



STATE OF WASHINGTON  
DEPARTMENT OF CORRECTIONS

APPLICABILITY  
**PRISON**

REVISION DATE  
2/8/24

PAGE NUMBER  
1 of 6

NUMBER  
**DOC 250.200**

**POLICY**

TITLE  
**EMERGENCY GENERATOR AND  
UNINTERRUPTIBLE POWER SUPPLY**

**REVIEW/REVISION HISTORY:**

- Effective: 5/16/02
- Revised: 5/1/06
- Revised: 5/24/07
- Revised: 6/27/08
- Revised: 6/5/09
- Reviewed: 9/13/10
- Revised: 6/9/14
- Revised: 5/4/21
- Revised: 2/8/24

**SUMMARY OF REVISION/REVIEW:**


Updated title  
 II.B., II.B.2.a., III.A.1., and IV.C. - Adjusted language for clarification  
 II.B.1., III.B. - Removed unnecessary language  
 Added II.B.2.a.1) that monthly inspections may be reduced to quarterly if the UPS is remotely monitored or semi-annually if monitored and in a secured area with limited access  
 Added III.A.2. & 3. that replacement/repair vendors will be identified and contact information documented and maintained by maintenance employees.  
 Removed III.B.1. & 2. That UPS system replacement units will include remote monitoring and will not be a lead acid/VRLA type battery  
 IV.D., V.C., and V.D.1. - Added language for clarification  
 Removed V.D.1.c. that the date of most recent battery inspection/top off will be reviewed if UPS is a lead acid type

**APPROVED:**

Signature on file

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**CHERYL STRANGE**, Secretary  
 Department of Corrections

1/11/24  
 \_\_\_\_\_  
 Date Signed

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**REFERENCES:**


DOC 100.100 is hereby incorporated into this policy; [Records Retention Schedule](#)

**POLICY:**

- I. The Department has established guidelines to ensure appropriate operation and maintenance of:
  - A. Facility emergency generators to maintain critical lights, power, and communications, and
  - B. Emergency Uninterruptible Power Supply (UPS) to maintain critical safety, security, data, and communications system during an incident/significant event.

**DIRECTIVE:**

- I. Responsibility
  - A. The Superintendent will identify a supervisor responsible for operating and maintaining the emergency generator(s)/UPS.
  - B. The responsible supervisor will identify employees authorized to:
    1. Test and perform maintenance and repairs on generators, UPS, and related control panels, and
    2. Log activities specific to emergency generators/UPS.
- II. Preventive Maintenance
  - A. The manufacturer's specifications and operations manual for the specific model(s) in use will be the guideline for the preventive maintenance schedule and the source for facility procedures.
  - B. All emergency equipment and systems (e.g., digital controls, transfer switches, key components) will be maintained per the manufacturer's specifications.
    1. At a minimum, generators will be tested quarterly, and:
      - a. Inspected weekly using DOC 15-032 Weekly Generator Inspection.
      - b. Tested under emergency load quarterly using DOC 15-033 Quarterly Load Test. Emergency generator(s) will be started and run for at least 60 minutes during emergency load tests.

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2. At a minimum, emergency UPS will be tested semi-annually, and:
  - a. Inspected monthly using DOC 15-035 Monthly UPS Inspection.
    - 1) Inspections may be reduced to:
      - a) Quarterly if the UPS is remotely monitored for operational performance, or
      - b) Semi-annually if remotely monitored and in a secured area with limited access for designated maintenance and IT personnel.
  - b. Tested under emergency load semi-annually in conjunction with generator testing and documented on DOC 15-036 Semi-Annual UPS Inspection.

C. Generator maintenance will be conducted as follows, or per manufacturer's specifications:

1. Oil filters will be checked and cleaned or replaced.
2. Oil will be tested by an independent laboratory to determine the condition and changed annually or as needed based on condition.
3. Generators without oil filters will be checked every 6 months.
4. Air filters will be checked annually and replaced as needed.
5. Oil for diesel generators will be checked at least quarterly for moisture, and diesel injectors will be checked at least annually.
6. Gas generator points and distributors will be checked at least every 3 months for moisture and wear.

D. Precautions will be taken to prevent freezing (e.g., antifreeze, insulation of exterior pipes).

III. Repair Procedure

A. Processes will be established for a generator and/or UPS failure and for when replacement parts are needed.

1. For generators, replacement part vendors will be identified to include vendors that can provide 24 hour service.



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2. For UPS, replacement/repair vendors will be identified, to include vendors that can provide emergency services.
  - a. Maintenance employees will maintain vendor information and contact details.
- B. In the event a generator cannot be repaired, and a replacement is needed, a contingency plan will be in place for providing alternate emergency backup power.
- C. Facility employees and contractors/vendors that can perform emergency repairs will be identified by name and telephone number, including 24 hour contact.

#### IV. Logging

- A. Emergency generator activity, including testing, preventive maintenance, and repair, will be documented using the Computerized Maintenance Management System (CMMS) and checklists. DOC 15-034 Generator Activity Log may be used and maintained at the location of each generator.
- B. Preventive maintenance log entries will be made in ink and identify, at a minimum:
  1. Who started the emergency generator(s)
  2. Date
  3. Time started
  4. Time stopped
  5. Any suspected problems
  6. Other information per the manufacturer's maintenance schedule specifications
- C. UPS preventive maintenance and repair will be documented using current CMMS and include, at a minimum:
  1. Person performing the inspection and/or testing
  2. Date
  3. Time started
  4. Time stopped
  5. Any identified and/or suspected deficiencies
  6. Other information per the manufacturer's maintenance schedule specifications
- D. Emergency generator and UPS log entries, completed preventative maintenance events, and service requests will be reviewed and verified by the Facility/Plant Manager or designee for accuracy and completeness.

#### V. Reports, Investigations, and Reviews


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- A. The Shift Commander, Superintendent/Facility Duty Officer, and appropriate maintenance employees will be notified in the event of an incident/significant event that requires the use of generators/UPS to restore or maintain critical services.
- B. Appropriate employees will complete a written report documenting any failure or use of emergency generators and a written assessment documenting any failure of an emergency UPS.
- C. An investigation will be conducted whenever an emergency generator or associated equipment fails to operate. The investigation will be routed to the Superintendent and Facility/Plant Manager.
- D. A records review will be conducted whenever an emergency UPS and/or associated equipment supporting a critical security or life safety system fails to operate to determine the present system's operational state and recommendations for improving reliability and or performance.
  - 1. The review results with recommendations will be routed to the Superintendent and Facility/Plant Manager and will include:
    - a. A review of:
      - 1) The most recent performed visual inspection and results,
      - 2) Testing log, date, and test results, and
      - 3) Manufacturer maintenance schedules to determine if facility maintenance schedule meets or exceeds the requirements.
    - b. If connected to remote monitoring, determination if any noted alarms and/or failures have occurred.
    - c. Recommendations that may include battery replacement in advance of manufacturers requirements, amending maintenance schedules, more frequent testing, system/unit replacement, and or other processes to improve reliability.

#### VI. Permits for Emergency Generators

- A. Typically, large generators require a permit from the Department of Ecology or the local air quality authority before installation. Air permit applications are prepared and submitted by the Department's Environmental Services Unit.
- B. The Superintendent will ensure that maintenance employees comply with all provisions of the air permit and maintain a copy of the permit.

#### VII. Recordkeeping and Reporting

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- A. Specific records regarding generator use and generator/UPS testing, maintenance, and repair will be maintained per the Records Retention Schedule. Generator records must be available at any time for inspection by the Department of Ecology or the local air quality authority. Records will include the following for each generator and UPS:
1. Preventive maintenance log
  2. Description and date of repairs
  3. Occurrence and duration of any malfunction
    - a. Generator records will also include fuel consumption per quarter and annual hours of operation.
    - b. UPS records will also include:
      - 1) Successful testing and battery voltage levels at time of repair or service completion, and
      - 2) Name of individual completing the repair, service, and testing.
- B. Fuel consumption for all emergency generators will be reported to the Department's Environmental Services Unit quarterly.
- C. If the permit requires an annual report, the draft report will be submitted to the Department's Environmental Services Unit before submission to the Department of Ecology or the local air quality authority.

**DEFINITIONS:**

Words/terms appearing in this policy may be defined in the glossary section of the Policy Manual.

**ATTACHMENTS:**

None

**DOC FORMS:**

- DOC 15-032 Weekly Generator Inspection
- DOC 15-033 Quarterly Load Test
- DOC 15-034 Generator Activity Log
- DOC 15-035 Monthly UPS Inspection
- DOC 15-036 Semi-Annual UPS Inspection