

# PREPRODUCTION INITIATIVE-NELP PORTABLE LOW-PRESSURE BLAST UNIT TEST PLAN

## SITE: NS PEARL HARBOR

### 1.0 OBJECTIVE

This test plan describes the data collection procedure for testing the MITM 6106 pressure washer and water reclamation system. The system will be tested in an operational environment at Naval Station Repair at NS Pearl Harbor. The data will be used to determine the system's efficiency, effectiveness, overall performance, and ability to interface with site operations.

### 2.0 DESCRIPTION

The portable low-pressure blast unit is designed to remove paint, corrosion, and marine growth from vessels of various sizes. A 40 mil HDPE berm—which is approximately 20 feet x 65 feet x 12 inches high—captures the water and any waste removed from the vessel. The pad is located on a sloped area of ground—which forces the runoff to the lowest point where it enters a filtration unit. The wastestream then passes through a series of filters and classifier tanks. Water in the last tank is clean and will be pumped on demand to the blast unit. A fresh water line is supplied to ensure sufficient water flow. The unit requires no dry blast media and eliminates hand sanding of vessels.

### 3.0 TEST PLAN

The portable low-pressure blast unit should be operated according to the manufacturer's instructions. Objects cleaned by the system should be carefully inspected before and after blasting to evaluate the unit's effectiveness and to determine whether it is damaging the vessels.

#### 3.1 Approach

Operational data will be acquired by completing the Operational Data Form, and Maintenance data will be acquired by completing the Maintenance Data Form.

##### 3.1.1 Instructions for Completing the Operational Data Form

Complete an Operational Data Form for each day the unit is used.

- **Date:** Indicate the date the unit was used.
- **Sheet \_ of \_:** Indicate the number of sheets used.

- **Type Vessel:** Indicate the type of object being stripped (*e.g.*, ships, booms) and the model number (if available).
- **Material:** Indicate the substrate of the object being stripped (*e.g.*, steel, fiberglass).
- **Material Stripped:** Indicate the type(s) of material removed (*e.g.*, paint, marine growth).
- **Approximate Size:** Give the estimated size of the object being stripped.
- **Man-Hours Spent:** Calculate the equivalent man-hours spent stripping the object (*e.g.*, four men at three hours = 12 man-hours).
- **Damage Caused by Equipment:** Indicate any damage to the vessel that the unit may have caused.
- **Equipment Performance:** Describe how well the unit performed.
- **Ease of Use:** Describe how easy it was to use the equipment.
- **Safety:** Describe how safe the equipment was to operate.
- **Other Observations:** Enter any other comments about the unit.

### 3.1.2 Instructions for Completing the Maintenance Data Form

Each time a part requires replacement or repair, material requires disposal, or downtime occurs, complete a Maintenance Data Form.

- **Date:** Indicate the date of the maintenance action.

#### *Maintenance Data*

- **Empty Filter:** Record which filter(s) required emptying and the time needed to empty it.
- **Replace Filter:** Indicate which filter(s) was replaced, the time needed to replace it, and the cost.
- **Replace Part:** List any parts that required replacement and the time needed to replace them.
- **Repair Service:** Indicate any part of the system that required repair and the time needed for repair.
- **Other:** Record any other required maintenance items.

### *Disposal Data*

- **Weight of Material Disposed:** Record the weight (in pounds) of any materials requiring disposal (*e.g.*, marine growth, paint chips).
- **Volume of Material Disposed:** Record the approximate volume (in gallons) of any materials requiring disposal (*e.g.*, marine growth, paint chips).
- **Cost to Dispose of Material:** State the cost to dispose of the material.
- **Hazardous or Non-Hazardous:** Indicate whether the material is considered hazardous or non-hazardous waste.

### *Downtime Data*

- **Length of Downtime:** Record how long the equipment was out of service.
- **Reason for Downtime:** Explain why the equipment was out of service.
- **Corrective Action Taken:** Indicate what actions were taken to restore the unit to service.
- **Future Actions:** List what actions could prevent this problem from occurring in the future.

## **4.0 REPORTING**

The data entry forms are a concise method of data collection. Forms should be completed as equipment is used. Data will be collected for 1 year. During this time, periodic status reports on testing will be submitted to NAWCADLKE. Please fax forms as they are completed (or at least on a monthly basis). The final report will include detailed results and observations, assess the efficiency and cost-effectiveness of the unit, and evaluate its ability to interface with site operations.

# Operational Data Form

Date: \_\_\_\_\_

Sheet: \_\_\_\_\_ of \_\_\_\_\_

## OBJECTS STRIPPED

Type Vessel	Material	Material Stripped	Approximate Size	Man-Hours Spent
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

## Damage Caused by Equipment:

\_\_\_\_\_  
\_\_\_\_\_

## Equipment Performance:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Ease of Use:

\_\_\_\_\_  
\_\_\_\_\_

## Safety:

\_\_\_\_\_  
\_\_\_\_\_

## Other Observations:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Maintenance Data Form

Date: \_\_\_\_\_

### *Maintenance Data*

	<b>Part or Filter Name</b>	<b>Man-Hours</b>	<b>Cost</b>
<input type="checkbox"/> Empty Filter	_____	_____	
<input type="checkbox"/> Replace Filter	_____	_____	_____
<input type="checkbox"/> Replace Part	_____	_____	_____
<input type="checkbox"/> Repair Service	_____	_____	_____

Other: \_\_\_\_\_

### *Disposal Data*

**Weight of Material Disposed:** \_\_\_\_\_

**Volume of Material Disposed:** \_\_\_\_\_

**Cost to Dispose of Material:** \_\_\_\_\_

**Hazardous or Non-Hazardous:** \_\_\_\_\_

### *Downtime Data*

**Length of Downtime:** \_\_\_\_\_

**Reason for Downtime:** \_\_\_\_\_

**Corrective Action Taken:** \_\_\_\_\_

**Future Actions:** \_\_\_\_\_