. A NOTE should present information only, not instructions, and should be located the same as a Caution, but not boxed.

6.4 Calculations

Mathematical calculations should be avoided in EOPs. If a value has to be determined in order to perform a procedural step, a chart or graph should be used whenever possible.

6.5 Use of Underlining

Underlining will be used for emphasis of logic terms and the word CAUTION.

6.6 Branching to Other Procedures or Steps

To minimize potential operator confusion, branching will be used when the operator is to leave one procedure or step and use another procedure or step. Use the key words "go to" for a branch within a procedure, and "ENTER" for a branch to another procedure. Where branching is intended to require concurrent procedure performance, the action statement will define that clearly. For example: "Enter EOP-RL and execute concurrently with this procedure".

6.7 Component Identification

With respect to identification of components, the following rules are to be followed:

1) Equipment, controls, and displays will be identified in operator language (common usage) terms. These terms will be precise.

2) When the engraved names and numbers on panel placards and alarm windows are specifically the item of concern in the procedure, the engraving should be quoted verbatim.

- The names of plant systems are emphasized by initial capitalization. Acronyms may be used. All letters will be capitalized in an acronym.

- If the component is seldom used or it is felt that the component would be difficult to find, location information should be given in parentheses following the identification. It should, however, be realized that component location is normally a function of on-the-job familiarization and specific EOP training.

6.8 Level of Detail

Too much detail in EOPs should be avoided in the interest of being able to effectively execute the instructions in a timely manner. The level of detail required is the detail that a newly trained and licensed operator would desire during an emergency condition.

To assist in determining the level of EOP detail, the following general rules apply.

1) For control circuitry that executes an entire function upon actuation of the control switch, the action verb appropriate to the component suffices without further amplification of how to manipulate the control device; for example, "Shut SERVICE WATER E DISCHARGE VALVE (SWP-MOV71E)". Recommended action verbs are as follows:

   a. For power-driven rotating equipment, use Start, Stop.

   b. For valves, use Open, Shut, Throttle Open, Throttle Shut, Throttle.

   c. For power distribution breakers, use Synchronize (if applicable), Close, Trip.

2) Standard practices for observing for abnormal results need not be prescribed within procedural steps. For example, observation of noise, vibration, erratic flow, or discharge pressure need not be specified by steps that start pumps.

3) For control switch positional placement, the verb "Place" should be used, along with the engraved name of the desired position.

6.9 Printed Operator Aids

When information is presented using graphs and tables, these aids must be self-explanatory, legible, and readable under the expected conditions of use and within the reading precision of the operator. A referenced graph or table should be placed on the page opposite the page opposite the text, when possible. Unacceptable regions of graphs will be shaded to assist the operator in identifying above limit values.

Capitalization should be used for references to tables and for graph titles. Title boxes for graphs should be conspicuous. Attachments should be sequentially numbered (if used), by type (FIGURE, TABLE) in separate series.

7.0 MECHANICS OF STYLE

7.1 Spelling

Spelling should be consistent with modern usage, and consistent throughout the EOPs.

7.2 Hyphenation

Hyphens are used between elements of a compound word when usage calls for it. The following rules should be followed for hyphenation.

1) When doubt exists, the compound word should be restructured to avoid hyphenation. Hyphenation shall not be used to show a range (100-200). Some wording will be used instead. For example: "from 100 to 200".

2) Hypens should be used in the following circumstances:

   a. in compound numerals from twenty-one to ninety-nine; example: one hundred thirty-four

   b. in fractions; examples: one-half, two-thirds

   c. in compounds with "self"; examples: self-contained, self-lubricated

   d. when the last letter of the first word is the same vowel as the first letter of the second word--as an alternative, two words may be used; example: fire-escape or fire escape

   e. when misleading or awkward consonants would result by joining the words; example: bell-like

   f. to avoid confusion with another word; examples: re-cover to prevent confusion with recover, pre-position to avoid confusion with preposition

   g. when a letter is linked with a noun; examples: X-ray, O-ring, U-bolt, I-beam

   h. to separate chemical elements and their atomic weight; examples: Uranium-235, U-235

7.3 Punctuation

Punctuation should be used only as necessary to aid reading and prevent misunderstanding. Word order should be selected to require a minimum of punctuation. Punctuation should be in accordance with the following rules.

7.3.1 Brackets

Do not use brackets.

7.3.2 Colon

Use a colon to indicate that a list of items is to follow, for example: Restore cooling flow as follows:

7.3.3 Comma

Use a comma after conditional phrases for clarity and ease of reading. Example: WHEN level decreases to 10 inches, (THEN start pump . . .).

7.3.4 Parentheses

Parentheses shall be used to indicate: 1) alternative items in a procedure, 2) amplifying instruction, or 3) alternate equipment numbers.

7.3.5 Period

Use a period at the end of complete sentences and for indicating the decimal place in numbers.

7.4 Vocabulary

Words used in procedures should convey precise understanding to the trained person. The following rules apply.

1) Use simple words. Simple words are usually short words of few syllables. Simple words are generally common words.

2) Use common usage if it makes the procedure easier to understand.

3) Use words that are concrete rather than vague, specific rather than general, familiar rather than formal, precise rather than blanket.

4) Define key words that may be understood in more than one sense.

5) Verbs with specific meaning should be used. Acceptable examples are listed in Table 1.

6) Equipment status should be denoted as follows:

a. Operable/operability--These words mean that a system, subsystem, train, component, or device is capable of performing its specified function(s) in the intended manner. Implicit in this definition is the assumption that all necessary attendant instrumentation, controls, normal and emergency electrical power sources, cooling or seal water, lubrication or other auxiliary equipment required for the system, subsystem, train, component, or device to perform its function(s) are also capable of performing related support function(s).

7.4 (Cont.)

6) Equipment status should be denoted as follows: (Cont.)

b. Operating--This word means that a system, subsystem, train, component, or device is in operation and is performing its specified function(s), and that mark-ups or other conditions do not prevent it from maintaining that service.

c. Available--This word means that a system, subsystem, train, component, or device is operable and can be used as desired; however, it need not be operating.

7.5 Numerical Values

The use of numerical values should be consistent with the following rules:

1) Arabic numerals should be used.

2) Units of measure should be given for numerical values that represent observed data or calculated results. A slanted line should be used instead of "per"; examples: ft/sec, lbs/hr.

3) For numbers between zero and unity, the decimal point should be preceded by a zero; for example: 0.1.

4) The number of significant digits should be equal to the number of significant digits available from the display and the reading precision of the operator.

5) Acceptance values should be specified in such a way that addition and subtraction by the user is avoided if possible. This can generally be done by stating acceptance values as limits. Examples: 510°F maximum, 300 psig minimum, 580° to 600°F. For calibration points, statement of the midpoint and its lower and upper limits for each data cell would accomplish the same purpose; for example, 10 milliamperes (9.5 to 10.5). Avoid using $\pm$.

6) Engineering units should always be specified for numerical values of process variables. They should be the same as those used on the control room displays, for example: psig, gpm, #/hr., °F.

7.6 Abbreviations, Letter Symbols, and Acronyms

Abbreviations may be used where necessary to save time and space, and when their meaning is unquestionably clear to the intended reader. The full meaning of the abbreviation should be covered in EOP specific training. Consistency should be maintained throughout the procedure.

7.6 (Cont.)

Capitalization of abbreviations should be uniform. The period should be omitted in abbreviations except in cases where the omission would result in confusion.

Letter symbols may be used to represent operations, quantities, elements, relations, and qualities.

An acronym is a type of symbol formed by the initial letter or letters of each of the successive parts or major parts of a compound term. Acronyms may be used if they are defined or commonly used.

Symbols may be used to define relative magnitude ($>$, $<$, $\geq$, $\leq$, $=$).

Abbrevations, symbols, and acronyms should not be overused. Their use should be for the benefit of the reader. They can be beneficial by saving reading time, ensuring clarity when space is limited, and communicating mathematic ideas. See Table 2 for a listing of examples of acceptable abbreviations.

8.0 TYPING FORMAT

8.1 General Typing Instructions

For emergency operating procedures, the following general requirements are to be followed.

1) Paper size should be 8-1/2 x 11 inches.

2) Method and type of print should be consistent throughout.

8.2 Margins

The page margins shall be:

Top -	1 inch
Bottom -	1 inch
Right -	1 inch
Left -	1 1/4 inches

8.3 Spacing

The procedure will be double spaced. One blank line will be left between the following:

1) Steps.

2) Logic Words and Steps.

8.3 (Cont)

Two blank lines will be left between the following:

1) Cautions and Steps.

2) Title and Procedure.

3) Entry Conditions.

8.4 Check-Off Boxes

Check-Off Boxes will be directly after the applicable step. Their dimensions will be approximately the size of a typing line on each side.

8.5 Continuations

When a step is continued from page to page, the continuation will be noted: "RL4 (Continued)". Continuations should be avoided where possible.

8.6 Division of Words

Division of words should be avoided. Words shall not be divided between pages.

8.7 Use of Foldout Pages

When used, a foldout page is treated as a single page. It should follow the same format as a standard page except the width is different. The page should be folded so that a small margin exists between the fold and the right-hand edge of standard pages. This will reduce wear of the fold.

8.8 Use of Oversized Pages

Oversize pages should not be used. They should be reorganized or reduced to a standard page. If this cannot be done, a foldout page should be used.

8.9 Use of Reduced Pages

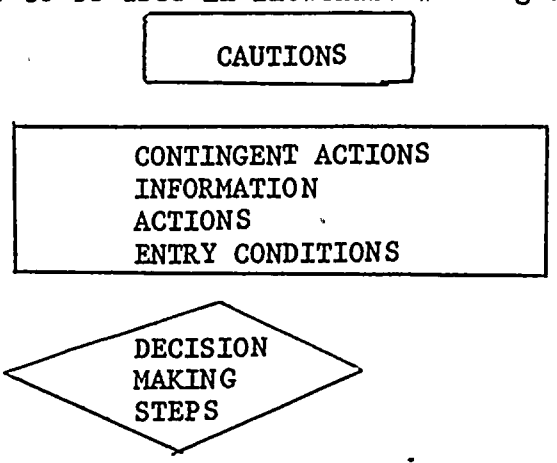
Reduced pages should be avoided whenever possible. Final size of reduced pages should be standard page size. Reduced pages should be readable.

9.0 FLOW CHARTS

Flow charts will be developed as an aid to the operator in utilization of the EOP's. The flow charts will provide the same guidance to the operator as the written procedures. Flow charts may be used independent of, or in conjunction with written procedures. This section provides guidelines for writing Emergency Operating Procedure Flowcharts from existing EOPs.

9.1 Symbols

Symbols to be used in flowchart writing are shown below:



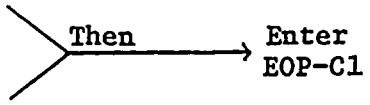
These symbols may be enlarged is required to hold a sizable amount of information.

Cautions will be positioned adjacent to the applicable step.

9.2 General Instructions

In general the procedure should start in the upper left corner of the page, beginning with an underlined heading to included title and EOP number. Immediately below the heading, a box labeled entry conditions should start the sequence of steps. Contingency EOPs (or any EOP entered from other procedures which has no entry conditions) will begin directly with a title and steps. Each step will be labeled with the corresponding text step number to the left of each step.

The format will in general have a flowpath of down and to the right of the page. Where more than one step or sequence of steps is to be performed at one time (branching occurs), the words "concurrently or concurrently enter" will help minimize confusion. Where branching takes place and a connecting line would make the flow chart cumbersome, the line will end with an arrow and directions. For example:



All entry points will be conspicuous. Arrows will indicated direction of flow. A sample section of a flowchart is provided on Figure 4.

Table 1. Action Verbs

Verb	Application
Allow	To permit a stated condition to be achieved prior to proceeding, for example, "allow discharge pressure to stabilize"
Assure	Make certain that a specified state or condition is established and will be maintained.
Bypassing	Temporarily disabling the functioning or an automatic protection feature.
Close	To change the physical position of a mechanical device so that it permits passage of electrical current, for example, "Close disconnect switch YUC-MDS20".
Complete	To accomplish specified procedural requirements, for example, "complete steps 7 through 9 of Section III"
Concurrenty Execute	Carry out the required actions of more than one procedure or section simultaneously.
Defeating	Permanently disabling the logic or function of a system so as to prevent it from operating; generally indicates more than just the positioning of a bypass switch.
Enter	Branch to another procedure.
Establish	To make arrangements for a stated condition, for example, "establish communication with control room"
Go to	Branch to another section of a procedure.
Initiate	Operate readily available system controls as necessary to cause the identified action or function to occur.
Inspect	To measure, observe, or evaluate a feature or characteristic for comparison with specified limits; method of inspection should be included, for example, "visually inspect for leaks"
Maintain below (or above)	Take the action necessary to prevent the value of the parameter from rising above (or decreasing below) the identified limit, action level or range.
Open	To change the physical position of a mechanical device, such as valve or door to the unobstructed position that permits access or flow, for example, "open valve SWP-MOV71E".
Place	Refers to the repositioning of a switch or another control device.

Table 1. Action Verbs (Cont.)

Verb	Application
Prevent	Take whatever action is necessary to preclude the stated action, occurrence, etc. Where not otherwise qualified or prohibited, this includes jumpering, (or opening) contacts in the control logic of system components, deenergizing equipment, overriding automatic signals, etc.
Record	To document specified condition or characteristic, for example, "record discharge pressure"
Restore	Action necessary to return the value of a plant parameter or the status of plant equipment to the specified state or condition.
Secure	To terminate the operation of a system or subsystem.
Shut	To change the physical position of a mechanical device so that it prevents physical access or flow. For example: "Close SWP-MOV17E".
Stable	Defines the ability to maintain the value of a parameter within acceptable or specified limits.
Start	To initiate the operation of an electric or mechanical device directly or by remote control, for example, "start . . . pump"
Stop	To terminate operation, for example, "stop . . . pump"
Throttle	To operate a valve in an intermediate position to obtain a certain flow rate, for example, "throttle valve CNM-V201C to . . ."
Trip	To manually activate a semi-automatic feature, for example, "trip breaker . . ."
Vent	To permit a gas or liquid confined under pressure to escape at a vent, for example, "vent . . . pump"
Verify	To observe an expected condition or characteristic, for example, "verify discharge pressure is stable"

TABLE 2

ABBREVIATIONS

ADS	-	Automatic Depressurization System
APRM	-	Average Power Range Monitor
CRD	-	Control Rod Drive
ECCS	-	Emergency Core Cooling System
HCU	-	Hydraulic Control Unit
HPCS	-	High Pressure Core Spray
HVAC	-	Heating, Ventilating and Air Conditioning
LCO	-	Limiting Condition for Operation
LOCA	-	Loss of Coolant Accident
LPCI	-	Low Pressure Coolant Injection
LPCS	-	Low Pressure Core Spray
MSIV	-	Main Steamline Isolation Valve
NDTT	-	Nil-Ductility Transition Temperature
NPSH	-	Net Positive Suction Head
RCIC	-	Reactor Core Isolation Cooling
RHR	-	Residual Heat Removal
RPS	-	Reactor Protection System
RPV	-	Reactor Pressure Vessel
RSCS	-	Rod Sequence Control System
RWCU	-	Reactor Water Cleanup
SBGT	-	Standby Gas Treatment

TABLE 2 (Cont.)

ABBREVIATIONS

SBLC	-	Standby Liquid Control
SORV	-	Stuck Open Relief Valve
SRV	-	Safety Relief Valve
IAW	-	In accordance with
in	-	Inch, inches
ft	-	feet, foot
CDR	-	Cool Down Rate
Sec	-	Second, Seconds
mr	-	Millirem
RX	-	Reactor
Ci	-	Curie
lb	-	Pounds
<	-	less than
>	-	greater than
°F	-	degrees Farenheit
hr	-	hour
%	-	percent
PSIG	-	pounds per inch^2 gage
GPM	-	gallons per minute

NINE MILE POINT NUCLEAR STATION

SITE ADMINISTRATIVE PROCEDURE

PROCEDURE NO. _____

(TITLE)

APPROVALS	SIGNATURES	DATE AND INITIALS REVISION 0	REVISION 1	REVISION 2
Station Superintendent NMPNS T. W. Roman	_____	_____	_____	_____
General Superintendent Nuclear Generation Chairman of S.O.R.C. T. J. Perkins	_____	_____	_____	_____
Quality Assurance Concurrence				
Q.A. Manager W. M. Bryant	_____	_____	_____	_____

Summary of Pages

Revision (Effective)

NIAGARA MOHAWK POWER CORPORATION

THIS PROCEDURE NOT TO BE
USED AFTER
SUBJECT TO PERIODIC REVIEW.

FIGURE 1 - TYPICAL TITLE PAGE

TITLE: Reactivity Control

ENTRY CONDITIONS:

1. Reactor water level < 12 inches.
2. Reactor pressure > 1045 psig.
3. Drywell pressure > 1.68 psig.
4. An MSIV isolation
5. A condition which requires a scram, and reactor power > 3% or cannot be determined.

Concurrently execute:

EOP-RL RPV Level Control

EOP-RP RPV Pressure Control

EOP-RQ RPV Reactivity Control

FIGURE 2-EXAMPLE ENTRY CONDITIONS PAGE

1" margin

TITLE: Reactivity Control

CAUTION

Defeating RSCS Interlocks may be required to accomplish this step.

RQ17. Rapidly insert control rods manually until the reactor scram can be reset. □

RQ18. Reset the reactor scram. □

RQ19. Open charging water header isolation valve C12-F034. □

INSTRUCTIONS	ACTIONS
RQ20. IF the scram discharge volume vent and drain valves are open. → □	RQ20. THEN initiate a manual reactor scram. □
RQ21. IF the control rods moved inward. → □	RQ21. THEN go to RQ13. □

½" margin

1" margin

RQ22. Reset the reactor scram. □

1" margin:

FIGURE 3-EXAMPLE FORMAT

RADIOACTIVITY RELEASE CONTROL EOP-RR

ENTRY CONDTIONS

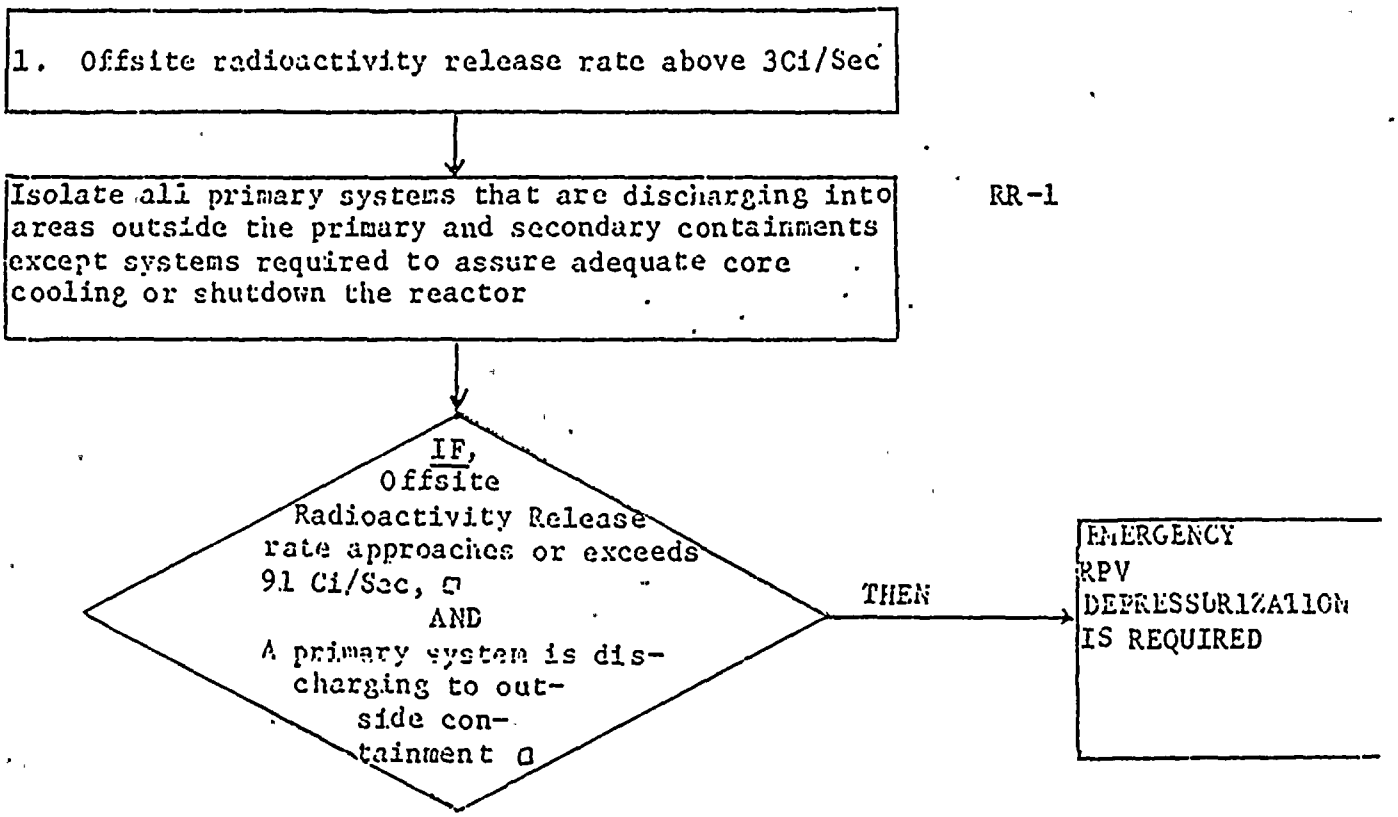


FIGURE 4-SAMPLE FLOWCHART FORMAT