### Drydock #1: (Navy ex-AFDL 45)

Concrete floating dock. Built in 1945, 3200 LT Lift Capacity, 389' length 84' beam, Length over Keel Blocks 345 ft. Clear Width 53.2 ft. Maximum Draft over Keel Blocks 19 ft. Has service connections for Electricity–800 Amps at 480 VAC 60 Hz 3 Phase, Potable Water, Sewage collection risers, Saltwater cooling water system, 75 GPM at 90 psi,

#### **Principal Dimensions**

1	
Length, overall:	389.0 Ft
Breadth, overall:	84.0 Ft
Breadth, between tops of wing walls:	64.0 Ft (Constant)
Breadth, between wing wall at pontoon deck:	53.2 Ft (Constant)
Depth, overall (excluding ballast sumps):	40.0 Ft
Depth of Ballast Sumps (Below Baseline):	18 "
Depth to Pontoon Deck:	14.0 Ft
Depth, wing walls above Pontoon Dk:	36.0 Ft
Freeboard (Minimum at full submergence per US Navy Mil-Std 1623 "":	36"
Dock Frame Spacing:	6.0 Ft
Keel Block Height (Standard including 2" Crushers):	3.83 Ft
Keel Block Height (Maximum including 2" Crusher):	6.33 Ft

#### **General Arrangement**

The hull is ship shaped fore 'n aft with faired hull sections at each end suitable for towing the Dock in either direction. Vessels are docked on the Pontoon (or "C" -Deck) deck atop keel and side blocks. Ballast tanks, separated by a centerline watertight bulkhead, span the entire breadth of the dock (P/S) except midship and at each end of the Dock where, respectively, abandoned wing storage tanks and chain lockers port and starboard remain separate from the main ballast tanks. A transverse tunnel midships provides the only access between the port and starboard wings and is entered from C-Deck wings through a watertight hatch and inclined ladder. Virtually all of the dock original cranes, armor plate, and other military support gear have been removed from the dock. Working outfit currently onboard mainly includes a (shore) power supply with switchboard, panels and feeds, as well as lighting, ventilation and smaller pumps and piping functioning mainly to service a ship in dock.

#### Hull Outfit & Equipment

The dock's original timbered keel and sliding bilge-block system has been replaced by concrete blocks positioned by forklift vehicles. A waste collection system has been installed to collect and offload grit and other materials that are illegal to dump overboard. Extensive upgrade to the original dock's (shore) power supply and distribution (Switchboard on C-Deck starboard side midship), the de-ballast pumps, valves, and other gear are virtually all original US Navy-spec equipment. The original interior communication (1/C) system has been replace with a head-mounted system. The Dock is outfitted with a recently installed electronic TLI system including new wire runs, sensors installed in modified plastic tubing in each tank and transmitters feeding water levels to the Dockmaster's control station housed on A-Deck. The system replaces the dated Wesmar DMN2 system

## COLUMBIA-SENTINEL ENGINEERS, INC.



Scott Dixon Puglia Engineering Inc. Fairhaven Shipyard 201 Harris Ave, Bellingham, WA 98225 06 February, 2019

File: 1870

Subject: Drydock #1(Ex:AFDL-45) Certification for USCG Vessels.

Dear Mr. Scott Dixon, Dock master:

Columbia-Sentinel Engineers, Inc.(CSE) has been hired to conduct inspections/certification per SFLC Standard Specification 8634 on Puglia Fairhaven shipyard(FHS) Drydock #1(Ex: AFDL-45), section 3.2.1 and 3.2.2.

CSE has inspected the mechanical and electrical systems of the drydock operating and all operated satisfactorily or marginally. Pump room #3 bottom damage needs repair and Some exposed rebar at No3 & 6 tanks top and starboard side wing wall inboard won't limit lifting capacity but need a pay attention during the docking operation.

I hereby certify the Material and Operational conditions of FHS Drydock #1 are safe per SFLC Standard 8634 for a rated capacity of 3200LT.

This certification is valid for two years and may be renewed after re-inspection.

Attachments:

- 1. The checklists from Appendix B of SFLC Standard Specification 8634.
- 2. Emergency Power Backup Plan
- 3. Emergency Evacuation Procedure & Shut off
- 4. Emergency Dewatering Plan
- 5. Dockmaster's Resume
- 6. Shipyard Safety Plan

Very Truly Yours,

BON SEO KOO, P.E. Naval Architect Columbia-Sentinel Engineers, Inc.



Naval Architecture • Production Consulting • Performance Evaluation

(206) 923-1380 4000 Delridge Way SW, Suite 300 FAX: (206) 923-1379 Seattle, Washington 98106 cse@columbia-sentinel.com

## INSPECTION CHECKLISTS FOR DRYDOCKING FACILITIES CERTIFICATION

The following is a list of the minimum facility requirements with integrated inspection checklists for each type of drydocking facility. All required equipment or equipment that the Contractor intends to use must be marked satisfactory at the time of the availability start date.

I hereby certify the material and operational conditions of the docking facilities identified as <u>Drydock #1(Ex-AFDL 45)</u>, owned and operated by <u>Puglia Engineering</u>, Inc. Fairhaven shipyard are safe for docking vessels within the facility's rated capacity on this the <u>6th day of Feburary</u> in the year of 2019.



Registration State and No.: Washington State License No: 51668

Signature of Registered Professional Engineer:

#### INSPECTION CHECKLIST FOR GENERAL REQUIREMENTS (ALL TYPES)

INSPECTED BY BON S. KOO, P.E DATE 10 September 2018

FACILITY ID. Drydock#1(Ex:AFDL 45)

Г

SHEET NO. <u>1</u> OF <u>7</u>

		со	NDIT	ION		
ITEMS INSPECTED	U	м	NA	NI	S	REMARKS
Block Hauling Mechanism						(Mark all that apply)
Sheaves			$\checkmark$			
Tracks			$\checkmark$			
Chain/cable			$\checkmark$			
Pawls			$\checkmark$			
Structural members			$\checkmark$			
Ratchets			$\checkmark$			
Hauling winches/motors			$\checkmark$			
Slides			$\checkmark$			
Communication Systems						(Mark all that apply – Pass/Fail)
(One of the below is required)						Pass
Public address system			$\checkmark$			
Radios					$\checkmark$	
Alarms			$\checkmark$			
Sound powered phones			$\checkmark$			
Dial telephone			$\checkmark$			
Bull Horn			$\checkmark$			

U-Unsatisfactory M-Marginal NA-Not applicable NI- Not inspected S-Satisfactory NOTE: All marginal and unsatisfactory items shall be addressed in remarks. Attach additional sheets as necessary.

## INSPECTION CHECKLIST FOR GENERAL REQUIREMENTS (ALL TYPES), CONTINUED

INSPECTED BY BON S. KOO, P.E DATE 10 September 2018

## FACILITY ID. Drydock#1(Ex:AFDL 45)

# SHEET NO. <u>2</u> OF <u>7</u>

		CO	NDIT			
ITEMS INSPECTED	U	M	NA	NI	s	REMARKS
Electrical Systems and Equipment						
Electrical power system shall support maximum load, developed by simultaneous operation of the dewatering pumps, fire protection pumps, valve opening and closing mechanisms, hauling machinery, communications equipment, lighting, alarms, and any other support equipment or systems necessary for the safe operation of the facility.					$\checkmark$	
Main power source (One of the below is required)					$\checkmark$	(Required)
Shore power					$\checkmark$	
Diesel gen. Set						
Back-up power source						(Optional)
Shore power						
Diesel gen. Sets					$\checkmark$	See Emergency Power plan
Electrical power distribution					$\checkmark$	(Required)
Lighting for operations & security					$\checkmark$	(Required)
Ship grounding straps					$\checkmark$	(Required)
Welding machine grounds					$\checkmark$	(Required)
FIRE PROTECTION SYSTEM (One of the below is required)					V	(Required)
Installed fire protection system compliant with Occupational Safety and Health Administration (OSHA) regulations			V			
Memorandum of agreement with a local fire department ensuring that that fire department can arrive at the facility within 30 minutes of receiving the alarm.					V	

U-Unsatisfactory M-Marginal NA-Not applicable NI- Not inspected S-Satisfactory

NOTE: All marginal and unsatisfactory items shall be addressed in remarks. Attach additional sheets as necessary.

## INSPECTION CHECKLIST FOR GENERAL REQUIREMENTS (ALL TYPES), CONTINUED

FACILITY ID. Drydock#1(Ex:AFDL 45)

SHEET NO. <u>3</u> OF <u>7</u>

		CO	ONDII	TION		
ITEMS INSPECTED	U	М	NA	NI	s	REMARKS
FITTINGS/CONNECTIONS						(Mark all that apply)
Cleats					V	
Bollards					V	
Chocks					V	
Gratings			$\checkmark$			
Ringbolts			$\checkmark$			
Platforms			$\checkmark$			
Watertight doors, hatches, portlights and manholes					$\checkmark$	
Gudgeon and pintle connections			$\checkmark$			
Bolted connections					$\vee$	
Attachments					$\checkmark$	
Reinforcements					V	
SHIP/DOCK HANDLING SYSTEMS AND EQUIPMENT (One of the below is required)						(Mark all that apply)
Capstans					V	
Winches			V			
Trolleys			V			
Translation chains and cables			V			
<b>UNDERWATER INSPECTION</b> Has there been an inspection performed within the last 5 years?					$\checkmark$	(Required) 27 SEP.2016 by Top to Bottom,Inc.

U-Unsatisfactory M-Marginal NA-Not applicable NI- Not inspected S-Satisfactory

NOTE: All marginal and unsatisfactory items shall be addressed in remarks. Attach additional sheets as necessary.

#### INSPECTION CHECKLIST FOR FLOATING DRYDOCKS

#### INSPECTED BY BON S. KOO, P.E DATE 10 September 2018

### FACILITY ID. Drydock#1(Ex:AFDL 45) SHEET NO. 4 OF 7

<u>General Description</u>. Attach a drawing of the dock showing general construction. Supply on the drawing or in a table the tank sizes, volumes and locations.

Age of Dock (yrs)	72 Years
LOA (ft)	389 ft
BOA (ft)	84 ft
Distance between wing walls (ft)	64ft at Top, 57 ft at bottom
Wing wall height (ft)	26 ft
Wing wall length (ft)	306 ft
Pontoon height (ft)	14 ft
Pontoon width (ft)	57 ft
The maximum water depth over the pontoon	Max Depth over pontoon deck: 24 ft
deck accounting for sift and tidal changes. (It)	Depth of harbor: 38 ft
The bottom dock must maintain 12 inches clearance above the harbor bottom when fully submerged.	Tidal Range: 13 ft
Maximum wind and current under which	Max Wind: 15 knots
conducted. Determined by Contractor's SOP.	Max Current: 4 ~ 5 knots
Maximum rated capacity of the drydock and the	Max Capacity (LT): 3,200 LT
maximum load per loot.	Max : 12.5 LT/FT
Maximum differential water levels permitted on tank bulkheads.	14 ft
A current estimated weight & KG shall show the drydock in the light operating condition with all ballast tanks at the residual water levels. A correction shall be added for deck load, marine growth and silt accumulation in the tanks.	WT : 7,306.12 LT KG: 13.69 ft By Inclining Experiment June 2011 (Operational Certification Report from Dan Mahler P.E. Oct.30, 2016)

### INSPECTION CHECKLIST FOR FLOATING DRYDOCKS, CONTINUED

### FACILITY ID. Drydock#1(Ex:AFDL 45)

SHEET NO. <u>5</u> OF <u>7</u>

		CO	ONDIT	TION		
ITEMS INSPECTED	U	М	NA	NI	S	REMARKS
BALLASTING SYSTEM					$\checkmark$	(Required)
Do pumps operate?					$\checkmark$	(Pass/Fail) PASS
Ballast and deballast in less than eight hours.					V	(Pass/Fail) PASS It takes 1 .5 hours.
Do valves operate?					$\checkmark$	(Pass/Fail) PASS
<b>DEFLECTION DETECTION SYSTEM</b> (Describe system if applicable)			V			(Optional)
<b>DRAFT BOARDS</b> Draft boards showing depth of water over pontoon deck at the wingwalls near the four inboard corners and at mid-length on the port and starboard sides.		V				(Required - Pass/Fail) PASS Draft Board installed four inboard corners but not mid-length
METHOD FOR DETERMINING TANK LEVELS						(Mark all that apply. One of the below is required)
Tank level indicators					<	
Sounding tubes					$\checkmark$	
HULL STRUCTURE Metal structural members shall have no more than 25% wastage. Wood structural members shall be free of wood rot, marine bores and deemed in good condition.						
Pontoon deck					$\checkmark$	
Pontoon sides/ends					$\mathbf{>}$	
Pontoon bottom					$\checkmark$	
Wingwalls sides/ends		$\checkmark$				Exposed rebars at Inboard wing wall
Wingwall top deck					$\checkmark$	
Safety/machinery decks		$\checkmark$				Need to Repair #3 Pump Room rebar exposed deck
Interior Ballast/trim/ buoyancy tanks		$\checkmark$				Exposed rebars at No3&6 tank top

U-Unsatisfactory M-Marginal NA-Not applicable NI- Not inspected S-Satisfactory

Note: All marginal and unsatisfactory items shall be addressed in remarks. Attach additional sheets as necessary.

## INSPECTION CHECKLIST FOR FLOATING DRYDOCKS, CONTINUED

FACILITY ID. Drydock#1(Ex:AFDL 45)

SHEET NO. <u>6</u> OF <u>7</u>

		CC	ONDI	ΓION			
ITEMS INSPECTED	U	Μ	NA	NI	S	REMARKS	
HULL STRUCTURE (cont.)							
Trusses/girders/frames/ beams					$\checkmark$		
Longitudinals			$\checkmark$				
Swash bulkheads			$\checkmark$				
Watertight bulkheads					$\checkmark$		
Fuel/water tanks			$\checkmark$				
Coatings			$\checkmark$				
MOORING SYSTEM (dock to shore)					$\checkmark$	(Required)	
Condition of mooring					$\checkmark$		
SECURE WT HANDLING EQUIPMENT						(If applicable)	
The weight handling securing systems shall be demonstrated to verify that these systems are adequate to hold under conditions of maximum list and trim.			V				
STABILITY AND BUOYANCY CRITERIA						(Mark as applicable)	
Docking facility shall meet the following freeboard and buoyancy characteristics.					V		
<b>OPEN-ENDED DOCKS</b> The minimum freeboard of the pontoon deck of the drydock (excluding pits) with the rated maximum load lifted shall be 12 inches.					V	14" Freeboard at 3200 LT maximum lifting.	

U-Unsatisfactory M-Marginal NA-Not applicable NI- Not inspected S-Satisfactory Note: All marginal and unsatisfactory items shall be addressed in remarks. Attach additional sheets as necessary.

## INSPECTION CHECKLIST FOR FLOATING DRYDOCKS, CONTINUED

FACILITY ID. Drydock#1(Ex:AFDL 45)

SHEET NO. <u>7</u> OF <u>7</u>

		CC	ONDI	rion		
ITEMS INSPECTED	U	Μ	NA	NI	S	REMARKS
CLOSE-ENDED DRY DOCK						
Minimum freeboard with the rated maximum load lifted shall be nine inches, measured from the sill of the stern (or bow) gates.			$\checkmark$			
FLOATING DRYOCKS IN THE FULLY BALLASTED DOWN CONDITION During controlled ballasting of the drydock, the minimum freeboard (measured from the top deck at side) shall be 12 inches					V	Required (Pass/Fail) PASS Minimum Freeboard at top deck is 24 inches
<b>EMERGENCY PUMPING PLAN</b> The facility must have an emergency plan or data demonstrating that failure of a pump or loss of pumping capacity will neither put the drydock out of operation nor cause damage to either the drydock or a ship in drydock.					V	Required (Pass/Fail) PASS See attached

U-Unsatisfactory M-Marginal NA-Not applicable NI- Not inspected S-Satisfactory Note: All marginal and unsatisfactory items shall be addressed in remarks. Attach additional sheets as necessar

## EMERGENCY POWER BACKUP PLAN FOR DRYDOCK #1 (AFDL-45)

<u>WARNING</u> - Use extreme caution at the Transfer Switch Panel when the transfer switch is exposed. There are Live High Voltage electrical terminals. The automatic actuator motor for the Transfer Switch is powerful and under no circumstance should the manual control handles of the Transfer Switch be approached.

## TO START AND TRANSFER TO EMERGENCY GENERATOR POWER MANUAL

- 1. Move the Selector Switch at the **Generator Control Panel to "Run".** The generator should start and run.
- 2. After the generator has run for at least 8-10 seconds, the Transfer Switch will automatically shift to "**Emergency**" **Source** P.U.D. Power will now be disconnected and the generator power will be supplied to the dry-dock load center.

## TO RE-TRANSFER TO P.U.D. POWER & STOP THE EMERGENCY GENERATOR

- 1. If the reason for manual operation is a P.U.D. power outage and not merely practice or an exercise, allow the P.U.D. power to be restored at least 10 minutes to allow it to stabilize before re-transferring.
- 2. Move the selector switch at the **Generator Control Panel to ''Automatic''** Emergency power will now be disconnected and the P.U.D. power will be restored to the dry-dock load center.
- 3. Allow the generator to run unloaded for 10 minutes, engine cool down .
- 4. The generator should stop, after the 10 minute programmed cool down period.

## TO RESTORE THE SYSTEM TO AUTOMATIC CONTROL -

1. Close and fasten the cabinet door of the Transfer Switch Enclosure.

Verify that the key switch on the outside of the Transfer Switch Enclosure is in the "**Normal** position -"**Off**" Generator Control Panel to "Automatic"



## DRYDOCK #1 EMERGENCY POWER BACKUP SCHEMATIC



#### **EMERGENCY GENERATOR – TRANSFER SWITCH CONNECTION DIAGRAM**

## **EMERGENCY EVACUATION PROCEDURE**

#### Fairhaven Shipyard – 201 Harris Avenue – Phone (360) 647-0080

- 1. <u>Sound Alarm</u> (on flag pole) continuously and/or use portable horns located with fire watches and on Job Boards. The first person to evacuate the Faithful Servant and the AFDL-45 Drydock is to activate an air horn aiming it back at the drydock to aid in assuring that everyone is aware of the call to evacuate.
- 2. <u>Call 911</u> By Radio or Telephone, contact one of the following Personnel to call 911.

Matt Wallberg - ext. 219Dale Lockwood - ext. 210Mike Guidon - ext. 204Pete Riss - ext. 209Security - ext. 217Scott Dixon - ext. 216

- 3. Joel Underwood, Guard or Designee will remain at the Main Gate to guide Emergency Vehicle(s) to the Emergency Scene.
- 4. Jay Mueller and Mike Guidon will supervise the evacuation at the Staging Area and assist those who may need medical attention.
- 5. Pete Riss and Matt Wallberg will verify all items on the Master Check-Off List are accomplished. Pete will take Production Head Count; Matt will take Administration/QA Head Count.

6. <u>Evacuate To Staging Area</u> - All personnel will assemble at the Staging Area. (asphalt, south of flag pole). DO NOT USE ELECTRIC CARTS TO MOVE PERSONNEL during the evacuation.

7. FHS employees will assemble by Department. Sub-Contractors by Company. Customers & Crew Members by Vessel.

- 8. Department and Sub-Contractor Supervisors are responsible for the head count of their Personnel and any Temporary Personnel assigned to them. After taking the head count, Supervisors are to report count results to Pete or Matt. Report regardless of whether all are accounted for or someone is missing.
- 9. Craft Leads will account for Temporary Personnel assigned to them.
  - Names of Temporary Personnel can be provided by Human Resources.
  - Names of the Sub-Contractor companies can be provided by the Ship Supervisor or Guardhouse. (if security is on duty.)
- 10. The Ship Supervisor of the Affected Vessel or Area is responsible to assist with the Evacuation.
- 11. Pete Riss (alternate: Angela Ferguson) will account for all Personnel on the 2nd floor of the Pier Building.
- 12. Matt Wallberg (alternate: Scott Hendrickson, Maggie Proctor or Jet Rhodes) will account for 2<sup>nd</sup> floor Arrowac building Personnel.
- 13. Kelly Ogar (alternate: Joel Christensen) will account for Personnel on the Ground Floor of the Arrowac building.
- 14. Randy Goode and Edd Spreitzer will account for Personnel on the Ground Floor of the Pier Building.
- 15. Greg VanDyke (alternate: Steve Schemstad) will account for Personnel in the South Production Shops.
- 16. Mark Carter & Doug Reed (alternate: Randy Compton) will account for Personnel in the Yard Outbuildings.

17. Cary Johansen & Chris Beatty will assist in Moving Equipment out of the way. Lift trucks are then to be driven out of Fire Lanes and parked.

18. Scott Dixon will assist Fire Department if required.

## **EMERGENCY SHUT OFF**

- Greg VanDyke and Steve Schemstad are responsible for the Shut-Off of Oxygen, Shielding Gas. Natural Gas and Mapp Gas, if required, located outside of the Fab Shop.
- Bob Clunk (back up Colton Ridgely) is responsible for shut off of required electrical power for equipment or building.

Return to the staging area for head count and to assist where needed.

## **EMERGENCY EVACUATION MASTER CHECK – OFF LIST**

- 1. Emergency Response Called, (Fire Depart. / Police, Etc.) (Standby at Gate)
- 2. Shut-off(s) Oxygen, Natural Gas, Mapp Gas (Greg VanDyke & Steve Schemstad)
- 3. Shut-off Electrical Power (Electrician: Bob Clunk, Colton Ridgely)
- 4. Emergency Stop Button Solvent Still (Doug Reed, Dan Webster, Randy Compton)
- 5. <u>Representation of Areas</u>
  - a. 2<sup>nd</sup> Floor Production Offices, Lunch Room, Loft.
  - b. Mechanical Shop, Ground Floor
  - c. Tool Room
  - d. First Aid Room
  - e. Electrical Shop
  - f. Wood Shop / Operator Lunch Room
  - g. 1<sup>st</sup> Floor Customer Offices
  - h. Painter Lunch Room
  - i. Arrowac 2<sup>nd</sup> Floor, Est. Offices, Exec. Offices, Front Lobby, Receptionist, Loft.
  - j. Arrowac Ground Floor, Valve & Machine Shop
  - k. Customer Office Trailers
  - I. Sandblast / Paint Buildings
  - m. Shipping / Receiving / Purchasing / Security
  - n. Weld / Pipe Shops
  - o. Old Machine Shop
  - p. Drydock
  - q. Faithful Servant

## 6. <u>Representation of Production Personnel for Head Count - Pete</u>

- a. Electrical
- b. Paint
- c. Pipe
- d. Weld
- e. Mechanical
- f. Operators
- g. Tool Room
- h. Valve / Machine Shop
- i. Dockmasters and crew
- i. Customer / Vessel Crew Members
- 7. Representation of Administrative Personnel for Head Count Matt
  - a. Arrowac Office
  - **b. Pier Building Office**
  - c. Purchasing and Receiving
  - d. QA
  - e. Temporary
  - f. Security
  - g. Adjacent Facilities (Neighbors) Premier Harvest



## **EMERGENCY DEWATERING PLAN FOR DRYDOCK #1 (AFDL 45)**

In the event that the Drydock #1 loses the ability to pump with Drydock #1's own ballast pumps, the Dockmaster will stop the evolution and assess the issue. If the ballast pumps cannot be energized, the dock crew will remove ballast tank hatches and drop in dewatering pumps to lift the dock.

Fairhaven Shipyard has an assortment of portable dewatering pumps, including submersible and fuel driven pumps. Dewatering pumps are located in Mechanical shop on shore and are deployed when needed.



201 Harris Ave. Bellingham, WA 98225 (360) 647-0080 (360) 647-8886 Fax

#### **Scott Dixon**

#### Dock Master

#### Summary

- More than three years as Dock Master
- Docked vessels ranging from 60 to 3,000 LT, including USCG, NOAA, USN, State Ferries, and commercial vessels
- Review of blueprints to determine location of appendages and position of blocks
- Does complex mathematical calculations to determine liquid load shifts and overall vessel weight to ensure proper positioning and stability of vessel in dry dock
- Works closely with vessel personnel to coordinate reduction of liquids, review of blueprints to verify accuracy, arrival and departure timing
- Coordinates and supervises work crews for dry dock operations, dry docking and undocking of vessels
- In charge of all railway haul out and launching operations

#### **Responsibilities**

- Has full responsibility for vessel movement and positioning in the dry dock, marine railway and dockside
- Coordinates and directs crews to assist in drydocking operations
- Cross train personnel on various aspect of dry docking operations
- Communicate and coordinate vessel movement with appropriate Government personnel
- Oversees and monitors transfer of liquids within the vessel, on and off the vessel to ensure stability of vessel while dry docked
- Supervises divers during dry docking and haul out operations
- Inspects vessel to verify accuracy of Government drawings. Updates drawings, if needed, to include changes in the physical characteristics of the vessel. Conveys discrepancies and updated drawings to the appropriate Government personnel

#### Relevant Experience

- Dry docking of many vessels, including State Ferries and up to 378 foot vessels
- Operation of dry dock and railway systems
- Supervision of crews
- Cross training of personnel on dry dock and railway systems

# DM Consulting, Inc.

12316 Dormouse Road - San Diego, CA 92129 Ph: 858-705-0760 Fx: 858-538-5372

29 October 2005

Dear Scott Dixon,

Congratulations, you have successfully completed DM Consulting's **Basic Dry Dock Training** course held 24-28 October 2005 in Pearl Harbor, HI. You obtained an overall score of 87%.

The **Basic Dry Dock Training** course covers the fundamentals and calculations of dry docking. The course begins with the basic principals, progresses through safety concerns and proceeds through all the phases of the dry docking process. These include the preparation, docking, lay period, and undocking phases. The course ends with a discussion of Accidents and Incidents. Details of the course can be found at DM Consulting's web site <u>www.drydocktraining.com</u>.

Please contact me on any dry dock issues or questions. Visit DM Consulting's web site or contact me for details on future Dry Dock Training or the Dry Dock Conference. The Conference will include topics on advanced Dry Dock Training.

Sincerely, Joe Stiglich

www.drydocktraining.com Dry Dock Training and Conferences Jstiglich@aol.com



2216 East 11 th Street Tacoma, Washington

## PROFILE ED SPREITZER

## Dock Master

## Summary

- Three years as Dock Master
- Eight years as Assistant Dock Master.
- More than Twenty five (25) years on Drydocking crew for setup and hauling vessels.
- Has worked on a wide range of vessels ranging from 60 to 3,000 LT, including USCG, NOAA, USN, State Ferries, and commercial vessels
- Conducts review of blueprints to determine location of appendages and position of blocks
- Does complex mathematical calculations to determine liquid load shifts and overall vessel weight to ensure proper positioning and stability of vessel in dry dock
- Works closely with vessel personnel to coordinate reduction of liquids, review of blueprints to verify accuracy, arrival and departure timing
- Coordinates and supervises work crews for dry dock operations, dry docking and undocking of vessels
- In charge of all railway haul out and launching operations

## Responsibilities

- Has full responsibility for vessel movement and positioning in the dry dock, marine railway and dockside
- Coordinates and directs crews to assist in drydocking operations
- Cross train personnel on various aspect of dry docking operations
- Communicate and coordinate vessel movement with appropriate Government personnel
- Oversees and monitors transfer of liquids within the vessel, on and off the vessel to ensure stability of vessel while dry docked
- Supervises divers during dry docking and haul out operations
- Inspects vessel to verify accuracy of Government drawings. Updates drawings, if needed, to include changes in the physical characteristics of the vessel. Conveys discrepancies and updated drawings to the appropriate Government personnel

## Relevant Experience

- More than Twenty (25) years on Drydocking crew for setup and hauling
- Operation of dry dock and railway systems
- Supervision of crews
- Cross training of personnel on dry dock and railway systems
- Past experience includes positions of Shipwright Department Foreman



2216 East 11 th Street Tacoma, Washington

### PROFILE ED SPREITZER

## **Dock** Master

Employment History

- 2002 to present
- 1998 to 2002
- 1988 to 1998
- 1979 to 1988

Education

- Assistant Dockmaster to retired Dry Dock Master for 8 years.
- DM Consulting Basic Drydocking Training Course in 2005
- Puglia Engineering, Inc Bellingham Bay Shipyard Maritime Contractors Ketchikan Boat Yard

