Willow Beach National Fish Hatchery

Statement of Work

Title: Installation of two Variable Frequency Drives (VFDs) on Floating Pump Systems

Asset # 10068017 WATER WILDLIFE, FLOATING PLATFORM PUMPS

1. Project Overview

The purpose of this project is to furnish and install two new Variable Frequency Drives (VFDs) on the Floating Platform Pumps system to improve operational efficiency, enhance flow control, and reduce electrical consumption. The contractor shall provide all labor, materials, equipment, and supervision necessary to complete the installation in accordance with industry standards and the National Electrical Code (NEC).

2. Background

The existing pump systems currently operate without VFD control, resulting in reduced efficiency and limited operational flexibility. Similar to previous VFD replacement needs identified at other facilities, upgrading pumps with VFDs will provide improved system reliability and support operational requirements.

3. Scope of Work

The contractor shall:

1. **Provide and install new VFD units** sized appropriately for each pump motor, including any required external enclosures or door kits.\ (Example reference: LS 75HP VFD w/ external door kit used in prior projects.)
2. **Verify existing electrical infrastructure** and make any necessary adjustments to ensure compatibility with the new VFDs.
3. **Perform all electrical connections**, including power, control wiring, grounding, and integration with existing control systems.
4. **Test the VFDs and pump operation** to ensure proper functionality, including:
    - Soft-start operation
    - Speed control performance

    - Fault testing
    - System protection verification
5. **Provide written test results** to the project lead or designated facility representative.
6. **Ensure all work complies with:**
    - National Electrical Code (NEC)
    - Manufacturer installation requirements
    - Federal, state, and facility-specific safety regulations

4. Contractor Qualifications

- Valid contractor's license for mechanical work
- Documented experience in installing and commissioning VFD systems on industrial pump applications and must employ qualified and licensed electricians
- Insurance coverage as required

5. Government-Furnished Property

Any facility-owned equipment, drawings, or specifications required for the installation (if applicable) will be made available to the contractor.

6. Schedule

Work shall be completed within the agreed timeline following award of the contract. Any changes to the schedule must be approved by the facility representative.

7. Deliverables

- Installed and fully functional VFD systems
- Electrical test reports
- Manufacturer start-up documentation
- As-built documentation for wiring or configuration changes
- Training of facility staff

8. Warranty

- Warranty period: Minimum 1 year on labor and materials
- Manufacturer's warranty for major equipment

9. Points of Contact

A facility representative will serve as the primary point of contact for scheduling, coordination, and approval of deliverables.