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October 31, 1988

TELEPHONE
AREA CODE 716 546-2700


U.S. Nuclear Regulatory Commission
Document Control Desk
Attn: Mr. Carl Stahle
PWR Project Directorate No. 1
Washington, D.C. 20555

Subject: Ginna Plant Procedures Generation Package (PGP)
Request for Additional Information
R.E. Ginna Nuclear Power Plant
Docket No. 50-244

Dear Mr. Stahle:

Your letter to R. Kober, dated June 27, 1988 requested additional information regarding the Ginna Plant Procedures Generation Package (PGP). In response, please find attached the information you requested as well as background information explaining our present system of controlling EOPs.

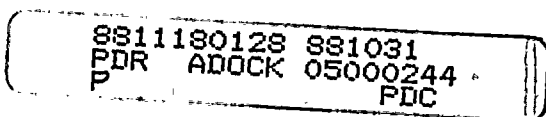
If you have any questions regarding the information provided or require additional information, please call Charles J. Mambretti (716) 724-8071.


Robert C. McCreedy
General Manager
Nuclear Production

Attachment

xc: U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Ginna Senior Resident Inspector



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RESPONSE TO CONCERNS REGARDING THE GINNA PROCEDURES GENERATION PACKAGE (PGP)

The Ginna PGP was formulated based upon interpretation of NRC requirements and the guidance of NUREG-0899. The PGP provided the guidelines required to generate the original EOPs which were implemented in December of 1985. In addition, the package described the development of the EOPs and the manner in which they were implemented. It is important to recognize that thereafter, implementation and changes to the EOPs were controlled in accordance with the guidance contained in the following Ginna Administrative procedures.

- A-502.1 Emergency and Abnormal Procedure Writers Guide
A-503.1 Emergency and Abnormal Procedures Users Guide
A-601.6 Procedure Changes Control - Emergency and Abnormal
Procedures

These documents have evolved into the "living" governing documents (revised as necessary) for EOP maintenance and the original PGP is not used to control Emergency and Abnormal Procedures.

The controlling documents for the training program have become procedures:

- | | |
|---------|------------------------------------|
| A-103.6 | Operator Training Responsibilities |
| TRC-5.1 | Initial License Operator Training |
| TRC-5.2 | Operator Regualification Training |

As a result of an internal EOP assessment completed in February 1988, and NRC concerns resulting from the Ginna PGP review transmitted to RG&E on June 27, 1988, RG&E has initiated an EOP upgrade program scheduled for completion in April 1989. This program includes revision to the EOP governing procedures. Draft copies of these revisions are attached for information. Responses to each of the NRC concerns are provided below including, where appropriate, references to sections of the draft procedures.

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CONCERNS AND RESPONSES

Concern 1

The PGP states that deviations from and additions to the generic technical guidelines (WOG ERGs) will be documented, and will include technical justification supporting these additions and/or deviations. The PGP should also state that the safety significance of these differences will be identified and documented in the PGP.

Response

Procedure A-606.1

Section 3.3 and Appendix 2B, items 22 and 22A (attached) address the need to assess the safety significance of deviations from the technical guidelines (WOG ERG) and documentation thereof.

Concern 2

Sections 4.5.3 or 5.2 should be revised to indicate a specific method for highlighting notes (e.g., outlining/boxing) to differentiate them from cautions while drawing attention to their content.

Response

Procedure A-502.1 provides the following instructions:

- 4.5.2 CAUTION STATEMENTS - text should be in a block format, as shown in Figure 3, in addition to the following formatting requirements:
 - 4.5.2.1 Caution statements should be enclosed at the top and bottom by a continuous line of asterisks which should begin three lines below the preceding text. This differentiates the CAUTION and NOTE.
 - 4.5.2.2 The statement header CAUTION should be centered and placed two lines below the preceding line of asterisks.
 - 4.5.2.3 Caution statement text should begin two lines below the caution header and extend from margin to margin.
 - 4.5.2.4 Caution statements should be emphasized as described in section 5.2, Emphasis Techniques, by using all upper case capitalization.
 - 4.5.2.5 Caution statements which apply to the whole procedure shall be stated prior to any operator action step and be shown on the foldout page if applicable.

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- 4.5.2.6 Caution statements which apply to a particular step shall be stated prior to that step.
- 4.5.2.7 Caution statements should be written to preclude confusion as to which step or evolution they refer.
- 4.5.3 NOTE STATEMENTS - text should be in a block format as shown in Figure 3, in addition to the following formatting requirements:
 - 4.5.3.1 The statement header NOTE should be on the same line as the text but separated from the text by a colon.
 - 4.5.3.2 Note statement text should begin two lines below the preceding text and extend from margin to margin.
 - 4.5.3.3 Note statements should be preceded with a bullet (o) to also differentiate them from a CAUTION.
 - 4.5.3.4 Note statements which apply to a particular step shall be stated prior to that step.

Concern 3

Sections 4.5.2 and 4.5.3 should state that cautions and notes will not contain action steps, as is stated in Figure 4.2-2 of the PGP.

Response

Procedure A-502.1 contains the following instructions:

- 2.3.2 CAUTION STATEMENTS - statements denote potential hazards to personnel or equipment. Cautions which apply to a particular action step should appear directly before that step. Cautions which apply throughout a procedure, or a portion of it, should appear at the start of the procedure or at the point where they become applicable. A caution statement will not contain a direct action. A passive action statement may be appropriate. An example would be the continuous monitoring of a parameter with an associated action if a prescribed value is reached.
- 2.3.3 NOTE STATEMENTS - statements contain advisory or administrative information for subsequent action steps or for caution statements. The directions in step 2.3.2 for placement and action content should be applied to notes. Where cautions and notes are included together all caution statements should be listed before any note statement.

Concern 4

Section 5.12 addresses logic terms and conditional statements. The writer's guide should be expanded to include examples of acceptable and unacceptable combinations. See NUREG-0899, Appendix B, for additional guidance.

Response

Procedure A-502.1

This procedure has been expanded to include Appendix A (attached) which provides additional guidance on logic terms and conditional statements as well as examples illustrating this guidance.

Concern 5

Section 5.3 provides guidelines for referencing sections, subsections, and steps within a procedure and for referencing another procedure. However, it should also provide guidelines or criteria for writers to decide when the steps of a referenced procedure are to be included in the EOP, rather than referenced.

Response

Procedure A-502.1 provides the following instructions:

5.12.4 **REFERENCING** - referencing is used to denote a procedure which may provide useful or necessary information to the operator during the execution of an EOP/AP. In general, those procedures referenced cover low probability occurrences or normal plant operations whose inclusion within an EOP/AP would cause excessive complication and reduce effectiveness of the procedure in effect. Referencing is denoted by the term REFER followed by the procedure designator and title as shown by; REFER TO ER-AFW.1, ALTERNATE WATER SUPPLY TO AFW PUMPS.

Concern 6

The format and content of Critical Safety Function Status Trees (CSFSTs) should be specified in the writer's guide.

Response

Procedure A-502.1

6.0 FORMAT OF CRITICAL SAFETY FUNCTION STATUS TREES

- 6.1 Critical Safety Function Status Trees (CSFSTs) are block format devices used in the evaluation of predefined safety concerns designated as Critical Safety Functions. (FIGURE 6 - CSFST).
- 6.1.1 The blocks are aligned so that the user will enter each tree on the left-hand side of its page and move towards the right-hand side.
- 6.1.2 Each block contains a question concerning current plant conditions. The question in each block may be dependent on previous blocks.
- 6.1.3 Each question is written to obtain a YES or NO response. The response dictates which branch of the status tree will be taken.
- 6.1.4 Questions should be written so that a YES response branch will move the user down the page.
- 6.1.5 Each possible complete path through the tree ends in its own end point, or terminus. The last path segment and the associated terminus circle use a color-code and/or pattern-code as shown in FIGURE 7.
- 6.1.6 Terminals should be ordered so that the highest priority condition terminus is at the top of the page and the priority levels descend down the page. The priority order for color-coding, in descending order, is RED-ORANGE-YELLOW-GREEN.
- 6.1.7 All terminals color-coded other than GREEN will provide an applicable Functional Restoration procedure designator.

Concern 7

The writer's guide addresses simple action steps. However, it should also include verification steps, continuous or periodic steps, alternative and equally acceptable steps, and steps which refer the operator to another subsection of the procedure. The content and format of each type of action step needs to be described in the writer's guide. See NUREG-0899, Subsections 5.7.2-5.7.8, for additional guidance.

Response

Procedure A-502.1 provides the following instructions:

- 5.12 BRANCHING - branching encompasses transitioning, either to another step in the same procedure or to another EOP/AP; and referencing another procedure for supplemental information or direction. Transitioning in a series operation while referencing is a parallel operation.

- 5.12.1 TRANSITION TO A LATER STEP WITHIN CURRENT EOP/AP- shall be performed by using the words GO TO as shown by; GO TO Step 20.
- 5.12.2 TRANSITION TO A PREVIOUS STEP WITHIN CURRENT EOP/AP- shall be performed by using the words RETURN TO as shown by; RETURN TO Step 20.
- 5.12.3 TRANSITION TO ANOTHER EOP (or AP) - should be performed by using the words GO TO, followed by the procedure designator, number, title, and the specific procedure step as shown by; GO TO ES-0.1, REACTOR TRIP RESPONSE, Step 20.
- 5.12.3.1 If a specific step is not shown it is to be assumed that transition is to the beginning of the designated procedure.
- 5.12.3.2 Transition from an EOP to an AP should not be used.
- 5.12.3.3 Procedures entered for supplemental guidance or from CSFST direction may use a RETURN TO statement. This statement should contain the appropriate procedure designator, title and step number where applicable. A procedure with multiple entry conditions may use an open return statement as shown by; RETURN TO PROCEDURE AND STEP IN EFFECT. This denotes a transition to the last previous EOP in use.
- 5.12.4 REFERENCING - referencing is used to denote a procedure which may provide useful or necessary information to the operator during the execution of an EOP/AP. In general, those procedures referenced cover low probability occurrences or normal plant operations whose inclusion within an EOP/AP would cause excessive complication and reduced effectiveness of the procedure in effect. Referencing is denoted by the term REFER followed by the procedure designator and title as shown by; REFER TO ER-AFW.1, ALTERNATE WATER SUPPLY TO AFW PUMPS.
- 5.12.4.1 Referencing a procedure does not constitute leaving the procedure in effect as it is providing only additional information.
- 5.12.4.2 Referencing should be minimized for procedure continuity.
- 5.12.5 The referencing terms GO TO, RETURN TO and REFER TO and the procedure designator and title shall be all capitalized and the word Step shall be initially capitalized for emphasis.

Concern 8

Sections 4.1.9 and 5.6.5 should be revised to indicate that page rotation and breaking of words are unacceptable at all times.

Response

Procedure A-502.1 contains the following instructions:

4.1.8 TEXT CONTINUITY - the text of operator action steps; with applicable substeps, cautions, notes; should be wholly contained on the same page. Where physical constraints preclude this the following guidelines apply:

4.1.8.1 Cautions and/or notes may be placed alone on the immediately preceding page.

4.1.8.2 If a step must be continued on to another page, then:

4.1.8.2.1 The initial page shall be annotated at the bottom of the action step field portion of the page to indicate that the step continues. (i.e., THIS STEP CONTINUED ON FOLLOWING PAGE.)

4.1.8.2.2 The following page shall have the initial action step heading repeated and be annotated to indicate that the step is being continued from a previous page.

ex. Establish letdown -
THIS STEP CONTINUED FROM PREVIOUS PAGE

4.1.9 PAGE ROTATION - should be minimized but when it is necessary to rotate a page for the sake of clarity and readability (i.e., proper graph construction), the following rules are applicable;

4.1.9.1 The left hand edge of the normal page shall become the top of the rotated page.

4.1.9.2 Page margins, identification and numbering shall not rotate.

Concern 9

Because the licensee has chosen check spaces as a method of placekeeping the writer's guide should state that all action steps should have check-off spaces.

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Response

The original intent was to use checkoff spaces, however, during the development and validation of the EOPs, the value of checkoffs became questionable for placekeeping purposes. As a result, the requirement was removed from Procedure A-502.1. Alternatives for placekeeping are contained in Procedure A-503.1 as follows:

- 3.7.3 Placekeeping is the responsibility of the EOP User, normally the Control Room Foreman. In order to ensure proper placekeeping, the EOP User may checkoff or annotate steps by using pen/pencil markings to the immediate right of the Action Step or Response Not Obtained (RNO) performed. Also available to him, are stick-on pads or note pads which may be affixed to pages where transition or looping are necessary.

Concern 10

Section 5.6.9 states that brackets are to be used only in calculations. The writer's guide should describe how values for adverse containment conditions will be specified in the EOPs.

Response

Procedure A-502.1 contains the following guidance:

- 5.6.6 PARENTHESES - are used to provide the adverse containment values for instrumentation readings in applicable steps. They are used to provide valve number designations and instrument designators when these are noted in addition to a word descriptor. Parentheses may also be use to provide amplifying or useful information such as locations, breaker cubicle designations, and information which cannot be placed in a note prior to a step as it only applies to a specific substep condition.

Concern 11

Regarding action statements, the following concerns should be specifically addressed in the writer's guide:

- a. Action steps should be structured so that they can be executed by the minimum shift staffing required by the Technical Specifications.
- b. Action steps should be structured to be consistent with the roles and responsibilities of the operators.
- c. Action steps should be structured so as to minimize the movement of personnel around the control room while carrying out procedural steps.

- d. Action steps should be structured to avoid unintentional duplication of tasks.
- e. Action steps should be structured to enable the control room supervisor to follow staff actions and monitor plant status.

Response

Procedure A-502.1 contains the following guidance:

- 2.3 OPERATOR ACTION STEPS - general requirements are that action steps be structured so that they can be executed by minimum shift staffing as required by Technical Specifications, and be consistent with the responsibilities of the shift positions. In addition, the action steps should minimize the movement of personnel in the Control Room and enable the effective supervisory overview to monitor plant status.
- 2.3.1 OPERATOR ACTION STEPS are short, precise statements presenting exactly the task to be performed and the expected response or result of that task. It is not necessary to state expected results of routine tasks. Steps are assumed to be performed in sequence unless otherwise denoted. Actions directed in a step should not be expected to be complete before the next step is begun. If a particular action must be completed before continuation, this must be stated in that step or substep. The action steps are presented in a dual column format and are identified as immediate or subsequent actions.
- 5.5 NARRATIVE STYLE - steps may be written as complete sentences, short phrases, or some combination of the two. Notes and cautions should be written as complete sentences. Sentences, clauses and phrases should be short and precise utilizing normal American English word order where practical. Operator action steps should:
 - 5.5.1 Be short, imperative statements which state the exact task that the operator is expected to perform.
 - 5.5.2 Deal with only one idea. Complex evolutions should be broken down into a series of steps and substeps.
 - 5.5.3 Be clear as to the objectives of operator actions.
 - 5.5.4 Be written in sentence form in the right-hand column.

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Concern 12

The PGP should address the accessibility of EOPs and techniques to distinguish them from other plant procedures.

Response

Presently the EOPs are contained in volumes with red covered jackets. The EOPs are the only control room procedures differentiated in this manner and are easily distinguishable. Upon completion of the EOP update in April 1989, the EOPs will be stored in a bookcase separate from all other procedures. Additionally, the EOPs will have a unique binder and format as described below.

Procedure A-503.1 provides the following instructions:

- 2.0 EOP/AP Section Organization - in order to facilitate rapid location of specific sections and subsections of the EOP/AP, the control room copy is arranged per FIGURE 3 as follows:
 - 2.1 COVER SHEET - which is used for administrative purposes and does not provide any active function in the EOP/AP to be used. The Cover Sheet of the control room copy is the first page seen in the binder.
 - 2.2 PURPOSE and ENTRY CONDITIONS/SYMPTOMS PAGE - in the control room copy is immediately following the cover sheet.
 - 2.2.1 A Purpose Statement which specifically describes the intent of the procedure.
 - 2.2.2 Entry conditions and/or Symptoms sections which specify the conditions, transitions and/or symptoms which dictate or direct entry into the procedure. The symptoms used should be unique to the procedure.
 - 2.3 OPERATOR ACTION STEP PAGES - which may be subdivided into Immediate Operator Action pages, followed by subsequent operator action pages. Operator action step pages may contain;
 - 2.3.1 CAUTION STATEMENTS - which provide information about hazards to personnel or equipment and advice on actions or transitions which may become necessary depending on changes in plant conditions.
 - 2.3.2 NOTE STATEMENTS - which provide administrative or advisory information which supports operator actions.

2.3.3 OPERATOR ACTION STEPS - presented in a two column format, direct the operator through specific step by step tasks, give the expected results from those tasks and provide contingency actions to be taken should an expected task method not be available or an expected result not be obtained.

2.4.4 ATTACHMENT PAGES - which may be used to provide additional information to the operator. They provide information concerning a particular step or evolution addressed in the procedure. The information presented is of importance to the action or decision where referenced, but is of a length or format which precludes incorporation into the procedure step. Similar information is contained in A-502.1 Section 3.5.



FIGURE 3

CONTROL ROOM EOP/AP BINDER ARRANGEMENT
(TRI-FOLD BINDER)

EOP

FOLD OVER PAGES

<p>ATTACHMENTS</p> <div style="border: 1px solid black; height: 60px; margin: 10px;"></div>	<p><u>EOP</u></p> <ul style="list-style-type: none"> - coversheet - purpose/entry conditions/symptoms - immediate/subsequent action 	<p>FOLD OUT PAGES</p> <div style="border: 1px solid black; height: 100px; margin: 10px;"></div>
<p>SUMMARY ATTACHMENT</p>		

B1 - FOLD BINDER

AP

FOLD OVER PAGES

<p>Attachment</p> <div style="border: 1px solid black; height: 40px; margin: 10px;"></div>	<p style="text-align: center;">○ <u>AP</u> ○</p> <ul style="list-style-type: none"> - coversheet - purpose/entry conditions/symptom - immediate/subsequent actions
<div style="border: 1px solid black; height: 30px;"></div>	



Concern 13

The quality of the reproduced copies of the EOPs should be addressed in the PGP since all copies of the EOPs need to be legible and complete.

Response

Since EOPs/APS are considered Plant procedures, these procedures and any changes to these procedures are governed by the provisions of A-601.2 (Procedure Control - Permanent Changes) and A-602 (Procedure Distribution). These procedures provide for proofreading and distribution of EOPs/APS to address this concern.

Concern 14

Particular attention should be paid to deviations from and additions to the generic technical guidelines that are of safety significance during the verification and validation programs. The PGP should discuss how the deviations and additions will be verified and validated.

Response

Procedure A-601.6 provides the following directions:

3.3.2 Verification Performance:

- 3.3.2.1 The verification process shall be performed by pre-identifying the knowledgeable individuals needed to perform the reviews on ATTACHMENT 2.
- 3.3.2.2 Individuals performing the technical accuracy review should include operations, STA, training staff, operations supervision, technical staff, nuclear engineering, etc., as deemed necessary by the Technical Assistant to the Operations manager or designee.
- 3.3.2.3 The Technical Assistant to the Operations Manager or designee shall perform the written accuracy review.
- 3.3.2.4 Deviation or changes to existing setpoints (footnotes) or new setpoints shall require review by technical staff and independent review by nuclear engineering. Included with the review shall be a documented basis, to include calculations or analysis, as applicable.
- 3.3.2.5 Deviations from the WOG ERG guidance shall require review by knowledgeable licensed operations staff. Included shall be a documented basis which assesses the safety significance of the deviation.

3.3.3 Verification Documentation:

3.3.3.1 Verification shall be completed by documentation on ATTACHMENT 2.

3.3.3.2 The Technical Assistant to the Operation Manager (TAOM) or designee shall pre-identify the individuals needed to perform the technical review by name and asterisks on ATTACHMENT 2.

3.3.3.3 The Technical Assistant to the Operations Manager or designee shall document any deviations from the WOG ERGs or setpoint changes on ATTACHMENT 2, adding any additional pages as necessary. Included with any deviations shall be the justification and the safety significance of the difference from the WOG ERGs.

NOTE: All comments must be resolved before the validation process is started. In the event a comment cannot be resolved the EPC shall review the proposed change and resolve the comment.

3.3.3.4 Following completion of the verification process, the Technical Assistant to the Operations Manager or designee shall resolve any comments and follow up with any further reviews, as necessary, and indicate resolution/completion by signature on ATTACHMENT 2.

3.5 Final Review and Approval:

3.5.1 Following validation and verification, the TAOM shall initiate a PCN for the procedure change or new procedure and initiate the required 10CFR50.59 review criteria as required by Reference 2.2 and 2.3.

Concern 15

Section 5.2.A (page 67) states that all EOPs will be verified, but Section 5.3.B (page 93) states that "yellow path" functional restoration procedures may not be validated. To assure complete validation of all the EOPs the program description should include an indication that the full complement of EOPs will be validated.

Response

While the initial set of yellow path FR procedures have not been formally validated, they have been used successfully during simulator training. RG&E has a high confidence level in these procedures. Future revisions to these procedures will receive validation.



Concern 16

The validation program description should state that all of the EOPs will be validated on the dynamic simulator, once it is completed, using the procedures and scenarios described in the current validation program description. For the parts of the EOPs that cannot be validated on the simulator, the existing method of procedure validation may be relied upon.

Revisions to the EOPs need to be verified and validated. The verification and validation program descriptions should discuss the criteria or methods that will be used for determining the need to reverify and revalidate any changes in the EOPs, and how the verification and validation process is to be carried out.

Response

Procedure A-601.6 contains the following instructions:

3.4 VALIDATION PROCESS:

- 3.4.1 Validation is the process by which the useability of the procedure is confirmed.
 - 3.4.1.1 Validation provides a means by which minimum operating shift personnel test the procedure and proposed changes in a plant specific control room environment under scenario driven, simulated emergency conditions.
 - 3.4.1.2 Validation may be conducted by one of two methods; the simulator method or the walk through (tabletop) method.
 - 3.4.1.3 Simulator validations will be utilized to the maximum extent possible on all procedures which affect action conducted in the Control Room.
 - 3.4.1.4 Walk through validations will be utilized for operator actions which are conducted outside the control room or where the simulator lacks the capability to properly validate the procedure or change.

3.4.2 Scenario Development:

NOTE: Validation shall be performed on all major changes or new procedures.

- 3.4.2.1 The TAOM or designee shall develop a detailed event scenario using the final draft procedure after the verification process is completed. ATTACHMENT 3 provides a listing of scenarios.
- 3.4.2.2 For new procedures the scenario must contain sufficient guidance to place the plant in a cold shutdown or safe condition to ensure that all necessary transitions are accomplished.

3.4.2.3 For changes to existing procedures, the scenario shall be developed in such a manner that the step(s) changed are fully tested including Response Not Obtained (RNO) actions.

3.4.2.4. The TAOM or designee shall detail the scenario and the validation method to be used on the Validation Scenario sheet, ATTACHMENT 3A. For changes made as a result of simulator training feedback when using the procedures, the TAOM or designee shall consult the appropriate simulator instructor for scenario details.

3.4.3 Validation Performance:

NOTE: For changes to procedures as a result of simulator training feedback, the TAOM or designee shall ensure that the validation performance has been conducted and documented in accordance with steps 3.4.3.1 through 3.4.3.8.

3.4.3.1 For both simulator or walk through methods, the validation scenario shall be performed by the minimum control room complement of 3 licensed operators, with at least one being an SRO, and an STA.

3.4.3.2 The Validation Coordinator shall be either a SRO or a simulator instructor with SRO equivalent plant certification. The Validation Coordinator is normally the TAOM or designee.

3.4.3.3 Using the Validation Scenario Sheet, the Validation Coordinator shall brief the validation team in all the necessary initial conditions, systems and/or entry conditions to begin the validation. At no time shall the details of the scenario be made known to the validation team.

3.4.3.4 The Validation Coordinator shall direct the entire scenario performance, including any information necessary for operator decision making. Included shall be determination when the scenario has progressed sufficiently to effect termination.

3.4.3.5 The validation team will respond to the data available to them (simulator or walk through) and perform the actions of the procedure. The Validation Coordinator and simulator instructor shall observe the actions of the crew and assess their performance.

3.4.3.6 The Validation Coordinator may terminate the scenario when the scenario objective has been accomplished.

- 3.4.3.7 Immediately following conclusion of the scenario, the Validation Coordinator shall debrief the validation team using the applicable guidance contained in ATTACHMENT 3B, validation criteria.
- 3.4.3.8 The Validation Coordinator shall complete a Validation Performance Sheet, ATTACHMENT 3C, and record any comments for further evaluation/resolution. The TAOM or designee shall be responsible for resolution of comments prior to submittal of the change for final processing. Major changes as a result of comments shall require verification and revalidation.
- 3.4.3.9 The walk through (tabletop) validation method shall be conducted in a manner similar to the simulator (steps 3.4.3.1 through 3.4.3.8) except that no actual control manipulation will take place. However, the process used, time required and any necessary tools shall be factored into the task(s) required, for validity. Documentation shall be completed per ATTACHMENT 3C. Details pertaining to Verification were discussed in Concern 14.

Concern 17

It is crucial that all operators be trained on all aspects of each EOP so that all operators are prepared to execute each EOP to its fullest extent. The training program should include a commitment to train all operators on all EOPs.

Response

Upon completing the development of the EOPs in 1985, all licensed individuals were given classroom training on the EOPs. When the installation of the new plant specific simulator was completed, the simulator was utilized to train all licensed personnel on all EOPs. Finally, ongoing EOP training is provided in the Regualification Program.

As a part of the Licensed Operator Initial Training Program, each license candidate receives training on every EOP. This consists of classroom training reinforced by simulator exercises.

Concern 18

The EOP training program description should include a commitment to formal EOP training (or retraining) on the simulator when the simulator is finished and plans for this training. This description should indicate the use of a wide variety of scenarios, including multiple failures, to fully exercise the EOPs on the simulator and thus expose the operators to a wide variety of EOP uses.

Response

Formal EOP simulator training was conducted for all licensed individuals when the simulator was ready for training. In addition, the operators receive EOP training on the simulator each year as part of the Licensed Operator Regualification Program. This training includes scenarios which exercise all EOPs. The lessons are written to allow the instructor the flexibility to exercise many different paths through the procedures. This training also includes scenarios with multiple failures.

Concern 19

The EOP training program should include the method to be used to train operators in areas where the simulator does not react like the plant and in parts of the EOPs that cannot be run on the simulator.

Response

All EOPs can be fully exercised on the simulator. There are no discrepancies between the simulator and the plant which prevent the use of the EOPs.

Concern 20

The EOP training program description should indicate how the operators are to be evaluated during classroom instruction, tabletop discussions, replicate control room walkthroughs, and future simulator exercises.

Response

The operators are evaluated in training in accordance with training department procedures. A written exam is used for classroom training, a formal oral exam is used for control room walkthroughs, and an operational exam is used for simulator training. These exams are modeled after NRC licensing exams. Tabletop discussions are not used as a primary training tool.



Figure 2
STATUS TREE PRIORITY IDENTIFICATION








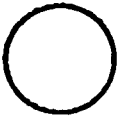
Color	Line Code	Symbol Code	Status/Response
Red			The critical safety function is under <u>extreme challenge</u> ; immediate operator action is required.
Orange			The critical safety function is under <u>severe challenge</u> ; prompt operator action is required.
Yellow			The critical safety function condition is <u>off - normal</u> . Operator action may be taken.
Green			The critical safety function is satisfied. No operator action is needed.

FIGURE 3

CONTROL ROOM EOP/AP BINDER ARRANGEMENT
(TRI-FOLD BINDER)

EOP

FOLD OVER PAGES

<p>ATTACHMENTS</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<p style="text-align: center;">o</p> <p style="text-align: center;"><u>EOP</u></p> <ul style="list-style-type: none"> - coversheet - purpose/entry conditions/symptoms - immediate/subsequent action 	<p style="text-align: center;"> FOLD OUT PAGES </p> <div style="border: 1px solid black; height: 100px; width: 100%;"></div>
<p>SUMMARY ATTACHMENT</p>		

B1 - FOLD BINDER

AP

FOLD OVER PAGES

<p>Attachment</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<p style="text-align: center;">o <u>AP</u> o</p> <ul style="list-style-type: none"> - coversheet - purpose/entry conditions/symptom - immediate/subsequent actions



Number:	Title:	Revision Number:

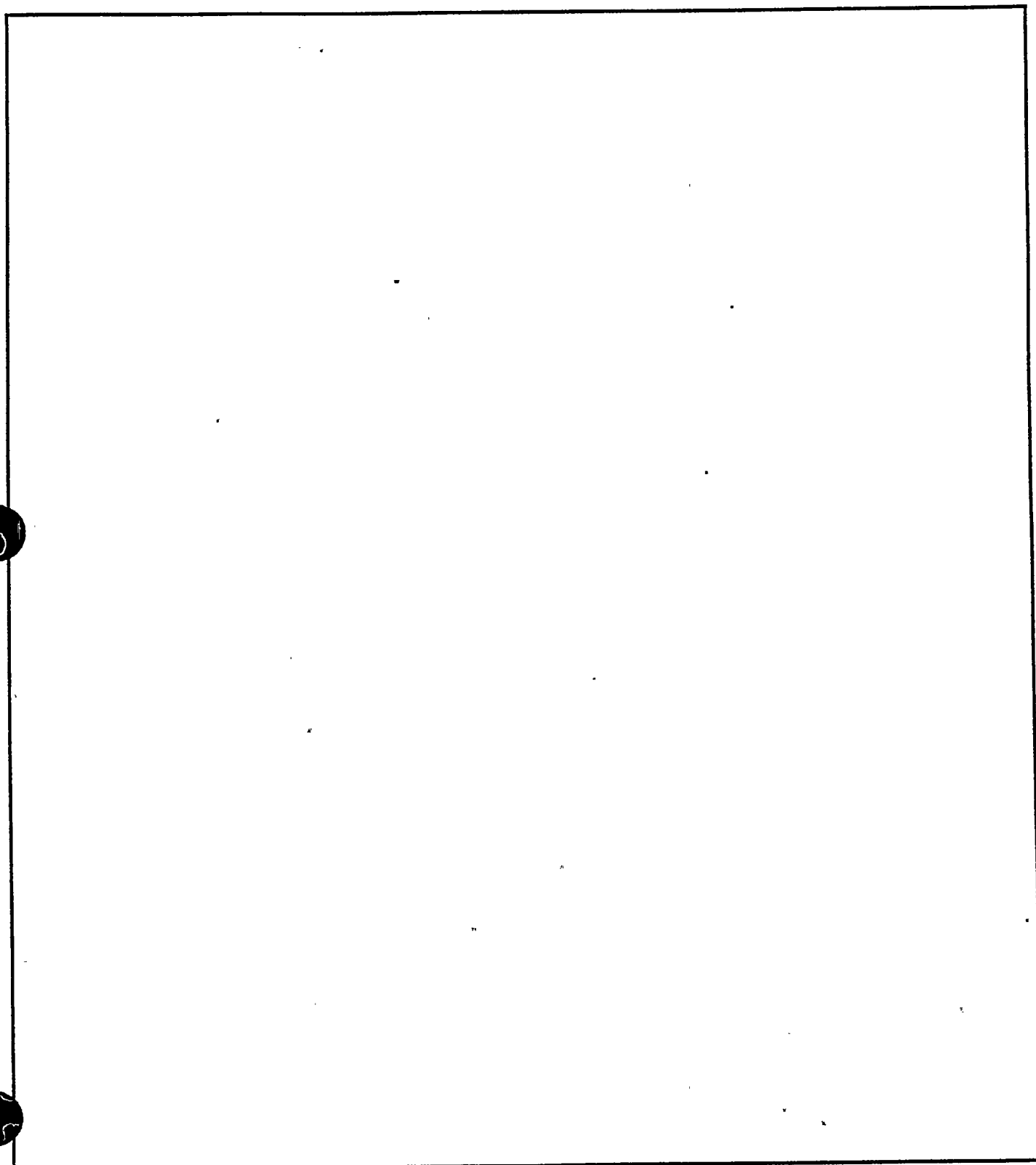


FIGURE 1

Number:	Title:	Revision Number:
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A. PURPOSE - This procedure provides

B. ENTRY CONDITIONS/SYMPTOMS

1. ENTRY CONDITIONS - This procedure is entered from;

- a.
- b.
- c.
- d.

2. SYMPTOMS - The symptoms of . . . (Procedure Title) . . . are;

- a.
- b.
- c.
- d.

FIGURE 2



Number:	Title:	Revision Number:
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STEP	ACTION/EXPECTED RESPONSE	RESPONSE NOT OBTAINED
1	Imperitive Action - RESULT	Alternate Command
2	a. Sequential Substep - RESULT	a. Alternate Command
	o Nonsequential substep - RESULT	o Alternate Command
NOTE: o The following are typical examples of operator action steps;		
1	Verify Reactor Trip:	Trip reactor manually.
	o Reactor Trip Breakers - OPEN	
	o Neutron flux - DECREASING	
2	Check if all RCPs should be Stopped:	
	a. SI pumps - AT LEAST ONE RUNNING	a. GO TO Step 2

<u>CAUTION</u>		
ALTERNATE WATER SOURCES FOR AFW PUMPS WILL BE NECESSARY IF CST LEVEL DECREASES TO LESS THAN 19.5 FEET.		

3	Check Intact S/G Levels:	
	a. Narrow range level - GREATER THAN (LATER)	a. Maintain total feed flow low greater than (Later)

FIGURE 3



Number:	Title:	Revision Number:
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AUTOMATIC ACTIONS

-
-
-
-
-

FIGURE 4



Number:	Title:	Revision Number:
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FOLDOUT PAGE

1. Include any information needed by the operator throughout the procedure.
2.
3.
4.

FIGURE 5

