T1-CL-I-10

SYSTEM REVIEW CHECKLIST INSTRUCTIONS WALKDOWN - FORM 10

	Signature	Date
Prepared:	KUmayers	6/30/97
Reviewed:	[signature] SVSR Group Lead	6/30/97
Approved:	George R. Bindler Manager Company Quality	6/30/97
Approved:	Eric Blocher Deputy Project Director	30JUN97

1.0 FORM 10 - SYSTEM WALK DOWN REVIEW CHECKLIST

1.1 The purpose of this form is to:

- Provide in plant review of system configuration.
- Evaluate status of physical system configuration against design documents and requirements
- Document the results to demonstrate whether the requirement has been incorporated

1.2 The OE adds the Parsons Power Document ID number, NNECo system code, system title to the form header, and indicates the responsible SLE.

1.3 Upon initiation of the form, the OE signs and dates the appropriate Revision block in Part A.

1.4 The SLE in concert with the OE will review the specific checklist requirements and assign each requirement to the (1) OE, (2) discipline, or (3) specialist reviewer. The OE adds to Part C, the assigned group(s) and types/prints the reviewer/inspector's name to each specific checklist requirement.

1.5 The OE uses the modification summary listing (Form 6) to obtain a list of modifications that must be walked down. Additionally, the OE walks down the system for any system changes not reflected in the current configuration drawings.

Unmodified portions of the system shall be walked down to confirm conformance with the PI&D. Piping supports type, general location, and configuration shall also be verified.

Modified portions of the system shall be walked down in detail to verify that the as-built condition conforms with the design base drawings and documents, including verification of:

a. Support type, location (dimensional verification), and configuration.

b. Instrument line route, supports, and slopes.

c. Separation and support of raceways carrying circuits of the modified portion of the selected systems.

1.6 Procedure Checklist Requirements (Part C)

1.6.1 Using the applicable NNECo Modification Package(s) noted in Form 6 and other NNECo input documents as applicable, the OE(s) completes Part C of the Checklist following any additional instruction included in Part C.

1.6.2 If the requirement is assigned to another reviewer/specialist, the OE is responsible to track and assure the requirement input is provided.

1.6.3 The checklist requirement result should be described in sufficient detail. The OE/inspector determine the depth of the review. Wordy paragraphs are to be used only if required.

1.6.4 Upon completion of review of the checklist requirement, the assigned inspector checks the appropriate blocks under item B of the requirement, provides a disposition in accordance with the instructions in Part C, signs and dates the specific requirement(s). This signature indicates that the inspection of this requirement is complete.

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	Responsible Engineer: (System Team Lead)		

PART A WALKDOWN CHECKLIST CLOSE-OUT

	REVISION 0 Signature/Date	REVISION 1 Signature/Date	REVISION 2 Signature/Date
1. **ORIGINATOR**			
2. **REVIEWED**	—	—	—
Mechanical Lead			
Electrical Lead			
Control Systems Lead			
Operations Lead			
Procedures Lead			
Testing Lead			
3. **APPROVAL**	—	—	—
System Lead Engineer			
SVSR Lead Engineer			

PART B SYSTEM WALKDOWN OBSERVATIONS & FINDINGS SUMMARY

Instructions: (1) **The SLE will review the attached checklist and supplemental material and indicate whether the "as built" conditions are in conformance with the applicable system design documentation.**

(2) **For each DISCREPANCY found during the audit, the SLE is to indicate the requirement item number(s) under the appropriate Revision and assure all discrepancies are processed per PP-07.**

	REVISION 0	REVISION 1	REVISION 2
1. **Does the as built conditions reflect the design documentation as it relates to the system?**	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
2. **Summary of Discrepancy(ies) Items**			
Signature SLE/Date			

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PART C WALKDOWN CHECKLIST

Instructions: For each requirement listed below:

(1) GLE, SLE, OE and system team develops the specific requirements to be reviewed using the generic questions in the Instruction and Attachment A Source Book. Each requirement will be given a new item number and include steps A, B, C, and D.

(2) Each requirement will be consecutively number starting with 1 (one).

(3) The system Lead Engineer will assign the function group responsible for reviewing each requirement. Mechanical = M, Electrical = E, Controls = I&C, Testing = T, Procedures = P, Operations = O

(4) The individual that reviews the requirement will sign and date,, provide a disposition, indicated interfaces, and provide a response based upon the following:

a. Yes Requirement is satisfactorily addressed. Include reference source, revision, and date. No explanation/results is required.

b. No Requirement is not satisfactorily addressed. Include reference source, revision and date, if applicable. If an RAI was generated to clarify the requirement, the reference RAI number and subsequent NNECo response reference is to be provided. Provide an explanation of how you concluded the requirement was not satisfied. Include reference source, revision, and date., if applicable. Disposition as a DISCREPANCY. The responsible individual shall immediately advise the SLE of any requirement that is to be dispositioned as a DISCREPANCY. Initiation of Project Procedure PP-07 will be by the OE.

c. NA Requirement is not applicable. Explanation should be included only if it clarifies the disposition.

d. INF Requirement could not be verified because information could not be found. Include a statement under results that indicates the information could not be found and disposition as a DISCREPANCY. The responsible individual shall immediately advise the SLE of any requirement that is to be dispositioned as a DISCREPANCY. Initiation of Project Procedure PP-07 will be by the OE.

PartC Item	Review Group	Status	Requirement Reviewer's Signature	
1.		❒ Yes ❒ No ❒ NA ❒ INF	Date	

A. REQUIREMENT

B. REQUIREMENT IS CONSIDERED AS:

❒ SATISFYING THE LICENSING/DESIGN BASIS
❒ DISCREPANCY (Process per PP-07)

C. REFERENCE(S) & SOURCE/ REVISION/ DATE:

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D. REVIEW SUMMARY/RESULT

EXTERNAL EVENTS

- If the design considers wind loads:
    - Was the fastest mile wind speed based on a 100 year recurrence interval?
    - Was a rational approach used to translate wind velocity to a pressure load?
    - Were vertical velocity distribution and gust factors employed in the design?
- If the design considers snow loads:
    - Was the basic snow load based on the meteorological characteristics of the geographical area?
    - Was additional load caused by drifts considered in the design?
- If the design considers seismic loads:
    - Were the guidelines and procedures contained in 10 CFR 100 Appendix A used to establish the Design Basis Earthquake?
    - Was the Operating Basis Earthquake at least one half the magnitude of the Design Basis Earthquake?
    - Were the Design Response Spectra developed in accordance with the method contained in Regulatory Guide 1.60?
    - Were damping values in accordance with Regulatory Guide 1.61?
    - When a dynamic analysis of the system was performed, were the modal responses correctly combined as discussed in Regulatory Guide 1.92.
    - Were the three spatial components in the seismic response analysis combined correctly as discussed in Regulatory Guide 1.92?

- If an equivalent static analysis was used to analyze the system or any part of the system's components, was a multi-mode factor applied to the peak seismic acceleration to account for closely spaced modes?
- Were adjacent Non-Category I structures and equipment seismically supported to prevent their failure from affecting the safety function of the Category I components?
- Was Class 1E electrical equipment evaluated for seismic loads in accordance with Regulatory Guide 1.100 and IEEE 344?
- If an electrical component was installed inside an electrical cabinet, was the actual in-panel response spectra compared to the required response spectra?
- Were modifications performed using the same seismic criteria as was used to design the original system?

- If the design considers tornado loads:
  - Was the design basis tornado based on the characteristics contained in Regulatory Guide 1.76?
  - Was a rational approach used to translate tornado wind velocity to a pressure load?
  - Were the combined effects of wind and atmospheric pressure change considered in the design?
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