NEW YORK STATE Corrections and Community Supervision **DIRECTIVE**	TITLE **Emergency Generator and Portable Equipment**		NO. 3054 DATE 10/05/2018
SUPERSEDES	DISTRIBUTION A	PAGES PAGE 1 OF 9	DATE LAST REVISED
REFERENCES (Include but are not limited to) ACA Expected Practices 4-4219	APPROVING AUTHORITY		

I. **PURPOSE**: The emergency electrical generator systems play an important role in providing for the safe and secure operation of the State's correctional facilities. To ensure continuous electrical service and the availability of emergency backup power at each facility, it is mandatory to conduct regularly scheduled testing of the emergency generator and electrical switchgear equipment and assure proper training of staff. Arc Flash Safety Awareness Training is mandatory for staff working on electrical equipment.

II. **POLICY**: It shall be the policy of the Department of Corrections and Community Supervision (DOCCS) to test all stationary emergency electrical generators and high voltage switchgear systems at each correctional facility on a regular basis and to train all appropriate employees in the proper operation and maintenance of the equipment.

It shall also be the policy of DOCCS to test and maintain all portable emergency generator systems and Emergency Response Equipment (ERE) in a state of operational readiness.

III. **DEFINITIONS**

A. Stationary Emergency Generator Equipment: A generator or set of generators physically and permanently fixed in place by means of attachment to a building or structure. These units are typically located in a separate generator building or in the powerhouse and provide either partial or complete backup of the facility electrical needs during power outages. Additional stationary emergency generators may also be found at Regional Medical Units, Regional Mental Health Units, S-Block fire pumps, water or sewer filtration plants, and remotely located pump stations.

B. Portable Emergency Generator Equipment: Generators mounted on trailers that can be transported easily between locations using existing facility vehicles. Besides electrical outages, the portable emergency generators may be used during scheduled maintenance activities on the electrical system(s) which require partial or complete isolation from the facility's primary power source. Examples of equipment requiring isolation from the electrical system during servicing include: high voltage switchgear, stationary generators, pad mounted transformers, electrical feeders, and service entrance equipment.

C. Emergency Response Equipment: In addition to the portable emergency generators, DOCCS maintains a fleet of trailer-mounted equipment for use during emergency or planned maintenance activities. This equipment includes boilers, water and sewer pumps, light towers, heating units, sewer cleaning machines, and bucket trucks.

D. Electrical Switchgear Equipment: A high voltage switch located in a dedicated cabinet which automatically or manually selects a source of power for the facility from either the local utility electrical grid or the facility emergency generator(s).

E. Electrical Load: The maximum level of electrical power required by the facility as measured in kilowatts (kW). A typical sized DOCCS facility electrical load is between 500 and 2,000 kW. The electrical load of a facility dictates the size of the stationary emergency generator(s) used at the facility.

F. Facility (Full) Load Test: A test whereby a generator is operated at the maximum load required to power the facility, as would be expected during a real power outage. This test proves that the generator starts, runs, transfers from utility power to generator power, and carries the full facility electrical load.

G. Load Bank: A piece of electrical equipment used to test a generator unit by simulating an electrical load placed on a generator in the absence of a real connected load (i.e., facility load). This equipment is typically used to test portable emergency generators at full nameplate Kilo-Volt-Ampere (KVA) rating.

H. Arc Flash: An undesired rapid electric discharge that travels through the air between conductors or from a conductor to a ground.

IV. STATIONARY EMERGENCY GENERATOR EQUIPMENT TESTING, TRAINING, AND OTHER REQUIREMENTS

A. Equipment Testing

1. All personnel involved with generator testing shall wear the appropriate Personal Protective Equipment (PPE) required for the arc flash rating of the equipment being operated while working with the equipment. All other personnel shall be kept at a safe distance during the test.
2. Test the emergency electrical generation system, under full facility load conditions once per month for a duration of at least two hours.
3. The equipment to be tested includes the main electrical switchgear and stationary emergency generator(s) along with all ancillary equipment required to operate the unit(s).
4. The monthly test is intended to verify the automatic operation and transfer of the facilities electrical load from the incoming utility power source, to the stationary emergency generator, and back to the utility source after a preset amount of time. The equipment “cool down” period following the test is not included in the two-hour minimum duration indicated in Section IV-A-2 above.
5. As a result of advancing technology and varying sequence of operations of the high voltage switchgear systems installed at DOCCS facilities across the state, mandating a single procedure to apply uniformly statewide for the monthly test is impractical.

   Each facility shall develop a generator test procedure which is specific to the full range of capabilities and options of the existing equipment, that will ultimately serve as the standard operating procedure for the required monthly full load test. The procedure shall be submitted to your Technical Service Representative in Facilities Planning, annually by May 1st, for review and approval before it goes into effect. Until such time that approval is received, the current procedures utilized for the monthly test shall be continued.

The monthly test should be performed with a "Closed Transition" where ever possible to minimize disruption to facility operations and protect sensitive electronic equipment. When an "Open Transition" must occur, proper coordination with all staff within the facility shall be completed prior to testing.

6. During the test, all operating parameters of the generators shall be monitored and recorded to ensure proper functioning of the generator(s) and switchgear. Form #4301, "Generator Run Log," shall be used to record the test at all facilities.
7. The testing should occur during daylight hours, Monday through Friday, at a time best suited to facility operations. The day and time of the test should be rotated to prevent a noticeable pattern of testing. Should a variance in the testing times be required for any reason, security or technical, please submit your request in writing to Facilities Planning for review.
8. The facility shall immediately notify Facilities Planning, by phone, and then later in writing, of any failures or unusual incidents encountered during the test.
9. Normal testing of facility generators does not need to be reported to the Command Center or Facilities Planning if the systems operate as designed.
10. Form #3054A "Generator Operational Testing Procedures," shall be followed and results logged on Form #4301 to record the operational parameters of each piece of equipment during the run test.
11. Form #3054B "Emergency Equipment Testing Chart," indicates the mandatory frequency of testing, training, and inspection requirements for all stationary and portable emergency equipment.
12. DO NOT USE BIO-DIESEL in any emergency equipment with a motor including generators (fixed and portable), light towers, pumps, bucket trucks, etc. Bio-diesel fuel breaks down after periods of non-use. All generator manufacturers do not recommend its use.

V. TRAINING

A. All power plant personnel, or their equivalent, shall be initially trained in arc flash safety awareness and receive refresher training every three years.

B. All power plant personnel, or their equivalent, should be thoroughly knowledgeable, capable and scheduled at least twice a year to demonstrate their ability to transfer power from the local utility source to the facility emergency standby generators, and back to utility power completely by manual means, if technically feasible.

C. Like the monthly test, one uniform training procedure cannot be applied to every DOCCS emergency power system around the state. The intent of the training is to demonstrate that each employee can restore electrical power to the facility that has lost power and the emergency systems did not operate as intended in automatic mode.

D. Each facility shall develop a test procedure that will be reviewed and approved by Facilities Planning for use as the standard operating procedure for the semi-annual training. This procedure should be nearly identical to information contained in the detailed operations manual as described in Section VI-C-A below.

E. Upon completion of all training return the generator and switchgear gear controls to the automatic position.

F. The names of the employees participating in the training should be recorded on form RTF-SLMS and submitted to the regional training office.

VI. ADDITIONAL OPERATIONAL REQUIREMENTS

A. Each facility must have a detailed operations manual which outlines the procedures which must be followed to manually transfer the facility load to the emergency generator and then back to utility power. A copy of these instructions must be posted at, or near the equipment for quick reference during emergency conditions. The instructions should include:

1. Generator start-up, paralleling between facility generators (if available), and shutdown procedures;
2. Switch and switchgear manual operating procedures;
3. Procedure illustrating step-by-step actions necessary to transfer from the local utility to the facility standby system and vice versa;
4. Checkpoints to be observed and recorded during test (i.e. pressures, temperatures, voltages, amperages, and similar items.).
5. One-line electrical diagram or diagrams of generator/switchgear interconnection and facility distribution system;
6. Critical phone numbers and sequence of notification (i.e. facility administration, Plant Superintendent, local utility company, additional personnel needed for assistance, etc.);
7. Identification, location, and description of all necessary PPE and tools to operate the equipment safely; and
8. Location and description of all spare parts and maintenance supplies that may be required during the operation of the generator(s). These may include, but not be limited to, high voltage sticks, mats, arc-rated PPE, spare fuses, fluids for the generators, recording logs, test equipment, and similar items.

B. Weekly Inspections of the generator and switchgear will be performed for the items listed on Form #3054F, "Generator/Switchgear Weekly Inspection Checklist," at a minimum. The inspections shall be scheduled and recorded in the MP2 system and shall include the date, time, individual performing the inspection, and the condition of each item inspected. Any problems found should be repaired immediately.

C. Emergency generator fuel tanks must be kept with a minimum three-day supply of fuel, if capable based on size. During times of extended operation in emergency situations, the tank level should not drop below 75% of its maximum capacity while running.

D. Critical contact information for the fuel supplier of record will be posted conspicuously inside the generator building or generator housing and shall include the name, address, and phone number for normal working hours: as well as the 24-hour emergency delivery contact information, for quick access. The placard or sign should also indicate the fuel type and tank(s) capacity.

The fuel supplier information shall be included in the Facility Red Book and must match exactly to the info posted in the generator building. As fuel suppliers change with new OGS centralized fuel contracts, the Facility Red Book and generator building posting shall be kept current.

If possible, a list of potential backup suppliers should also be posted for use if the primary source is not available.

E. Specific instructions, including phone numbers, shall be mounted near or at the location of the generator and switchgear indicating that Emergency Operations Command Center and Facilities Planning shall be notified immediately any time the generator is used during emergency outages.

F. Each facility shall annually update the Facility Emergency Generators Plan which is located on the facility's "V Drive."

VII. MAINTENANCE

A. All facilities have been given funding in their annual operating budgets per stationary generator unit (excluding switchgear and fire pumps). This funding shall be used for all maintenance items, emergency repairs, fluid replacements, etc. If the facility exceeds this budget, contact Facilities Planning or Budget and Finance to obtain supplemental funding.

B. All work and service performed on stationary generators and switchgear shall be recorded in the MP2 system.

C. Switchgear preventive maintenance shall be scheduled every three years. See Form #3054H "Minimum Requirements for Tri-Annual Medium Voltage Switchgear Service and Testing," for the minimum servicing required.

VIII. PERIMETER SECURITY AND YARD LIGHTING

A. Semi-Annual Testing

1. The perimeter security and yard lighting shall be tested every six months during a regularly scheduled facility full load test to verify connection to the facility emergency power source and that each lamp illuminates properly.
2. During day light hours, the facility emergency generator will be started and each fixture checked for operation by means of by-passing the photo-sensor if so equipped with a by-pass option, or remote activation through the fire alarm system (medium security proto-types only).
3. Each semi-annual test of the lighting systems shall be recorded on Form #3054G, "Perimeter Security and Yard Lighting," and the information entered into the MP2 system. Form #3054G, shall be maintained at the facility and attached to the corresponding Form #4301, "Generator Run Log," recorded for the semi-annual full load test during which the lighting test was performed and included in the Log Book.
4. Contact Facilities Planning and Development to determine alternate means of testing if the above listed methods do not apply.

IX. PORTABLE EMERGENCY EQUIPMENT POLICY

A. Equipment Testing

1. Portable Emergency Generators
   a. All personnel involved with portable generator testing shall wear the appropriate PPE required for the arc flash rating of the equipment being operated while working with the equipment. All other personnel shall be kept at a safe distance during the test.

b. All portable emergency generators shall be run tested once per month for a duration long enough to ensure that the unit is functioning properly. All units are to contain a log book that travels with the unit.

c. During the test, all operating parameters of the generator shall be monitored and recorded to ensure proper functioning of the generator. Form #4301, "Generator Run Log," shall be used to record the test at all facilities.

d. All portable emergency generators shall be connected to a load bank and full load tested annually. At the same time of this annual load bank testing, the fuel contained in its tank should be polished as well. The generator will need to be coordinated with, and transported to, a facility with a load bank. See Section X-C-3 list below. Use Form #3054D, "Emergency Portable Generator Load Bank Test Log," to record all readings. Copies of these readings shall be sent to Facility Planning - Technical Services.

2. Other Emergency Response Equipment

a. All other portable emergency equipment requires a semi-annual test with the exception of light towers. All equipment is still required to be maintained in excellent condition.

b. All portable light towers shall be tested bi-monthly to ensure proper operation of the motor/generator unit as well as each light fixture.

B. Training

1. All power plant personnel, or their equivalent, should be thoroughly knowledgeable, capable, and scheduled at least semi-annually to:

a. Participate actively in connecting a portable emergency generator to a building and operating the generator under load conditions. The training should highlight the methods necessary to isolate the building from the facility power grid, the actual connection of the emergency generator via cabling, and the operation and monitoring of the equipment.

b. Gain an understanding of the proper application and safe operation of each piece of equipment. This can occur through direct use of the equipment or a general classroom training discussion. The goal is to ensure that each person expected to respond to emergency situations is capable and knowledgeable to use the equipment safely and properly.

2. Upon completion of the training exercise, the training form RTF-SLMS shall be submitted to the regional training office.

NOTE: The above semi-annual training applies to ALL FACILITIES, regardless of the location of DOCCS portable emergency equipment.

C. Each facility shall develop an implementation plan for the deployment and use of all portable emergency generator equipment at each facility based upon each facility's unique configuration. The plans should include:

1. A schedule of the minimum size generator needed to power each building. This schedule should indicate any necessary PPE and materials or special connections that will be required at each point of connection as well as the minimum length of cable needed.

2. A site map indicating the location of the electrical rooms, inside each building, where a connection will take place. The map shall also include the location outside the building where the portable generator would be located as well as the route necessary to get the equipment to that location.

D. All portable emergency equipment should be visually inspected weekly to observe for leaks, broken parts, flat tires, and similar defects.

X. EQUIPMENT LOCATION, DEPLOYMENT, AND MAINTENANCE RESPONSIBILITY

A. Equipment Location – "Home" Facility

1. Each piece of equipment is assigned to a home facility and a unit number provided by Facilities Planning.
2. Each unit shall be included on the home facility equipment inventory list in the MP2 system as well as all work performed on the equipment.
3. The home facility shall be responsible for the care and maintenance of all emergency equipment assigned to the facility. This shall include:
   a. Normal service and scheduled maintenance;
   b. Extended maintenance due to frequent use;
   c. Stock of spare parts and service item supplies for use at all times. This includes periods of deployment. The spare parts should be sent with the equipment;
   d. Vendor service and repair purchase requests for all work performed on the equipment. Coordinate with the borrowing facility for repairs needed during periods of deployment; and
   e. All ancillary equipment associated with the emergency equipment (i.e. electric cables, connectors, hoses, heater ducts, etc.).
4. All work and service performed on emergency equipment units shall be recorded on the home facilities MP2 system.
5. A list of vehicles capable of transferring each piece of emergency equipment along with a list of appropriate employees licensed to operate each class of vehicle shall be maintained. Locate the periodically updated list in the Watch Commander's Office for reference when talking with Facilities Planning and/or the Command Center during times of emergencies.
6. Form #3054C, "Portable Emergency Equipment Checklist," shall be used to record the condition of the emergency equipment at the time of deployment and upon return to the host facility. This form must remain with the equipment for documentation. The form can also be found in the facility's "V Drive."
7. Be prepared to send a staff member to the facility in need (as determined by Facilities Planning and\or the Command Center) to assist in the connection and\or supervision of the use of the piece of emergency equipment.

8. In most circumstances, the host facility shall be responsible for transporting the emergency equipment to the receiving facility. In turn, the receiving facility shall be responsible for returning the equipment to the host facility once the emergency condition has been corrected. The host facility shall notify Facilities Planning when the equipment has been returned to the host facility.

   All host facilities have funding in their annual operating budget per portable generator unit (excluding light towers, pumps). This funding shall be used for all maintenance items, emergency repairs, fluid replacements, etc. If you exceed this funding, contact Facilities Planning or Budget and Finance to apply for supplemental funding.

B. Equipment Use – "Receiving" Facility

1. The receiving facility shall be responsible for the care and proper use of each piece of emergency equipment transferred to the receiving facility.
2. The receiving facility must have the appropriate plant utility staff available to receive the equipment, perform a pre-function check of the equipment using Form #3054E, "Preparations for Portable Generator Hookup,", and safely connect and operate the emergency equipment during periods of critical need. Form #3054E, is to be filled out completely with the signatures of the qualified craftsman and the attending supervisor. If there are no qualified staff members available to physically perform the pre-functional check and physically connect the equipment, staff from the "home" facility, nearby facilities, or a private contractor may be requested to provide the manpower.
3. The receiving facility must review the condition of each piece of equipment when received and sign Form #3054C, "Portable Emergency Equipment Checklist," of the condition of the emergency equipment unit.
4. The receiving facility is responsible for the purchase of fuel for the unit during periods of use. The quality of the fuel used must follow the equipment manufacturer's recommendations. DO NOT USE BIO-DIESEL in any emergency equipment with a motor including generators (fixed and portable), light towers, pumps, bucket trucks, or similar equipment.
5. At the discretion of Budget and Finance, expenses experienced during the operation of any emergency equipment may be journal vouchered from one facility to another.
6. Maintain a list of facility vehicles capable of transferring both normal and heavy emergency equipment, along with a list of appropriate employees licensed to operate each class of vehicle. Periodically update the list as needed and this list shall be located in the Watch Commander's Office for reference when talking with Facilities Planning and\or the Command Center during times of critical need.

C. Authorization of Use

1. The portable emergency equipment is for use at all DOCCS facilities statewide, at any time.
2. Other than maintenance and equipment testing, do not relocate or use the emergency equipment without prior approval by Facilities Planning or the Command Center.

3. Every DOCCS employee shall strictly follow this policy to maintain this equipment in a state of readiness during periods of critical need anywhere within the DOCCS system.

   Load Banks are in the following HUB Facilities:

HUB	FACILITY (location of load bank)
Sullivan	Eastern C.F.
Wende	Albion C.F.
Elmira	Five Points C.F.
Oneida	Mohawk C.F.
Green Haven	Green Haven C.F.
Clinton	Clinton C.F.
Great Meadow	Coxsackie C.F.
Watertown	Mohawk C.F.

NOTE: The Office of Facilities Planning can be contacted at (518) 485-5576.

Form 3054A (08/18)
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NEW YORK STATE – DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

Generator Operational Testing Procedures

Prior to operating the equipment, a pre-inspection shall be conducted to include the following:

- Check Voltage Setting of Generator - Match to Building Requirements
- Check Fuel - **DO NOT USE BIO-DIESEL IN ANY EMERGENCY EQUIPMENT**
- Check engine oil level.
- Check coolant level.
- Inspect belts and hoses.
- Check battery fluid levels.
- Inspect battery terminal connections for corrosion.
- Check generator radiator for obstructions.
- Check engine control switches for proper position.
- Perform visual inspection of generator to look for:
  - Coolant leaks, Oil Leaks
  - Any unusual conditions,
  - Stick the diesel storage tank with water indicating paste to determine the level and to determine if water is present.

While generator is in operation, the following are to be recorded every fifteen minutes for generator tests, every thirty minutes for generator runs of greater than two hours (if applicable).

• Oil pressure	• Oil temperature
• Oil filter differential	• Engine coolant temperature
• Fuel pressure	• Fuel filter differential
• Voltage output per phase (A, B & C)	• Amperage draws per phase (A, B & C)
• Hertz	• Stack (Exhaust) Temp.
• kW	
• Day Tank Level	

LOG BOOK: A Log Book shall be maintained for both the stationary generators and each portable generator unit. The portable generator log shall be located on each portable generator and shall travel with it during deployments and use of any kind:

- Date, time, and duration of generator run.
- Operator's signature.
- Reason for generator run, i.e. "generator test", "power outage", "equipment maintenance."

- Maintenance performed.
- Any abnormal conditions.
- Details of power outages, i.e., when preferred source was lost and reestablished, when the utility was called, reason for the outage.

* See **Form 3054F "Generator / Switchgear Weekly Inspection Checklist"** for list of weekly visual inspections to be performed.

Form 3054B (08/18)
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NEW YORK STATE – DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

Emergency Equipment Testing Chart

Equipment	Condition	Weekly	Bi-Weekly	Monthly	Bi-Monthly	Semi-Annual	Annual
Stationary Generators and Switchgear	Load			X			
	Training					X	
Perimeter and Yard Lighting						X	
Portable Generators	Load Bank						X
	No Load			X			
	Training					X	
Emergency Equipment	Load					X	
	No Load				X		
	Training					X	
Light Towers	Load				X		
Weekly* Inspection		X					

Any questions or problems meeting the above schedule should be brought to the attention of Facilities Planning immediately.

* See **Form 3054F "Generator / Switchgear Weekly Inspection Checklist"** for list of weekly visual inspections to be performed.

Form 3054C (08/18)
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NEW YORK STATE – DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION
Portable Emergency Equipment Check List Copy as Needed

Date:
Home Facility _____ Borrowing Facility _____

Section 1 – Equipment Description:				Unit No.:
		TRANSFER	RETURN	COMMENTS
Start and Test Run	Record			
Hour Meter	Record Hours			
Fuel Level	Indicate Level			
Oil Level	Indicate Level			
Coolant Level	Indicate Level			
Voltage Setting	Record Setting			
Trailer Tires	Record Condition			
Trailer Lights	Work/Not Work			
Brake System	Work/Not Work			
Log Book	Stays w/ Equip.			
Overall Condition	Good, Fair, Poor			
NYS Inspection Date	Record Date			
Last Service	Record Date			
Section 2 – Accessories:				
		TRANSFER	RETURN	COMMENTS
Electrical Cables	Quantity & Length			
End Connectors	Condition			
Transformer	Trailer Mounted			
HV Switch	Trailer Mounted			
Extra Fuel Tank	Trailer Mounted			
Spare Parts	List			
Hoses	For Pumps			
Flex Duct	For Hot Air Blower			
Hand Tools	Condition			
Manuals	With Equipment			
Carbon Monoxide Alarm	Condition			
Keys	Turned Over			Equipment and Lock Boxes

- Enter initials or specific data requested in each “Transfer” and “Return” Column

Section 3 – Print name of receiver.

	Prior to Transfer	**Date**	**Upon Return**	**Date**
Home Facility				
Borrowing Facility				

Instructions for Form #3054C, Attachment C

The DOCCS owns and maintains a fleet of portable trailer mounted equipment that is used during Unusual Incidents as well as naturally occurring emergencies at each Correctional Facility. The equipment can also be used for regularly scheduled maintenance of stationary electrical equipment. The equipment is strategically located around the state at "home facilities" for rapid deployment to any Correctional Facility or "borrowing facility".

Because of its importance to the Department, each piece of equipment must be maintained in excellent condition and be ready for rapid deployment on short notice. For this reason, it is critically important for Facilities Planning to know where each piece of equipment is located and the condition of the unit at all times.

For this reason, the following policy shall be followed:

1. Contact Facilities Planning and Development to request permission to move any piece of emergency response equipment. This includes portable generators, light towers, boilers, heating units, pumps, sewer cleaners, etc. during times of emergency response or for scheduled maintenance.
2. Identify and make available at all times the appropriate vehicle to be used to relocate each specific type of equipment over the highway.
3. Generally speaking, the home facility will be asked to transport the emergency equipment from their facility to the borrowing facility. The return of the equipment to the home facility shall be the responsibility of the borrowing facility.
4. This form should be completed by the host facility, in the presence of the borrowing facility, prior to transfer of possession to and from the borrowing facility. Both facilities shall sign the bottom of the form upon transfer and upon return of the equipment.
5. Notify Facilities Planning when the equipment has been returned to the home facility and ready for use.
6. A copy of this form shall be forwarded to Facilities Planning upon completion of the emergency or maintenance work.
7. The home facility will be responsible for all maintenance of the equipment. During deployment of the equipment, the home facility shall provide the basic maintenance supplies to the borrowing facility. The basic supplies include air filters, fuel filters, fuses, etc. It shall be the borrowing facilities responsibility to provide all other materials needed to operate the equipment safely and properly, i.e. gasoline, personal protective equipment, oil, coolant/anti-freeze, etc.
8. DO NOT USE BIO-DIESEL IN ANY DOCCS EQUIPMENT
9. If the equipment needs repair or servicing during a deployment, the borrowing facility shall make all arrangements and pay for the immediate service of the unit. Simultaneously notify Facilities Planning of any problems experienced with the equipment.
10. Do not transport any piece of equipment with a full tank of fuel. Keep the level between ½ and ¾ full during transport.
11. Any problems or concerns, Facilities Planning and Development can be reached at (518) 485-5576 between 7 a.m. and 4 p.m. weekdays and through the Command Center at all other times.
12. This form is also available on each facility's V Drive.

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NEW YORK STATE - DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

EMERGENCY PORTABLE GENERATOR LOAD BANK TEST LOG

NAME OF TESTER ______________________ **FACILITY & UNIT ERE#** ______________________

DATE ______________________ **UNIT RATED KW** ____________

LOAD %	KW LOAD	VOLTS		HZ	WATTS		AMPS	
		A/B			KW		L1	
%	TIME	B/C			KVAR		L2	
		C/A			KVAR		L3	
		AVG.			PF		AVG.	
LOAD %	KW LOAD	VOLTS		HZ	WATTS		AMPS	
		A/B			KW		L1	
%	TIME	B/C			KVAR		L2	
		C/A			KVAR		L3	
		AVG.			PF		AVG.	
LOAD %	KW LOAD	VOLTS		HZ	WATTS		AMPS	
		A/B			KW		L1	
%	TIME	B/C			KVAR		L2	
		C/A			KVAR		L3	
		AVG.			PF		AVG.	
LOAD %	KW LOAD	VOLTS		HZ	WATTS		AMPS	
		A/B			KW		L1	
%	TIME	B/C			KVAR		L2	
		C/A			KVAR		L3	
		AVG.			PF		AVG.	
LOAD %	KW LOAD	VOLTS		HZ	WATTS		AMPS	
		A/B			KW		L1	
%	TIME	B/C			KVAR		L2	
		C/A			KVAR		L3	
		AVG.			PF		AVG.	
LOAD %	KW LOAD	VOLTS		HZ	WATTS		AMPS	
		A/B			KW		L1	
%	TIME	B/C			KVAR		L2	
		C/A			KVAR		L3	
		AVG.			PF		AVG.	
LOAD %	KW LOAD	VOLTS		HZ	WATTS		AMPS	
		A/B			KW		L1	
%	TIME	B/C			KVAR		L2	
		C/A			KVAR		L3	
		AVG.			PF		AVG.	

PASS ☐

FAIL ☐

COMMENTS;

1 COPY TO FACILITY PLANNING
1 COPY TO REMAIN AT TESTING FACILITY
1 COPY TO REMAIN WITH UNIT LOG BOOK

Form 3054E (05/18)
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NEW YORK STATE - DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

Preparations for Portable Generator Hookup

Facility:	Date:
Building # and name:	
Generator #	
Record information from **DATA PLATE** in Quick Connect Panel Box or Alternate Point of Connection:	

Pre-Functional Checklist	**Check ✓**
Assure that all staff that will be working on the unit has been properly trained in the safe operation and maintenance.	
Check voltage requirements and place the Voltage Selector Switch in the appropriate position.	
Identify Phase Rotation	
Make sure that the On/Off Switch is in the “Off” position.	
Make sure that the Main and Convenience circuit breakers are in the “Open” position (O).	
Check engine oil level	
Check coolant level	
Inspect belts and hoses	
Check engine battery connections for corrosion	
Check engine fan belt tension	
Check engine fan belt guard	
Check for any water inside the unit. If found, dry completely.	
Check engine exhaust system for loose components	
Check radiator and surrounding shroud for debris	
Using the Facility “Implementation and Deployment Plan” for portable generators, verify docking site, that Generator size is adequate and correct load side voltage requirements.	
Go to the site and visually verify that the Load Side Voltage requirements are accurate	
Place Generator at docking site and level unit	
Using “Qualified” staff, tie in the provided cabling to the Load side	
Recheck voltage requirements and ensure that the Voltage Selector switch is in the proper position and matches building electrical load characteristics.	
Recheck Phase Rotation	

Completed By: Qualified Craftsman Signature and Title:	Verified By: Supervisor Signature and Title:

Form 3054F (05/18)
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NEW YORK STATE - DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

Generator / Switchgear Weekly Inspection Checklist

Facility Name:	**Month/Year:**				**Comments/Corrective Actions**
	Week 1	**Week 2**	**Week 3**	**Week 4**	
Date & Time of inspection					
Inspection performed by					
General condition of prime mover/generator					
Condition of belts & hoses					
Engine oil level					
Lube oil heater					
Coolant level					
Water pump					
Jacket water heater					
Radiator					
Battery system					
Electrolyte level					
Charger					
Exhaust system					
Fuel system:					
Fuel supply level					
Tank vent(s)					
Is the Switchgear and Generator in Automatic Mode?					
Are the voltages and amperage readings in the appropriate approximate range?					
Are there any warning lights, breakers or relays tripped?					
Is there any water dripping on or around the equipment?					
Is housekeeping kept up?					
Are fresh air dampers and controls in operating condition?					
Are the cubicle doors closed and locked?					

Form 3054G (05/18)
Photocopy Locally

NEW YORK STATE - DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

Perimeter Security and Yard Lighting

Facility:	Test Date:
Is the facility currently being powered by the emergency generator?	**Yes** ☐ **No** ☐

Perimeter Security Lighting	**Pass** ☐	**Fail** ☐	
Inspection Supervised by:			
Fixture Type	Count	Condition	Comments
High Pressure Sodium (HPS)			
Metal Halide (MH)			
Light Emitting Diode (LED)			
Other			

Yard Lighting	**Pass** ☐	**Fail** ☐	
Inspection Supervised by:			
Fixture Type	Count	Condition	Comments
High Pressure Sodium (HPS)			
Metal Halide (MH)			
Light Emitting Diode (LED)			
Other			

Count – Enter the number of fixtures of each lighting type.
Condition – Rate the condition of the fixture body and lens as Good, Fair, Poor
Comments – Report any corrective action necessary.

Form 3054H (08/18)
Photcopy Locally

NEW YORK STATE – DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

Minimum Requirements for Tri-Annual Medium Voltage Switchgear Service and Testing

The Medium Voltage Switchgear (15 KV and below), as part of the incoming electrical service, as well as the pad mounted Medium Voltage Switches and Transformers included in the electrical distribution system of the facility, shall be serviced and tested every three ~~(3)~~ years on a regular basis. The items listed below should be included in the solicitation used to obtain a qualified electrical contractor to perform the work.

The list is not exclusive; items of work should be added or removed based upon the actual equipment present and the needs of the facility. All work shall be recorded in the MP2 system in addition to the contractor reports as indicated below.

It is the facility's responsibility to initiate and complete this work every three years. Complete and submit Form FP102 to your Facility Planner to obtain funding.

Contact your Technical Services Representative in Facilities Planning should you have any questions or concerns.

A. SERVICE AND TESTING OF MEDIUM VOLTAGE SWITCHGEAR. General service and testing includes cleaning, adjustment, inspection, lubrication, minor repairs and electrical testing as applicable. Items to include but not limited to are:

1. Main contact wear indicators checked for proper dimensions.
2. All insulated components inspected and cleaned with approved solvents and methods.
3. Control wiring inspected for insulation damage and loose connections.
4. Entire unit cleaned and inspected for loose hardware.
5. All mechanisms, rollers, latches, etc. inspected and lubricated as appropriate.
6. Primary fingers inspected, cleaned and lubricated per manufactures recommendations.
7. All cubicles vacuum cleaned and inspected. Mechanical linkages, hinges, etc. inspected and lubricated.
8. Racking mechanisms adjusted and checked for proper operation.
9. Cell fit and element alignment inspected and adjusted.
10. Primary and secondary contact wipe adjusted as necessary.
11. Shutter mechanism operation verified.
12. Contact resistance measurements performed.
13. Insulation resistance measurements performed.
14. High potential tests performed per manufacturer's recommendations.
15. All serviced breakers electrically operated on both test stand and in respective cubicle prior to be returned to service where applicable.
16. All results submitted in formal bound report and two copies in soft file form.

B. TESTING AND CALIBRATION OF PROTECTIVE RELAYS: General service testing and calibration includes cleaning, adjustment, inspection, calibration, minor repairs, and electrical testing as applicable.

1. Protective relays removed one at a time.
2. Relays inspected for physical damage.
3. Inspect condition of spiral spring, disc clearance and contacts.
4. Cover gasket, glass and case cleaned and inspected for physical damage, foreign material, and moisture.
5. Check mechanical relays for freedom of movement, proper travel, and alignment.
6. Clean and adjust contacts where applicable.
7. Inspect control wiring for damage and loose connections. Insulation resistance measurements performed on control wiring (Not applicable to solid state relays).
8. Determine pick-up parameters for each operating element.
9. Timing tests performed at three ~~(3)~~ test points.
10. Pick-up target and seal-in units checked for proper operation.
11. Special tests as required to check proper operation of restraint, directional, differential and other elements per manufacturer's recommendations or instructions.
12. Operational trip tests performed on the system when possible.
13. All results submitted in formal bound report and two copies in soft file form.

C. SERVICE AND TESTING OF OIL FILLED TRANSFORMERS

1. Unit visually inspected for physical damage, leaks and mechanical condition.
2. Unit inspected for cracked insulators, tightness of connections, defective wiring, and general mechanical and electrical condition.
3. All insulated components inspected and cleaned with approved solvents and methods.
4. Verify correct liquid level and positive blanket pressure where applicable.
5. Bolted connections torqued where accessible.
6. Proper core and equipment grounding verified.
7. Contact resistance measurements performed where applicable.
8. Auxiliary devices checked for proper operation.
9. Insulation resistance measurements performed.
10. Turns Ratio tests performed.
11. All results submitted in formal bound report and two copies in soft file form.

New York State Department of Corrections and Community Supervision

FORM 4301 - Generator Run Log

Generator I.D. _____

Start Time _____

End Time _____

Correctional Facility _____

Date _____

Fuel (Gallons)

	Fuel Tank 1	Fuel Tank 2
Start (gal)		
End (gal)		
Amount Used		

Generator Type

- ☐ Portable
- ☐ Stationary

Voltage Setting _____

Phase (1ϕ or 3ϕ) _____

Pre-Start Checks

- ☐ Oil Level
- ☐ Coolant Level
- ☐ Coolant Temp
- ☐ Battery Level
- ☐ Battery Charger
- ☐ Radiator Belts
- ☐ Voltage Setting

Reason for Operation

- ☐ Power Outage
- ☐ Load Test
- ☐ No-Load Test
- ☐ Other

Generator Hours

Start		Hours
End		Hours
Total Run Hours		Hours

Time	Oil Pressure (PSI)	Oil Temp (Deg F)	Oil Filter Differential	Engine Coolant Temp (deg F)	Fuel Pressure	Fuel Filter Differential	Voltage (V)			Current (Amps)			Frequency (Hz)	Kilowatt (KW)	Stack Exhaust Temp (deg	Day Tank Level
							A	B	C	A	B	C				

FORM 4301 (3/18)
PHOTOCOPY AS NEEDED
Emergency Generator and Portable Equipment Policy
March 22, 2018