



Defense Health Agency

PROCEDURAL INSTRUCTION

NUMBER 4180.01

January 5, 2022

DAD-FO

SUBJECT: Emergency Power, Standby Generators, and Stored Energy Power Systems

References: See Enclosure 1

1. PURPOSE. This Defense Health Agency-Procedural Instruction (DHA-PI), based on the authority of References (a) through (c), and in accordance with the guidance of References (d) through (j), establishes the Defense Health Agency's (DHA) procedures for identifying when, where, and what type of emergency power and/or standby generators are acceptable and appropriate for use within DHA-assigned facilities.
2. APPLICABILITY. This DHA-PI applies to the DHA, DHA components (activities under the authority, direction, and control of DHA), and any future assigned activities as they come under the authority, direction, and control of DHA (when required by the terms of the applicable contract), and the Military Departments (MILDEPS).
3. POLICY IMPLEMENTATION. It is DHA's policy, pursuant to References (a) through (c), that DHA Facilities Enterprise (FE) will implement procedures for installation, replacement, removal, and policy waiver procedures for emergency generators supporting DHA-assigned facilities.
4. RESPONSIBILITIES. See Enclosure 2
5. PROCEDURES. See Enclosure 3
6. PROPONENT AND WAIVERS. The proponent of this publication is the Deputy Assistant Director, Financial Operations. When Activities are unable to comply with this publication the activity must request a waiver that must include a justification, to include an analysis of the risk

associated with not granting the waiver. The activity director or senior leader will submit the waiver request through their supervisory chain to the Deputy Assistant Director, Financial Operations to determine if the waiver may be granted by the Director, DHA or their designee.

7. **RELEASABILITY. Cleared for public release.** This DHA-PI is available on the Internet from the Health.mil site at: <https://health.mil/Reference-Center/Policies> and is also available to authorized users from the DHA SharePoint site at: <https://info.health.mil/cos/admin/pubs/SitePages/Home.aspx>.

8. **EFFECTIVE DATE.** This DHA-PI:

- a. Is effective upon signature.
- b. Will expire 10 years from the date of signature if it has not been reissued or cancelled before this date in accordance with Reference (d).

/S/
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Director

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ENCLOSURE 1

REFERENCES

- (a) DoD Directive 5136.01, “Assistant Secretary of Defense for Health Affairs (ASD(HA)),” September 30, 2013, as amended
- (b) United States Code, Title 10, Section 1073c
- (c) DoD Directive 5136.13, “Defense Health Agency (DHA),” September 30, 2013
- (d) DHA-Procedural Instruction 5025.01, “Publication System,” August 24, 2018
- (e) DoD Instruction 6015.17, “Military Health System (MHS) Portfolio Management,” January 13, 2012, as amended
- (f) DHA “Plan 3: Implementation Plan for the Complete Transition of Military Medical Treatment Facilities to the Defense Health Agency,” Version 6, August 12, 2019¹
- (g) DoD Directive 3020.40, “Mission Assurance (MA),” November 29, 2016, as amended
- (h) Unified Facilities Criteria 3-540-01, “Engine-Driven Generator Systems for Prime and Standby Power Applications,” August 1, 2014, as amended
- (i) Unified Facilities Criteria 4-510-01, “Design: Military Medical Facilities,” May 30, 2019, as amended
- (j) Joint Publication 1-02, “Department of Defense Dictionary of Military and Associated Terms,” November 8, 2010, as amended
- (k) Military Health System Real Property Systems Standards²
- (l) National Fire Protection Association 70, “National Electrical Code,” 2020
- (m) National Fire Protection Association 99, “Health Care Facilities Code,” 2021
- (n) National Fire Protection Association 101, “Life Safety Code,” 2021
- (o) National Fire Protection Association 110, “Standard for Emergency and Standby Power Systems,” 2019
- (p) National Fire Protection Association 111, “Standard on Stored Electrical Energy Emergency and Standby Power Systems,” 2019
- (q) American Society of Healthcare Engineering Monograph, “Managing Hospital Emergency Power Systems: Testing, Operation, Maintenance, Vulnerability Mitigation, and Power Failure Planning,” 2014
- (r) The Joint Commission, “Comprehensive Accreditation Manual for Hospitals (CAMH),” current edition
- (s) The Joint Commission, “Comprehensive Accreditation Manual for Ambulatory Care (CAMAC),” current edition
- (t) DoD Instruction 4715.06, “Environmental Compliance in the United States,” May 4, 2015, as amended
- (u) DoD Instruction 4715.05, “Environmental Compliance at Installations Outside the United States,” November 1, 2013, as amended
- (v) DHA-Procedural Instruction 3700.01, “Director’s Critical Information Requirements (DCIR), Situation Report (SITREP),” October 4, 2019, as amended

¹ This reference is located at <https://community.max.gov/display/DoDExternal/Area+2+-+Central?preview=%2F1645830822%2F2019465310%2FDHA+Implementation+Plan+3+v6.pdf> and can only be accessed with an approved Max.gov account.

² This reference is located at <https://facilities.health.mil/Repository/Download/61347> and can only be accessed with an approved Max.gov account.

ENCLOSURE 2
RESPONSIBILITIES

1. DIRECTOR, DHA. The Director, DHA, will implement policy, guidance, and instruction consistent with References (b) through (v).

2. SECRETARIES OF THE MILITARY DEPARTMENTS (MILDEP). The Secretaries of the MILDEPs shall:
 - a. Monitor and report the overall condition, readiness, utilization, and functionality of the MHS facility portfolio in accordance with Reference (e).

 - b. Establish internal controls to ensure compliance with established medical facility data management standards related to MILDEP property records.

3. DEPUTY ASSISTANT DIRECTOR, FINANCIAL OPERATIONS, DHA. The Deputy Assistant Director, Financial Operations will prepare and submit program and budget requirements for emergency power and/or standby generation pursuant to guidance of the Assistant Secretary of Defense for Health Affairs for the DoD Planning, Programming, Budgeting, and Execution process in accordance with Reference (c).

4. CHIEF, FACILITIES ENTERPRISE, DHA. The Chief, Facilities Enterprise, DHA, will:
 - a. Establish DHA standards, policy, guidance, and instructions for effective emergency power and standby generator management and operation.

 - b. Review for approval all requests for new, replacement, or expanded emergency power, standby generator, or stored energy power systems.

 - c. Establish specific internal controls to ensure compliance with the appropriate emergency power, standby generator, or stored energy power system standards as cited in References (h) through (t).

 - d. Manage, monitor, and provide oversight, in coordination with the DHA-assigned facilities, to ensure compliance with the established standards.

 - e. Monitor trends in emergency power, standby generator, or stored energy power system operations and maintenance and make recommendations concerning DHA-wide remediation and resolution.

f. Provide support services to all DHA assigned activities. DHA-FE shall maintain a database of DHA and MILDEP subject matter experts who can be utilized as part of these support services. Where support is required from any of the MILDEPs, DHA-FE shall be responsible for the funding of the associated MILDEP travel expenses.

g. DHA-FE may be required to provide support services utilizing outside contractors. To support this requirement, DHA-FE shall develop and maintain performance work statements for facilities-related support services.

5. DHA MARKET, SMALL MARKETS AND STAND-ALONE MILITARY MEDICAL TREATMENT FACILITY ORGNIZATION (SSO), AND DHA REGION (DHAR) DIRECTORS. The DHA Market, SSO, and DHAR Directors will:

a. Coordinate with DHA-FE regarding Market-focused facilities requirements via the Market, SSO, DHAR-based Facilities Liaison as prescribed in Reference (f).

b. Serve as a communication contact point for disseminating information between the Market, SSO, or DHAR, and DHA-FE.

c. Represent the Market, SSO, or DHAR managers' goals and objectives.

d. Provide Market, SSO, and DHAR facilities status updates, forward Director's Critical Information Requirements, and coordinate Market, SSO, and DHAR-driven demand signals.

e. Support DHA-FE led Market, SSO, and DHAR-based facilities master planning efforts.

6. DHA FACILITIES MANAGERS. DHA facilities managers will:

a. Ensure that all Defense Medical Logistics Standard Support (DMLSS) Facility Systems Inventory records for emergency power, standby generator, or stored energy power systems include all existing, new, and replacement Real Property Installed Equipment (RPIE). Record information, at a minimum, should reflect Real Property System Standard requirements as cited in Reference (j).

b. Ensure all associated preventive maintenance procedures include all existing, new, and replacement RPIE equipment and that tasks and schedules meet all applicable regulatory requirements.

c. Ensure all associated preventive maintenance work orders are scheduled to include all existing, new, and replacement RPIE equipment and that tasks and schedules meet all applicable regulatory requirements.

d. Ensure all associated DMLSS Work Requests are properly and completely entered, maintained, and closed out in accordance with established standards and as directed by DHA-FE.

e. Ensure that all emergency power, standby generator, or stored energy power system operations and maintenance is documented to meet the requirements of References (q) and (r).

f. Initiate DMLSS Requirements for any unfunded liability/deficiency related to sustainment, restoration, or modernization, which may be identified as a result of formal condition assessments, BUILDER work items, engineering studies, architect/engineer analysis, recurring inspections, and maintenance technician observations.

g. Request a waiver in accordance with Enclosure 3, paragraph 3 when Activities are unable to comply with this publication.

ENCLOSURE 3

PROCEDURES

1. REQUIREMENTS. The DHA recognizes the need and sustainability requirement to own, operate, and maintain emergency power, standby generators, and/or stored energy power systems for a DHA-assigned facility. The design, selection, and use of these systems shall meet the requirements of References (h) and (i) and are based on MTF patient care requirements (including those applying to facilities furnishing medical and/or dental care as defined by Reference (j), reliability of commercial power supplies, facility Mission Assurance status, and special contingency mode concepts of operation. Approved systems shall be permitted, designed, operated, and maintained in accordance with manufacturer requirements as well as the requirements cited in References (k) through (p). For those approved systems supporting patient care, system operations and maintenance shall be documented to meet The Joint Commission requirements as cited in References (r) and (s).

2. GENERAL CONDITIONS

a. Limitations of Emergency Power and/or Standby Generators. A common misconception is back-up generators are the best solution for emergency or alternative power. Emergency power and/or standby generators and associated equipment are a costly and resource consuming addition to a DHA-assigned facility. It is not fiscally prudent to provide emergency power and/or standby generation to all facilities, with the exception of those assets categorized as mission essential DoD Task Critical Assets in accordance with Reference (g), for the following reasons:

(1) These systems require continuous maintenance and diligent testing to remain in a reliable operational state;

(2) They require storage of abundant fresh fuel and complex electrical connections for switching and branch wiring;

(3) Frequent testing is required under the actual load that is being served, which is usually inconvenient to the occupant and disruptive to the service;

(4) There are many potential failure points for these emergency power and/or standby generation systems, and they are only appropriate when many mechanical and electrical systems must remain functional during a loss of primary power;

(5) These systems can and do fail even with the best form of maintenance and care. Having a generator connected to the building does not automatically make it reliable, and it causes a dangerous false sense of security regarding power reliability; and

(6) The availability of replacement parts impacts the projected lifecycle duration for generators, automatic transfer switches, and other components. As part of the business case analysis to support generator installation, replacement parts should be evaluated.

b. Alternatives. There have been recent technological developments in uninterruptable power supply battery systems for laboratory refrigeration. Add-on battery systems are a low cost, low maintenance, high reliability solution that can be added to virtually any freestanding refrigerator or freezer (Reference (p)). These systems can maintain temperature for extended periods. Uninterruptable power supply and/or remote temperature monitoring solutions for medical refrigerators and freezers must be explored as the primary source of alternative power. External quick connections are also typically authorized.

c. Intended Users. Emergency power, standby generation, and stored energy power system requirements in healthcare settings are defined by several codes. See References (l) through (p). NOTE: This excludes assets identified as mission critical by the MILDEPs and Installation.

(1) The following facilities, in addition to DoD Task Critical Assets, are approved to operate and maintain an emergency power supply system (EPSS):

- (a) Hospitals, medical and trauma centers, and ambulatory surgery centers;
- (b) Ambulatory Care Centers that support four or more patients incapable of self-preservation;
- (c) MTFs with a 24/7/365 emergency department;
- (d) Medical research facilities and research laboratories;
- (e) Facilities with a primary mission to store temperature sensitive medical products (e.g., blood banks and standalone climate-controlled medical warehouses); and
- (f) Business Occupancy Facilities that store temperature-controlled drugs, laboratory supplies, or blood supplies in sufficient quantity to warrant permanent emergency power and/or standby generation. An approved waiver is required. See paragraph 3 of this enclosure.

(2) The following DHA-assigned facilities, generally classified as Business Occupancy Facilities in accordance with Reference (n), are not authorized for emergency backup power:

- (a) MTFs that are primarily intended to provide outpatient services (typically can be referred to as medical and/or dental clinics, or ambulatory care facilities); and
- (b) Administrative or warehousing spaces.

d. Local Regulations. All EPSS will be permitted, operated, tested, and maintained in accordance with all applicable federal, state, and local regulations and host installation policies, to include environmental requirements and accreditation standards.

e. Unauthorized EPSS. All DHA-assigned facilities, with an unauthorized emergency power and/or standby generation system will be identified, and their systems will be programmed to be removed during the next facility renovation, or earlier, if fiscally convenient. Every effort will be made to remove unauthorized emergency power and/or standby generators, unless the Director of the DHA-assigned facility submits a request for a waiver (in accordance with paragraph 3 of this enclosure), in writing to the DHA-FE citing an extraordinary need to maintain an emergency power and/or standby generation system, along with the necessary information to support the request.

f. Converting. When converting an inpatient hospital into a non-inpatient clinic facility with no authorized generator requirement, the existing emergency power and/or standby generation system (e.g., generator, switchboard, and transfer switches), will be planned to be phased out and removed during the next large recapitalization/modernization project. In the meantime, the power system will be downsized to the minimal number of generators, motor control centers, and emergency power and/or standby generation circuits required to support operations without redundancy.

g. Requirements of Emergency Power and/or Standby Generation. The requirements for emergency power and/or standby generators may include egress lighting, minimal electrical capacity to support the continued operation of the fire alarm and security panels, the computer server room, and the storage of temperature sensitive medical products in large volumes. Please see References (l) through (p) for required emergency power and/or standby generation guidelines, in Business Occupancy Facilities.

3. EXCEPTION AND WAIVER POLICY

a. Extraordinary and unusual circumstances may occur where emergency power and/or standby generation is justified where it is not normally authorized. Exceptions where emergency power and/or standby generation is needed beyond that described, in paragraph 1 of this enclosure, will be evaluated on a case-by-case basis.

b. Complete justification of the exception and request for a waiver will be initiated by the Director of the DHA-assigned facility and forwarded to the DHA-FE, with copy to the host installation.

c. Due to the siting, environmental and permitting requirements associated with installation of a new standby generator, it is DHA policy that the Director of the DHA-assigned facility shall first request DHA preliminary approval of a new requirement prior to initiating site approval with the host installation. Once preliminary DHA approval is obtained, the DHA-assigned facility will be directed to work with the host installation to meet site approval, environmental, and permitting requirements. Once host installation site approval is obtained, design,

procurement, and installation are subject to review and approval through the DHA Facilities Sustainment Board or Work Induction Board process. If project design is approved, the DHA-assigned facility shall comply with the design requirements cited in Reference (f) as well as host installation requirements. All final inspections and acceptance testing leading to operating permits shall be coordinated with the host installation. Any variances in host installation permitting processes shall be reviewed and approved by DHA-FE prior to final implementation.

d. Submissions must include:

(1) Alternatives considered (external quick disconnects, uninterruptable power supply, etc.), and explain why alternatives are not viable solutions;

(2) A detailed business case analysis detailing life cycle costs of owning and maintaining an emergency power system (fuel maintenance life cycle costs, etc.), installation costs, and how the mission of the building justifies the system;

(3) A description of local field conditions, including local or installation power source outages, documented history of the problem, exceptional mission requirements, previously implemented alternative solutions and any other mission and/or engineering justification;

(4) How the generator will be maintained and tested, including compliance with permitting, operations, and testing in accordance with all applicable federal, DoD, state, and local regulations, to include environmental requirements and accreditation standards; and

(5) How the EPSS will be funded or resourced. Additional submissions may be required for funding or resourcing (Unfunded Requirement or Program Objective Memorandum process, project submissions, etc.).

GLOSSARY

ABBREVIATIONS AND ACRONYMS

DHA	Defense Health Agency
DHA-PI	Defense Health Agency-Procedural Instruction
DHAR	Defense Health Agency Region
DMLSS	Defense Medical Logistics Standard Support
EPSS	Emergency Power Supply System
FE	Facilities Enterprise
MILDEP	Military Department
MTF	Military Medical Treatment Facility
RPIE	Real Property Installed Equipment
SSO	Small Market and Stand-Alone Military Medical Treatment Facility Organization