Doc No.: PMP-5040-MOD-005

Rev No.: 005

Title: TREATMENT OF INSTALLED ITEMS NOT REQUIRED FOR PLANT OPERATION

Alteration Cat.: Minor Revision
CDI/50.59:

PORC Mtg. No.:
CARB Mtg. No.:
Admin Hold AR No.:
Superceding Proc(s):

Temp Proc Exp Date:
Temp Change Exp Date:
Temp Proc/Change End:
Effective Date: 12/29/2015 12:00:00 AM

Approvals

Name	Review/Approval Type/Capacity	Date
Neuendorf, Robert (s009165)	1 Cross-Discipline Review : DESIGN ENGINEERING	12/15/2015 09:58
McCarthy, Michael K (s243583)	1 Cross-Discipline Review : SYSTEMS ENGINEERING	12/15/2015 10:33
Foote, Keith (s007265)	3 Technical Review	12/17/2015 07:57
Wendzel, Regan (s007887)	7 Approval Authority	12/21/2015 09:50

Signature Comments

Approved per Plant Manager, Sam Partin.

Treatment of Installed Items Not Required for Plant Operation

Information

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Writer	Document Owner	Cognizant Organization

TABLE OF CONTENTS

1 PURPOSE AND SCOPE

1.1 This procedure provides guidance and requirements for the disposition of items installed at Cook Nuclear Plant that are no longer needed for present or future plant operation.

1.2 This procedure applies to decisions to abandon-in-place, remove, or partially remove/partially abandon unneeded equipment. The implementation of these decisions is governed by the project acceptance and Engineering Change processes.

2 DEFINITIONS AND ABBREVIATIONS

Term	Meaning
Abandon-in-Place	An item (Structure, System, Assembly, component, or part) that is not needed for plant operation or for auxiliary functions either now or in the future, has not been removed from its installed location, and has been disconnected from all functional systems or equipment [Ref. 5.2.1d].
Abandoned	An item (Structure, System, Assembly, Component, or Part) whose intended design function has ceased [Ref. 5.2.1d].

3 DETAILS

3.1 Responsibilities

3.1.1 AEPNGG managers are responsible for supporting implementation of and adherence to this procedure within their respective organizations.

3.1.2 AENGG groups that have direct oversight responsibility for installed equipment are responsible for identifying when such equipment is no longer needed for current or future plant operation. Typically, this is the responsibility of system engineers within the plant engineering organization but may involve other plant departments where these departments are the recognized owner of the equipment.

3.2 Requirements

3.2.1 Plant equipment shall be maintained functional (procedures required to maintain and operate the equipment shall be in "Approved" status) and retained in design documentation, the UFSAR, and information databases until an Engineering Change (EC) has been approved and implemented to remove or abandon the equipment.

3.2.2 Nuclear engineering department personnel will determine or obtain determination regarding whether or not, and how, removals or abandonment should proceed.

3.2.3 The project acceptance and Engineering Change processes are used to initiate either the removal or abandonment of installed plant equipment and to obtain management approval for such actions [Ref. 5.1.3].

3.2.4 Appropriate tags shall be affixed to all abandoned equipment (e.g., cables, switches) in such a way as to minimize confusion to personnel.

3.2.5 Appropriate AEPNGG design documents and information databases, such as the Equipment Database, shall be maintained up-to-date to reflect the equipment record status (e.g., Inactive, Removed, Retired) of abandoned equipment. [Ref PMP-5043-EDB-001, Attachment 2]

3.2.6 Removals may be partial (e.g., an instrument can be targeted for removal without necessarily removing its support).

3.2.7 Consider criteria in Attachment 15, Abandoned Equipment, of 12-EHP-5040-MOD-009, Engineering Change Reference Guide, and the following criteria during the evaluation process for removal versus abandonment:

a. Effect on industrial and personnel safety.

b. Potential impacts on operations and maintenance personnel (because abandoned-in-place items such as control switches, gages, or valves may be mistaken for operational devices).

c. Cost in terms of radiation exposure.

d. Need for occupied space (space is critical in occupied area).

e. Cost of general upkeep (e.g., painting, labeling, cleaning).

f. Salvage or reuse value versus removal costs.

g. Cost of additional supports for partial removal or abandonment of systems.

3.2.8 Depending on safety and status control considerations, the formal abandonment and isolation of abandoned equipment may be accomplished as follows:

a. Processing a document-only Engineering Change (no field work) and controlling existing isolation devices (e.g., placement of abandoned equipment tags, locked valves, revised procedures and drawings),
--OR--
b. Processing an Engineering Change to authorize field work to disconnect the abandoned equipment from all active systems and equipment (e.g., replacement of valves with blanks, disconnecting or removing power cables and control wiring).

3.2.9 Attachment 1, Screen for Abandoned Equipment EC with No Field Work, provides guidance for selecting the appropriate alternative (i.e., Steps 3.2.8a **OR** 3.2.8b).

3.2.10 **WHEN** the 'No Field Work' alternative is selected per Steps 3.2.8 and 3.2.9, **THEN** the safety and status control considerations for using existing isolation devices to control the abandoned equipment should be addressed in the EC package, as follows:

a. Include and reference in the EC package the completed Attachment 1, Screen for Abandoned Equipment EC with No Field Work.
--OR--
b. Incorporate in the EC package information corresponding to responses to the applicable questions in the Attachment 1, Screen for Abandoned Equipment EC with No Field Work.

3.2.11 Use PMP-5043-CCD-001, Configuration Change Control, to select the appropriate Engineering Change process to execute removal, abandonment, or partial removal/partial abandonment [Ref. 5.1.1].

4 FINAL CONDITIONS

N/A

5 REFERENCES

5.1 Use References:

5.1.1 PMP-5043-CCD-001, Configuration Change Control

5.1.2 12-EHP-5040-MOD-009, Engineering Change Reference Guide

5.1.3 PMP-1060-RPA-001, Plant Financial Committee Request for Funding Process

5.2 Writing References:

5.2.1 Source References:

a. CR 97-3251

b. PMP-2060-SEC-008, Security Safety Interface

c. PMP-5043-EDB-001, Equipment Database

d. 1-2-EDS-111, Design Criteria and Documentation of Abandoned and Spare Item

5.2.2 General References

a. AR 2014-2783-8, Engineering Evaluation for abandoned equipment

Equipment Tag #_____, Equipment Name:_____

1. Effective isolation of abandoned equipment from active equipment MUST be achievable by controlling the position of installed isolation devices (e.g., valves closed, circuit breakers open, fuses pulled), through changes to operating procedures, and by replacement of clearance tags with Abandoned Equipment tags/labels.

   a. Consider all abandoned/active interfaces such as shared flow paths; common recirculation, cooling water, drain, or vent lines; common vessels, headers, or compressed air manifolds; common power or control buses.

   b. Determine if part of a system/sub-system that is being considered for abandonment will be needed as a flow path (fluid or electrical) to perform tests or to back-feed or bypass other systems or components and will need to be retained in ACTIVE status and effectively isolated from the abandoned portion of the system/sub-system.

   Based on the considerations in 1, 1a, & 1b, can abandonment be achieved with No Field Work? ☐ Yes ☐ No

   Comments:_____
   _____
   _____
   _____
   _____

2. **IF** the equipment to be abandoned involves electrical interfaces with active equipment, **THEN** adverse impacts MUST be preventable without field work.

   a. Consider auxiliary contacts of relays or motor contactors for abandoned equipment in control circuits for active equipment and vice versa, or auxiliary contacts wired into annunciators or trip circuits that are common to multiple pieces of equipment, some of which will remain active.

   b. Consider the potential for an abandoned circuit to be energized/back-fed by an active circuit and the potential for abandoned power or control circuits to become a source of grounds on active circuits.

   Based on the considerations in 2, 2a & 2b, can abandonment be achieved with No Field Work? ☐ Yes ☐ No

   Abandonment does NOT involve electrical equipment. ☐ N/A

   Comments:_____
   _____
   _____
   _____
   _____

3. Conspicuous placement of Abandoned Equipment tags/labels on abandoned equipment, isolation devices, and instruments & controls on control room and local panels MUST be effective in eliminating the following:

   a. Operator uncertainty and error-likely situations with respect to configuration control and equipment performance monitoring.

   b. Error-likely situations affecting maintenance activities.

   Based on the considerations in 3, 3a & 3b, can abandonment be achieved with No Field Work? ☐ Yes ☐ No

   Comments:_____
   _____
   _____
   _____
   _____

4. **IF** the abandonment involves instruments or controls containing batteries or capacitors or both that might leak corrosive fluids, jeopardizing adjacent equipment, **THEN** the batteries and capacitors MUST be removed.

   a. Removal of batteries and capacitors from abandoned instruments or controls can be performed as maintenance activity that ALONE does NOT categorize the change as "EC with field work."

   Based on the considerations in 4 & 4a, can abandonment be achieved with No Field Work? ☐ Yes ☐ No

   Abandonment does NOT involve instruments or controls. ☐ N/A

   Comments:_____
   _____
   _____
   _____

5. **IF** deterioration of the abandoned equipment or the isolation devices can adversely impact personnel safety or nuclear safety, create sources of foreign matter that will be expensive to control, or cause other significant negative impacts, **THEN** removal versus abandonment with periodic inspections and continued maintenance may be dictated.

   a. Consider if deterioration in material condition will require periodic internal inspections, such that the need for periodic internal inspections and continued maintenance on the abandoned equipment or isolation devices or both will be more expensive than removal.

   b. Conversely, consider if deterioration can be readily detected and controlled by Preventive Maintenance tasks (e.g., periodic inspection and painting, as needed) that add little or no expense over that required to maintain similar active equipment.

   c. For valves WITHIN the abandonment boundary, the removal of diaphragms that are likely to deteriorate can be performed as maintenance activity that ALONE does NOT categorize the change as "EC with field work."

   Based on considerations in 5, 5a, 5b & 5c, can abandonment be achieved with No Field Work? ☐ Yes ☐ No

   Comments:_____
   _____
   _____
   _____

6. Summary/Conclusion

   IF all the responses for items 1 through 5 are "Yes" or "N/A," **THEN** this system, sub-system, component can be effectively and safely abandoned by processing an EC with No Field Work.

   IF any response for items 1 through 5 is "No," **THEN** an EC with Field Work is required to abandon this system, sub-system, component.

   ☐ **EC with No Field Work** ☐ **EC with Field Work**

   Comments:_____
   _____
   _____
   _____
   _____

_____ _____ ___/___/___
(Print) (Sign) (Date)

REVISION SUMMARY

Procedure No.: PMP-5040-MOD-005 Rev. No.: 5
Title: Treatment of Installed Items Not Required for Plant Operation

Alteration	Justification
The changes involved in this revision are administrative and are subject to the controls of 10 CFR 50 Appendix B. Therefore, the requirements of 10 CFR 50.59 and 10 CFR 72.48 are not applicable.	
A review of PMP-2060-SEC-007, Request for Security Impact Review and Evaluation, reveals this procedure does not require a safety/Security Evaluation.	
Section 2, meaning of "Abandon-in-Place:" • Deleted "[Ref. 5.2.1c]" • Added "[Ref. 5.2.1d]"	"[Ref. 5.2.1c]" refers to NRC Commitment 7209 that was placed in "Retired" status on 10/17/2013 and is being removed as a source reference "[Ref. 5.2.1d]" refers to 1-2-EDS-111, Design Criteria and Documentation of Abandoned and Spare Item, that is the source reference for the meaning of the term
Section 2: Added meaning of "Abandoned" with "[Ref. 5.2.1c]" the source reference	To provide the meaning of a term used in the procedure and its source reference In support of **GT 2015-11175-1**
Step 3.1.2: Deleted "[Ref 5.2.1b.]"	Reference 5.2.1b is being removed as a source reference because this record was placed in "Retired" status on 06/06/2011. Editorial Correction Criterion: n
Step 3.2.1: Inserted "…(procedures required to maintain and operate the equipment shall be in "Approved" status)…" after "Plant equipment shall be maintained functional…"	As requested in **AR 2015-12876-5** and tracked in **AR 2015-12876-9**
Deleted former Step 3.2.2 (Rev. 4): "Equipment planned for abandonment is not required to meet the requirement of step 3.2.1 to maintain the equipment in a functional status (e.g., it is desirable to keep it out of service or discontinue preventative maintenance tasks) provided the Engineering Change to abandon/remove the equipment is started in INDUS and drafted such that the scope can be adequately identified and a 50.59 Review is completed within 90 days of making this determination. [Ref. 6.2.1d]"	
Step 3.2.1: Replaced "abandon-in-place" with "Abandon"	Wording changed to align with 1-2-EDS-111, Design Criteria and Documentation of Abandoned and Spare Item As requested in **GT 2015-11175-1**
Steps 3.2.2, 3.2.3 and 3.2.7: Replaced "abandonment-in-place" with "Abandonment"	
Steps 3.2.4, 3.2.5 and 3.2.10: Replaced "abandoned-in-place" with "Abandoned"	

Office Information for Form Tracking Only - Not Part of Form

This is a free-form as called out in PMP-2010-PRC-002, Procedure Alteration, Review, and Approval.

REVISION SUMMARY

Procedure No.: PMP-5040-MOD-005 Rev. No.: 5
Title: Treatment of Installed Items Not Required for Plant Operation

Alteration	Justification
Step 3.2.5: • Replaced "…configuration status…" with "…equipment record status (e.g., Inactive, Removed, Retired)…" • Added "[Ref. PMP-5043-EDB-001, Attachment 2]" at the end of the instruction	To align terminology with PMP-5043-EDB-001 and reference Attachment 2 of PMP-5043-EDB-001 as the source document In support of **GT 2015-11175-1**
Deleted former Reference 5.2.1b (Rev. 4): NRC Commitment 7208	NRC Commitment 7208 is being removed as a source reference because this record was placed in "Retired" status on 06/06/2011. Editorial Correction Criterion: n
Deleted former Reference 5.2.1c (Rev. 4): NRC Commitment 7209	NRC Commitment 7209 is being removed as a source reference because this record was placed in "Retired" status on 10/17/2013. Editorial Correction Criterion: n
Deleted former Reference 5.2.1d (Rev. 4): NRC Inspection Report No. 50-315.316, URI-25, AEP:NRC:1260G2	This reference is identified only in former Step 3.2.2, which is being deleted as requested in **AR 2015-12876-5** and tracked in **AR 2015-12876-9**
Added Reference 5.2.1c: PMP-5043-EDB-001, Equipment Database	This document is shown as a reference in the procedure Editorial Correction Criterion: n
Added Reference 5.2.1d: 1-2-EDS-111, Design Criteria and Documentation of Abandoned and Spare Item	This document is identified as the source reference for the changes requested in **GT 2015-11175** Editorial Correction Criterion: n
Attachment 1, Item 4.a.: Replaced "abandoned-in-place" with "Abandoned"	Wording changed to align with 1-2-EDS-111, Design Criteria and Documentation of Abandoned and Spare Item As requested in **GT 2015-11175-1**

REVISION SUMMARY

Procedure No.: PMP-5040-MOD-005 Rev. No.: 5
Title: Treatment of Installed Items Not Required for Plant Operation

IMPLEMENTATION PLAN

Summary of Change
See Revision Summary.

Reason for Change
See Revision Summary.

Implementation Schedule
Revision will be effective after receipt of overall approval.

Training Needs
None

Expiration Date
N/A

Required Basis Documents Update
N/A

Related Processes and Procedures
N/A

Transition Plan
N/A

Related Equipment Modifications
N/A

Communication Plan
An e-mail notification will be distributed to the plant population.

Special Tools, Aids, Permits, Etc.
N/A

Related Action Requests
AR 2015-12876
GT 2015-11175