

TEMPORARY CHANGE REQUEST

TCR NO. **TCR-ENG-019,R4-001**

(e.g., TCR-ENG-021,R0-001)

The Temporary Change Request (TCR) Form is to be used to process urgent or minor changes for PPPL Policies, Organization/Mission Statements and Procedures. The TCR should be used when changes are:
1) urgent, and can not wait the 2-4 week period for Department Head review/comment, or
2) minor, and do not warrant Department Head review.

Person Requesting Change: Jim Graham Phone Ext: 2701

Department Name: QA/QC Best Practices

Document Number: ENG-019 Revision No.: 4

Document Title: PPPL Engineering Standards

Reason for change:

Update Management Systems, Training and Records retention section to reflect change in organization titles for Engineering and QA/QC Departments.
Update Engineering and QA/QC department name references throughout the procedure.

Change description: (Summarize and attach changed pages, with changes clearly indicated)

Updated Management Systems, Training and Records retention section to reflect change in organization title.
Updated Engineering and QA/QC department name references throughout the procedure.

1. Does this TCR significantly alter the intent or scope of the document? YES: _____ NO: **X** _____

2. Does this TCR significantly impact ES&H? YES: _____ NO: **X** _____

If 1 or 2 is YES, Explain why the changes should not be routed for Department Head review:

Department/Division Head Approval

Date

Head, Quality Assurance/Quality Control

Date

Release/Effective date of this TCR: 8/14/17

Incorporate this TCR into next revision of this document? YES: **X** NO: _____

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Subject: PPPL Engineering Standards	Effective Date: October 24, 2014	Initiated by: Head, Engineering
	Supersedes: Revision 3 Dated 2/26/08	Approved: Director

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Management System (Primary): 03.00 Engineering
Management System Owner: Head, Engineering
Management Process: 03.04 Engineering Programs and Processes
Process Owner: Head, Engineering
Sub-Process: 03.04.08 Standards Management
Sub-Process Owner: Head, Engineering
Subject Matter Expert (SME): Head, Project Management Office; Head, QA/QC
 TCR-ENG-019, R4-001 (PPPL Technical Standards Manager)

Applicability

This procedure applies to Engineering Standards developed by PPPL personnel and to industry or governmental Engineering Standards that are proposed to adapt for use on Laboratory experimental projects or technical infrastructure.

Introduction

This procedure describes the method and responsibilities for the development, review, approval, and revision of PPPL Engineering Standards. These guidelines are presented in the following sections:

- A. Creating New Engineering Standards
- B. Revising Engineering Standards
- C. Five Year Review of Engineering Standards

Reference Documents

GEN-003, Document Distribution Control
 PPPL Engineering On-line Standards Manual

Definitions

Engineering Standard A standard may be a specification, test method, classification definition, or practice that has been reviewed by the PPPL Engineering Standards Review Committee (ESRC) and approved for use at PPPL. Standards may include guidelines, charts, tolerances, tables and reference photographs. Standards are developed to assure performance, quality, and reliability of equipment and installations at PPPL. These may be in addition to an interpretation of nationally recognized standards, regulations, or requirements.

Procedure

A. Creating New Engineering Standards TCR-ENG-019, R4-001

Responsibility

Action

- | | |
|--------------------|--|
| Head, Engineering | <ol style="list-style-type: none"> 1. Appoints individuals as members of the Engineering Standards Review Committee (ESRC). Committee members will include individuals from the Engineering Department, Facilities and Site Services Department, QA/QC Department, and the PPPL Technical Standards Manager. 2. Requests individuals from other PPPL Departments and Projects to serve as pro tem resource members of the ESRC, if determined appropriate. This determination is at the discretion of the Head of Engineering based on the subject of the standard to be reviewed. |
| Initiator | <ol style="list-style-type: none"> 3. Identifies the need for an Engineering Standard (either developed by the initiator or from outside sources). |
| Head, Engineering | <ol style="list-style-type: none"> 4. Accepts the proposed standard and identifies it as a draft standard or informs Initiator of refusal of the proposed standard, citing reasons for the refusal. 5. Assigns the appropriate ESRC member to lead the review of the draft standard. 6. Provides the ESRC Review Leader with a copy of the draft standard. |
| ESRC Review Leader | <ol style="list-style-type: none"> 7. Reviews the draft standard with the initiator to assure that it meets the intent of PPPL Standards (refer to Definitions). 8. Provides the draft standard to the QA/QC Department for distribution. |
| QA/QC | <ol style="list-style-type: none"> 9. Distributes the draft standard for review and comments to members of the ESRC and any others designated by the ESRC Review Leader or Head of Engineering. |
| ESRC Members | <ol style="list-style-type: none"> 10. Review the draft standard and provide comments to QA/QC Department. <p>Note: ESRC members should solicit input and comments from other individuals within their organization, as appropriate.</p> |
| QA/QC | <ol style="list-style-type: none"> 11. Compiles all comments and provides them to the ESRC Review Team Leader or Initiator. |

Initiator	12. Resolves comments with each ESRC Member, requesting ESRC Review Leader assistance, if necessary. Documents all comment resolutions.
	13. Submits the comment resolutions and draft standard to the ESRC Review Leader for concurrence.
ESRC Review Leader	14. Obtains Head of Engineering approval of the final standard after resolving any comments.
Head, Engineering	15. Approves and forwards the final standard to QA/QC for issuance and distribution. Returns unapproved standards to the initiator for further resolution of issues.
QA/QC	16. Distributes the approved Engineering Standard per procedure GEN-003.
	17. Maintains system for documenting and controlling PPPL Engineering Standards following procedure GEN-003.

B. Revising Engineering Standards

When it is determined that a change to an Engineering Standard is required, refer to Section A, step 4 and follow the same sequence of responsibilities and actions. The steps for initiating a revision to an Engineering Standard are the same as for the development of the original Standard except that an ESRC Review Team Leader may not be necessary.

C. Five Year Review of Engineering Standards

An Engineering Standards review is required every five years from the original date of issue or latest approved change. This review is intended to provide a means of periodic updates to an Engineering Standard that may require changes. The Engineering Standard review by the ESRC or Head of Engineering may indicate that changes are not necessary at this time. When an Engineering Standard is due for a five-year review, the following outlined sequence of responsibilities and actions are to be followed.

<u>Responsibility</u>	<u>Action</u>
QA/QC	1. Reviews approval dates of all Engineering Standards. At five years from date of latest approval notifies the Author listed by the Engineering Standards Manual. Responsible Line Manager (RLM).
Head, Engineering	2. Ensures that each Engineering Standard is reviewed every five years.
ESRC and Author/RLM	3. Review Engineering Standards for any required updates and changes.

- ESRC and Author/RLM
4. Documents the review and indicates whether any revisions are required. Indicates updates and changes by marking-up the Engineering Standard. If no revisions are necessary, extends the Standard for five more years from the time of the last approved revision or change, if approved by the Head of Engineering and notifies the QA/QC Department.
 5. Sends marked-up copy to Head of Engineering for processing per Section B.

Training for this procedure

QA/QC

1. Notifies PPPL Supervisors of revisions or changes to this procedure via email.

Records Requirements Specific To This Procedure

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Records Custodians must assure records are maintained as follows:

Record Title	Record Custodian	Location	Retention Time
Final Engineering Standard with Comment Resolutions	QA/QC	QA/QC Files	Cut off at end of each FY. Transfer to NARA in 5 yr. blocks when most recent record is 25 yrs. old. <i>Reference DOE Admin 16 Administrative Management Records, 1.1</i>
Draft Engineering Standard	Head, QA/QC	QA/QC Files	Destroy/delete when dissemination, revision or updating is completed <i>Reference DOE Admin 20 Electronic Records, 13</i>