Work scope details:

Title: Monthly Emergency Generator Surveillance for Building 1503

Work Scope Summary: This work plan involves conducting a monthly surveillance test of Emergency Generator 80-1503 to ensure operational readiness in case of power outages. The test includes verifying the functionality of the generator and the Automatic Test Switch (ATS) by simulating a power failure.

Key Work Scope Components:

• Monthly operational checks of Emergency Generator 80-1503

• Testing of the Automatic Test Switch (ATS)

• Notification to Complex and Building Managers prior to testing

• Adherence to work instructions UT-ELEC-SR-001 for preventive maintenance

Relevant previous events and lessons learned:

Event Title	Event Summary	Lessons Learned	Reference Link
Generator Failure During Emergency	A facility's emergency generator failed to start during a power outage due to inadequate maintenance checks.	Regular preventive maintenance and testing are crucial to ensure generator reliability.	N/A
ATS Malfunction Leading to Power Loss	An ATS malfunction caused a facility to remain on utility power during a simulated outage, risking equipment damage.	Proper testing and verification of ATS functionality are essential before relying on emergency systems.	N/A
Electrical Shock Incident During Testing	A worker received an electrical shock while performing maintenance on a generator due to improper lockout/tagout procedures.	Strict adherence to lockout/tagout protocols is necessary to prevent electrical hazards.	N/A
Inadequate PPE Use During Generator Maintenance	A maintenance worker was injured due to not wearing appropriate PPE while servicing a generator.	Always ensure that PPE is worn and that workers are trained on its importance during maintenance tasks.	N/A
Confined Space Incident During Generator Testing	A worker entered a confined space near the generator without proper precautions, leading to a near-miss incident.	Implement confined space entry protocols and ensure proper training for all personnel involved.	N/A

Missing Hazards:

Hazard	Missing or Inadequate Mitigation in Current Work Control Document	Recommended Mitigation for Revision	Reference Link	SBMS Link
Electrical Hazards	Not addressed	Implement lockout/tagout procedures before testing the generator.	N/A	N/A
Noise Exposure	Not addressed	Provide hearing protection and conduct noise level assessments during generator operation.	N/A	N/A
Confined Space Risks	Not addressed	Ensure confined space entry procedures are followed if testing requires entering enclosed areas.	N/A	N/A
Improper PPE Usage	Inadequate current mitigation	Mandate the use of appropriate PPE (gloves, goggles, hearing protection) during generator testing.	N/A	N/A
Weather Conditions	Not addressed	Assess weather conditions prior to outdoor testing and reschedule if conditions are unsafe.	N/A	N/A
Communication Failures	Not addressed	Establish clear communication protocols among team members during testing.	N/A	N/A
Equipment Failure	Inadequate current mitigation	Conduct a pre-test inspection of the generator and ATS to identify any potential issues.	N/A	N/A
Time Pressures	Not addressed	Allow adequate time for testing without rushing, and communicate the importance of thorough checks.	N/A	N/A
Distractive Environment	Not addressed	Minimize distractions in the work area during testing and ensure all personnel are focused.	N/A	N/A
Overconfidence	Not addressed	Conduct a safety briefing to remind workers of potential hazards and the importance of following procedures.	N/A	N/A

Failure mode analysis:

Current Control	Failure Mode of the Control	Effect of Failure	Cause of Failure	Recommended Action
Lockout/Tagout Procedures	Permit not obtained or expired	Risk of accidental energization during testing	Lack of awareness or oversight	Ensure all personnel are trained and verify permits before starting work.
PPE Requirements	PPE not used or inadequate	Increased risk of injury from electrical shock or noise	Lack of enforcement or training	Conduct regular PPE audits and training sessions to reinforce compliance.
Work Instructions	Instructions not followed correctly	Potential for equipment damage or personal injury	Miscommunication or misunderstanding	Review instructions in a pre-job briefing and have a checklist for compliance.
Communication Protocols	Poor communication among team members	Increased risk of accidents or errors during testing	Lack of established communication channels	Implement a communication plan that includes hand signals and radios if necessary.
Emergency Response Procedures	Emergency procedures not followed	Increased risk during an emergency situation	Lack of training or familiarity	Conduct regular drills and training sessions on emergency response protocols.
Tool Availability	Tools not available or inadequate	Delays in work and potential for using improper tools	Poor inventory management	Maintain an inventory checklist and ensure tools are inspected and available before work starts.

Current Control	Failure Mode of the Control	Effect of Failure	Cause of Failure	Recommended Action
Training and Competency Verification	Inadequate training for personnel	Increased likelihood of accidents due to lack of knowledge	Insufficient training programs	Implement a robust training program with regular assessments to ensure competency.
Pre-Job Safety Review	Safety review not conducted	Increased risk of overlooking hazards	Time pressures or complacency	Mandate a pre-job safety review for all work activities, regardless of perceived risk.
Equipment Inspection	Equipment not inspected prior to use	Risk of equipment failure during testing	Lack of routine checks	Establish a checklist for pre-use inspections and assign responsibility for completion.
Weather Assessments	Weather conditions not evaluated	Increased risk of accidents due to adverse weather	Lack of awareness	Implement a weather assessment protocol before outdoor work, with a rescheduling policy.