FOREWORD AND DISCLAIMER

About These Forms

These Weekly Inspection and Monthly Operational Test forms are published by MGI Systems (Motor and Generator Institute) as a general-purpose record-keeping aid for personnel responsible for inspecting, testing, and maintaining Emergency Power Supply Systems (EPSS). They intend to help organize and document routine activities commonly performed on stationary engine-generator sets and associated transfer equipment.

Intended Users

These forms are designed for use by properly trained and qualified personnel who are familiar with the specific equipment installed at their facility, the applicable edition of NFPA 110 and NFPA 99 (where applicable), and any additional federal, state, and local requirements governing their operation. They are not a training document, a substitute for the equipment manufacturer's instructions, or a replacement for the judgment of a qualified technician.

Site-Specific Adaptation Required

Every EPSS installation is different. Acceptable operating parameters — including, but not limited to, oil pressure, coolant temperature, battery voltage, charging current, and specific gravity ranges — must be established for each unit based on the manufacturer's published specifications and the installation conditions. The "Parameters / Notes" fields on these forms exist for that purpose. Users are responsible for entering the correct values for their equipment before placing the forms into service.

Safety

Work on EPSS equipment exposes personnel to electrical, mechanical, thermal, chemical, and stored-energy hazards. Before performing any task on this checklist, qualified personnel must apply appropriate lockout/tagout procedures, wear required personal protective equipment, and follow their employer's written safety program. If a step on this form cannot be performed safely, stop work and consult a qualified supervisor.

Codes and Standards

References to inspection and testing activities on these forms are based on widely recognized industry practice and the requirements of NFPA 110, *Standard for Emergency and Standby Power Systems*, and, where applicable, NFPA 99, *Health Care Facilities Code*. The forms do not reproduce code text and are not a substitute for the standards themselves. Users are responsible for obtaining the current editions of all applicable standards and confirming that their inspection and testing program complies with the edition adopted by their authority having jurisdiction (AHJ).

No Warranty

These forms are provided "as is," without warranty of any kind, express or implied, including but not limited to warranties of merchantability, fitness for a particular purpose, or compliance with any specific code, standard, or regulation. MGI Systems makes no representation that use of these forms will satisfy the requirements of any AHJ, accreditation body, or regulatory agency.

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To the fullest extent permitted by law, MGI Systems, its officers, instructors, and contributors shall not be liable for any direct, indirect, incidental, consequential, or special damages — including property damage, equipment failure, business interruption, personal injury, or death — arising from the use of, or reliance on, these forms. Responsibility for the safe operation, inspection, testing, and maintenance of any EPSS rests solely with the equipment owner and the qualified personnel they employ.

Permitted Use

MGI Systems grants the purchaser permission to reproduce these forms for internal recordkeeping at their own facility. The forms may not be resold, redistributed, repackaged, or incorporated into other commercial products without the written permission of MGI Systems.

Monthly Operational Test

Motor and Generator Institute

FACILITY NAME	EPS UNIT ID / LOCATION	DATE

PERFORMED BY (PRINT)	EPS ENGINE HOURS	NAMEPLATE kW	NP x 30%	MILITARY TIME	HOURMETER

Put on Safety Gear (Please see disclaimer in Foreword before proceeding.)

TASK	STATUS / READING	NOTES
PRE-TEST		
1. Record last inspection date and military time	Date ____ Time ____	
2. Record today's date and military time	Date ____ Time ____	
STARTING & TRANSFER		
3. Simulate power failure from ATS / Cold Start	ATS# ____	
4. Record engine start time	sec ____	
5. Record time delay to transfer	TDS sec ____ TDT sec ____	
RUNNING OBSERVATIONS		
6. Electrical readings	Voltage: ____ ____ ____ AMPS: ____ ____ ____ HZ ____	
7. Initial readings	Oil Press ____ DC Amps ____ DC Volts ____ Water Temp ____	
8. Check EPSS circuit breakers / panel lamps	P / F ____	
15-MINUTE READINGS		
9. 15-min readings	Oil Press ____ DC Amps ____ Water Temp ____	
PRE-RETRANSFER INSTRUMENTS		
10. Electrical readings	Voltage: ____ ____ ____ AMPS: ____ ____ ____ HZ ____	
11. Instrument readings	Oil Press ____ DC Amps ____ DC Volts ____ Water Temp ____	
12. Record exhaust temperature	°F ____	
RETRANSFER & POST-TEST		
13. Record time delay to retransfer	TDRT sec ____	
14. Recheck all EPSS circuit breakers	P / F ____	
15. Record time delay for cooldown	min ____	
16. Verify all selector switches are on AUTO	P / F ____	
17. Compare readings to last test	P / F ____	
TECHNICIAN'S NAME	____ EPS Engine Hours ____	

Return safety gear to proper location

COMMENTS / DEFICIENCIES / CORRECTIVE ACTIONS

PERFORMED BY (Signature)

Signature _____ Date _____

REVIEWED BY (Supervisor)

Signature _____ Date _____

Weekly Inspection Checklist

Motor and Generator Institute

FACILITY NAME	EPS UNIT ID / LOCATION	DATE

PERFORMED BY (PRINT)	ENGINE HOURS	MILITARY TIME	HOURMETER READING

TURN MACHINE TO OFF AND LOCKOUT — PUT ON SAFETY GEAR

Important: Site-specific EPSS parameters (e.g., min/max oil pressure) should be determined and listed in the Parameters column. Please see disclaimer in Foreword before proceeding.

ANSWER KEY: **P** = Pass (acceptable condition) **F** = Fail (requires attention) **N/A** = Not Applicable **Done** = Action completed

TASK	STATUS / READING	PARAMETERS / NOTES
1. FUEL SYSTEM		
(A) Main supply tank level	☐ gal	
(B) Day tank level	☐ gal	
(C) Day tank float switch — verify operation	☐ P ☐ F ☐ N/A	
(D) Supply or transfer pump operation	☐ P ☐ F ☐ N/A	
(E) Solenoid valve operation	☐ P ☐ F ☐ N/A	
(F) Hand pump operation	☐ P ☐ F ☐ N/A	
(G) Check for water in main tank	☐ Done	
Day tank	☐ Done	
Water separators — drain if needed	☐ Done	
(H) Fuel hoses and connections — check for leaks	☐ P ☐ F ☐ N/A	
(I) Tank vents and overflow piping — unobstructed	☐ P ☐ F ☐ N/A	
2. LUBRICATION SYSTEM		
(A) Lubricating oil level		
Add / Amount		
(B) Check for leaks	☐ P ☐ F ☐ N/A	
3. COOLING SYSTEM		
(A) Cooling system level		
Add / Amount		
(B) Radiator — check for obstructions	☐ P ☐ F ☐ N/A	
(C) Air intake louvers — open and functional	☐ P ☐ F ☐ N/A	
(D) Fan and alternator belts — tension and condition	☐ P ☐ F ☐ N/A	
(E) Water pump — no leaks or noise	☐ P ☐ F ☐ N/A	
(F) Radiator hoses, water filters — check for leaks	☐ P ☐ F ☐ N/A	
(G) Block heater — verify operation	☐ P ☐ F ☐ N/A	
(H) Cooling water to heat exchanger (if applicable)	☐ P ☐ F ☐ N/A	
4. EXHAUST SYSTEM		
(A) Exhaust system — check for leaks	☐ P ☐ F ☐ N/A	
(B) Structural integrity of exhaust piping	☐ P ☐ F ☐ N/A	
(C) Evidence of wet stacking?	☐ P ☐ F ☐ N/A	
(D) Raincap in place and functional	☐ P ☐ F ☐ N/A	
5. BATTERY SYSTEM		
(A) Charger — Float	V ☐ A ☐	

TASK	STATUS / READING	PARAMETERS / NOTES
(A) Charger — Equalize	V ☐ A ☐	
(B) Specific Gravity — Set #1	Hi ☐ Lo ☐	
(B) Specific Gravity — Set #2	Hi ☐ Lo ☐	
(C) Add distilled water if needed — record amount	☐ Done	
(D) Cable ends and connections — clean and tight	☐ P ☐ F ☐ N/A	
6. ELECTRICAL SYSTEM		
(A) General condition of wiring	☐ P ☐ F ☐ N/A	
(B) Fault lamps — check status	☐ P ☐ F ☐ N/A	
(C) Main line circuit breaker — SHOULD BE CLOSED	☐ P ☐ F ☐ N/A	
(D) Feeder breakers to transfer switches — SHOULD BE CLOSED	☐ P ☐ F ☐ N/A	
(E) Field breaker — SHOULD BE CLOSED	☐ P ☐ F ☐ N/A	
7. PRIME MOVER		
(A) Governor oil level	☐	
(B) Governor linkage tightness	☐ P ☐ F ☐ N/A	
(C) Wipe down unit — evidence of leaks?	☐ Done	
(D) Check for loose bolts and connections	☐ P ☐ F ☐ N/A	
8. GENERAL CONDITION OF EPSS		
(A) Remove any loose gear from area or room	☐ Done	
(B) Housekeeping — room clean, clearances maintained	☐ P ☐ F ☐ N/A	
(C) Check all panel lights on ATS	☐ P ☐ F ☐ N/A	
9. REMOVE LOCKOUT AND RESTORE UNIT TO AUTO POSITION		
(A) Record time restored to AUTO	☐	
(B) Return safety gear to proper location	☐ Done	
(C) Verify no active alarms	☐ P ☐ F ☐ N/A	

Comments / Deficiencies / Corrective Actions

PERFORMED BY (Signature)

Signature _____ Date _____

REVIEWED BY (Supervisor)

Signature _____ Date _____

Automatic Transfer Switch (ATS) Data

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Complete one form for each ATS in the EPSS. Time-delay values speed troubleshooting and replacement.

SWITCH IDENTIFICATION

PLANT NUMBER

LOCATION

BRANCH (LIFE SAFETY / CRITICAL / EQUIPMENT)

CONNECTION (AUTOMATIC / DELAYED AUTO / MANUAL)

FED BY EPSS NO.

FED BY FEEDER BREAKER NO.

BRAND

MODEL

SERIAL

SPECIFICATION

ELECTRICAL RATINGS

COIL VOLTAGE

VOLTAGE

AMPERAGE

POLE

PHASE

WIRE

TIME DELAY SETTINGS

ENGINE START (TDS) — SECONDS

TRANSFER TO EMERGENCY (TDNE) — SECONDS

TRANSFER TO NORMAL (TDEN) — MINUTES

COOLDOWN (TDC) — MINUTES

PICKUP %

DROP-OUT %

NOTES

EPS Data & Component Inventory

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Record one form per generator (EPS). Site-specific data supports rapid repairs during an emergency.

IDENTIFICATION

PLANT NUMBER	DATE RECORDED	RECORDED BY

ENGINE (PRIME MOVER)

BRAND	MODEL	SERIAL NUMBER

SERIES NUMBER	PARTS LIST NUMBER

ALTERNATOR

BRAND	MODEL	SERIAL NUMBER

SERIES NUMBER	PARTS LIST NUMBER

LUBRICATION SYSTEM

SUMP CAPACITY	VISCOSITY / GRADE / WEIGHT	OIL BRAND

FILTER BRAND	FILTER PART NUMBER	QTY

HEATER BRAND	HEATER PART NUMBER	QTY

COOLING SYSTEM

SYSTEM CAPACITY	COOLANT TYPE	COOLANT BRAND	RADIATOR CAP PART NO.

FILTER BRAND	FILTER PART NUMBER	QTY

HEATER BRAND	HEATER PART NUMBER	QTY

FUEL SYSTEM

MAIN TANK CAPACITY	DAY TANK CAPACITY	FUEL BRAND	SPECIFICATION	CETANE NO.

FILTER BRAND	FILTER PART NUMBER	QTY

STARTING SYSTEM (BATTERIES)

BATTERY BRAND	GROUP SIZE	CCA	QTY	VOLTAGE

HEATER BRAND	HEATER PART NUMBER	QTY

HOSES, BELTS & AIR FILTER

HOSES — BRAND	HOSE PART NUMBERS / QTY

BELTS — BRAND	BELT PART NUMBERS / QTY

AIR FILTER — BRAND	AIR FILTER PART NUMBERS / QTY

ADDITIONAL COMPONENTS / NOTES

Generator Main Breaker Data

Motor and Generator Institute

BREAKER IDENTIFICATION

TYPE (AIR / INSULATED CASE / MOLDED CASE)

TRIP UNIT TYPE (SOLID STATE / ADJUSTABLE / NON-ADJUSTABLE)

MANUFACTURER

MODEL NO.

SERIES / SPEC. NO.

SERIAL NO.

RATINGS

VOLTS

FRAME SIZE

SHORT CIRCUIT RATING

TRIP RATING

SETTINGS

LONG TIME

SHORT TIME

INSTANTANEOUS

GROUND FAULT

DELAY TIME (SECONDS)

LONG TIME

SHORT TIME

GROUND FAULT

Before replacing any EPSS breaker: obtain a short-circuit and coordination study for the alternate-power side so a downstream fault cannot trip the main or feeder breakers.

NOTES