

Subject: Fire Seals, Fire Dampers, and Fire Doors	Effective Date:	Initiated by:
	July 30, 2002	ES&H and Infrastructure Support
	Supersedes: Rev. 0, dated 11/8/00	Approved: Director

Applicability

This procedure applies to work performed by PPPL staff and subcontractors on fire seals, fire dampers and fire doors at C and D sites.

Introduction

This procedure establishes controls to assure the functionality of fire seals, fire dampers and fire doors. Reviews and approvals are required to assure that proposed additions, modifications, repairs and/or removals of fire seals, fire dampers and fire doors are appropriately evaluated and documented to minimize the associated risks. Placement of new fire seals must be done in accordance with procedure ENG-027 "Fire Barrier Penetration Seal Installation and Repair". The installation of a completely new penetration or core-bore is covered in ENG-028.

Reference Documents

NFPA	National Fire Protection Association Standards and Codes
DOE Order 420.1	Facilities Management
DOE Order 5480.19	Conduct of Operations
GEN-006	Occurrence Reporting and Processing of Operations Information
ENG-027	Fire Barrier Penetration Seal Installation and Repair
ENG-028	Core Boring, Cutting and Drilling
ES&H Directive 5008	Section 5 - Fire Safety

Procedure**A. Impairment of Fire Doors, Fire Dampers and Fire Seals**

Note: A fire door is impaired when chocked or blocked open and it is unattended (i.e., no one in immediate area who is responsible to close it). Doors that are closed automatically by a fire system are an exception. Opening a fire door and walking through it, or holding it open for material to pass through it is not an impairment as long as someone is there to close the door when done.

Responsibility Action

Initiator

1. Identifies need to impair a fire door, fire damper or a fire seal (note: a new opening in a fire rated wall is also considered an impairment of a fire seal.)

Note: Any activity impacting a radiologically activated or tritium contaminated system in the Tritium Area, MER, LECT, or Stack, must have prior approval of the D-Site Shift Supervisor on the Work Permit. The approval indicates that limiting conditions of operation have been considered, appropriate actions initiated and that work on the fire protection system can be initiated. No work may be started until the approval is received from the D-Site Shift Supervisor.

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|-----------------------------|---|
| Initiator | 2. Requests "Fire Seal/Penetration Addition/Removal Permit" or "Fire Door/Damper Permit" by calling ESU (3166) or Security (2536) if ESU cannot be reached. |
| ESU | <p>3. Inspects area and issues Fire Seal/Penetration Addition/Removal Permit (Attachment 1) or Fire Door/Damper Permit (Attachment 2), as applicable.</p> <p>4. Posts approved permit in visible location. Records impairment on the ESU tracking system and <u>notifies QC and the Penetration Engineer with a copy of the ESU permit.</u></p> |
| Initiator /
Cog Engineer | 5. Restores fire seals, doors or dampers as quickly as possible and then informs ESU. QC and the Penetrations Engineer must also be informed for fire seals. Note: placement of fire seals <u>must</u> be done in accordance with an approved procedure and procedure ENG-027 "Fire Barrier Penetration Seal Installation and Repair", which requires QC inspection. |
| QC | 6. Performs final inspection of fire seal per procedure ENG-027. Upon satisfactory acceptance of the seal, notifies the Cog Engineer and returns associated procedure with specified detail to the Cog Engineer. |
| ESU | <p>7. Assures fire door/damper is functional and that the door, damper, or seal permit has been removed.</p> <p>8. Updates ESU impairment tracking system. Informs D-Site Shift Supervisor that impairment has been corrected, when applicable.</p> <p>9. Assures that warnings (Attachment 3) are posted on each fire door during regular PM inspection of fire doors. If warning is missing, places new warning label (label on both sides of each door).</p> <p>10. Periodically reviews open permits and follows up on ones that are overdue close-out.</p> |

B. Impaired Fire Doors, Dampers or Seals

Responsibility Action

- | | |
|---------------------------|---|
| Individual
Discovering | 1. Informs ESU of non-functioning or unauthorized impairment of fire seals, fire dampers and fire doors. If possible, immediately correct deficiency (e.g., remove block from fire door). |
| ESU | 2. Evaluates reports of non-functioning fire seals, fire dampers and fire doors. Corrects deficiency, if possible. If not possible, contacts the Facility Manager who must initiate a permit. |

Attachments:

1. Typical Fire Seal/Penetration Addition/Removal Permit form
2. Typical Fire Door/Damper Permit form
3. Examples of Fire Door Warning Labels

**Emergency Preparedness Division
Emergency Services Unit**

**Fire Seal/Penetration
Addition/Removal Permit**

The following individual is authorized to
[check one]:

- temporarily remove/reinstall
- drill/install and seal a new penetration
- other _____

Fire/Gas Seal Penetration No _____

Name _____ Ext. _____

Documentation Required for Approval

WPF# or DCA#: _____

Installation Procedure: _____

Tritium Supervisor: _____

Comments: _____

Penetration Location and Description

Site: _____

Bldg. / Area: _____

Floor Elevation: _____

Nearest Bldg Columns: _____

Located on: wall Ceiling/Floor

Type: Circular Polygon

Center or Bottom Elevation: _____

System(s)/Service: _____

Schedule and Approval

Work to be performed on [date]: _____

Duration [days/weeks]: _____

Estimated (Re)Sealing Date: _____

_____ Cost Center _____ Work Package Job No.

Authorized By: _____

Chief/Date

Copies to: QC, PENETRATION ENGINEER

**Emergency Preparedness Division
Emergency Services Unit**

Fire Door/Damper Permit

The following individual is authorized to
[check one]:

- temporarily block open the door listed
- temporarily disable damper
- other _____

FireDoor/Damper No _____

Name _____ Ext. _____

**Door/Damper Location and
Description**

Site: _____

Bldg. / Area: _____

Reason for blocking/disabling: _____

Compensatory Measures

- None
- Fire watch
- Periodic walk throughs [frequency _____]
- Other

Schedule and Approval

Work to be performed on [date]: _____

Duration [days/weeks]: _____

Estimated Closure Date: _____

Cost Center Work Package Job No.

Authorized By: _____

Chief/Date

WARNING

This fire door can not be blocked open. If you need to block the door open, a fire door permit must be obtained. See Procedure ENG-025. Call ESU at extension 3166 for a permit. If you see this door blocked open without a permit, contact ESU at extension 3166.

Label to be used on fire doors
without magnetic releasing
mechanisms

WARNING

This fire door is held open with an automatic release mechanism. If the release mechanism is not working and you need to block the door open, a fire door permit must be obtained. See Procedure ENG-025. Call ESU at extension 3166 for a permit. If you see the magnetic holders for this door are not functioning, contact ESU at extension 3166.

Label to be used on fire doors
with automatic releasing
mechanisms