



**DEPARTMENT OF THE AIR FORCE  
102D INTELLIGENCE WING (ACC)  
MASSACHUSETTS AIR NATIONAL GUARD  
OTIS AIR NATIONAL GUARD BASE**

# **REQUEST FOR PROPOSAL (RFP): Replace Generator, B197**

## **1. Project Overview**

- Project Title: Replace Generator, B197
- Location: Otis Air National Guard Base (ANGB), Buzzards Bay, MA 02542
- Requesting Authority: 102d Civil Engineer Squadron (102 CES)
- Point of Contact (POC): Major Vincent J. Tripodi, Base Civil Engineer (BCE)
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- Phone: 508-968-4238

## **2. Scope of Work (SOW)**

The contractor shall provide all labor, materials, equipment, and supervision necessary to remove the existing generator and install a new standby generator at Building 197. The core tasks include, but are not limited to:

- Decommissioning & Removal: Disconnect all power and control wiring, unhook all physical attachments, and safely drain all existing operating fluids (coolant, oil, fuel).
- Disposal: Remove and legally dispose of the existing generator, batteries, and all drained fluids off base in accordance with environmental regulations.
- Site & Pad Preparation: Examine the existing concrete equipment pad. The contractor must ensure the footprint of the new generator fits the existing pad. If it does not fit, the contractor is responsible for making all necessary structural alterations or expansions to the pad to support the new unit.
- Installation: Place, anchor, and wire the new generator to provide seamless power to the exact same building systems supported by the old unit.
- Commissioning: Fill the new unit with all required fluids, conduct a formal startup, and perform a comprehensive operational check to ensure proper transfer and load carriage.

### **3. Equipment Specifications**

The new generator must meet the following minimum requirements:

- Fuel Type: Diesel
- Output: 20KW
- Electrical Configuration: 120/208V, 3-Phase (3P)
- Fuel Storage: Minimum 150-gallon base-mounted fuel tank

### **4. Codes, Standards, and Compliance**

The contractor shall utilize all applicable Federal, State of Massachusetts, and municipal building and electrical codes in the design and execution of this installation. Required codes and standards include, but are not limited to:

- NFPA 70: National Electrical Code (NEC).
- NFPA 110: Standard for Emergency and Standby Power Systems.
- NFPA 30 / 37: Flammable and Combustible Liquids Code / Installation and Use of Stationary Combustion Engines.
- Massachusetts State Codes: Massachusetts State Building Code (780 CMR) and the Massachusetts Electrical Code (527 CMR 12.00).
- EPA Tier Regulations: Current federal emissions standards for stationary diesel engines.

#### **4.1 UFC 3-540-01 Installation Highlights**

The Department of War utilizes Unified Facilities Criteria (UFC) guidance. The contractor must specifically comply with UFC 3-540-01, Engine-Driven Generator Systems for Prime and Standby Power Applications (available at <https://www.wbdg.org/ufc>). Key installation highlights from the latest UFC revision include:

- Clearances: Strict adherence to NEC and manufacturer spacing requirements around the generator enclosure to ensure safe maintenance access, adequate airflow, and emergency egress.

- **Vibration Isolation & Anchoring:** The generator must be properly anchored to the concrete pad using approved vibration isolators to prevent harmonic damage and to meet local seismic and wind-load criteria.
- **Grounding and Bonding:** The system must be grounded per NEC Article 250, with clear distinction on whether the new unit will be wired as a "separately derived system" requiring its own grounding electrode, or a non-separately derived system utilizing the building's ground.
- **Fuel System Safety:** Base tanks must feature secondary containment (double-wall construction), leak detection, and proper venting to comply with environmental standards.
- **Start-up & Load Testing:** Final commissioning must include verification of the Automatic Transfer Switch (ATS) sequence and an operational run (often utilizing a load bank if the building load is insufficient) to verify temperature, pressure, and voltage stability.

## **5. Required Submittals**

To ensure mission readiness and lifecycle maintainability, the BCE requires full visibility into the equipment profile. The contractor shall submit the following:

- **Pre-Purchase Review:** Comprehensive product data sheets, manufacturer specifications, and warranty information for the proposed generator must be submitted to the BCE for approval prior to equipment purchase.
- **Manuals & Documentation:** Upon project completion, provide all Operations & Maintenance (O&M) manuals, instructional manuals, wiring diagrams, and any other documentation required to give the 102 CES full knowledge of the use, upkeep, and troubleshooting of the new generator.
- **Disposal Manifests:** Environmental disposal records/manifests for the old generator and its fluids.

## **6. General Contractor Requirements**

- **Site Visit:** Contractors are strongly encouraged to schedule a site visit to inspect the existing electrical tie-ins, the condition of the B197 equipment pad, and site access constraints.

- Safety: All work must be conducted in strict accordance with OSHA standards and the US Army Corps of Engineers (USACE) EM 385-1-1 Safety and Health Requirements Manual.
- Housekeeping: The work site must be kept clean daily. Upon completion, the site must be returned to its original state, entirely free of construction debris, tripped hazards, or fluid spills.
- Warranty: The contractor shall provide a minimum 1-year workmanship warranty on the installation, alongside the standard manufacturer's warranty for the generator set.