NINE MILE POINT NUCLEAR STATION

UNIT No.1

EMERGENCY OPERATING PROCEDURE

VERIFICATION PROGRAM PLAN

OEI DOCUMENT 8309-4

Revision 1

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Prepared for

Niagara Mohawk Power Corporation

By

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APPENDICES

1.0 PURPOSE

This document provides the necessary instructions, checklists, and documentation forms for the verification of NMP-1 Emergency Operating Procedures (EOPs). The process described herein is to be utilized during initial EOP preparation and during the development of revisions to the EOPs which significantly affect the technical or editorial content of the procedures.

This document supplements existing NMP-1 administrative procedures governing procedure preparation, revision, and control, but does not supplant them.

2.0 DEFINITIONS

"Verification," as applied to EOP development, is the process of confirming the technical accuracy and written correctness of the EOPs. "Technical accuracy" refers to the compatibility of the procedures with control room hardware and instrumentation, and to the conformity of the procedures with the intent of the technical guidelines from which they were derived. "Written correctness" refers to compliance with the standards for procedure format and editorial content defined in the EOP Writer's Guide.

3.0 METHODOLOGY

The EOP verification process defined in this document is performed in three phases:

Phase	Description
Assessment	A checklist evaluation of the technical accuracy and written correctness of the EOPs
Resolution	The determination of appropriate corrective actions for the discrepancies identified during the Assessment Phase
Implementation	The revision of EOPs to incorporate corrective actions developed during the Resolution Phase

The performance of each of these phases is discussed below.

3.1 Assessment

In the Assessment Phase of the verification process, the technical accuracy and written correctness of the EOPs are evaluated using a series of prepared checklists (Appendix A). These checklists are composed of three sections: Section A, addressing the conformance of the EOPs with the intent of the technical guidelines; Section B, addressing the compatibility of the procedures with the control room; and Section C, addressing the compliance of the EOPs with standards for procedure identification, format, and content. The evaluation criteria listed in Section A are derived primarily from INPO Report 83-004, "Emergency Operating Procedures Verification Guideline" (March, 1983). Those in Sections B and C are derived from the NMP-1 EOP Writer's Guide (Revision 1).

One set of checklists (Sections A, B, and C) should be completed for each EOP to be verified. While several people may be concurrently assigned to complete these checklists, each checklist section for a given EOP should be completed in its entirety by one person. The author of a given EOP should not participate in any checklist evaluation of that procedure.

The following instructions should be observed during the performance of the checklist evaluations:

1. Use black ink on all verification forms and checklists.

2. Fill out the cover sheet of each checklist section.

3. Write the EOP number on each page of the checklist.

4. Apply each checklist evaluation criterion, one at a time, to all steps of the EOP being verified. Refer to Appendix C of this document for guidance on the interpretation of criteria listed in Section A of the checklists. Refer to the Emergency Operating Procedure Writer's Guide for guidance on the interpretation of criteria listed in Sections B and C. (The relevant section of the Writer's Guide is cross-referenced in parentheses after each question.)

5. If all EOP steps to which a checklist item is applicable are fully compliant with the evaluation criterion, circle "Yes" on the checklist form. If one or more steps of the EOP are not fully compliant with the criterion, circle "No" and note the step number, procedure page number, and the nature of the discrepancy in the space allowed for "Comments." If a checklist item is not applicable to any step in the EOP being evaluated, circle "NA."

6. Assign an identification number to each discrepancy. The number shall consist of the procedure number followed by a hyphen, the checklist section, and a sequential number. (e.g., the fourth discrepancy noted in Checklist Section A during the verification of Procedure Nl-EOP-2 would be assigned the number 2-A4.) Multiple occurrences of a particular discrepancy may utilize the same identification number.

7. Prepare a Discrepancy Resolution Report (Appendix B) for each numbered discrepancy in accordance with the instructions accompanying the form.

While the verification process described herein is applicable both to evaluations of initial drafts of the EOPs and to evaluations of subsequent revisions, the methods of application may differ. During the initial verification of the EOPs, all procedure steps are evaluated in terms of all checklist criteria. The verification of procedure revisions, however, need address only those steps affected by the changes, and only in terms of checklist criteria specifically applicable to the affected steps.

3.2 Resolution

In the Resolution Phase of the verification process, each identified discrepancy is analyzed to determine whether any corrective action is required. If corrective action is necessary, an appropriate solution is developed and documented on the Discrepancy Resolution Report. Corrective actions may include alternate procedure wordings, addititons to the EOP training program, control panel modifications, and revisions of EOP source documents (technical guidelines and the writer's guide).

Corrective action will not necessarily be required for every discrepancy listed on the Discrepancy Resolution Reports. An apparent variance in technical content, for example, may only be an adaptation of the material necessitated by the procedure format. Similarly, occasional deviations from the Writer's Guide may be necessary to optimize the usability of the procedures or to accommodate compromise solutions to interrelated formatting criteria. Each identified discrepancy should therefore be considered for corrective action on a case-by-case basis. If no corrective action is required, appropriate justification should be provided.

The Resolution Phase should be performed as a cooperative effort between several individuals having combined expertise in the areas listed in Section 5.0. If possible, both the procedure

author and the performers of the checklist evaluations should participate in this task. The following instructions should be followed:

1. Ensure that the top section of the Discrepancy Resolution Report is properly filled out, as described in the instructions accompanying the form.

2. Review the description of the discrepancy. (If participating in the Review Phase, the performer of the checklist evaluation can supply additional information, as necessary.)

3. Determine whether any corrective action is necessary. This decision should be made by (a) confirming that the reported discrepancy is actually a deviation from a checklist evaluation criteria, (b) considering the degree of deviation from the checklist evaluation criteria, and (c) investigating whether extenuating circumstances necessitate a deviation from the evaluation criteria.

4. If corrective action is appropriate, develop a recommended solution which corrects the discrepancy. Solutions may take the form of alternate procedure wordings, addititons to the EOP training program, control panel modifications, or revisions to source documents.

5. Revised procedure wordings proposed as solutions to discrepancies should conform to the guidance contained in the EOP Writer's Guide and the Verification Checklists. Consideration should also be given to any comments provided independently by human factors engineering specialists and plant Operations Department personnel (see Section 6.0.).

6. Document the recommended corrective action on the Discrepancy Resolution Report, using additional sheets as required. If no corrective action is necessary, provide appropriate justification.

3.3 Implementation

After the resolution of discrepancies, the recommended corrective actions must be reviewed, approved, and incorporated into revised procedures. This process should be conducted and documented in accordance with Procedure NMP-1 administrative procedures.

4.0 PERSONNEL QUALIFICATIONS

Personnel performing the EOP verification must be knowledgeable in certain specific subject areas related to the activities being performed. Minimum qualifications for each task are listed below.

Task	Qualifications
Application of Checklist Section A	Familiarity with EPGs/PSTGs Familiarity with EOP format
Application of Checklist Section B	Familiarity with control room systems and instrumentation Familiarity with EPGs/PSTGs
Application of Checklist Sections C1-C4, C6-12	Familiarity with EOP Writer's Guide
Application of Checklist Section C5	Familiarity with EOP Writer's Guide Familiarity with control room systems and instrumentation Familiarity with plant operation
Resolution of discrepancies	Familiarity with EPGs/PSTGs Familiarity with EOP Writer's Guide Familiarity with control room systems and instrumentation

5.0 DOCUMENTATION

Documentation of EOP verification consists of the following:

1. One set of completed Verification Checklists (Sections A, B, and C) for each EOP.

2. A cover sheet for each checklist section completed.

3. A Discrepancy Resolution Report for each discrepancy listed on the Verification Checklists.

Documentation of EOP approval and revision shall be performed in accordance with NMP-1 administrative procedures.

6.0 INTEGRATION WITH EOP VALIDATION AND TRAINING PROGRAMS

As applied to the EOP development process, "validation" is the process by which the usability and operational correctness of the procedures are evaluated. Because it is generally desirable to perform the validation after it has been determined that the EOPs are technically accurate, the Verification Checklists should be completed, if possible, and any necessary corrective actions incorporated into the procedures before the validation is conducted. Similarly, it is preferable to conduct training sessions using procedures which are both verified and validated. Both activities should therefore be scheduled well in advance of the first formal operator training sessions.

While verification should be viewed as a distinct step in EOP development, additional concerns relevant to the verification process may become apparent when the procedures are examined by operations department personnel during validation and training. Should this be the case, additional Discrepancy Resolution Reports may be prepared to address the concerns identified.

APPENDIX A

EOP VERIFICATION CHECKLISTS

NMP-1 EOP VERIFICATION CHECKLIST
SECTION A

TECHNICAL ACCURACY

EOP NUMBER _____ REVISION _____

EOP TITLE _____

PSTG/EPG REVISION (Circle one) _____

VERIFICATION PERFORMED BY:

NAME (PRINT) _____

TITLE _____

SIGNATURE _____

DATE _____

INSTRUCTIONS FOR COMPLETING EOP VERIFICATION CHECKLISTS

1. Use black ink on all checklists.

2. Fill out the checklist cover sheet as follows:

   (a) List the number, revision, and title of the EOP being evaluated and the PSTG or EPG revision against which its technical accuracy is to be verified.

   (b) Print your name and job title (RO, SRO, Shift Supervisor, etc.) under "Verification Performed By."

   (c) When all checklist items have been completed, sign and date the form.

3. Write the EOP number on each page of the checklist.

4. Apply each checklist evaluation criterion, one at a time, to all steps of the procedure being verified. Refer to Appendix C of the NMP-1 EOP Verification Program Plan for guidance on the interpretation of criteria listed in Section A of the checklists. Refer to the NMP-1 EOP Writer's Guide for guidance on the interpretation of criteria listed in checklist Sections B and C. (The relevant section of the Writer's Guide is cross-referenced in parentheses after each question.)

5. If all steps to which a checklist item is applicable are fully compliant with the evaluation criterion, circle "Yes" on the checklist form. If one or more steps of the procedure are not fully compliant with the criterion, circle "No" and note the step number, procedure page number, and the nature of the discrepancy in the space allowed for "Comments." (Attach a Comment Continuation Sheet if additional space is required to describe the nature of the discrepancy.) If a checklist item is not applicable to any step in the procedure being evaluated, circle "NA."

6. Assign an identification number to each discrepancy. The number shall consist of the procedure number followed by a hyphen, the checklist section, and a sequential number. (e.g., the fourth discrepancy noted in Checklist Section A during the verification of Procedure N1-EOP-2 would be assigned the number 2-A4.) Multiple occurrences of a particular discrepancy may utilize the same identification number.

7. Prepare a Discrepancy Resolution Report for each numbered discrepancy.

Revision 1

COMMENT CONTINUATION SHEET

Checklist Section _____   Item Number _____

Comments (Continued) _____

_____

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A. **TECHNICAL ACCURACY**

1. Do the instructions provided in each step of   Yes No NA
    the procedure comply with the intent of the
    corresponding technical guideline steps?

    Comments _____

    _____

    _____

    Discrepancy ID # _____

2. Have all steps of the corresponding technical   Yes No NA
    guideline been incorporated into the
    procedure?

    Comments _____

    _____

    _____

    Discrepancy ID # _____

3. Are cautions referenced at the points   Yes No NA
    specified in the technical guidelines?

    Comments _____

    _____

    _____

    Discrepancy ID # _____

A.   TECHNICAL ACCURACY   (Continued)

4.   Are all steps and cautions in the procedure   Yes   No   NA
      derived from corresponding technical guide-
      line steps and cautions?

      Comments _____

      _____

      _____

      Discrepancy ID # _____

5.   Do all numerical values in the procedure   Yes   No   NA
      correspond to those specified in the
      technical guidelines?

      Comments _____

      _____

      _____

      Discrepancy ID # _____

6.   Do the procedure entry conditions correspond   Yes   No   NA
      to those specified in the technical
      guidelines?

      Comments _____

      _____

      _____

      Discrepancy ID # _____

A.   TECHNICAL ACCURACY   (Continued)

7.   Does the sequence of steps in the procedure   Yes   No   NA
      correspond to that in the Technical
      Guidelines?

      Comments _____

      _____

      _____

      Discrepancy ID # _____

8.   Does the association of override statements   Yes   No   NA
      with instructional steps correspond to that
      defined in the technical guidelines?

      Comments _____

      _____

      _____

      Discrepancy ID # _____

9.   Where cross-references are used, are titles,   Yes   No   NA
      procedure numbers, page numbers, and step
      numbers correct?

      Comments _____

      _____

      _____

      Discrepancy ID # _____

NMP-1 EOP VERIFICATION CHECKLIST
SECTION B

COMPATIBILITY WITH THE CONTROL ROOM

EOP NUMBER _____   REVISION _____

EOP TITLE _____

VERIFICATION PERFORMED BY:

NAME (PRINT) _____

TITLE _____

SIGNATURE _____

DATE _____

INSTRUCTIONS FOR COMPLETING EOP VERIFICATION CHECKLISTS

1. Use black ink on all checklists.

2. Fill out the checklist cover sheet as follows:

    (a) List the number, revision, and title of the EOP being evaluated and the PSTG or EPG revision against which its technical accuracy is to be verified.

    (b) Print your name and job title (RO, SRO, Shift Supervisor, etc.) under "Verification Performed By."

    (c) When all checklist items have been completed, sign and date the form.

3. Write the EOP number on each page of the checklist.

4. Apply each checklist evaluation criterion, one at a time, to all steps of the procedure being verified. Refer to Appendix C of the NMP-1 EOP Verification Program Plan for guidance on the interpretation of criteria listed in Section A of the checklists. Refer to the NMP-1 EOP Writer's Guide for guidance on the interpretation of criteria listed in checklist Sections B and C. (The relevant section of the Writer's Guide is cross-referenced in parentheses after each question.)

5. If all steps to which a checklist item is applicable are fully compliant with the evaluation criterion, circle "Yes" on the checklist form. If one or more steps of the procedure are not fully compliant with the criterion, circle "No" and note the step number, procedure page number, and the nature of the discrepancy in the space allowed for "Comments." (Attach a Comment Continuation Sheet if additional space is required to describe the nature of the discrepancy.) If a checklist item is not applicable to any step in the procedure being evaluated, circle "NA."

6. Assign an identification number to each discrepancy. The number shall consist of the procedure number followed by a hyphen, the checklist section, and a sequential number. (e.g., the fourth discrepancy noted in Checklist Section A during the verification of Procedure N1-EOP-2 would be assigned the number 2-A4.) Multiple occurrences of a particular discrepancy may utilize the same identification number.

7. Prepare a Discrepancy Resolution Report for each numbered discrepancy.

Revision 1

COMMENT CONTINUATION SHEET

Checklist Section _____   Item Number _____

Comments (Continued) _____

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B. COMPATIBILITY WITH THE CONTROL ROOM

1. Are as-labeled designations used to identify   Yes   No   NA
    specific components, alarms, controls, and
    instruments? (4.7.1)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

2. Are component locations specified when   Yes   No   NA
    appropriate (i.e., if the least experienced
    intended user might be unfamiliar with
    the location)? (4.7.3)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

3. Are the units of measurement specified in the   Yes   No   NA
    procedure the same as those displayed on the
    associated panel instrumentation?
    (3.9.8, 4.10.2)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

B.   COMPATIBILITY WITH THE CONTROL ROOM   (Continued)

4.   Are parameter values expressed to a precision   Yes   No   NA
      consistent with the intent of the step and
      the accuracy and precision of associated
      instrumentation?   (4.10.3)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

NMP-1 EOP VERIFICATION CHECKLIST
SECTION C

COMPLIANCE WITH CONVENTIONS FOR PROCEDURE
IDENTIFICATION, FORMAT, AND CONTENT

EOP NUMBER _____   REVISION _____

EOP TITLE _____

VERIFICATION PERFORMED BY:

NAME (PRINT) _____

TITLE _____

SIGNATURE _____

                                    DATE _____

Revision 1

INSTRUCTIONS FOR COMPLETING EOP VERIFICATION CHECKLISTS

1. Use black ink on all checklists.

2. Fill out the checklist cover sheet as follows:

    (a) List the number, revision, and title of the EOP being evaluated and the PSTG or EPG revision against which its technical accuracy is to be verified.

    (b) Print your name and job title (RO, SRO, Shift Supervisor, etc.) under "Verification Performed By."

    (c) When all checklist items have been completed, sign and date the form.

3. Write the EOP number on each page of the checklist.

4. Apply each checklist evaluation criterion, one at a time, to all steps of the procedure being verified. Refer to Appendix C of the NMP-1 EOP Verification Program Plan for guidance on the interpretation of criteria listed in Section A of the checklists. Refer to the NMP-1 EOP Writer's Guide for guidance on the interpretation of criteria listed in checklist Sections B and C. (The relevant section of the Writer's Guide is cross-referenced in parentheses after each question.)

5. If all steps to which a checklist item is applicable are fully compliant with the evaluation criterion, circle "Yes" on the checklist form. If one or more steps of the procedure are not fully compliant with the criterion, circle "No" and note the step number, procedure page number, and the nature of the discrepancy in the space allowed for "Comments." (Attach a Comment Continuation Sheet if additional space is required to describe the nature of the discrepancy.) If a checklist item is not applicable to any step in the procedure being evaluated, circle "NA."

6. Assign an identification number to each discrepancy. The number shall consist of the procedure number followed by a hyphen, the checklist section, and a sequential number. (e.g., the fourth discrepancy noted in Checklist Section A during the verification of Procedure N1-EOP-2 would be assigned the number 2-A4.) Multiple occurrences of a particular discrepancy may utilize the same identification number.

7. Prepare a Discrepancy Resolution Report for each numbered discrepancy.

Revision 1

COMMENT CONTINUATION SHEET

Checklist Section _____   Item Number _____

Comments (Continued) _____

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C. COMPLIANCE WITH CONVENTIONS FOR PROCEDURE IDENTIFICATION, FORMAT, AND CONTENT

C1. Procedure Identification

1. Is a title page of the format illustrated   Yes   No   NA
    in Figure 1 provided?   (2.1)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

2. Is the procedure provided with the correct   Yes   No   NA
    identification number?   (2.2)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

3. Is the procedure title descriptive of the   Yes   No   NA
    procedure content?   (2.3)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

NINE MILE POINT NUCLEAR STATION UNIT NO. 1

EMERGENCY OPERATING PROCEDURE

PROCEDURE NO. N1-EOP-2

RPV CONTROL

DATE AND INITIALS

APPROVAL SIGNATURES	REVISION 0	REVISION 1	REVISION 2

J. C. Aldrich,
Operations Supervisor

T. W. Roman,
Station Superintendent, NMPNS

T. J. Perkins,
General Superintendent
Nuclear Generation, NMPC
S.O.R.C. Chairman

Summary of Pages

Revision _0P_, dated _1/15/86_, consists of the following:

Page	Dated	Page	Dated	Page	Dated
1	1/15/86	7	1/15/86	13	1/15/86
2	1/15/86	8	1/15/86	14	1/15/86
3	1/15/86	9	1/15/86	15	1/15/86
4	1/15/86	10	1/15/86	16	1/15/86
5	1/15/86	11	1/15/86	17	1/15/86
6	1/15/86	12	1/15/86		

NIAGARA MOHAWK POWER CORPORATION

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

Figure 1: EOP Title Page
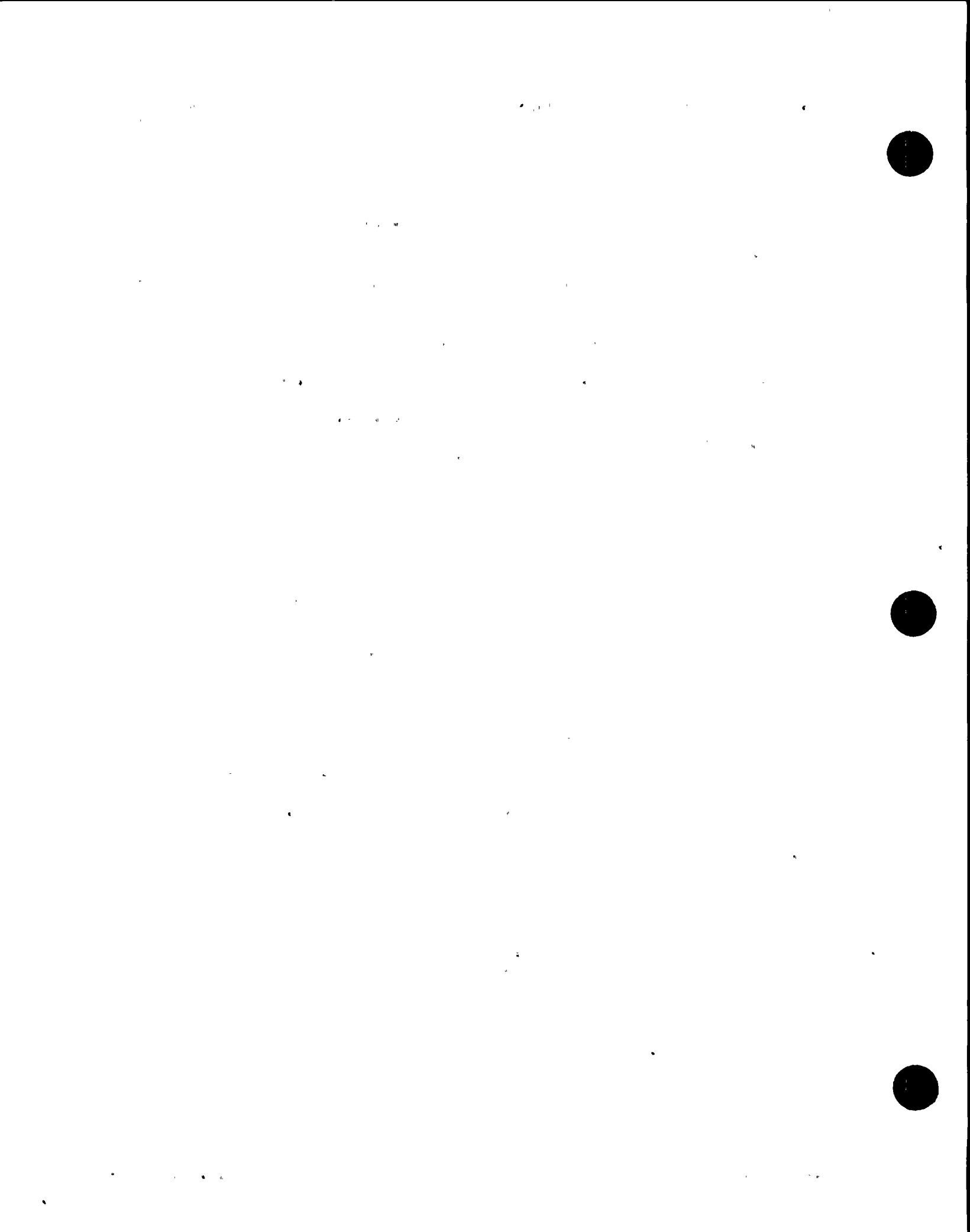
C1.   <u>Procedure Identification</u>   (Continued)

4.   Are all pages in the current revision of the   Yes   No   NA
      procedure listed on the title page?   (2.4)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

5.   Is the issue date on each page of the pro-   Yes   No   NA
      cedure the same as that listed in the
      "Summary of Pages" section of the title
      page?   (2.4)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

C2. Organization and Instructional Step Format

1. Does the procedure contain the following   Yes No NA
    sections: (3.1, 4.1)

    A. ENTRY CONDITIONS

    B. OPERATOR ACTIONS

    Comments _____

    _____

    _____

    Discrepancy ID # _____

2. Are instructions presented in complete   Yes No NA
    sentences? (3.2)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

3. Are instructions presented in a single column   Yes No NA
    format? (3.2)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C2. <u>Organization and Instructional Step Format</u> (Continued)

4.   Are footnotes absent? (3.2)   Yes No NA

     Comments _____

     _____

     _____

     Discrepancy ID # _____

5.   Has division of substeps between two pages   Yes No NA
     been avoided? (3.2)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

6.   Where a substep must be divided between two   Yes No NA
     pages, have (1) the words "STEP [#] CONTINUES
     ON PAGE [#]" been placed within a box at the
     bottom of the page, and (2) the substep number
     been repeated on the next page, followed by
     the word "Continued" placed in parentheses?
     (3.2)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C2. <u>Organization and Instructional Step Format</u> (Continued)

7. Are steps numbered with sequential Arabic   Yes No NA
    numerals? (3.3.1)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

8. Are first order substeps designated by   Yes No NA
    sequential decimal numbers? (3.3.2)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

9. When division of a step beyond first order   Yes No NA
    substeps is required, are (1) single digit
    numbers used to designate action statements
    and (2) bullets used to designate condi-
    tional statements or substeps for which no
    order of execution can be preassigned?
    (3.3.2)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C2.   Organization and Instructional Step Format   (Continued)

10. Are lists of systems and components itemized   Yes   No   NA
     with bullets? (3.3.3)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

11. Are lists of conditions and lists of step   Yes   No   NA
     numbers itemized with lower-case letters?
     (3.3.3)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

12. Are the bullets and letters used in itemized   Yes   No   NA
     lists indented two spaces to the right of
     the left margin of the associated text?
     (3.3.3)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C3. Page Layout and Identification

1. Does the bottom of each page of the procedure   Yes No NA
    contain the required procedure number, page
    number, and effective date information?
    (2.2, 3.5)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

2. Are (1) two blank spaces present between the   Yes No NA
    procedure number and the page number and (2)
    three blank spaces present between the page
    number and the effective date? (3.5)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

3. Do the plant and unit designation, procedure   Yes No NA
    category, procedure number, and procedure
    title appear at the top of the first page of
    the procedure? (3.5.4, 3.11.6)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C3. <u>Page Layout and Identification</u> (Continued)

4. Are both sides of the pages sequentially   Yes No NA
    numbered? (3.5.2).

    Comments _____

    _____

    _____

    Discrepancy ID # _____

5. Are right hand pages used only for entry   Yes No NA
    conditions and instructional steps? (3.5.2)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

6. Are left hand pages used only for override   Yes No NA
    statements and figures? (3.5.2)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C3. <u>Page Layout and Identification</u> (Continued)

7.   Do left hand pages not containing any   Yes   No   NA
      override statements or figures have the
      words "THIS PAGE INTENTIONALLY BLANK"
      centered on the page in upper-case
      letters? (3.5.3)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

8.   Is the procedure free of foldouts and   Yes   No   NA
      oversize pages? (3.5.7)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

C4. Step Content

1.   Is each step easily readable and   Yes   No   NA
     interpretable?   (4.3.1)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

2.   Are instructions succinct, precise, and   Yes   No   NA
     written in short, simple sentences?
     (4.1, 4.3.3)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

3.   Are instructions specific and unambiguous?   Yes   No   NA
     (4.9.2)

     Comments _____

     _____

     _____
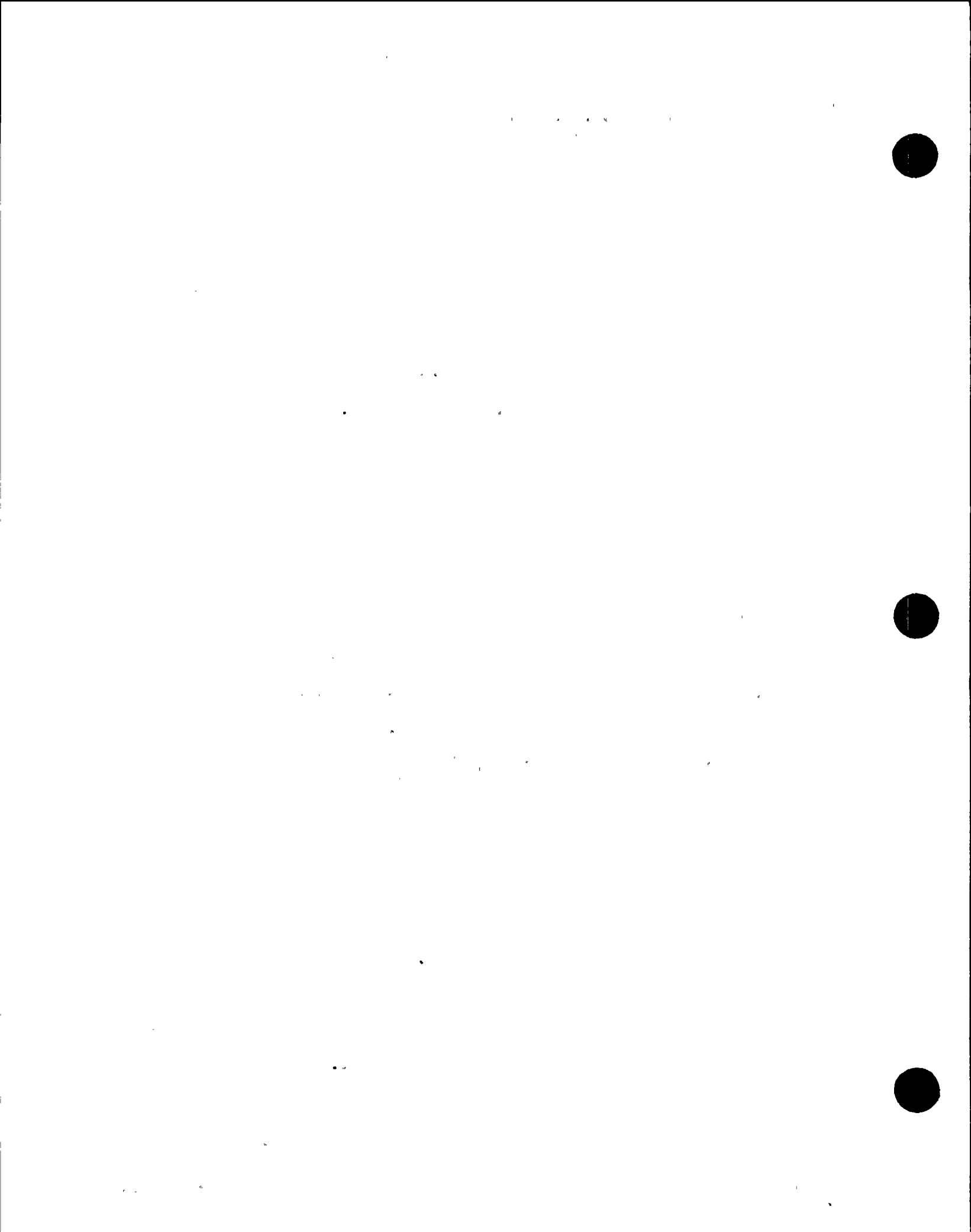
     Discrepancy ID # _____

C4.   Step Content   (Continued)

4.   Are simple, common words used?   (4.9.1)   Yes   No   NA

Comments _____

_____

_____

Discrepancy ID # _____

5.   Does each substep address only one idea?   Yes   No   NA
     (4.3.5)

Comments _____

_____

_____

Discrepancy ID # _____

6.   Are objects of actions specifically stated   Yes   No   NA
     with multiple objects itemized and listed
     separately?   (4.3.6)

Comments _____

_____

_____

Discrepancy ID # _____

C4.   Step Content   (Continued)

7.   Are directions written in the second person   Yes   No   NA
     imperative mood with an implicit subject?
     (4.3.2)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

8.   Is spelling, grammar, and punctuation   Yes   No   NA
     consistent with standard rules and modern
     usage?   (4.8)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

9.   Is the use of logic terms consistent with   Yes   No   NA
     the definitions specified in Table 1?
     (4.4)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

Table 1

APPLICATION OF LOGIC TERMS

Logic Term	Definition
AND	Indicates a combination of conditions. Identifies the second and subsequent elements of a set of conditions.
BEFORE	Indicates that the action is to be performed prior to the occurence of a specified condition.
EXCEPT	Qualifies a conditional statement. Specifies an exception to or exclusion from a prescribed action.
IF	Indicates that the action prescribed in the step is contingent upon the stated conditions.
OR	Designates alternative combinations of conditions. Indicates that the action is to be performed if any one of the specified conditions occur. (Always used in the inclusive sense.)
THEN	Distinguishes the action portion of the step.
WHEN	Continued execution of the procedure is contingent upon the occurrence of the stated condition.
UNTIL	Indicates that the specified action is to be terminated when a listed conditions arises.

C4. <u>Step Content</u> (Continued)

10. Have terms been used consistent with the   Yes   No   NA
     standard definitions listed in Table 2
     (Page 17)? (4.3.10, 4.9.3)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

11. Are only those acronyms and abbreviations   Yes   No   NA
     listed in Table 3 (Page 19) used?
     (4.9.4, 4.9.5)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

12. Are actions which must be performed   Yes   No   NA
     concurrently specifically identified?
     (4.3.7)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C4. <u>Step Content</u> (Continued)

13. Are limits expressed quantitatively?   Yes   No   NA
     (4.3.8, 4.10)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

14. Are annunciator setpoints specified where   Yes   No   NA
     appropriate? (4.3.8)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

15. Has the need for arithmetical calculations   Yes   No   NA
     been avoided? (4.3.9)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

Table 2

STANDARD NOMENCLATURE AND DEFINITIONS

Available: The state or condition of being ready to be
placed into operation.

Before: Prior to; does not imply any specific margin.

Cannot be determined: The value of the specified parameter
relative to the procedure action level cannot be determined
using available indications.

Cannot be maintained: The value of the specified parameter
cannot be kept above or below the applicable limit. Implies
an evaluation based on system performance and availability
considered in relation to parameter values and trends.
Neither implies that the parameter must actually exceed the
limit before the action is taken nor that the action must be
taken before the limit is reached.

Cannot be restored: The value of the specified parameter cannot
be returned to within the specified limit. Implies an
evaluation based on system performance and availablility
considered in relation to parameter values and trends. Does
not imply any specific time limit, but does not permit
prolonged operation beyond the limit.

Close: To position a valve or damper so as to prevent flow of
the process fluid.

Control: Take action, as necessary, to maintain the value of the
specified parameter within applicable limits.

Execute: Perform the actions prescribed in the identified step.

Exit: Cease performing the steps of the identified procedure.

Initiate: Operate the necessary controls so as to establish the
specified system or plant condition.

Line up: Establish the prerequisites necessary for system
operation.

Maintain: Take action, as necessary, to keep the value of the
specified parameter within the applicable limits.

Table 2

STANDARD NOMENCLATURE AND DEFINITIONS (Continued)

Monitor: Observe and evaluate at a frequency sufficient to remain appraised of the value, trend, and rate of change of the specified parameter.

Open: To position a valve or damper so as to allow flow of the process fluid.

Operable: Capable of performing an intended function.

Operating: Performing an intended function.

Place: To align a switch to a specified position.

Prevent: Take action to forestall or avert the state, condition, or action addressed by the step.

Restore: Take action, as necessary, to return the value of the specified parameter to within applicable limits.

Set: To position a control to a specified scale value.

Shut: To position a breaker so as to permit the flow of current in the associated circuit.

Start: To energize a pump or fan motor.

Stop: To deenergize a pump or fan motor.

Terminate: Stop and prevent the stated action or evolution.

Throttle: To position a valve or damper so as to partially restrict flow of the process fluid.

Trip: To position a breaker so as to interrupt or prevent the flow of current in the associated circuit.

Vent: To reduce the pressure in an enclosed volume.

Verify: Use available indications to confirm that a specified state exists or that a specified response has occurred. Implicitly directs the operator to take action if a state should exist but does not, or a response should have occured but did not.

Table 3

STANDARD ACRONYMS AND ABBREVIATIONS

Abbreviation	Meaning
ADS	Automatic Depressurization System
CRD	Control Rod Drive
Demin	Demineralizer
EC	Emergency Condenser
El	Elevation
F	Fahrenheit
ft	Feet
FW	Feedwater
HCU	Hydraulic Control Unit
HPCI	High Pressure Coolant Injection
hr	Hour
HX	Heat exchanger
in.	Inch
lbs	Pounds
min	Minute
mR	Milliroentgen
MSIV	Main steam isolation valve
NPSH	Net positive suction head
psig	Pounds per square inch (guage)
RPM	Revolutions per minute
RPV	Reactor Pressure Vessel

Table 3

STANDARD ACRONYMS AND ABBREVIATIONS

(Continued)

Abbreviation	Meaning
RWCU	Reactor Water Cleanup
TAF	Top of the active fuel
Temp	Temperature

C5.   Level of Detail

1.   Is the level of detail presented in the   Yes   No   NA
      procedure consistent with the knowledge and
      capabilities of the least experienced intended
      user?   (4.2)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

2.   Have system response times been specified   Yes   No   NA
      where appropriate?   (4.2.5)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

3.   Have equipment limitations been identified   Yes   No   NA
      where appropriate?   (4.2.5)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

C5. **Level of Detail** (Continued)

4. Have instrument inaccuracies been identified   Yes No NA
    where appropriate? (4.2.5)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

5. Has alternate or backup instrumentation been   Yes No NA
    identified where appropriate? (4.2.5)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

6. Have contingency actions been specified where   Yes No NA
    appropriate? (4.2.5)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C5. Level of Detail (Continued)

7. Have manual override instructions been   Yes   No   NA
    included where necessary?   (4.2.5)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

8. Have methods of verifying correct plant   Yes   No   NA
    response been specified where appropriate?
    (4.2.5)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C6. Conditional Statements

1. When conditional statements are used, is the   Yes No NA
   conditional part of the instruction stated
   first, followed by the contingent action?
   (3.4.1)

   Comments _____

   _____

   _____

   Discrepancy ID # _____

2. Are logic terms in conditional statements   Yes No NA
   typed in upper-case letters, vertically
   aligned, and separated from the remainder of
   the respective clauses by a series of periods
   (a minimum of two, and as necessary to
   maintain text alignment)?   (3.4.2, 3.10.2)

   Comments _____

   _____

   _____

   Discrepancy ID # _____

3. Are the ends of clauses in conditional   Yes No NA
   statements punctuated with commas?   (3.4.3)

   Comments _____

   _____

   _____

   Discrepancy ID # _____

C6. <u>Conditional Statements</u>   (Continued)

4. Are contingency actions which are formatted   Yes   No   NA
    as conditional statements indented such that
    the logic terms are aligned with the left
    margin of the preceding text? (3.4.4)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

5. When a prescribed action is to be performed   Yes   No   NA
    until certain specified conditions occur, are
    the conditions listed separately following the
    action statement and prefaced by the word
    "UNTIL" typed in capital letters? (3.4.5)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

6. Are clauses beginning with "AND" not   Yes   No   NA
    intermixed with clauses beginning with "OR"?
    (3.4.6)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C7. Override Statements

1. Does the text of each override statement   Yes   No   NA
    specify the exact steps or substeps to
    which it applies? (3.6.5)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

2. Are override statements boxed and aligned   Yes   No   NA
    with the first steps or substeps to which
    they apply? (3.6.1)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

3. Is the top of each box where an override   Yes   No   NA
    statement first appears a double line ending
    with an arrow aligned with the identification
    number of the step or substep to which it
    first applies?   (3.6.4)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C7. Override Statements   (Continued)

4. When an override statement first appears, are   Yes No NA
    the double horizontal lines forming the top of
    the box, the double arrow adjacent to the
    associated step number, and the text of the
    statement printed in boldface type?
    (3.6.3, 3.6.4, 3.10.1)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

5. Are arrows pointing to the left placed   Yes No NA
    immediately to the left of identification
    numbers of steps and substeps having
    associated override statements?   (3.6.3)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

6. Are double arrows used adjacent to the first   Yes No NA
    of a series of steps having an associated
    override statement and single arrows
    thereafter?   (3.6.3)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C7. Override Statements (Continued)

7. Are override statements repeated on   Yes   No   NA
    subsequent pages when the steps or substeps
    to which they apply extend over more than one
    page? (3.6.2)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

8. Are vertical arrows, extending down from the   Yes   No   NA
    left sides of boxes containing override
    statements, used to graphically identify the
    steps to which the statements apply? (3.6.6)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

9. Are the end points of override statement   Yes   No   NA
    applicability marked with double horizontal
    lines? (3.6.6)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C7. <u>Override Statements</u>   (Continued)

10. After the first occurrence of an override   Yes   No   NA
    statement, are the arrows adjacent to the
    associated step number and the text of the
    override statement printed in regular type?
    (3.6.4)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

11. After the first occurrence of an override   Yes   No   NA
    statement, is the top of the box containing
    the statement a single horizontal line
    printed in regular type?   (3.6.4)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C8. <u>General Instructins</u>

1. Is each general instruction identified with   Yes No NA
    a number and title, descriptive of the
    instruction content? (3.7)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

2. Where general instructions are referenced   Yes No NA
    within the EOPs, are the instruction numbers
    and titles typed in upper-case letters, with
    the number underlined, in boxes to the right
    of the applicable steps or substeps?
    (3.7, 3.10.2, 3.10.3)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

3. Where general instructions are referenced   Yes No NA
    within the EOPs, do the numbers and titles
    match those in N1-EOP-1? (3.7)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C9. <u>Cautions and Notes</u>

1. Are cautions used only to identify a   Yes   No   NA
    potential hazard to personnel or equipment?
    (4.5)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

2. Are notes used only to provide supplementary   Yes   No   NA
    information related to the associated steps?
    (4.5)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

3. Are cautions, where used, typed in italics and Yes   No   NA
    placed immediately before, but on the same
    page as, the instructions to which they apply?
    (3.8, 3.10.4)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C9. <u>Cautions and Notes</u> (Continued)

4. Are notes, where used, typed in italics and   Yes   No   NA
    placed immediately before or after, as
    appropriate, but on the same page as, the
    instructions to which they apply?
    (3.8, 3.10.4)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

5. Is the word "CAUTION" or "NOTE", as   Yes   No   NA
    applicable, typed in upper-case letters
    and punctuated with a colon? (3.8)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

6. Is the text of cautions and notes left-   Yes   No   NA
    aligned two spaces to the right of the
    colon following the words "CAUTION" and
    "NOTE", respectively? (3.8)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C9. <u>Cautions and Notes</u>   (Continued)

7.   Are cautions and notes free of   Yes   No   NA
     instructions directing the operator
     to take action?   (4.5)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C10. <u>Branching and Cross-Referencing</u>

1.   Do branching instructions conform to the   Yes   No   NA
     usage defined in the EOP Writer's Guide?
     (4.6)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

2.   Is forward and backward branching within the   Yes   No   NA
     procedure minimized?   (4.6)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

3.   Where intra-procedure branching is necessary,   Yes   No   NA
     and the branch steps are not on the same pages
     as the branching instructions, are the page
     numbers of the branch steps specified?   (4.6)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C10. <u>Branching and Cross Referencing</u>   (Continued)

4.   Where cross-references are used, are the   Yes   No   NA
     procedures, with the exception of system
     operating procedures, referenced by both
     number and title, with the title enclosed
     in quotation marks?   (4.6)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

5.   Where system operating procedures are   Yes   No   NA
     referenced, are the procedures referenced
     by procedure number only?   (4.6)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

6.   Are figures referenced within a procedure   Yes   No   NA
     identified by number with the appropriate
     page number specified?   (3.9, 4.6)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C10. <u>Branching and Cross Referencing</u>   (Continued)

7.   Are tables referenced within a procedure   Yes   No   NA
     identified by both number and title with
     the appropriate page number specified?
     (3.8, 4.6)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C11. <u>Numerical Values</u>

1.   Are Arabic numerals used to express numerical   Yes   No   NA
     values? (4.10.1)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

2.   Do parameter values include units of   Yes   No   NA
     measurement? (4.10.2)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

3.   Are acceptance values expressed in terms of   Yes   No   NA
     a range rather than a tolerance band? (4.10.4)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C11. <u>Numerical Values</u>   (Continued)

4.   Are virgules used rather than the word "per"?   Yes   No   NA
      (4.10.5)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

5.   Are numbers between zero and one expressed in   Yes   No   NA
      decimal form with a zero preceding the
      decimal point?   (4.10.6)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

C12. Figures and Tables

1. Are figures used to present graphical plots   Yes   No   NA
    of limits expressed as functions of other
    parameters?   (3.9)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

2. Are tables used to organize, correlate, or   Yes   No   NA
    subdivide, as appropriate, lists of systems,
    valves, sensors, and other data?   (3.9)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

3. Are referenced figures and tables grouped   Yes   No   NA
    together and placed at the end of the
    procedure as a numbered attachment?   (3.9)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

C12. Figures and Tables   (Continued)

4.   If figures or tables are included as an   Yes   No   NA
     attachment, is a table of contents included
     on the attachment cover sheet?   (3.9.1)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

5.   If figures and tables are included as an   Yes   No   NA
     attachment, are tables placed before
     figures?   (3.9.2)

     Comment _____

     _____

     _____

     Discrepancy ID # _____

6.   Are figures and tables numbered   Yes   No   NA
     sequentially, in the order referenced,
     using a prefix corresponding to the
     number of the procedure followed by a
     decimal numeral? (3.9.3)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C12. <u>Figures and Tables</u>   (Continued)

7.   Does each figure and table have a title?   Yes   No   NA
      (3.9.4)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

8.   Are figure titles capitalized and centered   Yes   No   NA
      with the figure numbers below the figures?
      (3.9.4)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

9.   Are table titles typed in upper-case letters   Yes   No   NA
      and centered with the table numbers above the
      tables?   (3.9.4, 3.10.2)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

C12. <u>Figures and Tables</u> (Continued)

10. Are figures clear, simple, and easily   Yes   No   NA
     readable? (3.9.7)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

11. Are graphs labeled with parameters, units,   Yes   No   NA
     and numerical values? (3.9.8)

     Comments _____

     _____
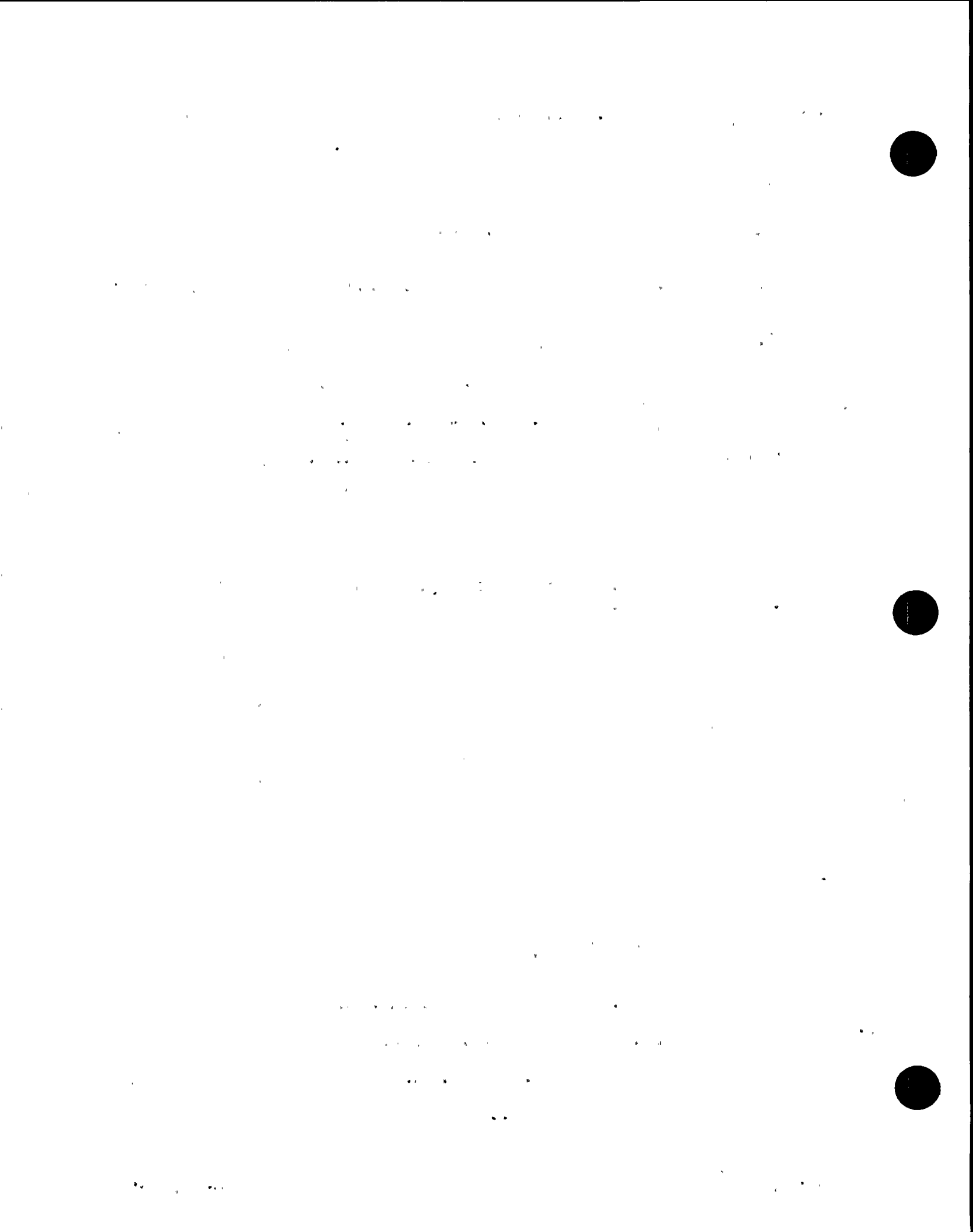
     _____

     Discrepancy ID # _____

12. Are grid lines provided on graphs? (3.9.8)   Yes   No   NA

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C12. <u>Figures and Tables</u> (Continued)

13. Are graph axes scaled in standard numerical   Yes   No   NA
     progressions? (3.9.8)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

14. Are reduced-size reproductions of each graph   Yes   No   NA
     placed within the body of the procedure on
     left hand pages opposite the associated
     steps? (3.9.8)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

15. Are the reduced-size graphs within the pro-   Yes   No   NA
     cedure labeled with the figure title, typed
     in boldface, upper-case letters, and the
     figure number, enclosed in parentheses?
     (3.9.8, 3.10.1, 3.10.2)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C12. <u>Figures and Tables</u> (Continued)

16. Are tables placed within boxes? (3.9.9)   Yes No NA

Comments _____

_____

_____

Discrepancy·ID # _____

17. Are headings provided for each column within   Yes No NA
tables, typed in upper-case letters and
centered over the columns? (3.9.9, 3.10.2)

Comments _____

_____

_____

Discrepancy ID # _____

18. Are horizontal lines placed below column   Yes No NA
headings in attached tables? (3.9.9)

Comments _____

_____

_____

Discrepancy ID # _____

C12. <u>Figures and Tables</u>   (Continued)

19. Are columns in attached tables separated   Yes   No   NA
     by vertical lines? (3.9.9)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

21. Are entries in attached tables separated   Yes   No   NA
     by blank lines? (3.9.9)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C13. Typing Instructions

1.   Is the paper size 8-1/2 x 11 inches? (3.11.1)   Yes No NA

     Comments _____

     _____

     _____

     Discrepancy ID # _____

2.   Are the left, right, top, and bottom margins   Yes No NA
     1, 1, 1, and 1/2 inches respectively?
     (3.11.2)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

3.   Where page rotation is required, have the   Yes No NA
     page margins, headings, and footings not
     been rotated? (3.5.6)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

EOP VERIFICATION CHECKLIST

NMP-1 EOP VERIFICATION CHECKLIST

C13. <u>Typing Instructions</u> Continued)

4.   Is double line spacing used for instruc-   Yes   No   NA
        tional steps (right side pages) with
        two blank lines inserted between steps
        before and after section headings, and
        after notes and cautions?   (3.11.3)

        Comments _____

        _____

        _____

        Discrepancy ID # _____

5.   Is single line spacing used for "override   Yes   No   NA
        statements" (left side pages) with one
        blank line inserted between each?   (3.11.4)

        Comments _____

        _____

        _____

        Discrepancy ID # _____

6.   Are section titles typed in upper-case   Yes   No   NA
        letters and underlined? (3.1, 3.10.3, 3.11.5)

        Comments _____

        _____

        _____

        Discrepancy ID # _____

C13. <u>Typing Instructions</u>   (Continued)

7.   Are the plant name, procedure number, and   Yes   No   NA
      procedure title on the first page of the
      procedure typed in upper-case letters and
      underlined?   (3.5.4, 3.10.2, 3.10.3, 3.11.6)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

8.   Are as-labeled component designations and   Yes   No   NA
      annunciator legends typed in upper-case
      letters?   (3.10.2)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

9.   Are system titles capitalized?   (4.7.2)   Yes   No   NA

      Comments _____

      _____

      _____

      Discrepancy ID # _____

C13. <u>Typing Instructions</u> (Continued)

10. Are acronyms typed in upper-case letters?   Yes   No   NA
     (3.10.2, 4.9.6)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

11. Are step numbers vertically aligned under the   Yes   No   NA
     section title? (3.11.7)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

12. Have two spaces been inserted between the   Yes   No   NA
     period following each step or substep number
     and the beginning of the text of the step or
     substep? (3.11.5, 3.11.7, 3.11.8)

     Comments _____

     _____

     _____

     Discrepancy ID # _____

C13. <u>Typing Instructions</u>   (Continued)

13.   When a step or substep extends over more than   Yes   No   NA
      one line, are the first words of all lines
      vertically aligned on the left? (3.11.7, 3.11.8)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

14.   Are substep numbers indented so as to be   Yes   No   NA
      vertically aligned under the first letter in
      the text of the preceding step? (3.11.8)

      Comments _____

      _____

      _____

      Discrepancy ID # _____

15.   Are words undivided between pages? (3.11.9)   Yes   No   NA

      Comments _____

      _____

      _____

      Discrepancy ID # _____

C13. <u>Typing Instructions</u>   (Continued)

16. Has excessive indentation of steps been   Yes   No   NA
    avoided? (3.11.10)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

17. Have periods been omitted from abbreviations?   Yes   No   NA
    (4.9.5)

    Comments _____

    _____

    _____

    Discrepancy ID # _____

APPENDIX B

DISCREPANCY RESOLUTION REPORT

DISCREPANCY RESOLUTION REPORT INSTRUCTIONS

1. List the following information at the top of the form:

    (a) The discrepancy identification number.

    (b) The relevant Verification Checklist item number.

    (c) The number and revision of the EOP evaluated.

    (d) Procedure step numbers for which the discrepancy was
         noted. (For non-numbered steps, list the applicable
         page number and specify where on the page the step is
         located.)

2. Number the sheet in the bottom right corner.

3. In the space allotted, provide a complete description of the
    discrepancy. If additional space is needed, continue the
    description on a second sheet.

4. When analysis of the discrepancy has been completed, document
    the corrective action to be taken in the space provided. If
    no corrective action is necessary, provide appropriate
    justification.

5. When implementation of the corrective action is complete,
    sign and date the form in the space allotted. (Enter "NA" if
    no corrective action is necessary.)

NMP-1 EOP VERIFICATION

DISCREPANCY RESOLUTION REPORT

DISCREPANCY ID # _____   CHECKLIST # _____

EOP NUMBER _____   REVISION _____

STEPS _____

DESCRIPTION:

CORRECTIVE ACTION:

IMPLEMENTED BY: _____   DATE: _____

Revision 1   SHEET _____ OF _____

APPENDIX C

GUIDANCE ON THE INTERPRETATION
OF
VERIFICATION CHECKLIST SECTION A
EVALUATION CRITERIA

INTRODUCTION

The evaluation criteria listed in Section A of the Verification
Checklists ("Technical Accuracy") are derived primarily from INPO
Report 83-004, "Emergency Operating Procedures Verification
Guideline" (March, 1983). The following guidance is provided to
standardize the interpretation of these criteria. Each criterion
in Section A of the checklists is repeated below, followed by a
discussion of its application.

INSTRUCTIONAL GUIDANCE

A1. Do the instructions provided in each step of the procedure
     comply with the intent of the corresponding technical
     guideline steps?

     Discussion: The instructions provided in the EOP must be
                    technically consistent with the intent of the
                    guidelines from which they were derived. While
                    there will not necessarily be a one-for-one
                    correspondance between the actual wording of
                    the EOP steps and those of the technical guide-
                    lines, the objectives, prescribed actions, and
                    intended results of the steps must be identical.

                    This criterion must be evaluated by a person
                    familiar with the basis of the Plant-Specific
                    Technical Guidelines (PSTGs) and the BWR Emer-
                    gency Procedure Guidelines (EPGs). A
                    step-by-step comparison of the EOP with the
                    corresponding technical guideline should be
                    made.

                    During the initial verification of the EOPs,
                    the technical accuracy of the procedures should
                    be evaluated against the PSTGs. (It is not
                    necessary to address the correct plant-specific
                    adaptation of information contained in the
                    generic EPGs, since the PSTGs were themselves
                    verified during their development.) If a pro-
                    cedure revision is necessitated by a change to
                    the EPGs, however, the technical accuracy of
                    the EOPs should be verified against the EPGs
                    rather than the PSTGs, since it is not antici-
                    pated that the PSTGs will be updated to reflect
                    future EPG revisions.

A2. Have all steps of the corresponding technical guideline been
incorporated into the procedure?

Discussion: All steps of the technical guidelines must be
addressed in the EOPs. The reviewer should
verify that all information contained in the
technical guidelines has been incorporated into
the EOPs and that no steps have been inadvert-
ently omitted.

A3. Are cautions referenced at the points specified in the
technical guidelines?

Discussion: Cautions referenced in the technical guidelines
must be included in the corresponding steps of
the EOPs. The reviewer should ensure that each
caution identified in the technical guidelines
has been properly applied in the appropriate
procedure steps.

A4. Are all steps and cautions in the procedure derived from
corresponding technical guideline steps and cautions?

Discussion: Since the EOPs are based upon the technical
guidelines, each EOP step and caution should be
traceable to a source step or caution in the
technical guidelines. The reviewer should
verify that all EOP steps and cautions have a
basis in the technical guidelines and that no
extraneous steps or cautions have been added.
If steps and cautions are found which are not
directly traceable to corresponding steps or
cautions in the technical guidelines, the
reviewer should verify that (a) the step or
caution does not conflict with the intent of
the technical guidelines, (b) that the informa-
tion is technically correct, (c) that the
information is pertinent, i.e. that the step or
caution is within the procedural scope defined
by the technical guidelines and supplies rele-
vant information, and (d) that the inclusion of
the additional material does not detract from
the understandability of the procedure. (NOTE:
Checklist Items A2, A3, and A4 may be evaluated
concurrently. Items A2 and A3 verify that all
technical guideline steps and cautions, respec-
tively, have been incorporated in the procedure,
while Item A4 verifies that only those steps
and cautions have been incorporated.)

A5.   Do all numerical values in the procedure correspond to those
      specified in the technical guidelines?

      Discussion: Quantitative values and limits specified in the
                    EOPs must correspond directly to the plant-
                    specific numbers defined by the technical
                    guidelines. It is not necessary to re-verify
                    the actual calculation of these numbers.

A6.   Do the procedure entry conditions correspond to those
      specified in the technical guidelines?

      Discussion: The conditions and parameter values specified
                    as entry conditions in the EOPs must correspond
                    directly to those in the technical guidelines.
                    Quantitative values should be identical.

A7.   Does the sequence of steps in the procedure correspond to
      that in the technical guidelines?

      Discussion: The path the operator takes through the EOP
                    must be the same as that outlined by the tech-
                    nical guidelines for all possible circumstances.
                    This does not imply, however, that steps must
                    be divided, numbered, or arranged in the EOPs
                    exactly as they are in the technical guidelines,
                    only the operational flowpaths must be identical.

                    This criterion must be evaluated by a person
                    familiar with plant operation and the basis of
                    the EPGs and PSTGs. A comparitive evaluation
                    of the step sequences defined by the EOPs and
                    tecnical guidelines should be performed,
                    devoting particular attention to branching
                    instructions.

A8.   Does the association of override statements with
      instructional steps correspond to that defined in the
      Technical Guidelines?

      Discussion: The correspondence of override statements to
                    steps must be consistent between the EOPs and
                    the PSTGs. Each override statement should be
                    specifically checked, since the order and
                    structure of steps may have been altered in the
                    EOPs.

A9. Where cross-references are used, are titles, procedure
     numbers, page numbers, and step numbers correct?

     Discussion: Cross-references to other procedures or to other
                   steps in the same procedure may occasionally
                   appear. References to other procedures must
                   include both the number and title. References
                   to other steps in the same procedure must
                   specify both the step number and the number of
                   the page on which the step may be found. The
                   reviewer should verify, as applicable, that (a)
                   the correct procedure is referenced, (b) the
                   procedure number and title are correctly stated,
                   (c) the correct step is referenced, and (d) the
                   correct page is listed.