DAILY POWER PLANT INSPECTION

1. GENERAL

1.01 This section describes the central office power plant inspection.

1.02 It is reissued to introduce Form P-529 and to update the information contained in this section.

1.03 Since this is a general revision, marginal arrows ordinarily used to indicate changes have been omitted.

2. PLANT MAINTENANCE RESPONSIBILITIES

2.01 In general, maintenance of the power plant is the joint responsibility of all personnel concerned with its operation. The daily power plant inspection is the specific responsibility of the man assigned to power maintenance and/or week-end coverage.

2.02 Early detection and clearance of trouble is of the utmost importance in maintaining power equipment in good working condition. Therefore, periodic inspections are a fundamental factor in power plant operations.

2.03 In attended offices, the power plant must be inspected at least once each day by the assigned craftsman and at least once each week by supervision. In unattended offices, the power plant must be checked during each visit by a craftsman or supervision.

3. POWER PLANT INSPECTION

3.01 An inspection of the power plant requires the inspector to **LOOK — LISTEN — SMELL — TOUCH and THINK.**

CAUTION: In making the inspections: Do not touch fuses or switches carrying a potential higher than 60 volts. Do check for signs of heat in insulated areas around fuses and switches carrying a potential higher than 60 volts.

3.02 Items to be checked during each inspection include:

(a) **A.C. Switchgear Boards.** Check that:

(1) Indicating lights are lit or out in accordance with normal and/or emergency operations.

(2) Meter readings indicate normal loads and voltages.

(3) The cover panels are cool to the touch.

(b) **Battery Control and Distribution Boards.** Check that:

(1) The emergency cell switches are in their normal positions.

(2) Readings of such meters as load meters and main and emergency battery float voltage meters indicate satisfactory operating conditions.

(3) All "ACO Lamps" are extinguished.

(4) All keys are in their regular positions.

(c) **Batteries.** Check that:

(1) Floors and racks near batteries are free of electrolyte.

(2) The solution level of C.E.M.F. cells is within the proper limits.

(d) **Charging Equipment.**

(1) **Motor Generator Sets.** Check that:

- Units are free from oil and grease leaks.
- All exposed commutators are burnished.
- There is no excessive bearing, brush noise, or brush sparking.

- Bearing temperatures are not excessive. Check by touch.
- All motor - generators are available for service.
- The temperature of fuses and switches is not excessive. Check by touch.
- The output of generators indicates satisfactory plant operating conditions.

(2) **Rectifiers.** Check that:

- The output of rectifiers indicates satisfactory plant operating conditions.
- The temperature of fuses and switches is not excessive. Check by touch. (See CAUTION.)
- All rectifiers are available for service.

(e) **Inverters.** Check that:

(1) Readings of such meters as load and voltage meters indicate satisfactory operating conditions.

(2) The stand - by inverter is available for service.

(3) All transfer switches are in their regular positions.

(4) The temperature of fuses and switches is not excessive. Check by touch. (See CAUTION.)

(f) **Converters.** Check that:

(1) Readings of such meters as load and voltage meters indicate satisfactory plant operating conditions. (It is not necessary that the converters share the load equally.)

(2) The temperatures of the units are not excessive. Check by touch. (See CAUTION.)

(3) All units are available for service.

(g) **Ringing Plants.** Check that:

(1) Meter readings indicate satisfactory plant operation.

(2) Units are free from oil and grease leaks.

(3) There is no excessive bearing, brush noise, or brush sparking.

(4) Bearing temperatures are normal. Check by touch.

(5) All exposed commutators are burnished.

(6) All transfer keys are in their normal positions.

(7) Spare fuses are available.

(8) Ring transfer lamps are extinguished.

(h) **Emergency Engines.** Check that:

(1) The engine and the engine room are free from fuel, water, and oil leaks.

(2) Control switches are in their normal positions.

(3) The immersion water heater is working.

(4) The rectifier for starting batteries is operating properly.

(5) Starting batteries and their racks are free of electrolyte.

(6) Air starting tanks are fully charged.

(7) All air valves for round robin interconnection are set for normal operation.

(8) There is no leakage of air in tanks or piping.

(9) Compressors are operating properly.

(i) **Compressor Dehydrators.** Check that:

(1) Gauge readings indicate satisfactory operating conditions.

(2) The unit is free of oil and water leaks.

(3) The unit is free of excessive noise and vibration.

(4) There is no leakage of air in tanks or piping.

(5) The condensation tank is not filled with water.

(j) **Alarms.** Check that power alarms can be transmitted throughout the office and/or to an attended maintenance center.

(k) **General.** Check that:

(1) Lighting is normal and that there are no safety hazards to personnel.

(2) All equipment and rooms are clean.

3.03 This list should not be considered complete; each power room operator and supervisor will probably be able to add items for a specific power plant. The point to remember is the inspections are necessary and do not require a great deal of time to complete.

4. RECORDING INSPECTIONS

4.01 Log the results of each inspection on Form P-529 and retain the form for 90 days in the Power Log Book under local information. Before destroying any forms, review them for information or trouble conditions that should be logged under the appropriate sections in the Power or Battery Log books.

BSP 167-299-901PT

DAILY POWER PLANT INSPECTION

P 529 (4-69)

_____ Month

DATE	TIME	INIT'S.	A.C. SWITCH GEAR BOARDS	BATT. CONT. and DIST. BOARDS	BATTERIES	MOTOR-GENERATORS	RECTIFIERS	INVERTERS	CONVERTERS	RINGING PLANTS	EMERGENCY ENGINES	COMPRESSOR DEHYDRATORS	ALARMS	GENERAL					
1																			
2																			
3																			
4																			
5																			
6																			
7																			
8																			
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LOOK **LISTEN**

SMELL

TOUCH **THINK**

REMARKS

_____ APPROVED _____ TITLE _____ DATE