

Management Instruction

Safety Inspection of Heating Boilers, Unfired Pressure Vessels, Elevators, Escalators, Dumbwaiters, Platform Lifts, and Chairlifts

This instruction updates the Postal Service program for the safety inspection of heating boilers, hot water supply boilers, unfired pressure vessels, elevators, escalators, dumbwaiters, platform lifts, and chairlifts.

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Policy

The safety of employees and customers is a paramount concern to keeping a viable Postal Service. Both ensuring safety and complying with regulations increase the efficiency of operations (for instance, employees cannot work because equipment has an expired safety certificate), which is key to transforming the Postal Service into a better workplace. Thus, safety inspection of these types of equipment is a mandatory program. Heating boilers, hot water supply boilers, unfired pressure vessels, elevators, escalators, dumbwaiters, platform lifts, and chairlifts must be inspected periodically to ensure their safe, reliable, and efficient operation.

Policies specific to requirements for inspection certificates for Postal Service-maintained facilities and lessor-maintained facilities, equipment acceptance, new lease agreements, operation of certified and uncertified equipment, crucial limited operation of uncertified equipment, periodic inspections of equipment, training and qualification of boiler and elevator inspectors (BEIs), and adherence to codes are covered in the appropriate sections of this instruction. This instruction also identifies responsibilities for planning, scheduling, and executing inspections.

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Scope

This instruction applies to all of the subject equipment owned and maintained by the Postal Service. If the Postal Service is only a partial occupant in either owner-maintained leased facilities or facilities owned by other government agencies, the facilities service office (FSO) BEI coordinator and/or Headquarters BEI program manager are authorized to determine if this instruction applies to any such equipment in these types of facilities. These officials must document that decision and inform:

- The manager of Safety Performance Management, Employee Resource Management, Headquarters.
- The national manager of Design and Construction, Facilities Program Management, Facilities, Headquarters.

Program Management

Organizational responsibilities for managing and administering the safety inspection program are discussed below:

Headquarters Design and Construction unit	Is responsible for overall program management.
National manager of Design and Construction	Designates a Headquarters staff member as BEI program manager.
BEI program manager	Provides oversight, program management, administrative support, forms and checklist development and revision, and technical instruction and consultation to the boiler and elevator safety program and to the FSOs.
FSO	Designates an FSO staff member as BEI coordinator, who reports to the FSO manager of Design and Construction.
BEI coordinator	Manages the daily operation of the assigned BEI program. Responsibilities include: <ul style="list-style-type: none"> ■ Setting up training for new inspectors. ■ Interpreting codes and clarifying technical points. ■ Investigating accidents and unusual conditions. ■ Determining inspection workload and staffing requirements.

**BEI coordinator
(continued)**

- Arranging for new and renovated equipment specifications and designs to be reviewed.
- Tracking field inspection schedules and progress and providing reports about them.
- Evaluating inspectors' performance and activities.
- Ensuring that the certification requirements of the BEIs are met and assisting in program activities to ensure that they are recertified annually.
- Inventorying the vehicle of a BEI leaving employment in accordance with the directions in the section What Is the Checkout Process for Departing BEIs?

Who Are the BEIs?

A number of Postal Service employees are trained and certified to perform inspections. Boiler and elevator inspectors are divided into FSO-attached teams, and each team is supported and supervised by the FSO manager of Design and Construction and the BEI coordinator as designated.

How Are BEIs Staffed and Funded?

Based on its inventory and workload, each FSO is assigned an appropriate number of BEIs and supplies the funding necessary to furnish inspection services, recertification, tools, code books, special programs, travel, and training.

Which Forms Are Available for the BEI to Use?

When necessary, the Headquarters Design and Construction unit develops and issues special inspection instructions and criteria. The BEI program manager develops new checklists and revisions to all related in-house documents, as needed. Postal Service forms available for these inspections are:

- PS Form 4082, *External Inspection Checklist — Cast Iron Boilers.*
- PS Form 4085, *External Inspection Checklist — Firetube Boilers.*
- PS Form 4089, *Inspection Checklist — Direct Plunger Oil Hydraulic Elevator.*

- PS Form 279, *Certificate of Elevator Inspection*.
- PS Form 279-A, *Certificate of Pressure Vessel Inspection*.

Other checklists and revisions can be found in the BEI database.

What Is the Checkout Process for Departing BEIs?

The BEI coordinator or designee must inventory the BEI's vehicle against the list of manuals and test equipment supplied to and signed for by the BEI leaving employment. Then the BEI leaving employment turns in the vehicle keys, and the BEI coordinator secures the vehicle at the FSO until it is reassigned. At that time the BEI coordinator again inventories the manuals and test equipment with the replacement inspector present, who signs a receipt and accepts responsibility for this inventory.

Where Can You Find Answers to Questions?

The following table lists where you can obtain answers to various questions:

If you have a question about...	Then your source is...
Program operation, program requirements, and daily review and follows up, as necessary, to ensure that inspections are completed and to monitor the correction of deficiencies,	The FSO manager of Design and Construction or the designated BEI coordinator.
Code interpretations and requirements,	The FSO BEI coordinator or the Headquarters BEI program manager.
New lease contract requirements,	The FSO manager of Real Estate.
A code covering a specific type of equipment being inspected,	The documents listed in the section Which Codes and Handbooks Pertain to Inspections.
Forms, checklists, etc., to use for inspections,	The BEI database located at http://blue.usps.gov/facilities , then click on Boiler and Elevator Program.
Whether equipment in a facility has been inspected or the results of the most recent inspection,	The BEI database.

Certificate and Inspection Requirements

Which Facilities Must Have Inspections?

Who Issues Certificates for Postal Service-Maintained Facilities?

Postal Service-owned and -leased facilities that the Postal Service is responsible for maintaining must have a current inspection certificate issued by the Postal Service for each piece of equipment. The maintenance manager or facility manager must not allow equipment to be operated that does not have a current certificate.

Facility manager — the senior Postal Service official, domiciled at a Postal Service facility, who has managerial responsibility for the daily operations occurring at the location (e.g., postmaster, plant manager, facility manager, branch manager, station manager, vehicle maintenance facility manager, or officer in charge).

What Are the Inspection Requirements for Lessor-Maintained Facilities?

Who Is Responsible for Ensuring That All of Their Equipment Is Inspected?

The facility manager or designee must observe equipment in existing lessor-maintained leased facilities to ensure that they are receiving inspections. If the equipment is not being adequately maintained, inspected, or repaired, the facility manager must initiate corrective action by notifying the FSO in writing.

Who Issues Certificates for Lessor-Maintained Facilities?

All lessor-maintained leased facilities must have a current inspection certificate issued by the appropriate authority as follows:

- For boilers and unfired pressure vessels, this must be one of the following:
 - An organization recognized by the National Board of Boiler and Pressure Vessel Inspectors.
 - A federal, state, or municipal authority that has adopted the American Society of Mechanical Engineers (ASME) *Boiler and Pressure Vessel Code*.
- For elevators, dumbwaiters, and escalators, this must be one of the following:
 - An organization authorized to inspect such equipment in accordance with the current edition of ASME *Safety Code for Elevators, Escalators, and Dumbwaiters*.
 - An appropriate federal, state, or municipal authority.
- When directed by the FSO manager of Design and Construction, Postal Service BEIs may issue safety certificates for lessor-maintained equipment after the BEI has performed a complete inspection.

What Are the Lessor Requirements for Periodic Inspections?

If a local jurisdiction does not require or perform periodic inspections of equipment, the lessor has two options:

- The lessor can obtain the services of inspectors from the National Board of Boiler and Pressure Vessel Inspectors and/or inspectors meeting the *ASME Standard for Qualification of Elevator Inspectors (QEI)* to perform the inspection. The lessor must:
 - Submit a report to the facility manager and to the BEI coordinator.
 - Meet inspection standards and frequencies as specified in Postal Service directives (see the attachment).
- When directed by the FSO manager of Design and Construction, Postal Service BEIs may issue safety certificates for lessor-maintained equipment after the BEI has performed a complete inspection.

Which Clauses Must Be Included in New Leases?

Before the Postal Service accepts a lease, the FSOs must ensure that the following requirements are incorporated into each contract:

- For new leases in which the Postal Service is responsible for maintenance, the contract must:
 - Specify that boilers, unfired pressure vessels, elevators, escalators, and dumbwaiters meet the codes referenced in the section Which Codes and Handbooks Pertain to Inspections.
 - Specify that the facility has safety certificates at the time the lease is signed. **Note:** FSOs must not accept new leases until the equipment has been inspected by a qualified Postal Service BEI.
 - State that the Postal Service will be responsible for all future periodic inspections and tests as specified in the codes and the attachment.
- In lessor-maintained facilities, new leases must:
 - Specify that boilers, unfired pressure vessels, elevators, escalators, and dumbwaiters meet the codes referenced in the section Which Codes and Handbooks Pertain to Inspections.
 - Specify that the facility has safety certificates at the time the lease is signed. **Note:** FSOs must not accept new leases until the equipment has been inspected by an authorized state or municipal inspector.

- Require periodic inspections and tests as specified in the codes and the attachment or as required by local jurisdiction. If local ordinances do not apply, the requirements of the attachment will govern periodic inspections.

Note: See the section What Are the Lessor Requirements for Periodic Inspections to obtain the services of a qualified inspector if no state or jurisdictional requirements exist for inspections.

The FSO manager of Real Estate checks the BEI database to determine if inspections have been completed.

What Equipment Is Exempt?

The following pressure vessels are not required to be inspected or have a safety certification:

- Unfired expansion tanks used for hot water and chilled water systems.
- Unfired pressure vessels used in conjunction with Department of Transportation (DOT) applications.
- Refrigerant receivers, special-purpose vessels (such as welding gas tanks), vessels not subject to internal corrosion, and integral parts of air compressors other than air receiver tanks. **Note:** This equipment may be evaluated by the BEI coordinator to determine if the inspection requirements apply to them.
- High pressure and power equipment (more than 15 pounds per square inch gauge (psig) steam or hot water boilers exceeding 160 psig or 250 degrees Fahrenheit (°F)). Such equipment is beyond the scope of this program and therefore is referred when encountered to the BEI program manager.

How Must Safety Certificates Be Displayed?

Safety inspection certificates must be mounted as follows:

- PS Form 279, *Certificate of Elevator Inspection*:
 - *Elevator*: Inside each car.
 - *Dumbwaiter*: On the wall adjacent to the door at the lowest level.
 - *Escalator*: On the wall closest to the escalator at the lowest landing.
 - *Platform lifts and chairlifts*: Inside on the wall where the call buzzer is located.
- PS Form 279-A, *Certificate of Pressure Vessel Inspection*:
 - *Boiler*: On the wall closest to the front burner of the boiler.
 - *Unfired pressure vessel*: On the pressure vessel or closest wall.

- Certificates must be easily visible, easily identified with the equipment, and protected from deterioration and vandalism.
- If required by state or local regulations in leased Postal Service-maintained facilities, lessors whose equipment is also inspected by the state or local government or other inspectors must post that inspection agency's certificate in addition to the Postal Service certificate.

BEI Responsibilities

What Steps Are Required to Prepare Equipment for Inspection?

When assigned to perform inspections, the BEI:

1. Notifies the facility manager or maintenance office responsible for the equipment of the tests required and the date and time of the equipment inspection.
2. Reviews records pertaining to the equipment to be inspected.
3. Describes what, if any, equipment preparation is necessary to be accomplished before the inspection date.

Only fully qualified personnel are to be responsible for preparing the equipment. The facility manager assigns a qualified person to assist the BEI on the date of the inspection. Only the certified BEI makes the inspection.

Who Can Set Inspection Schedules?

BEIs, with oversight and guidance from the FSO manager of Design and Construction or the BEI coordinator, are responsible for establishing and monitoring a schedule for safety inspections that complies with the attachment.

What Are the Inspection Procedures?

The BEI completes the appropriate forms (see the section Which Forms Are Available for the BEI to Use) during the inspection and prepares an inspection report about all deficiencies found. The latest form is to be used for elevator, dumbwaiter, escalator, and platform lift and chairlift inspection reports. Other types of equipment inspections are reported using the latest forms and checklists found in the BEI database. The BEI distributes the report as indicated in the pertinent sections of this instruction.

The BEI is not required to specify the method or procedure for correcting deficiencies (i.e., writing installation and/or repair specifications). However, the inspector's report must be detailed enough for the responsible persons to prepare a scope of work to accomplish the required repairs or identify the engineering services required.

Decisions to certify or not to certify equipment are at the discretion of the BEI. If questions that cannot be resolved at the local level arise about equipment the BEI deems unsafe to operate, the BEI must contact the BEI coordinator and request a resolution. Never attempt to coerce the BEI into issuing safety certificates for unsafe equipment.

Uncertified ad hoc BEIs or contractors responsible for maintaining equipment may assist in safety inspections but must not assist in safety inspections on the same equipment they maintain. Certified ad hoc BEIs can inspect any equipment assigned to them when they are not involved in the maintenance of that equipment. Therefore, only those inspections performed by the certified BEI or designated representative (i.e., the certified ad hoc BEI) are recognized as official certifications.

The BEI coordinator is authorized to invalidate inspection certificates in situations when proper inspection procedures have not been followed.

What Happens When the Equipment Is Certified to Be Safe?

After determining that the equipment is safe to operate, the BEI signs, dates, and issues a certificate (PS Form 279 or 279-A as appropriate). The inspector then distributes copies of the inspection report to the following persons:

- Facility manager.
- The manager of Maintenance Support at the area office.
- The area office's safety specialist.
- For all *leased* facilities, the FSO manager of Real Estate.

The BEI must also update the BEI database.

What Is the Procedure for Temporary Certificates?

The BEI may issue a temporary certificate that is good for a specified time limit and requires correction of certain deficiencies. The inspector then distributes copies of the inspection report to the following persons:

- Facility manager.
- The contracting officer's representative (COR) if the equipment is under maintenance contract.
- FSO manager of Design and Construction.
- Area office's safety specialist.

The BEI must also update the BEI database.

When corrections are completed, the facility manager or designee must notify the BEI in writing so that the inspector can reinspect the equipment.

If deficiencies have not been corrected by the time the temporary certificate expires, the equipment is considered unsafe and must be removed from service in accordance with the section What Happens When the Equipment Is Found to Be Unsafe. This procedure must be enforced by the area office's safety specialist.

What Happens When the Equipment Is Found to Be Unsafe?

What Does the BEI Do?

When the BEI finds deficiencies that make the equipment unsafe to operate, the BEI must:

1. Remove the existing certificate.
2. Advise the facility manager and the area office's safety specialist orally and in writing that the equipment is unsafe.
3. Identify the safety deficiencies requiring correction.
4. Obtain the signature of the facility manager or representative and the area office's safety specialist on a letter of notification of equipment failure.

What Is Done Until the Equipment Is Fixed?

The facility manager or representative must have the equipment tagged with PS Form 4707, *Out of Order*, and remove the equipment from service. The area office's safety specialist must verify that this equipment has been removed from service. After the repairs are completed, the facility manager then notifies the BEI in writing so that a reinspection can be scheduled because PS Form 4707 remains in effect until a safety certificate is issued.

What Does the BEI Do If the Fixed Equipment Is Still Unsafe?

If the equipment is still unsafe after a reinspection and the BEI cannot issue a certificate, in addition to sending this report to the distribution in the section What Is the Procedure for Temporary Certificates, the BEI must send the report to:

BOILER AND ELEVATOR INSPECTION PROGRAM MANAGER
DESIGN AND CONSTRUCTION
FACILITIES
4301 WILSON BLVD SUITE 300
ARLINGTON VA 22203-1861

Who Receives Copies When Equipment Is Reinspected?

After the BEI reinspects equipment that had been given a temporary certificate or failed report, the inspector distributes copies of the reinspection reports to the same personnel receiving the original temporary certificate or failed report.

Equipment Operating Qualifications

Can Equipment Be Accepted Without an Inspection?

Area offices, district offices, and FSOs may not accept new, renovated, or repaired elevators, escalators, dumbwaiters, platform lifts and chairlifts, heating boilers, hot water supply boilers, or unfired pressure vessels in Postal Service-maintained facilities until they have been inspected and issued a safety certificate by a qualified Postal Service BEI.

The FSO architect/engineer is responsible for requesting an acceptance inspection for any such new, renovated, or repaired equipment. The BEI provides a report of deficiencies (punchlist) or acceptance within a specified time frame. If the BEI issues a temporary certificate, it does not constitute acceptance of the equipment (see the section *What Is the Procedure for Temporary Certificates*).

Can Uncertified Equipment Be Operated?

Personnel may not operate equipment that does not have a current certificate of inspection (PS Form 279 or 279-A) or an approved certificate for lessor-maintained equipment unless the procedures outlined in the following section have been implemented.

Under What Circumstances Can Uncertified Equipment Be Operated?

Normally, employees should not operate uncertified equipment. However, certain extenuating circumstances may prevent certification at the time it is due. Therefore, to allow operation of uncertified equipment under crucial conditions, the following procedures apply:

1. The area office's safety specialist or the district office's senior safety specialist, together with the BEI and the BEI coordinator, must develop special operating procedures if it is crucial to operate a piece of equipment that is not certified.
2. These operating procedures must be in writing, must be specific, and must cover topics such as full-time qualified operator, reduced load, etc. The procedures must also state how long the equipment can be operated under these circumstances.

3. The vice president of Area Operations is responsible for ensuring compliance with these prescribed operating procedures.
4. The area office's safety specialist or district office's senior safety specialist is responsible for monitoring these prescribed operating procedures and notifying the facility manager and/or vice president of Area Operations of noncompliance with these operating procedures.

What Happens If Correct Operating and Maintenance Practices Are Not Being Followed?

If the BEI determines that correct operating and/or maintenance practices are not being followed, this must be identified in the inspector's report and distributed to the facility manager and the area office's safety specialist (see the section What Happens When the Equipment Is Found to Be Unsafe).

BEI Training and Qualifications

What Requirements Must BEIs Meet?

BEIs must annually complete and pass the qualifications, training, and certification requirements prescribed by the national manager of Design and Construction through both the:

- National Association of Elevator Safety Authorities International (NAESAI) as a qualification of elevator inspector (QEI) for elevators, escalators, dumbwaiters, platform lifts, and chairlifts.
- Headquarters BEI program manager as boiler inspectors for heating boilers, hot water supply boilers, and unfired pressure vessels.

What Documents Do BEIs Need for Inspections?

Who Provides These Documents for the BEIs?

Each FSO must provide and maintain the latest editions, including all up-to-date addenda, errata, and supplements, of the required manuals and code books for each assigned BEI and certified ad hoc BEI.

Which Codes and Handbooks Pertain to Inspections?

The training and annual recertification provide BEIs with an understanding of the most current issues of the following nationally recognized codes, handbooks, and Postal Service maintenance and operating requirements:

- ASME Code A17.1, *Safety Code for Elevators, Escalators, Dumbwaiters, and Moving Walks*, and ASME Handbook A17.1.
- ASME A17.2, *Elevator Inspector's Manual*.
- ASME A17.3, *Safety Code for Existing Elevators and Escalators*.
- ASME A17.4, *Emergency Evacuation Procedures for Elevators*.
- ASME A17.5, *Elevator and Escalator Electrical Equipment*.
- ASME *Boiler and Pressure Vessel Code*, Sections IV, VI, and VIII.
- American National Standards Incorporated/National Board (ANSI/NB)-23, *National Board Inspection Code for Boiler and Pressure Vessel Inspectors*.
- National Fire Prevention Association (NFPA)-70, *National Electric Code*.
- ASME Safety Code CSD-1, *Controls and Safety Devices for Automatically Fired Boilers*.
- ASME A18.1, *Safety Standard for Platform Lifts and Chairlifts*.
- NFPA-54, *National Fuel Gas Code*.
- NFPA-31, *Oil Burning Equipment Code*.

Code Requirements and Upgrades

Elevators, Escalators, and Dumbwaiters

The code requirements and upgrade requirements for elevators, escalators, and dumbwaiters are detailed as follows:

If ...	Then ...
The equipment is elevators, escalators, and dumbwaiters in Postal Service facilities,	It must comply with the codes referenced in the section Which Codes and Handbooks Pertain to Inspections.
The codes change,	Generally, changes in the codes are not retroactive. Therefore, equipment is required to conform to the edition of the code under which it was installed, except as required in ASME A17.3, which refers to ASME A17.1 for the section on Firefighters' Service.

If ...	Then ...
It is feasible to immediately retrofit all of the existing equipment that must conform with ASME A17.1 as required by ASME A17.3,	The vice president of Area Operations should plan retrofitting to the Firefighters' Service requirements.
It is <i>not</i> feasible to immediately retrofit all of the existing equipment that must conform with ASME A17.1 as required by ASME A17.3,	The vice president of Area Operations should plan judicious retrofitting to the Firefighters' Service requirements as part of major overhauls or repair work.
Elevators, escalators, and dumbwaiters <i>are altered</i> ,	The American Standard Safety Code requires upgrading of certain specific items at the same time. All repairs made to this equipment must comply with the <i>current</i> codes referenced in the section Which Codes and Handbooks Pertain to Inspections. The seismic requirements as specified in ASME A17.1 must be considered for upgrading.
A BEI determines that specific modifications significantly increase the safety, maintenance, or life of equipment,	The vice president of Area Operations must ensure that these modifications are made.

Boilers and Unfired Pressure Vessels

The code requirements and upgrade requirements for boilers and unfired pressure vessels are detailed as follows:

If ...	Then ...
The equipment is a boiler or unfired pressure vessel,	It must comply with the codes referenced in the section Which Codes and Handbooks Pertain to Inspections. Note: The boiler and unfired pressure vessel codes are basically divided into two parts: (1) materials and construction and (2) associated equipment.
The code changes for associated equipment (see the previous note),	Postal Service policy is to upgrade associated equipment to meet the requirements of the current code because it usually significantly increases the safety and reliability of the equipment.

If ...	Then ...
Boilers or unfired pressure vessels are being repaired or altered,	They must meet current code requirements.
Pressure-containing parts of boilers or unfired pressure vessels need welding,	<p>All such welding must be done by a shop that holds a valid "R" stamp certificate from the National Board of Boiler and Pressure Vessel Inspectors or other acceptable certification recognized by the ASME.</p> <p>Note: The "R"-1 form filled out at the time welding is done must be provided to the BEI for review before the inspection.</p>

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Safety Inspection Frequencies

Equipment	Type of Inspection	Frequency of Inspection
1. Elevator equipment¹		
Elevators (passenger and freight)	Routine	Biannually
Escalator	Periodic	Annually
Dumbwaiters	Periodic ¹	Annually
Platform lifts/chairlifts	Routine	Biannually
2. Boilers		
Power boilers ² (more than 15 psig steam pressure or hot water boilers exceeding 160 psig or 250°F)	External	Annually
Steam heating boilers ³ (15 psig or less)	External	Annually
Hot water heating boilers ³	External	Every 2 years
Cast iron heating boilers (under 400,000 British thermal units per hour (Btuh)) and specialty units ⁴	External	Every 2 years
Hot water supply boilers that exceed any one of the following: ³	External	Every 2 years
a. 120 gallon water capacity		
b. Burner input of 200,000 Btuh		
c. Temperature 210°F		
3. Unfired pressure vessels⁵		
a. Water tanks used to supply potable water under pressure to a building ⁶	External	Every 4 years
b. Air tanks and other pressure vessels subject to internal corrosion ⁶	External	Every 4 years

¹Special tests are required at annual, 3-, and 5-year periods for certain types of equipment.

²See the section *What Equipment Is Exempt*, fourth bullet.

³If justified by the equipment's condition, at the inspector's discretion the inspector may require an annual external inspection and an internal inspection. Preferably, schedule inspections at the start of the heating season.

⁴Specialty units are those that cannot be readily inspected by any conventional method. The BEI coordinator determines this category.

⁵These do not apply to exempt pressure vessels as defined in the section *What Equipment Is Exempt*.

⁶National Board Inspection Code (NBIC), 1992 p 82, section V116, "A pressure test normally need not be made as part of periodic inspection. However, a test shall be made after certain repairs and when unusual, hard to evaluate forms of deterioration, possibly affecting the safety of a vessel is disclosed via inspection." When the BEI recommends a hydrostatic test, the inspector will issue a discrepancy report taking the equipment out of service and directing the plant or district (depending on the severity of the observation) to (a) replace the tank or (b) hire the services of an outside contractor to perform an ASME hydrostatic test and pass or fail the equipment.

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