AMENDED AND RESTATED PORTLAND HARBOR SUPERFUND SITE INFORMATION REQUEST RESPONSES FROM BAE SYSTEMS SAN DIEGO SHIP REPAIR INC. FOR HISTORIC NON-SHIP REPAIR OPERATIONS

Respondent BAE Systems San Diego Ship Repair Inc. ("Respondent") received a CERCLA Section 104(e) Information Request dated January 18, 2008 ("Information Request") with respect to the Portland Harbor Superfund Site ("Site") from the United States Environmental Protection Agency ("EPA"). Respondent submitted preliminary partial responses to the Information Request on May 19, 2008. Respondent then submitted final responses to EPA under cover dated November 5, 2008. On March 12, 2010, EPA issued a general notice letter to Respondent. Respondent subsequently submitted two supplements to its responses to the Information Request on September 30, 2011 and January 11, 2012. Respondent's Information Request responses described in this paragraph are collectively referred to as the "Prior Responses."

Substantial additional information not included in the Prior Responses was uncovered during Respondent's investigation activities associated with its ongoing participation in a confidential mediation process among potentially responsible parties ("PRPs") for the Site, which was convened by EPA. Rather than submit another supplement to the Prior Responses, Respondent has elected to update and consolidate its Information Request responses, including restating the Prior Responses when appropriate, in these amended and restated Information Request responses ("Responses"). Consequently, the Prior Responses are superseded, and Respondent will no longer update them. Instead Respondent will update these Responses as required.

Respondent has been associated with several facilities within the Site. These facilities fall into two broad categories – ship repair facilities and non-ship repair facilities. Consequently, Respondent is submitting two separate sets of Responses, which taken together constitute the entirety of Respondent's Information Request Responses. This set of Responses pertains to non-ship repair operations within the Site conducted principally by Respondent's predecessor in interest, Northwest Marine, Inc., formerly known as Northwest Marine Iron Works ("NWM") and to a much lesser degree by Respondent. Nearly all of these operations were concluded before Respondent acquired NWM in 1989 and were conducted primarily at upland properties near the intersection of NW 29th Avenue and NW Industrial Street. Only two of the NW 29th Avenue properties were included in the 1989 acquisition of NWM by Respondent, and one of these was sold a mere four days after the acquisition's closing. Moreover, Respondent's use of the remaining parcel was merely administrative in nature and therefore did not contribute to Site contamination. These Responses also address erroneous allegations that NWM operated at the Triangle Park Removal Action Area ("Triangle Park"), which is located on the east side of the Willamette River ("River") at River Mile ("RM") 7.5. Each Response specifies the property(ies) to which it pertains.

Respondent submitted a large collection of documents, including an electronic document database, with its Prior Responses, and is submitting with these Responses additional documents discovered during Respondent's investigation activities. All documents (regardless of whether

submitted with the Prior Responses or with these Responses) are Bates numbered and in pdf format.[1] References in these Responses to these documents will be by Bates number in the format "NWMARxxxxxx," where x represents a unique page number.

When Respondent acquired NWM on April 14, 1989, it was operating exclusively on Swan Island, except for limited administrative activity at NW 29th Avenue. At the time of the acquisition, NWM's representatives did not disclose that NWM had conducted historic operations that could give rise to CERCLA liability at other locations within the Site, and until recently, Respondent was unaware of potential liability related to any other such locations. By submitting these Responses, Respondent does not admit any liability whatever with respect to these historic operations. With the exception of the above-referenced administrative offices, Respondent was not involved in any way with historic activities at non-Swan Island locations, and in some instances NWM ceased operating at these locations many decades before Respondent acquired it.

NWM was incorporated in Oregon on May 28, 1943, and began operating at the Site that year. Along with ship repair operations, which are discussed in the other set of Information Request Responses submitted herewith, NWM operated administrative offices at upland properties in the vicinity of NW 29th Avenue and NW Industrial Street from approximately 1946 through 1990. In addition, prior to 1989 NWM and affiliated entities performed small-scale machine work at these locations. By the time Respondent purchased NWM in 1989, NWM had ceased all machine work and had sold all but two of these properties. The sale of the final administrative building occurred on December 5, 1990.

As noted above, Respondent was not aware of the non-administrative operations outside of Swan Island when it acquired NWM, so Respondent did not request information from NWM regarding these operations. Only a few of the records that Respondent obtained from NWM address these operations, and Respondent has produced all such records. After interviewing William H. Zavin II, the former CEO of NWM, Respondent concluded that most such records were destroyed.

Mr. Zavin also received an Information Request from EPA. Respondent does not represent Mr. Zavin, and these Responses are not submitted on Mr. Zavin's behalf. However, Respondent has interviewed Mr. Zavin several times, and he has been cooperative in these interviews. Respondent has included in these Responses all responsive information obtained from these interviews.

Section 1.0 Respondent Information

1. Provide the full legal, registered name and mailing address of Respondent.

Response 1: BAE Systems San Diego Ship Repair Inc., formerly Southwest Marine, Inc., a California corporation, 2205 East Belt Street San Diego, CA 92113, referred to herein as "Respondent."

[1] Respondent submitted a small number of documents in hard copy with the Prior Responses. See Response 13(b).

2. For each person answering these questions on behalf of Respondent, provide:

a. full name;

b. title;

c. business address; and

d. business telephone number, electronic mail address, and FAX machine number.

Response 2:

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(current contact information unknown)

3. If Respondent wishes to designate an individual for all future correspondence concerning this Site, please indicate here by providing that individual's name, address, telephone number, fax number, and, if available, electronic mail address.

Response 3: mailto:
J.W. Ring, Esq.
Ring Bender McKown & Castillo LLLP
Attorneys for Respondent
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Suite 600
Portland, OR 97205
Phone: (503) 964-6723
Email: jwring@ringbenderlaw.com

Section 2.0 Owner/Operator Information

4. Identify each and every Property that Respondent currently owns, leases, operates on, or otherwise is affiliated or historically has owned, leased, operated on, or otherwise been affiliated with within the Investigation Area during the period of investigation (1937 – Present). Please note that this question includes any aquatic lands owned or leased by Respondent.

Response 4: As explained above, this set of Responses pertains only (i) to historic NWM non-ship repair operations located at upland properties near the intersection of NW 29th Avenue and NW Industrial Street and (ii) to alleged historic NWM operations at a property in Triangle Park, which is located on the east side of the River at RM 7.5. NWM's and Respondent's ship repair operations are addressed in the other set of Responses submitted herewith.

NW 29th Avenue Properties

NWM, a predecessor-in-interest of Respondent, owned and operated at a series of upland properties located at NW 29th and 30th Avenues (known collectively as the "NW 29th Avenue Properties"). The NW 29th Avenue Properties are comprised of properties commonly known as 2407, 2429, 2439, 2446, 2455, 2516, 2535, 2537 and 2546 NW 29th Avenue and 2300 and 2338 NW 30th Avenue in the Site. NWM operated at the NW 29th Avenue Properties from approximately 1946 through 1988, with administrative operations ceasing by December 5, 1990. Respondent acquired NWM on April 14, 1989.

Triangle Park Site

For three and a half weeks in 1964, NWM owned a small parcel of real property within Triangle Park located at 5828 North Van Houten Place in the Site, which is referred to in these Responses as the "Columbia Tug Property." The Columbia Tug Property is comprised of portions of Lots 2 and 3 in Block 38 of the Portsmouth Subdivision in the City of Portland, County of Multnomah, State of Oregon, which together constitute a portion of Multnomah County Taxlot No. 1N1E18-00100. The Columbia Tug Property is depicted on the map from Oregon-Washington Railroad & Navigation Co. Union Pacific Railroad Co. lease document (NP-ARA0000232), Lots 2 and 3 in Block 38 are depicted on the map from the same lease document (NP-ARA0000162), and Block 38 in Taxlot No. 1N1E18DET is depicted on the map from Chicago Title Insurance Company (NP-ARA0000435). To the best of Respondent's knowledge, NWM did not conduct operations at the Columbia Tug Property, but NWM nonetheless has been identified by other PRPs as being associated with Triangle Park.

5. Provide a brief summary of Respondent's relationship to each Property listed in response to Question 4 above, including the address, Multnomah County Alternative Tax lot Identification number(s), dates of acquisition, period of ownership, lease, operation, or affiliation, and a brief overview of Respondent's activities at the Properties identified.

NW 29th Avenue Properties

See Response 4 for relevant addresses owned by NWM. Information related to NWM's usage of the NW 29th Avenue Properties is extremely limited. NWM's presence at NW 29th Avenue

seems to have been administrative in nature alongside small-scale machine work, both through NWM and its affiliates.

Available information indicates that NWM owned or operated at the following facilities:

Facility / Associated Entity	Address	Multnomah County Property Id	Source Document(s)
NWM	2537 NW 29th AVE	R186847	NWMAR150652, NWMAR142687-NWMAR142688; NWMAR142697-NWMAR142699
NWM	2455 NW 29th AVE	R186844	NWMAR150656; NWMAR142682-NWMAR142699
NWM	2429 NW 29th AVE	R186842	NWMAR150653
NWM	2516 NW 29th AVE	R186836	NWMAR150651, NAR10004380; NWMAR142320-NWMAR142327
NWM	2300 NW 29th AVE	R186834	NWMAR150717
NWM	2300 NW 30th AVE	R414901370	NWMAR142405
NWM	2338 NW 30th Ave	R414901370	GAL0000027

William Zavin II, former owner/operator of NWM, acknowledged NWMI's historic presence at the NW 29th Avenue Properties.

In addition, Mr. Zavin related that NWM was affiliated with Portland Machinery Company, which was located on NW 29th, and that Portland Machinery Company performed repair work for the sawmill industry, mainly Weyerhaeuser and Georgia Pacific. Portland Machinery Company is reported to have owned property at 2537 NW 29th Avenue and 2523 NW 29th Avenue prior to NWM's ownership. Mr. Zavin confirmed that Portland Machinery Company was at these locations.

NWM was incorporated in Oregon in 1943 and began conducted ship repair activities in the Portland Harbor that year by leasing various waterfront facilities such as the St. Johns Dry Dock. NWM performed machine work for ship repair at their 2516 NW 29th Avenue property, which is believed to have started in 1946, but only smaller jobs such as pump and valve repair and propeller work.

It is known that in addition to 2516 NW 29th Avenue, 2446, 2523, 2535, 2537 and 2546 NW 29th Avenue were all locations of machine shops. Furthermore, 2455 NW 29th Avenue was the location of NWM affiliate Industrial Refrigeration and Equipment Company, and 2429 NW 29th Avenue was used for storage by NWM affiliate Portland Machinery Company's pattern shop.

In Respondent's interviews of Mr. Dana Austin and Mr. William Johnston, former employees of Respondent, they were unaware of any operations that took place at the NW 29th Avenue Properties. Their personal knowledge of NWM's operations started in 1989, when Respondent acquired NWM, which was located at Swan Island.

An industrial waste survey for NWM, dated August 13, 1981 and addressed to the "Shop Division" at 2516 NW 29th Avenue summarizes the operations there as "Heavy Equipment Manufacture and Repair" and "Machine Shop and Fabrication Facilities" (NWMAR147698).

From the records examined and the witnesses interviewed, it appears that NWM's active (i.e., nonadministrative) operations at the NW 29th Avenue Properties commenced in 1946 and ceased in 1988, with some administrative functions continuing until 1990, and with varying periods of operations at specific addresses in this general vicinity. Thus, NWM's nonadministrative operations at the NW 29th Avenue Properties ceased prior to its acquisition by Respondents.

Triangle Park Site

From July 27, 1964 to August 20, 1964, NWM owned the Columbia Tug Property at Triangle Park in the Site. See Response 4 for tax lot information. NWM acquired the Columbia Tug Property from Columbia Tug Boat Co. pursuant to the deed recorded in Book 107, Pages 218-19, in the Multnomah County property records (NWMAR141728-NWMAR141729). At the time of this transaction, Columbia Tug Boat Co. was a wholly owned subsidiary of NWM (NWMAR104762-NWMAR104764). NWM conveyed the Columbia Tug Property to Willamette Tug and Barge Company pursuant to the deed recorded in Book 112, Pages 8-9, in the Multnomah County property records (NWMAR141726-NWMAR141727).

Counsel for Respondent interviewed Mr. Zavin regarding the Columbia Tug Property. He stated that NWM never operated at the Columbia Tug Property and took title only to facilitate the transfer of title from Columbia Tug Boat Co. to Willamette Tug and Barge Company. The historical record supports this statement: four days after taking title to the Columbia Tug Property–on 31 July 1964–NMW's board of directors met to discuss the sale of land and assets of Columbia Tug Boat Co. pursuant to a bona fide offer to purchase received from Willamette Tug and Barge Company (NWMAR104762-NWMAR104764).

6. Identify any persons who concurrently with you exercises or exercised actual control or who held significant authority to control activities at each Property, including:

- **a. partners or joint venturers;**
- **b. any contractor, subcontractor, or licensor that exercised control over any materials handling, storage, or disposal activity on the Property; (service contractors, remediation contractors, management and operator contractors, licensor providing technical support to licensed activities);**
- **c. any person subleasing land, equipment or space on the Property;**
- **d. utilities, pipelines, railroads and any other person with activities and/or easements regarding the Property;**

e. major financiers and lenders;
f. any person who exercised actual control over any activities or operations on the Property;
g. any person who held significant authority to control any activities or operations on the Property;
h. any person who had a significant presence or who conducted significant activities at the Property; and
i. any government entities that had proprietary (as opposed to regulatory) interest or involvement with regard to the activity on the Property.

NW 29th Avenue Properties

a. None.
b. None.
c. None.
d. See Response 2 and 38.
e. None.
f. See Response 2 and 38.
g. See Response 2 and 38.
h. See Response 2 and 38.
i. None.

Triangle Park Site

a. None.
b. None.
c. None.
d. None.
e. None.
f. None.
g. None.
h. None.
i. None.

7. Identify and describe any legal or equitable interest that you now have, or previously had in each Property. Include information regarding the nature of such interest; when, how, and from whom such interest was obtained; and when, how, and to whom such interest was conveyed, if applicable. In addition, submit copies of all instruments evidencing the acquisition or conveyance of such interest (e.g., deeds, leases, purchase and sale agreements, partnership agreements, etc.).

Response 7: See Responses 9 and 10.

8. If you are the current owner and/or current operator, did you acquire or operate the Property or any portion of the Property after the disposal or placement of hazardous substances, waste, or materials on, or at the Property? Describe all of the facts on which you base the answer to this question.

Response 8: Respondent is not the current owner or current operator of the NW 29th Avenue Properties or the Columbia Tug Property.

9. At the time you acquired or operated the Property, did you know or have reason to know that any hazardous substance, waste, or material was disposed of on, or at the Property? Describe all investigations of the Property you undertook prior to acquiring the Property and all of the facts on which you base the answer to this question.

Response 9: Respondent never acquired or operated the Columbia Tug Property or almost all of the NW 29th Avenue Properties. There were two specific NW 29th Avenue Properties that were included in Respondent's acquisition of NWM, but Respondent did not undertake any investigations for the following reasons. The sale of the first such Property (2455 NW 29th Ave.) was agreed to prior to Respondent's acquisition of NWM, with closing on the sale occurring four days after the closing on acquisition. NWMAR065126. Respondent owned the second such Property (2523 NW 29th Ave.) for a year and a half until December 5, 1990, but it had historically been used exclusively for administration, computers and accounting. GAL0000024. Respondent is unaware of any such knowledge that NWM may have had or any such investigations that it may have conducted.

10. Identify all prior owners that you are aware of for each Property identified in Response to Question 4 above. For each prior owner, further identify if known, and provide copies of any documents you may have regarding:

a. the dates of ownership;
b. all evidence showing that they controlled access to the Property; and
c. all evidence that a hazardous substance, pollutant, or contaminant, was released or threatened to be released at the Property during the period that they owned the Property.

a. To the best of Respondent's knowledge, such dates are as follows:

NW 29th Avenue Properties

The following information is taken from the Environmental Data Resources ® (EDR) Chain of Title (COT) report (NWMAR142682-NWMAR142699) and presents a 40-year title history for the NW 29th Avenue Properties once owned by NWM. Although EDR title reports typically cover a 70-year period, reports for Multnomah County are limited to a 40-year period.

2407 NW 29th Ave.

- Pre-1986 = Unknown.

- 10/09/1986 = NWM was mentioned in lien on NWM dated 10/9/1986, no other reference connecting property to NWM discovered (NWMAR142030).
- Post-1986 = Unknown.

2429 NW 29th Ave. (NWMAR147456-NWMAR147458)

- 06/17/1913 to 11/19/1913 = Plat Dedication
- 11/19/1913 to 02/06/1914 = Blanche Cottle McMurray and Ada Pearl Cottle Cooke
- 02/06/1914 to 09/17/1914 = Lewis-Wiley Hydraulic Co.
- 09/17/1914 to 10/19/1914 = E.S. Higgins, et al
- 10/19/1914 to 03/29/1920 = Lewis-Wiley Hydraulic Co.
- 03/29/1920 to 08/27/1931 = Security Savings & Trust Co.
- 08/27/1931 to 06/09/1941 = Henry L. Corbett, et al, Trustees
- 06/09/1941 to 11/26/1945 = Multnomah County
- 11/26/1945 to 05/21/1962 = Orville K. Buckner, et ux, et al
- 05/21/1962 to 08/21/1964 = Columbia Tug Boat Company
- 08/21/1964 to 03/31/1987 = NWM
- 03/31/1987 to 12/28/1999 = Scott Hinsdale
- 12/28/1999 to present = Galvco Properties, LLC.

2439 NW 29th Ave.

- Pre-1946 = Unknown.
- 11/04/1946 to 8/20/1956 = Cascade Manufacturing Company (based on plumbing records dated 11/04/46, 6/26/1950, 8/15/1956, 8/20/1956: NWMAR142432, NWMAR142429, NWMAR142424, and NWMAR142421, respectively).
- 1956 to 1986 = Unknown.
- 10/09/1986 = NWM (mentioned in lien on NWM dated 10/9/1986, no other reference connecting property to NWM discovered).
- Post-1986 = Unknown.

2446 NW 29th Ave.

- Pre-1946 = Unknown.

- 04/1946 = NWM (the Sanborn Map, NWMAR150684-NWMAR150723).
- Post-1946 = Unknown.

2455 NW 29th Ave. (NWMAR142682-NWMAR142699)

- Pre-1960 to 04/18/1989 = NWM.
- 04/18/1989 to 11/01/1991 = Howard A. Stenger.
- 11/01/1991 to 02/04/1999 = Sherma T. Stenger.
- 02/04/1999 to 08/17/2000 = Ricky G. and Dorothy M. Russell.
- 08/17/2000 to present = Galvco Properties, LLC.

2516 NW 29th Ave. (NWMAR142682-NWMAR142699)

- Pre-1946 = Unknown.
- 02/09/1946 to 12/28/1988 = NWM (earliest date/year placing NWM at this address based on NAR10004380).
- 12/28/1988 to 08/02/1991 = National Manufacturing, Inc. (NWMAR142320-NWMAR142327 sale of NWM assets, including 2516 NW 29th, to National Manufacturing Inc.).
- 08/02/1991 to 09/01/1992 = Far West Commercial Finance Company.
- 09/01/1992 to 12/14/1992 = Michael G. Allport.
- 12/14/1992 to 05/14/2009 = 09 Properties.
- 05/14/2009 to present = Unkeles Family, LLC.

2523 NW 29th Ave. (NWMAR147451-NWMAR147454)

- Prior to 06/01/1914 = Lewis-Wiley Hydraulic Company
- 06/01/194 to 08/05/1914 = Raymond Concrete Tile Co.
- 08/05/1914 to 03/03/1915 = Industrial Center Investment Co.
- 03/03/1915 to 10/26/1922 = C.R. Higgins, et ux
- 10/26/1922 to 10/26/1922 = Industrial Center Investment Co.
- 10/26/1922 to 11/12/1926 = Nedra Company
- 11/12/1926 to 11/12/1926 = John P. Winter
- 11/12/1926 to 11/12/1926 = Max Lueddemann

- 11/12/1926 to 08/12/1927 = A. Gleie, et al
- 08/12/1927 to 03/28/1927 = Hibernia Commercial and Savings Bank
- 03/28/1927 to 10/11/1930 = Max Lueddemann, et ux
- 10/11/1930 to 10/14/1930 = Max A. Kaiser, et al
- 10/14/1930 to 10/16/1930 = Max Lueddemann
- 10/16/1930 to 12/30/1941 = Max A. Kaiser, et al
- 12/30/1941 to 02/16/1953 = Theodore J. Gleie
- 02/16/1953 to 03/31/1977 = Portland Machinery Company
- 02/16/1977 to 12/05/1990 = NWM
- 12/05/1990 to 12/28/1999 = Scott Hinsdale (NWMARXXX)
- 12/28/1999 to Current = Galvco Properties, LLC

2535 NW 29th Ave.

- Pre-1947 = Unknown.
- 04/1947 = NWM (the Sanborn Map, NWMAR150684-NWMAR150723).
- Post-1947 = Unknown.

2537 NW 29th Ave. (NWMAR142687-NWMAR142688, NWMAR142697-NWMAR142699)

- Pre-1977 = Unknown.
- 03/31/1977 to 03/26/1984 = NWM.
- 03/26/1984 to 04/11/2000 = Percy F. Freeman, Jr., Michael O. Freeman, Kevin J. Freeman and Percy F. Freeman, III and/or Freeman Group.
- 04/11/2000 to 08/10/2001 = Harmmer Mill and Logging Supply Company; Electra Partners, Inc.
- 08/10/2001 to 08/17/2001 = Portland Brewing Building, LLC; Portland Brewing Company.
- 08/17/2001 to 11/01/2006 = Ralph A. Staver.
- 11/01/2006 to present= 2537 NW 29th, LLC.

2546 NW 29th Ave.

- Pre-1946 = Unknown.

- 04/1946 = NWM (the Sanborn Map, NWMAR150684-NWMAR150723).
- Post-1946 = Unknown.

2300 NW 30th Ave.

- Pre-1961 = Unknown.
- 11/16/1961 to 6/13/1966 = Mitchell Bros. Truck Lines (based on plumbing records dated 1/16/1961, 11/17/1961, 1/12/1962, 5/21/1962, 6/13/1966; NWMAR142407-NWMAR142416).
- 06/13/1966 to 05/07/1970 = Unknown.
- 05/07/1970 = NWM (based on a single plumbing record dated 5/07/1970; NWMAR142405).
- Post-1970 = Unknown.

2338 NW 30th Ave.
All dates based on GAL0000027.

- Pre-1952 = William C.H. Lewis and Dartha S. Lewis.
  1952 to 1968 = Mitchell Bros. Terminal Co.
- 1968 to 1977 = Marine Salvage Co., Inc.
- 1977 to 1981 = Sylvia Grebe, Gail Zavin and Jean Peterson dba Marine Salvage Co.
- 1981 to 1986 = NWM.
- 1986 to present = Robert N. Magid and Judith K. Magid.

b. All such evidence in Respondent's possession or under Respondent's control is contained in the electronic document database. See also Responses 9 and 10(a).

c. Respondent has no evidence that a hazardous substance, pollutant, or contaminant was released or threatened to be released at the NW 29th Avenue Properties during the periods that NWM and Respondent owned such Properties.

<u>Triangle Park Site</u>

a. The title history of the Columbia Tug Property, as set forth in the Preliminary Title Report prepared by Stewart Title of Oregon, Inc., dated February 6, 2009 (NWMAR141714-NWMAR141725), is as follows:

- Pre-1946 to 10/24/1946 = Multnomah County.
- 10/24/1946 to 07/27/1964 = Columbia Tug Boat Co.
- 07/27/1964 to 08/20/1964 (24 days) = NWM (NWMAR141728-NWMAR141729).
- 08/20/1964 to 09/25/1984 = Willamette Tug and Barge Company (NWMAR141726-NWMAR141727).
- 09/25/1984 to 05/12/1997 = Riedel International, Inc.
- 05/12/1997 to 05/21/1997 = Edward Hostmann, Inc.
- 05/ 21/1997 to 12/10/2008 = Triangle Park, LLC.
- 12/10/2008 to present = University of Portland.

b. All such evidence in Respondent's possession or under Respondent's control is contained in the electronic document database. See also Responses 9 and 10(a).

c. Respondent has no evidence that a hazardous substance, pollutant, or contaminant was released or threatened to be released at the Columbia Tug Property during the period that NWM owned such Property.

11. Identify all prior operators of the Property, including lessors, you are aware of for each Property identified in response to Question 4 above. For each such operator, further identify if known, and provide copies of any documents you may have regarding:

a. the dates of operation;

b. the nature of prior operations at the Property;

c. all evidence that they controlled access to the Property; and

d. all evidence that a hazardous substance, pollutant, or contaminant was released or threatened to be released at or from the Property during the period that they were operating the Property.

Response 11: Generally, see Responses 5, 6(c), 6(i) and 10(a) for identification of prior operators of which Respondent is aware for the NW 29th Avenue Properties and the Columbia Tug Property.

NW 29th Avenue Properties

a. See Responses 5 and 10(a); see also the electronic document database.

b. See Responses 5, 6(c), 6(i) and 10(a); see also the electronic document database.

c. All such evidence in Respondent's possession or under Respondent's control is contained in the electronic document database.

d. See Response 9.

Triangle Park Site

a. See Responses 5 and 10(a); see also the electronic document database.

b. See Responses 5, 6(c), 6(i) and 10(a); see also the electronic document database.

c. All such evidence in Respondent's possession or under Respondent's control is contained in the electronic document database.

d. See Response 9.

12. If not included in response to any of the previous questions, please describe the purpose and duration of each aquatic lands lease Respondent or the operator of Respondent's Property(ies) ever obtained from the State of Oregon and provide a copy of each application for and aquatic lands lease obtained.

Response 12: Neither NWM nor Respondent obtained leases or subleases for any aquatic lands from the State of Oregon.

Section 3.0 Description of Each Property

13. Provide the following information about each Property identified in response to Question 4:

a. property boundaries, including a written legal description;
b. location of underground utilities (telephone, electrical, sewer, water main, etc.);
c. location of all underground pipelines whether or not owned, controlled or operated by you;
d. surface structures (e.g., buildings, tanks, pipelines, etc.);
e. over-water structures (e.g., piers, docks, cranes, etc.);
f. dry wells;
g. treatment or control devices (e.g., surface water, air, groundwater, Resource Conservation and Recovery Act (RCRA), Transfer, Storage, or Disposal (TSD), etc.);
h. groundwater wells, including drilling logs;

i. storm water drainage system, and sanitary sewer system, past and present, including septic tank(s) and where, when and how such systems are emptied and maintained;

j. subsurface disposal field(s), Underground Injection Control (UIC) wells, and other underground structures (e.g., underground storage tanks (USTs); and where they are located, if they are still used, and how they were closed;

k. any and all major additions, demolitions or changes on, under or about the Property, its physical structures or to the property itself (e.g., stormwater drainage, excavation work); and any planned additions, demolitions or other changes to the Property;

l. all maps and drawings of the Property in your possession; and

m. all aerial photographs of the Property in your possession.

Response 13:

NW 29th Avenue Properties

a. For information relating to 2429, 2455, 2516, and 2537 NW 29th Avenue, see the Chain of Title Report (NWMAR142682-NWMAR142699). For 2407, 2429, 2439, 2516 and 2537 NW 29th Avenue and 2300 NW 30th Avenue, legal property descriptions can be found in a property lien (NWMAR142029-NWMAR142033). For information relating to 2523 NW 29th Avenue, see the Chain of Title Report (NWMAR147451-NWMAR147454). For information relating to 2406 NW 30th Avenue, see the Chain of Title Report (NWMAR147459-NWMAR147461).

b. For the other properties at NW 29th Avenue, no chain of title or legal property descriptions were discovered within the historical documents.

c. See Response 18 for sewer utility information.

d. To the best of Respondent's knowledge, there were no underground pipelines at the NW 29th Avenue Properties.

e. The following table summarizes all the known surface structures at the NW 29th Avenue Properties:

Address	Description	Reference
2407 29th	No Information	N/A
2429 29th	Old one-story shop	NWMAR150653
2439 29th	Lots 5-8, Buildings 12, 13, and 14. Pattern shop and training center housed in these buildings. One-story new locker room and shop	NWMAR142431
2439 29th	One-story factory	NWMAR142429
2439 29th	One-story old office and warehouse	NWMAR142423
2439 29th	One-story old office and warehouse	NWMAR142421
2455 29th	Two buildings, one old and one new	NWMAR150656
2516 29th	Office space	NWMAR150717
2516 29th	Machine shop with wood floor	NWMAR150717
2516 29th	Machine shop with overhead crane	NWMAR150717
2516 29th	Concrete floor with truss roof	NWMAR150717
2516 29th	Pattern shop	NWMAR150717

Address	Description	Reference
2516 29th	Carpenter shop	NWMAR150717
2516 29th	Heater room with concrete floor	NWMAR150717
2516 29th	Punch shed	NWMAR150717
2516 29th	Records vault	NWMAR150717
2516 29th	Lots 10-18, Buildings 1-8. Shops and office space. Blacksmith shop with earth floor	NWMAR150717
2516 29th	"14 Buildings"	NWMAR150675
2523 29th	Two-story metal-sided building, office space	GAL0000024
2535 29th	Electric shop	NWMAR150717
2535 29th	Tool room	NWMAR150717
2535 29th	Warehouse	NWMAR150717
2535 29th	Tin shop	NWMAR150717
2537 29th	Storage yard and long, large yard area	GAL0000021
2537 29th	Bridge cranes, jib cranes, hoists, etc.	NWMAR150683
2537 29th	Buildings 10 and 11. Shop and administration space. One-story, wood-framed, metal-roofed building 7000 square feet in area	NWMAR150673-NWMAR150674
2546 29th	Office space	NWMAR150717
2546 29th	Warehouse with concrete floor and concrete apron walls	NWMAR150717
2546 29th	Machine shop	NWMAR150717
2546 29th	Welding space with truss roof	NWMAR150717
2546 29th	Plate shop with asphalt floor and truss roof	NWMAR150717
2300 30th	Old garage	NWMAR142409
2300 30th	Old warehouse	NWMAR142411
2300 30th	Two-story old office building	NWMAR142413
2300 30th	Two-story old building	NWMAR142415
2300 30th	Two-story concert building	NWMAR142417
2338 30th	Quonset hut, office space	GAL0000033

f. The NW 29th Avenue Properties are landlocked, so no over-water structures exist at the NW 29th Avenue Properties.

g. To the best of Respondent's knowledge, there were no dry wells at the NW 29th Avenue Properties.

h. To the best of Respondent's knowledge, there were no treatment or control devices at the NW 29th Avenue Properties.

i. To the best of Respondent's knowledge, there were no groundwater wells at the NW 29th Avenue Properties.

j. For a summary of known sewer and stormwater connects at the NW 29th Avenue Properties, see Response 18.

k. To the best of Respondent's knowledge, there were no subsurface disposal fields, UIC wells, or other underground structures at the NW 29th Avenue Properties.

l. To the best of Respondent's knowledge, the only change to the NW 29th Avenue Properties was that a sewer connection was increased in size, based on a permit letter dated 05/14/1980 (NWMAR150665-NWMAR150672).

m. Respondent has a Sanborn map of 2446, 2516, 2535, and 2546 NW 29th Avenue (NWMAR150717). Respondent has a Subdivision Plat of the area surveyed in May 1913 (available at http://www3.multco.us/slv/?Viewer=SAIL). Respondent has a tax lot map of the area, 1N1E29DB (GAL0002243). Respondent has provided a map of the stormwater conveyance system for City of Portland Outfall 17 that includes former NWM tax parcels and surrounding tax parcels at NWMAR147455. The City of Portland has also provided an Outfall 17 Basin Report at NWMAR147003-NWMAR147016 that includes aerial photgraphs of the former NWM NW 29th Avenue Properties. Respondent has no maps of the other properties within the NW 29th Avenue Properties.

n. Respondent has no aerial photography of the NW 29th Avenue Properties.

<u>Triangle Park Site</u>

a. The Stewart Title map (NWMAR141713) depicts a portion of Multnomah County Assessor's Map No. 1N1E18DET. Property deeds in Book 107, Pages 218-219 in the Multnomah County public records (NWMAR141728-NWMAR141729) and in Book 112, Pages 8-9, in the Multnomah County public records (NWMAR141726-NWMAR141727). The title history for the Columbia Tug Property, as set forth in the Preliminary Title Report prepared by Stewart Title of Oregon, Inc., dated February 6, 2009 (NWMAR141714-NWMAR141725).

b. To the best of Respondent's knowledge, there were no underground utilities at the Columbia Tug Property.

c. To the best of Respondent's knowledge, there were no underground pipelines at the Columbia Tug Property.

d. To the best of Respondent's knowledge, there were no surface structures at the Columbia Tug Property.

e. The Columbia Tug Property is landlocked, so no over-water structures exist at the Columbia Tug Property.

f. To the best of Respondent's knowledge, there were no dry wells at the Columbia Tug Property.

g. To the best of Respondent's knowledge, there were no treatment or control devices at the Columbia Tug Property.

h. To the best of Respondent's knowledge, there were no groundwater wells at the Columbia Tug Property.

i. To the best of Respondent's knowledge, there were no stormwater drains or sanitary sewer systems at the Columbia Tug Property.

j. To the best of Respondent's knowledge, there were no subsurface disposal fields, UIC wells, or other underground structures at the Columbia Tug Property.

k. To the best of Respondent's knowledge, there were no major additions, changes, or demolitions during NWM's 3½-week ownership of the Columbia Tug Property.

l. The Columbia Tug Property is depicted on the map from Stewart Title (NWMAR141713) showing a portion of Multnomah County Assessor's Map No. 1N1E18DET.

m. Respondent has no aerial photography of the Columbia Tug Property.

14. For Properties adjacent to the Willamette River, provide specific information describing the river-ward boundary of private ownership and where state aquatic lands and/or state-management jurisdiction begins. Provide a map that delineates the river-ward boundary of each Property.

Response 14:

NW 29th Avenue Properties
The NW 29th Avenue Properties are not adjacent to the Willamette River.

Triangle Park Site
The Columbia Tug Property is not adjacent to the Willamette River.

15. For each Property, provide all reports, information or data you have related to soil, water (ground and surface), or air quality and geology/hydrogeology at and about each Property. Provide copies of all documents containing such data and information, including both past and current aerial photographs as well as documents containing analysis or interpretation of such data.

Response 15:

NW 29th Avenue Properties
Respondent has no such reports, information or data within its possession or under its control with respect to the NW 29th Avenue Properties.

Triangle Park Site
Respondent has no such reports, information or data within its possession or under its control with respect to the Columbia Tug Property. Respondent is aware that other PRPs have such reports, information or data with respect to the Triangle Park site generally (NP-TPL0000002-NP-TPL0000035), but does not have such reports, information or data within its possession or under its control.

16. Identify all past and present solid waste management units or areas where materials are or were in the past managed, treated, or disposed (e.g., waste piles, landfills, surface impoundments, waste lagoons, waste ponds or pits, tanks, container storage areas, etc.) on each Property. For each such unit or area, provide the following information:

- **a. a map showing the unit/area's boundaries and the location of all known units/areas whether currently in operation or not. This map should be drawn to scale, if possible, and clearly indicate the location and size of all past and present units/areas;**
- **b. dated aerial photograph of the site showing each unit/area;**
- **c. the type of unit/area (e.g., storage area, landfill, waste pile, etc.), and the dimensions of the unit/area;**
- **d. the dates that the unit/area was in use;**
- **e. the purpose and past usage (e.g., storage, spill containment, etc.);**
- **f. the quantity and types of materials (hazardous substances and any other chemicals) located in each unit/area; and**
- **g. the construction (materials, composition), volume, size, dates of cleaning, and condition of each unit/area.**

Response 16:

NW 29th Avenue Properties
Respondent has no knowledge of any solid waste management units or areas at the NW 29th Avenue Properties.

Triangle Park Site
Respondent has no knowledge of any solid waste management units or areas at the Columbia Tug Property.

17. If the unit/area described above is no longer in use, how was such unit/area closed and what actions were taken to prevent or address potential or actual releases of waste constituents from the unit/area.

Response 17:

NW 29th Avenue Properties
See Response 16.

Triangle Park Site
See Response 16.

18. For each Property, provide the following information regarding any current or former sewer or storm sewer lines or combined sanitary/storm sewer lines, drains, ditches, or tributaries discharging into the Willamette River:

- **a. the location and nature of each sewer line, drain, ditch, or tributary;**
- **b. the date of construction of each sewer line, drain, ditch, or tributary;**
- **c. whether each sewer line, or drain was ever connected to a main trunk line;**
- **d. whether each sewer line, drain, ditch, or tributary drained any hazardous substance, waste, material or other process residue to the Willamette River; and**
- **e. provide any documentation regarding but not limited to the following on any and all outfalls to the Willamette River which are located within the boundaries of the Property(ies). Your response should include, but not be limited to:**
  - **i. the areas serviced by the outfalls; and**
  - **ii. the type of outfall (i.e., storm water or single facility operational).**

Response 18:

NW 29th Avenue Properties
The NW 29th Avenue Properties are comprised of twelve separate addresses. The NW 29th Avenue Properties' storm sewer lines drain to City of Portland Outfall 17 (NWMAR147455). The known sewer or storm sewer systems beneath each will be addressed separately.

2407 NW 29th Avenue
No documents related to the sewer or storm sewer system at this address were discovered.

2429 NW 29th Avenue
All information about this property was found in a plumbing record dated 05/11/1966 (NWMAR150653). The record does not indicate that the building was connected to the main sewer line, but does include the following remark: "connecting onto exist 6" C. I. line within existing building."

2439 NW 29th Avenue
All information about this property was found in four plumbing records dated 11/04/1946, 06/26/1950, 08/15/1956, and 08/20/1956 (NWMAR142421-NWMAR142424; NWMAR142429-NWMAR142432).

a. The record from 11/04/1946 indicates that the building, a "one-story new locker room and shop," was connected to the sewer line. A diagram of the sewer connection is shown in document NWMAR142432.

b. See Response 18(a).

c. See Response 18(a).

d. See Response 19.

e. There were no outfalls located within the boundaries of this address because the NW 29th Avenue Properties are not adjacent to the Willamette River.

2446 NW 29th Avenue
No documents related to the sewer or storm sewer system at this address were discovered.

2455 NW 29th Avenue
All information about this property was found in three plumbing records dated 12/16/1946, 09/15/1958, and 11/29/1976 (NWMAR150656-NWMAR150656.1). These records state that the property at this address was not connected to the main sewer line.

2516 NW 29th Avenue
A letter dated 05/14/1980 from the City of Portland Department of Public Works to NWM, addressed to 2516 NW 29th Avenue, indicates that the City permitted the expansion of an existing sewage connection at that address to an 8 inch connection (NWMAR150665-NWMAR150672). No other documents pertaining to the sewer or storm sewer system at this address were discovered.

2523 NW 29th Avenue
No documents related to the sewer or storm sewer system at this address were discovered.

2535 NW 29th Avenue
No documents related to the sewer or storm sewer system at this address were discovered.

2537 NW 29th Avenue
No documents related to the sewer or storm sewer system at this address were discovered.

2546 NW 29th Avenue
No documents related to the sewer or storm sewer system at this address were discovered.

2300 NW 30th Avenue
All information about this property was found in five plumbing records dated 08/01/1945, 11/16/1961, 11/17/1961, 01/12/1962, 05/21/1962 (NWMAR142409-NWMAR142420).

a. Records from 11/17/1961 and 01/12/1962 indicated that an "old warehouse" and a "2-story old office & truck repair" at this address were connected to a sewer line (NWMAR142411 and NWMAR142413). A diagram of the sewer connection is shown in document NWMAR142412.

b. See Response 18(a).

c. See Response 18(a).

d. See Response 19.

e. There were no outfalls located within the boundaries of this address because the NW 29th Avenue Properties are not adjacent to the Willamette River.

2338 NW 30th Avenue
No documents related to the sewer or storm sewer system at this address were discovered.

Triangle Park Site
Respondent has no knowledge of any current or former sewer or storm sewer lines or combined sanitary/storm sewer lines, drains, ditches, or tributaries discharging into the Willamette River from the Columbia Tug Property.

19. Provide copies of any stormwater or property drainage studies, including data from sampling, conducted at these Properties on stormwater, sheet flow, or surface water runoff. Also provide copies of any Stormwater Pollution Prevention, Maintenance Plans, or Spill Plans developed for different operations during the Respondent's operation of each Property.

Response 19:

NW 29th Avenue Properties
Respondent has no knowledge of stormwater or property drainage studies pertaining to the NW 29th Avenue Properties. Respondent did not develop specific Stormwater Pollution Prevention, Maintenance Plans, or Spill Plans for the NW 29th Avenue Properties, and to the best of Respondent's knowledge, NWM did not develop specific Stormwater Pollution Prevention, Maintenance Plans, or Spill Plans for the NW 29th Avenue Properties.

Triangle Park Site
Respondent has no knowledge of stormwater or property drainage studies pertaining to the Columbia Tug Property. Neither NWM nor Respondent operated at the Triangle Park site.

Section 4.0 Respondent's Operational Activities

20. Describe the nature of your operations or business activities at each Property. If the operation or business activity changed over time, please identify each separate operation or activity, the dates when each operation or activity was started and, if applicable, ceased.

Response 20:

NW 29th Ave Properties

Limited information is available regarding the operations and business activities performed at the NW 29th Avenue Properties. The NW 29th Avenue Properties were mainly utilized to perform

small-scale machining, assembly, maintenance, electrical, administrative and management functions in support NWM's ship repair operations, according to an interview of former NWM CEO William Zavin. Therefore, a small fraction of the operations activities described in NWMAR107173-NWMAR107207 apply to the NW 29th Avenue Properties. Respondent summarizes these minimal, small scale operations below.

Small-scale machining operations were performed at the NW 29th Avenue Properties. Typical machine shop equipment consists of end mills, lathes, drill presses, milling machines, band saws, large presses, work tables, cleaning tanks, and other machining equipment. Fabrication materials may have included steel, small amounts of cleaning solvents, and small amounts of petroleum oil and lubricants (NWMAR107182). Waste materials may have included metal cuttings, waste oil, shop rags, and welding sticks.

Assembly was also performed on a small scale at the NW 29th Avenue Properties. Assembly involves fitting and joining parts together. Small assemblies could be performed in small shops and subsequently transported to be installed in the ships.

Small scale electrical shop operations were also performed at the NW 29th Avenue Properties. Electrical shop operations may have included building, rebuilding, and testing electrical components, such as motors, lights, and gages. Common fabrication materials for this operation may have included electrical cable and wire, resin, and oils and lubricants (NWMAR107184-NWMAR107185).

Triangle Park
Neither NWM nor Respondent operated at the Triangle Park site.

21. At each Property, did you ever use, purchase, generate, store, treat, dispose, or otherwise handle any waste, or material? If the answer to the preceding question is anything but an unqualified "no," identify:

- **a. in general terms, the nature and quantity of the waste or material so transported, used, purchased, generated, stored, treated, disposed, or otherwise handled;**
- **b. the chemical composition, characteristics, physical state (e.g., solid, liquid) of each waste or material so transported, used, purchased, generated, stored, treated, disposed, or otherwise handled;**
- **c. how each such waste or material was used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you; and**
- **d. the quantity of each such waste or material used, purchased, generated, stored, treated, transported, disposed or otherwise handled by you.**

Response 21:

NW 29th Avenue Properties
Yes.

a. As one of the NW 29th Avenue Properties was the location of the Portland Machinery Company (a NWM affiliate), there would be waste and material

associated with Portland Machinery Company's operations. See Response 13(d) for locations of specific shops at the NW 29th Avenue Properties.

An industrial waste questionnaire from 08/31/1981 lists the principal raw material used at the NW 29th Avenue Properties as "Steel, Cast Iron, Brass & Aluminum" (NWMAR147698). However, detailed information into the operating procedures of the Portland Machinery Company could not be located.

b. No Material Safety Data Sheets (MSDSs) or other chemical information could be located relevant to the NW 29th Avenue Properties.

c. No information relevant to waste handling or disposal was located.

d. No information pertaining to the quantity of chemicals or wastes stored at the NW 29th Avenue Properties could be located.

Triangle Park Site
No.

22. Describe all activities at each Property that was conducted over, on, or adjacent to, the Willamette River. Include in your description whether the activity involved hazardous substances, waste(s), or materials and whether any such hazardous substances, waste(s), or materials were discharged, spilled, disposed of, dropped, or otherwise came to be located in the Willamette River.

Response 22:

NW 29th Avenue Properties
Neither NWM nor Respondent conducted activities at the NW 29th Avenue Properties over, on or adjacent to the River, because the NW 29th Avenue Properties are not adjacent to the River.

Triangle Park Site
Neither NWM nor Respondent conducted activities at the Columbia Tug Property over, on or adjacent to the River, because the Columbia Tug Property is not adjacent to the River. In addition, neither NWM nor Respondent operated at the Triangle Park site.

23. For each Property at which there was or is a mooring facility, dock, wharf or any over-water structure, provide a summary of over-water activities conducted at the structure, including but not limited to, any material loading and unloading operations associated with vessels, materials handling and storage practices, ship berthing and anchoring, ship fueling, and ship building, retrofitting, maintenance, and repair.

Response 23:

NW 29th Avenue Properties
There were no mooring facilities, docks, wharfs or other over-water structures at the NW 29th Avenue Properties because the NW 29th Avenue Properties are landlocked.

Triangle Park Site
There were no mooring facilities, docks, wharfs or other over-water structures at the Columbia Tug Property because it is landlocked.

24. Describe all activities conducted on leased aquatic lands at each Property. Include in your description whether the activity involved hazardous substances, waste(s), or materials and whether any such hazardous substances, waste(s), or materials were discharged, spilled, disposed of, dropped, or otherwise came to be located on such leased aquatic lands.

Response 24: Neither NWM nor Respondent conducted activities on leased aquatic lands at the NW 29th Avenue Properties or the Columbia Tug Property.

25. Please describe the years of use, purpose, quantity, and duration of any application of pesticides or herbicides on each Property during the period of investigation (1937 – present). Provide the brand name of all pesticides or herbicides used.

Response 25:

NW 29th Avenue Properties
Respondent does not have information regarding the years of use, purpose, quantity, and duration of any application of pesticides or herbicides on any of the NW 29th Avenue Properties. The large majority of these Properties were paved or covered by buildings during both NWM's and Respondent's periods of control based on review of records referenced in Response 13(e). Consequently, Respondent believes that any such application of pesticides or herbicides would have been very limited or nonexistent.

Triangle Park Site
Respondent does not have any information regarding pesticide or herbicide use at the Columbia Tug Property.

26. Describe how wastes transported off the Property for disposal are and ever were handled, stored, and/or treated prior to transport to the disposal facility.

Response 26: Respondent does not have any information regarding the handling, storage, treatment, or disposal of wastes with respect to the NW 29th Avenue Properties or the Columbia Tug Property.

27. Has Respondent ever arranged for disposal or treatment or arranged for transportation for disposal or treatment of materials to any Property (including the

Willamette River) within the Investigation Area? If so, please identify every Property that Respondent's materials were disposed or treated at in the Investigation Area. In addition, identify:

- **a. the persons with whom the Respondent made such arrangements;**
- **b. every date on which Respondent made such arrangements;**
- **c. the nature, including the chemical content, characteristics, physical state (e.g., solid, liquid), and quantity (volume and weight) of all materials involved in each such arrangement;**
- **d. in general terms, the nature and quantity of the non- hazardous materials involved in each such arrangement;**
- **e. in general terms, the nature and quantity of any hazardous materials involved in each such arrangement;**
- **f. the owner of the materials involved in each such arrangement, if not Respondent;**
- **g. all tests, analyses, analytical results or manifests concerning each hazardous material involved in such transactions;**
- **h. the address(es) for each Property, precise locations at which each material involved in such transactions actually was disposed or treated;**
- **i. the owner or operator of each facility at which hazardous or non-hazardous materials were arranged to be disposed at within the Investigation Area;**
- **j. who selected the location to which the materials were to be disposed or treated;**
- **k. who selected the Property as the location at which hazardous materials were to be disposed or treated; and**
- **l. any records of such arrangement(s) and each shipment.**

Response 27: See Response 27 in the set of Responses regarding ship repair operations submitted herewith, which is incorporated by this reference herein (NWMAR150899-NWMAR150903).

28. Describe the plants and other buildings or structures where Respondent carried out its operations at each Property within the Investigation Area (excluding locations where ONLY clerical/office work was performed).

Response 28:

NW 29th Avenue Properties

Respondent did not carry out such operations at the NW 29th Avenue Properties. Such operations by NWM are described herein. The NW 29th Avenue Properties were composed of multiple buildings, owned for differing lengths of time by NWM, with differing purposes. See Response 10 detailing the ownership history of the buildings at the NW 29th Avenue Properties. Information regarding each building is summarized below.

2407 NW 29th Ave.

No information related to any structures at this property was discovered.

2429 NW 29th Ave.
A plumbing permit inspection dated May 11, 1966 (final inspection dated June 11, 1982) for this property notes the contractor as Standard Plumbing and the building owner as NWM (NWMAR150653). The form notes that the inspection is for an old one-story shop and remarks include, "connecting onto exist 6" C. I. line within existing building." Work appears to include two toilets, one basin, one six gallon hot water tank, and one urinal. The permit also includes a drawing presenting the building footprint.

2439 NW 29th Ave.
Respondent searched the plumbing records on file with the City and City Archive and Records Center website for 2439 NW 29th Avenue and located four plumbing permits (NWMAR142421-NWMAR142424; NWMAR142429-NWMAR142432). The four plumbing permits (1946, 1950, and two from 1956) for the 2439 NW 29th Avenue property list Cascade Manufacturing Company as the owner of the property. The November 4, 1946 permit notes a catch basin in the garage and a connection to the storm sewer, (NWMAR142431), and contains a drawing of the building footprint and sewer line (NWMAR142432). The June 26, 1950 permit notes a new one-story factory building, three floor drains and a connection to the present house sewer and water, (NWMAR142429), and contains a drawing of the new building footprint and sewer line (NWMAR142430). The August 15, 1956 permit notes a one-story old office and warehouse, one hot water tank and one catch basin in the garage, (NWMAR142423), and contains a drawing of the building footprint, garage, and catch basin (NWMAR142424). The August 20, 1956 permit notes a one-story old office and warehouse, one hot water tank, one slop sink, and one catch basin (NWMAR142421).

2455 NW 29th Ave.
A plumbing permit inspection dated November 29, 1976 (final inspection dated October 6, 1977), notes the contractor for the work as A.J. Zinda Co. and the building owner as NWM (NWMAR150656). The work discussed in the permit appears to include one new rain drain and one new catch basin in the yard. The permit includes a drawing presenting the building footprint and piping dimensions, depth and measurements for the new catch basin.

2516 NW 29th Ave.
The 1924 Sanborn map (NWMAR150717) lists two machine shops, a concrete floor with a truss roof, a pattern shop, a carpenter shop, a heater room, a punch shed, a records vault, and a blacksmith shop as located at 2516 NW 29th Avenue. A City of Portland Fire Prevention Inspection from 1980 (NWMAR150651; NWMAR150675) noted that activities conducted at this address included administrative function in addition to welding, auto lathe, and the storage of oil drums. This report also notes that there are 14 buildings at the property. A machine shop is identified as operating at this address in a 1988 document (NWMAR142588-NWMAR142614).

2523 NW 29th Ave.
The property contained a two-story metal-sided building used as an office building for administration and computers/accounting (GAL0000024). Mr. Zavin recalled that Portland Machinery Company used this property.

2537 NW 29th Ave.
When NWM acquired this property, it included all bridge cranes, jib cranes, hoists, air compressors and related equipment, and fixtures (NWMAR150683). In his 2013 interview, Mr. Zavin stated that Portland Machinery Company performed repair work for the sawmill industry at this location. This address also contained a storage space and yard measuring at least 100' by 200', as such a yard was leased to Galvanizers in 1981 (GAL0000021). Furthermore, a fire inspection report summary, dated 02/15/1983, list a single-story wood-framed, metal-roofed building measuring about 7000 square-feet in area (NWMAR150673-NWMAR150674).

2300 NW 30th Ave.
A plumbing record dated May 7, 1970, was located that identifies NWM as the owner (NWMAR142405). The plumbing permit records the address as an old, two-story building with 1 water closet, 1 hot water tank, 1 basin, and 1 connection to the storm sewer. Remarks include 1 urinal and 1 catch basin in the yard. A drawing of the building footprint identifies the location of the catch basin (NWMAR142406).

Five additional plumbing records were found for 2300 NW 30th Avenue, which include two permits from 1961, two from 1962, and one from 1966 (NWMAR142407-NWMAR142420). Mitchell Bros. Truck Lines, performing truck repair operations, is the owner listed on all five plumbing permits. A January 12, 1962 permit notes a connection to the storm sewer and one sump on the property, (NWMAR142412), and contains a drawing of the sewer line, (NWMAR142413). The drawing notes two catch basins onsite with the sump connected to one of them.

2338 NW 30th Ave.
GAL0000033 describes this address as having a Quonset Hut; however, the date of construction is unknown.

Triangle Park Site
Neither NWM nor Respondent operated at the Triangle Park site.

29. Provide a schematic diagram or flow chart that fully describes and/or illustrates the Respondent's operations on each Property.

Response 29:

NW 29th Avenue
Respondent does not have such a schematic diagram or flow chart within its possession or under its control. Respondent lacks sufficient information regarding NWM's operations at the NW 29th Avenue Properties to produce such a schematic diagram or flow chart. Respondent's operations at the NW 29th Avenue Properties were limited to administrative operations at one Property (2523 NW 29th Ave.) for a year and a half.

Triangle Park Site
Neither NWM nor Respondent operated at the Triangle Park site.

30. Provide a brief description of the nature of Respondent's operations at each location on each Property including:

a. the date such operations commenced and concluded; and

b. the types of work performed at each location, including but not limited to the industrial, chemical, or institutional processes undertaken at each location.

Response 30:

NW 29th Avenue Properties

a. NWM engaged in operations at the NW 29th Avenue Properties from at least June 11, 1946, until December 28, 1988. By then, NWM had sold all but two of the NW 29th Avenue Properties, which Respondent purchased as part of its acquisition of NWM on April 14, 1989. Respondent never operated at one of these Properties (2455 NW 29th Ave.) because it was sold four days later on April 18, 1989. Respondent operated at the other such Property (2523 NW 29th Ave.) from April 14, 1989, until December 5, 1990.

b. NWM engaged in administrative operations and small-scale machine work at the NW 29th Avenue Properties, both directly and through its subsidiaries. Respondent engaged in operations limited to management and administrative functions at only the 2523 NW 29th Ave. Property.

Triangle Park Site

a. NWM never engaged in operations at the Triangle Park site and owned the Columbia Tug Property for only 3½ weeks from July 27, 1964, to August 20, 1964. Respondent never owned or operated any Property at the Triangle Park site.

b. Counsel for Respondent interviewed William H. Zavin II (see NWMAR141506) regarding the Columbia Tug Property. He stated that NWM never operated at the Columbia Tug Property and took title only to facilitate the transfer of title from Columbia Tug Boat Co. to Willamette Tug and Barge Company.

31. If the nature or size of Respondent's operations changed over time, describe those changes and the dates they occurred.

Response 31:

NW 29th Avenue Properties

See Response 30 for a description of changes over time at the NW 29th Avenue Properties. See Response 10 for an ownership chronology of each address.

Triangle Park Site

Neither NWM nor Respondent conducted any operations at the Triangle Park site.

32. List the types of raw materials used in Respondent's operations, the products manufactured, recycled, recovered, treated, or otherwise processed in these operations.

Response 32: See the detailed description of operational processes and Appendix 1 thereto (NWM Process Flow Charts), NWMAR107208-NWMAR107235. This detailed description of operational processes was developed specifically for NWM operations at the Portland Ship Repair Yard on Swan Island. The NW 29th Avenue Properties did not conduct large-scale machining operations which include drydock painting, bilge/tank cleaning, or vessel abrasive blasting.

33. Provide copies of Material Safety Data Sheets (MSDS) for materials used in the Respondent's operations.

Response 33: Respondent does not have MSDSs within its possession or under its control for materials used in NWM's or Respondent's operations at the NW 29th Properties. Neither NWM nor Respondent conducted any operations at the Triangle Park site.

34. Describe the cleaning and maintenance of the equipment and machinery involved in these operations, including but not limited to:

- **a. the types of materials used to clean/maintain this equipment/machinery;**
- **b. the monthly or annual quantity of each such material used;**
- **c. the types of materials spilled in Respondent's operations;**
- **d. the materials used to clean up those spills;**
- **e. the methods used to clean up those spills; and**
- **f. where the materials used to clean up those spills were disposed of.**

Response 34: Respondent does not have any information within its possession or under its control pertaining to cleaning or maintenance of the equipment and machinery involved in NWM's or Respondent's operations at the NW 29th Properties. Neither NWM nor Respondent conducted any operations at the Triangle Park site.

35. Describe the methods used to clean up spills of liquid or solid materials during Respondent's operation.

Response 35: Respondent does not have any information within its possession or under its control pertaining to methods used to clean up spills of liquid or solid materials during NWM's or Respondent's operations at the NW 29th Properties. Neither NWM nor Respondent conducted any operations at the Triangle Park site.

36. For each type of waste (including by-products) from Respondent's operations, including but not limited to all liquids, sludges, and solids, provide the following information:

- **a. its physical state;**
- **b. its nature and chemical composition;**
- **c. its color;**
- **d. its odor;**
- **e. the approximate monthly and annual volumes of each type of waste (using such measurements as gallons, cubic yards, pounds, etc.); and**

f. the dates (beginning & ending) during which each type of waste was produced by Respondent's operations.

Response 36: Respondent does not have any information within its possession or under its control pertaining to the types of waste (including by-products) from NWM's or Respondent's operations at the NW 29th Properties. However, Respondent has described the types of waste and materials that likely would have been associated with a small-scale machine shop in Response 45. The types of wastes and materials described in Response 45 are based on historical operational processes for NWM's machine shops at the Portland Ship Repair Yard on Swan Island. Neither NWM nor Respondent operated at the Triangle Park site.

37. Provide a schematic diagram that indicates which part of Respondent's operations generated each type of waste, including but not limited to wastes generated by cleaning and maintenance of equipment and machinery and wastes resulting from spills of liquid materials.

Response 37:

NW 29th Avenue Properties
Respondent does not have such a schematic diagram within its possession or under its control, and Respondent lacks sufficient information to provide such a diagram for NWM's or Respondent's operations at the NW 29th Properties.

Triangle Park Site
Neither NWM nor Respondent operated at the Triangle Park site.

38. Identify all individuals who currently have and those who have had responsibility for Respondent's environmental matters (e.g. responsibility for the disposal, treatment, storage, recycling, or sale of Respondent's wastes). Also provide each individual's job title, duties, dates performing those duties, supervisors for those duties, current position or the date of the individual's resignation, and the nature of the information possessed by such individuals concerning Respondent's waste management.

Response 38: The following individuals have been listed because they are known to have had responsibility for environmental matters at NWM's or Respondent's facilities located on Swan Island. It is unknown whether that responsibility extended to the NW 29th Avenue Properties. These individuals are included for the sake of completeness.

Prior to Respondent's Active Operations Period, John Flynn and Jack Flynn were responsible for environmental matters for NWM. John Flynn (b (b) (6) , and Respondent does not have any contact information for either person.

Robert Coates, Environmental Coordinator at Northwest Marine, 1989-1993.
On-site management of environmental affairs, waste management and waste disposal. Direct report to Production Manager. Currently employed as Blast and Paint Superintendent at Cascade General.

Dana Austin, Corporate Manager of Environmental Affairs at Southwest Marine, 1989-1996. Corporate management of environmental affairs. Provide direction and guidance to divisional environmental managers/coordinators. Provided periodic on-site inspection to monitor compliance. Direct report to Herb Engel, CEO, Southwest Marine. Currently employed by the U.S. Maritime Administration.

Terry Kingrey, Facility Manager, NWM, unknown-1993.
Managed facility to ensure on-going and efficient operations. Arranged collection, management and disposal of wastes at facility. Direct report to General Manager, William Johnston. May be currently employed with Cascade General (unable to verify).

Ray Coury, Blast and Paint Superintendent, NWM, unknown-1993.
Managed abrasive and paint waste generated from blasting and painting operations on dry docks and within shops. Direct report to Production Manager. Current whereabouts unknown.

39. For each type of waste describe Respondent's contracts, agreements, or other arrangements for its disposal, treatment, or recycling.

Response 39: Respondent does not have any information within its possession or under its control pertaining to contracts, agreements, or other arrangements for disposal, treatment, or recycling of waste from NWM's or Respondent's operations at the NW 29th Avenue Properties. Neither NWM nor Respondent operated at the Triangle Park site.

40. Provide copies of such contracts and other documents reflecting such agreements or arrangements, Including, but not limited to the following:

- **a. state where Respondent sent each type of its waste for disposal, treatment, or recycling;**
- **b. identify all entities and individuals who picked up waste from Respondent or who otherwise transported the waste away from Respondent's operations (these companies and individuals shall be called "Waste Carriers" for purposes of this Information Request);**
- **c. if Respondent transported any of its wastes away from its operations, please so indicate;**
- **d. for each type of waste specify which Waste Carrier picked it up;**
- **e. indicate the ultimate disposal/recycling/treatment location for each type of waste;**
- **f. provide all documents indicating the ultimate disposal/recycling/treatment location for each type of waste; and**
- **g. state the basis for and provide any documents supporting the answer to the previous question.**

Response 40: See Response 39.

41. Describe all wastes disposed by Respondent into Respondent's drains including but not limited to:

a. **the nature and chemical composition of each type of waste;**
b. **the dates on which those wastes were disposed;**
c. **the approximate quantity of those wastes disposed by month and year;**
d. **the location to which these wastes drained (e.g. septic system or storage tank at the Property, pre- treatment plant, Publicly Owned Treatment Works (POTW), etc.); and**
e. **whether and what pretreatment was provided.**

Response 41: See Response 36.

42. Identify any sewage authority or treatment works to which Respondent's waste was sent.

Response 42: See Response 39.

43. Describe all settling tank, septic system, or pretreatment system sludges or other treatment wastes resulting from Respondent's operations.

Response 43:

NW 29th Avenue Properties
There were no such treatment wastes resulting from Respondent's operations at the NW 29th Avenue Properties. To the best of Respondent's knowledge, there were no such treatment wastes resulting from NWM's operations at the NW 29th Avenue Properties.

Triangle Park Site
Neither NWM nor Respondent operated at the Triangle Park site.

44. If applicable, describe the facilities, processes and methods Respondent or Respondent's contractor used, and activities engaged in, either currently or in the past, related to ship building, retrofitting, maintenance or repair, including, but not limited to, dry-docking operations, tank cleaning, painting and re-powering.

Response 44:

NW 29th Avenue Properties

Respondent did not engage in ship building, retrofitting, maintenance or repair activities at the NW 29th Avenue Properties. Respondent has not identified any documentation of such activities by NWM at the NW 29th Avenue Properties. In his interviews, William Zavin acknowledged NWM's historic presence at the NW 29th Avenue Properties. He related that NWM acquired Portland Machinery Company in 1967, which was located on NW 29th Avenue, and that Portland Machinery Company performed repair work for the sawmill industry, mainly Weyerhaeuser and Georgia Pacific. Portland Machinery Company is reported to have owned property at 2537 NW

29th Avenue and 2523 NW 29th Avenue prior to NWM's ownership (GAL0000029 and GAL0000030). Mr. Zavin confirmed that Portland Machinery Company was at these locations. He also stated that NWM performed machine work for ship repair at 2516 NW 29th Avenue, but only for smaller jobs such as pump and valve repair and propeller work. For reference purposes, see the detailed description of operational processes for machine shops at the Portland Ship Repair Yard on Swan Island (NWMAR025021, NWMAR040015, NWMAR025022, NWMAR025023, NWMAR040016, NWMAR107182-NWMAR107185).

Triangle Park Site
Neither NWM nor Respondent operated at the Triangle Park site.

45. Describe any hazardous substances, wastes, or materials used or generated by the activities described in response to the previous Question and how these hazardous substances, materials and wastes were released or disposed of.

Response 45: Respondent did not discover any documentation of ship repair-related work occurring at the NW 29th Avenue Properties. As explained in Response 44, Mr. Zavin reported that Portland Machinery Company performed repair work for the sawmill industry and that NWM performed small-scale machine work for ship repair, such as pump and valve repair and propeller work. Based on the detailed description of operational processes for general operational procedures of machine shops at the Portland Ship Repair Yard on Swan Island (NWMAR107182-NWMAR107185), Respondent believes the following hazardous wastes and materials might have been used or generated, in relatively minor quantities, by NWM's small-scale machine shop operations at the NW 29th Avenue Properties:

- Oils and lubricants;
- Scrap wood, plastic, paper, cardboard;
- Scrap metal;
- Waste oil, lubricants, cutting fluids;
- Sanitary waste;
- Empty paint containers;
- Shop rags and other shop disposables;
- Waste paint;
- Spent solvents;
- Coolants, cleaning, and shop chemicals; and
- Aerosol cans.

46. Provide copies of any records you have in your possession, custody or control relative to the activities described in response to the previous two Questions.

Response 46: To the extent such records are in Respondent's possession or under Respondent's control, they are accessible through the electronic document database. See, e.g., NWMAR000158-NWMAR000199, NWMAR000204-NWMAR000215, NWMAR013852-NWMAR013854, NWMAR013858-NWMAR013860, NWMAR013978.

47. Describe any process or activity conducted on a Property identified in response to Question 4 involving the acquisition, manufacture, use, storage, handling, disposal or release or threatened release of polychlorinated biphenyl(s) ("PCB(s)" or PCB(s)-containing materials or liquids.

Response 47:
NW 29th Avenue Properties
Respondent did not conduct any process or activity involving the acquisition, manufacture, use, storage, handling, disposal or release or threatened release of PCB(s) or PCB(s)-containing materials or liquids on the NW 29th Avenue Properties. To the best of Respondent's knowledge, NWM did not conduct any process or activity involving the acquisition, manufacture, use, storage, handling, disposal or release or threatened release of PCB(s) or PCB(s)-containing materials or liquids on the NW 29th Avenue Properties. Respondent does not know whether electrical transformers that were filled or potentially filled with PCB-containing dielectric fluid were present at any of the NW 29th Avenue Properties.

Triangle Park Site
Neither NWM nor Respondent conducted any such process or activity at the Triangle Park site.

48. For each process or activity identified in response to the previous Question, describe the dates and duration of the activity or process and the quantity and type of PCB(s) or PCB(s) containing materials or liquids.

Response 48:
See Response 47.

49. For each process or activity identified in response to the previous two Questions, identify the location of the process or activity on the property.

Response 49:
See Response 47.

Section 5.0 Regulatory Information

50. Identify all federal, state and local authorities that regulated the owner or operator of each Property and/or that interacted with the owner or operator of each Property. Your response is to address all interactions and in particular all contacts from agencies/departments that dealt with health and safety issues and/or environmental concerns.

Response 50: Respondent is unable to respond to this request with respect to owners or operators of a Property other than Respondent or NWM. With respect to Respondent and NWM, see Response 50 in the set of Responses regarding ship repair operations submitted herewith, which is incorporated by this reference herein (NWMAR150921-NWMAR150923).

51. Describe all occurrences associated with violations, citations, deficiencies, and/or accidents concerning each Property during the period being investigated related to health and safety issues and/or environmental concerns. Provide copies of all documents associated with each occurrence described.

Response 51:

Respondent is not aware of any such occurrences during NWM's ownership of the NW 29th Avenue Properties or the Columbia Tug Property or during Respondent's ownership of the NW 29th Avenue Properties. Respondent is aware that other PRPs have documents associated with such occurrences concerning the Triangle Park site generally (NP-TPL0000002-NP-TPL0000035), but does not have such reports, information or data within its possession or under its control.

52. Provide a list of all local, state and federal environmental permits ever issued to the owner or operator on each Property (e.g., RCRA permits, NPDES permits, etc.). Please provide a copy of each federal and state permit, and the applications for each permit, ever issued to the owner or operator on each Property.

Response 52: Respondent does not have knowledge of any such local, state, or federal environmental permits issued to NWM or Respondent for the NW 29th Avenue Properties. Neither NWM nor Respondent operated at the Triangle Park site.

53. Did the owner or operator ever file a Hazardous Waste Activity Notification under the RCRA? If so, provide a copy of such notification.

Response 53: Respondent never filed a Hazardous Waste Activity Notification under the RCRA for its operations at the NW 29th Avenue Properties. To the best of Respondent's knowledge, NWM never filed a Hazardous Waste Activity Notification under the RCRA for its operations at the NW 29th Avenue Properties. Neither NWM nor Respondent operated at the Triangle Park site.

54. Did the owner or operator's facility on each Property ever have "interim status" under the RCRA? If so, and the facility does not currently have interim status; describe the circumstances under which the facility lost interim status.

Response 54: Respondent is not aware of any such facility having "interim status" under the RCRA during NWM's ownership of the NW 29th Avenue Properties or the Columbia Tug Property or during Respondent's ownership of the NW 29th Avenue Properties.

55. Provide all RCRA Identification Numbers issued to Respondent by EPA or a state for Respondent's operations.

Response 55: Respondent was never issued RCRA Identification Numbers for its operations at the NW 29th Avenue Properties. To the best of Respondent's knowledge, NWM was never

issued RCRA Identification Numbers for its operations at the NW 29th Avenue Properties. Neither NWM nor Respondent operated at the Triangle Park site.

56. Identify all federal offices to which Respondent has sent or filed hazardous substance or hazardous waste information. State the years during which such information was sent/filed.

Response 56: Respondent is unaware of any federal offices to which NWM or Respondent sent hazardous substance or hazardous waste information with respect to the NW 29th Avenue Properties or the Columbia Tug Property during NWM's or Respondent's ownership thereof.

57. Identify all state offices to which Respondent has sent or filed hazardous substance or hazardous waste information. State the years during which such information was sent/filed.

Response 57: Respondent is unaware of any state offices to which NWM or Respondent sent hazardous substance or hazardous waste information with respect to the NW 29th Avenue Properties or the Columbia Tug Property during NWM's or Respondent's ownership thereof.

58. List all federal and state environmental laws and regulations under which Respondent has reported to federal or state governments, including but not limited to: Toxic Substances Control Act, 15 U.S.C. Sections 2601 et seq., (TSCA); Emergency Planning and Community Right-to-Know Act, 42 U.S.C. Sections 1101 et seq., (EPCRA); and the Clean Water Act (the Water Pollution Prevention and Control Act), 33 U.S.C. Sections 1251 et seq., Oregon Hazardous Substance Remedial Action Law, ORS 465.315, Oregon Water Quality law, ORS Chapter 468(b), Oregon Hazardous Waste and Hazardous Materials law, ORS Chapters 465 and 466, or Oregon Solid Waste law, ORS Chapter 459. Provide copies of each report made, or if only oral reporting was required, identify the federal and state offices to which such report was made.

Response 58: Respondent is unaware of any federal or state environmental laws or regulations under which Respondent or NWM reported to federal or state governments with respect to the NW 29th Avenue Properties or the Columbia Tug Property during NWM's or Respondent's ownership thereof.

59. Provide a copy of any registrations, notifications, inspections or reports required by the Toxic Substances Control Act, 15 USC § 2601 et seq., or state law, to be maintained or submitted to any government agency, including fire marshal(s), relating to PCB(s) or PCB(s) containing materials or liquids on any Property identified in response to Question 4.

Response 59: See Response 47. Respondent is unaware of any such registrations, notifications, inspections or reports that Respondent or NWM maintained or submitted to any government agency with respect to the NW 29th Avenue Properties or the Columbia Tug Property during NWM's or Respondent's ownership thereof.

60. Has Respondent or Respondent's contractors, lessees, tenants, or agents ever contacted, provided notice to, or made a report to the Oregon Department of State Lands ("DSL") or any other state agency concerning an incident, accident, spill, release, or other event involving Respondent's leased state aquatic lands? If so, describe each incident, accident, spill, release, or other event and provide copies of all communications between Respondent or its agents and DSL or the other state agency and all documents that were exchanged between Respondent, its agents and DSL or other state agency.

Response 60: No. See Response 12.

61. Describe all notice or reporting requirements to DSL that you had under an aquatic lands lease or state law or regulation regarding incidents affecting, or activities or operations occurring on leased aquatic lands. Include the nature of the matter required to be reported and the office or official to whom the notice or report went to. Provide copies of all such notices or reports.

Response 61: See Response 12.

Section 6.0 Releases and Remediation

62. Identify all leaks, spills, or releases into the environment of any waste, including petroleum, hazardous substances, pollutants, or contaminants, that have occurred at or from each Property, which includes any aquatic lands owned or leased by Respondent. In addition, identify, and provide copies of any documents regarding:

- **a. when such releases occurred;**
- **b. how the releases occurred (e.g. when the substances were being stored, delivered by a vendor, transported or transferred (to or from any tanks, drums, barrels, or recovery units), and treated);**
- **c. the amount of each hazardous substances, pollutants, or contaminants so released;**
- **d. where such releases occurred;**
- **e. any and all activities undertaken in response to each such release or threatened release, including the notification of any agencies or governmental units about the release;**
- **f. any and all investigations of the circumstances, nature, extent or location of each release or threatened release including, the results of any soil, water (ground and surface), or air testing undertaken;**
- **g. all persons with information relating to these releases; and**
- **h. list all local, state, or federal departments or agencies notified of the release, if applicable.**

Response 62: Respondent has no knowledge of any leaks, spills, or releases into the environment of any waste, including petroleum, hazardous substances, pollutants, or contaminants, that have occurred at or from the NW 29th Avenue Properties or the Columbia Tug Property.

63. Was there ever a spill, leak, release or discharge of waste, including petroleum, or hazardous substances, pollutant or contaminant into any subsurface disposal system or floor drain inside or under a building on the Property? If the answer to the preceding question is anything but an unqualified "no", identify:

- **a. where the disposal system or floor drains were located;**
- **b. when the disposal system or floor drains were installed;**
- **c. whether the disposal system or floor drains were connected to pipes;**
- **d. where such pipes were located and emptied;**
- **e. when such pipes were installed;**
- **f. how and when such pipes were replaced, or repaired; and**
- **g. whether such pipes ever leaked or in any way released such waste or hazardous substances into the environment.**

Response 63: See Response 62.

64. Has any contaminated soil ever been excavated or removed from the Property? Unless the answer to the preceding question is anything besides an unequivocal "no", identify and provide copies of any documents regarding:

- a. **amount of soil excavated;**
- b. **location of excavation presented on a map or aerial photograph;**
- c. **manner and place of disposal and/or storage of excavated soil;**
- d. **dates of soil excavation;**
- e. **identity of persons who excavated or removed the soil, if other than a contractor for Respondent;**
- f. **reason for soil excavation;**
- g. **whether the excavation or removed soil contained hazardous substances, pollutants or contaminants, including petroleum, what constituents the soil contained, and why the soil contained such constituents;**
- h. **all analyses or tests and results of analyses of the soil that was removed from the Property;**
- i. **all analyses or tests and results of analyses of the excavated area after the soil was removed from the Property; and**
- j. **all persons, including contractors, with information about (a) through (i) of this request.**

Response 64: Respondent never excavated or removed any contaminated soil from the NW 29th Avenue Properties or the Columbia Tug Property. To the best of Respondent's knowledge, NWM never excavated or removed any contaminated soil from the NW 29th Avenue Properties or the Columbia Tug Property.

65. Have you ever tested the groundwater under your Property? If so, please provide copies of all data, analysis, and reports generated from such testing.

Response 65: No.

66. Have you treated, pumped, or taken any kind of response action on groundwater under your Property? Unless the answer to the preceding question is anything besides an unequivocal "no", identify and provide copies of any documents regarding:

a. **reason for groundwater action;**
b. **whether the groundwater contained hazardous substances, pollutants or contaminants, including petroleum, what constituents the groundwater contained, and why the groundwater contained such constituents;**
c. **all analyses or tests and results of analyses of the groundwater;**
d. **if the groundwater action has been completed, describe the basis for ending the groundwater action; and**
e. **all persons, including contractors, with information about (a) through (c) of this request.**

Response 66: No.

67. Was there ever a spill, leak, release or discharge of a hazardous substance, waste, or material into the Willamette River from any equipment, structure, or activity occurring on, over, or adjacent to the river? If the answer to the preceding question is anything but an unequivocal "no", identify and provide copies of any documents regarding:

a. **the nature of the hazardous substance, waste, or material spilled, leaked, released or discharged;**
b. **the dates of each such occurrence;**
c. **the amount and location of such release;**
d. **were sheens on the river created by the release;**
e. **was there ever a need to remove or dredge any solid waste, bulk product, or other material from the river as a result of the release? If so, please provide information and description of when such removal/dredging occurred, why, and where the removed/dredged materials were disposed.**

Response 67: No.

68. For any releases or threatened releases of PCB(s), identify the date, quantity, location and type of PCB(s), or PCB(s) containing materials or liquids, and the nature of any response to or cleanup of the release.

Response 68: See Response 47.

69. For any releases or threatened releases of PCB(s) and/or PCB(s) containing materials or liquids, identify and provide copies of any documents regarding the quantity and type of waste generated as a result of the release or threatened release, the disposition of the waste, provide any reports or records relating to the release or threatened release, the response or cleanup and any records relating to any enforcement proceeding relating to the release or threatened release.

Response 69: See Response 47.

Section 7.0 Property Investigations

70. Provide information and documentation concerning all inspections, evaluations, safety audits, correspondence and any other documents associated with the conditions, practices, and/or procedures at the Property concerning insurance issues or insurance coverage matters.

Response 70: Respondent has uncovered documentation indicating that historical insurance policies may have been issued by the insurers set forth in NWMAR106716-NWMAR106721. Respondent has placed the insurers on notice, to the extent solvent and still in existence, and is currently seeking coverage from these insurers. No insurer has accepted coverage for any obligation Respondent might have for the costs of remediating properties within the Portland Harbor Superfund Site. Although Respondent has located policies and/or secondary evidence of coverage, it has not located any other documents referencing inspections, evaluations, safety audits, correspondence or other documents and concerning insurance issues or insurance coverage matters.

71. Describe the purpose for, the date of initiation and completion, and the results of any investigations of soil, water (ground or surface), sediment, geology, and hydrology or air quality on or about each Property. Provide copies of all data, reports, and other documents that were generated by you or a consultant, or a federal or state regulatory agency related to the investigations that are described.

Response 71: See Response 15. Respondent has not conducted any investigations of soil, water (ground or surface), sediment, geology, and hydrology, or air quality on or about the NW 29th Avenue Properties or the Columbia Tug Property.

72. Describe any remediation or response actions you or your agents or consultants have ever taken on each Property either voluntarily or as required by any state or federal agency. If not otherwise already provided under this Information Request, provide copies of all investigations, risk assessments or risk evaluations, feasibility studies, alternatives analysis, implementation plans, decision documents, monitoring plans, maintenance plans, completion reports, or other document concerning remediation or response actions taken on each Property.

Response 72: Respondent has not taken any remediation or response actions on the NW 29th Avenue Properties or the Columbia Tug Property.

73. Are you or your consultants planning to perform any investigations of the soil, water (ground or surface), geology, hydrology, and/or air quality on or about the Property? If so, identify:

- **a. what the nature and scope of these investigations will be;**
- **b. the contractors or other persons that will undertake these investigations;**
- **c. the purpose of the investigations;**
- **d. the dates when such investigations will take place and be completed; and where on the Property such investigations will take place.**

Response 73: No.

Section 8.0 Corporate Information

74. Provide the following information, when applicable, about you and/or your business(es) that are associated with each Property identified in response to Question 4:

a. state the current legal ownership structure (e.g., corporation, sole proprietorship);

b. state the names and current addresses of current and past owners of the business entity or, if a corporation, current and past officers and directors;

c. discuss all changes in the business' legal ownership structure, including any corporate successorship, since the inception of the business entity. For example, a business that starts as a sole proprietorship, but then incorporates after a few years, or a business that is subsequently acquired by and merged into a successor. Please include the dates and the names of all parties involved;

d. the names and addresses of all current or past business entities or subsidiaries in which you or your business has or had an interest that have had any operational or ownership connection with the Properties identified in response to Question 4. Briefly describe the business activities of each such identified business entities or subsidiaries; and

e. if your business formerly owned or operated a Property identified in response to Question 4, describe any arrangements made with successor owners or operators regarding liability for environmental contamination or property damage.

Response 74:

a. See Response 1.

b. Current Directors: Ian Thomas Graham and Guy Montminy;
Address for Current Directors:
BAE Systems, Inc.
1101 Wilson Boulevard
Arlington, VA 22209-2211

Current Officers:

Jennifer H. Allen	Vice President & Assistant Secretary (1)
Alfred Crews, Jr.	Secretary (2)
Gerard J. DeMuro	Vice President (1)
Linda P. Hudson	Vice President (1)
Bradley W. Jacobs	Vice President (3)

Erin R. Moseley	President (3)
Raymond A. Parra	Assistant Secretary (4)
Terry L. Shaw	Assistant Secretary (5)

Addresses for Current Officers:

(1) BAE Systems, Inc.
1101 Wilson Boulevard
Arlington, Virginia 22209-2211

(2) BAE Systems Information Solutions Inc.
8201 Greensboro Drive
Suite 1200
McLean, Virginia 22102

(3) BAE Systems Support Solutions
80 M Street SE
Washington, DC 20003-3544

(4) BAE Systems San Diego Ship Repair Inc.
2205 East Belt Street
San Diego, California 92113

(5) BAE Systems, Inc.
11487 Sunset Hills Road
Reston, VA 20190-5528

Past Directors of Respondent:
Daniel A. Ajamian
Sheila C. Cheston
Art Engel
David Engel
Herb Engel
Edward Ewing
Milton Fredman
D. Carl Hanson
Walt Havenstein
Allan Holt
Linda P. Hudson
Bradley W. Jacobs
William Johnston
Dev Kapadia
David V. Kolovat
Alexander Krekich
Frances Raborn
Mark H. Ronald

Alex Vinck
Raymond A. Whiteman

c. Northwest Marine Iron Works was incorporated in Oregon on May 28, 1943, and started operating at locations within the Portland Harbor Superfund Site. Southwest Marine, Inc., which was Respondent's prior name, was incorporated in California on August 27, 1976. On April 14, 1989, Southwest Marine, Inc. acquired Northwest Marine Iron Works (see documents related to acquisition at NWMAR010487-NWMAR010684). Prior to this date, Southwest Marine Inc. had no involvement with the NW 29th Avenue Properties.

On January 25, 1990, Northwest Marine Iron Works changed its name to Northwest Marine, Inc. Northwest Marine, Inc. sold the final NW 29th Avenue property on December 5, 1990. On December 31, 1990, Northwest Marine, Inc. merged into Southwest Marine, Inc., which was the surviving corporation. Southwest Marine, Inc. continued to do business under the assumed business name of Northwest Marine until it ceased active ship repair operations at the Site on November 9, 1992.

The Marine Group LLC, a California limited liability company, was organized on October 14, 1997. On November 24, 1997, Southwest Marine, Inc. transferred all of the assets and liabilities of the former Northwest Marine to The Marine Group LLC. This transfer terminated the involvement of Southwest Marine, Inc. with the Site. On June 27, 2005, Southwest Marine, Inc. was renamed BAE San Diego Ship Repair Inc., after BAE Systems Ship Repair Inc. acquired Southwest Marine's parent corporation. The Marine Group LLC terminated its involvement with the Site on November 6, 2006, when it conveyed its last remaining property interest on Swan Island to an unaffiliated entity.

In sum, neither BAE San Diego Ship Repair Inc. nor The Marine Group LLC was ever involved with the Columbia Tug Property or with most of the NW 29th Avenue Properties. BAE San Diego Ship Repair Inc. and The Marine Group LLC (in its role as successor to BAE San Diego Ship Repair Inc.) were involved with one of the NW 29th Avenue Properties, 2523 NW 29th Avenue, for a mere one and a half years, from April 14, 1989, to December 5, 1990. However, their involvement was limited because neither held title to this Property. Rather, Northwest Marine, Inc. held title and divested itself of title prior to its merger with Southwest Marine, Inc.

Respondent urges EPA to also consider as a valuable information source the prior CEO of NWM, William H. Zavin II, whose contact information is contained in Response 80.

d. See Response 74(c).

e. None.

75. List all names under which your company or business has ever operated and has ever been incorporated. For each name, provide the following information:

a. whether the company or business continues to exist, indicating the date and means by which it ceased operations (e.g., dissolution, bankruptcy, sale) if it is no longer in business;

b. names, addresses, and telephone numbers of all registered agents, officers, and operations management personnel; and

c. names, addresses, and telephone numbers of all subsidiaries, unincorporated divisions or operating units, affiliates, and parent corporations if any, of the Respondent.

Response 75:

a. See Response 74(c).

b. The current registered agent for Respondent is CT Corporation Systems, 818 West Seventh Street, 2nd Floor, Los Angeles, CA 90017. For officers, see Response 74(b). For operations management personnel, see Response 38.

c. Each of the Corporations Listed Below Owns 100% of the Subsidiary Listed Under It:

BAE Systems, Inc.
1101 Wilson Street
Arlington, VA 22209-2211

↓

BAE Systems Land & Armaments Inc.
2000 North 15th Street
Arlington, VA 22201

↓

BAE Systems Ship Repair Inc.
750 W. Berkley Ave.
Norfolk, VA 23523

↓

BAE Systems San Diego Ship Repair Inc. (Respondent)
2205 East Belt Street
San Diego, CA 92113

76. Provide all copies of the Respondent's authority to do business in Oregon. Include all authorizations, withdrawals, suspensions and reinstatements.

Response 76: See NWMAR066651 (assumed business name filing) and NWMAR105494 (articles of merger). NWM is an inactive Oregon corporation, and it no longer operates or files reports with the Oregon Secretary of State.

77. If Respondent is, or was at any time, a subsidiary of, otherwise owned or controlled by, or otherwise affiliated with another corporation or entity, then describe the full nature of each such corporate relationship, including but not limited to:

a. a general statement of the nature of relationship, indicating whether or not the affiliated entity had, or exercised, any degree of control over the daily operations or decision-making of the Respondent's business operations at the Site;

b. the dates such relationship existed;

c. the percentage of ownership of Respondent that is held by such other entity(ies);

d. for each such affiliated entity provide the names and complete addresses of its parent, subsidiary, and otherwise affiliated entities, as well as the names and addresses of each such affiliated entity's officers, directors, partners, trustees, beneficiaries, and/or shareholders owning more than five percent of that affiliated entity's stock;

e. provide any and all insurance policies for such affiliated entity(ies) which may possibly cover the liabilities of the Respondent at each Property; and

f. provide any and all corporate financial information of such affiliated entities, including but not limited to total revenue or total sales, net income, depreciation, total assets and total current assets, total liabilities and total current liabilities, net working capital (or net current assets), and net worth.

Response 77:

a. See Response 75(c).

b. See Responses 74(c) and 77(f).

c. See Response 75(c).

d. See Responses 74 and 75.

e. See the list of insurance policies at NWMAR106716-NWMAR106721.

f. Respondent has been a wholly owned subsidiary of BAE Systems Ship Repair Inc. (formerly United States Marine Repair, Inc.) since 26 November 1997. Because Respondent is not a publicly traded company, but rather is held privately by U.S. companies that likewise are not publicly traded, its financial information

is company confidential and is not available to the public. Moreover, this financial information is not available in the same format or manner as information for U.S. publicly traded companies. (Respondent and its U.S. parent companies are ultimately owned by a British entity that is publicly traded, BAE Systems plc.) Consequently, Respondent declines to provide current financial information. The following financial information for Respondent's immediate parent entity for the fiscal year ending 31 December 2007 was provided in the Prior Responses and is restated herein:

BAE Systems Ship Repair Inc.
Financial information as of 31 December 2007 and for the year then ended

Total revenue	$644,156,053
Net income	38,412,181
Depreciation expense	11,881,871
Total assets	774,411,412
Total current assets	223,666,306
Total current liabilities	109,772,363
Working capital	113,893,943
Net worth	571,805,211

78. If Respondent is a partnership, please describe the partnership and provide a history of the partnership's existence. Provide a list of all current and past partners of any status (e.g., general, limited, etc.) and provide copies of all documents that created, govern, and otherwise rules the partnership, including any amendments or modifications to any of the originals of such documents, and at least five years of partnership meeting minutes.

Response 78: Respondent is not a partnership.

Section 9.0 Compliance With This Request

79. Describe all sources reviewed or consulted in responding to this request, including, but not limited to:

a. the name and current job title of all individuals consulted;

b. the location where all sources reviewed are currently reside; and

c. the date consulted.

Response 79:

a. See Response 2.

b. Documents produced with the Prior Responses or herewith are maintained by Karen L. Reed, Ring Bender McKown & Castillo LLLP, Attorneys for

Respondent. Additional records are maintained by Laura J. Machado, Raymond A. Parra and Shaun Halvax. Contact information is provided in Response 2.

c. Consultations have occurred on a frequent basis from 28 February 2008, to present, varying from multiple time a day to several times a month.

80. If not already provided, identify and provide a last known address or phone number for all persons, including Respondent's current and former employees or agents, other than attorneys, who have knowledge or information about the generation, use, purchase, storage, disposal, placement, or other handling of hazardous materials at, or transportation of hazardous substances, waste, or materials to or from, each Property identified in response to Question 4.

Response 80: The following person has extensive knowledge and information regarding such matters occurring prior to April 14, 1989:

William H. Zavin II
P.O. Box 39
Portland, OR 97207
(b) (6)
(b) (6)
Representative of prior owner/operator of Northwest Marine

Other persons who may have relevant knowledge include:

Don Nugent (Sundial Marine)
Fletcher Hunt (Port of Portland/Airport)

Former Northwest Marine employees that are not deceased and of which Respondent is aware are listed. Their personal contact information is available upon request.

Margie Abts
Doris Akin
Margaret Beckwith
Lillian Butler
Nicholas Calley
George Demetrakos
Grace Hite
Marie Howell
Jack Jothen
Ray Jothen
Juanita Kincaid
Jeddie Linker
Norma Peterson
Donald Robeck
Donna Santos

Thomas Saunders
Eileen Serinotti
Raymond Sullivan
Fred Thoman

81. If any of the documents solicited in this information request are no longer available, please indicate the reason why they are no longer available. If the records were destroyed, provide us with the following:

a. the document retention policy between 1937 and the present;

b. the approximate date of destruction;

c. a description of the type of information that would have been contained in the documents;

d. the name, job title and most current address known by you of the person(s) who would have produced these documents; the person(s) who would have been responsible for the retention of these documents; the person(s) who would have been responsible for destroying the documents; and the person(s) who had and/or still have the originals or copies of these documents; and

e. the names and most current addresses of any person(s) who may possess documents relevant to this inquiry.

Response 81: NWM operated a record retention program, as outlined in the undated procedure guide at NWMAR138858-NWMAR138902. These guidelines stipulate that:

- Departmental records could be disposed of quarterly with no disposal record at the discretion of the department head;
- Records in the Records Retention Center could be disposed of at the discretion of the appropriate department head. In such cases, a disposal certificate was required to be filled out; and
- Disposal certificates were to be maintained for a period of no more than six years, after which they were to be disposed of without a disposal record.

Additionally, Respondent is aware of two instances, in 1964 and 1989, when records relevant to these Responses were destroyed in the ordinary course of business, as described below.

A special meeting of the board of directors of Northwest Marine Iron Works was held on 22 August 1964. The minutes of this meeting stated the following with regard to the destruction of documents:

> Mr. George Grebe presided and brought up the problem of accumulation of company records and the need of more space. The Directors thoroughly discussed this matter, and at the conclusion unanimously adopted the following Resolution:
>
> RESOLVED that the Secretary and Treasurer of the company be and they hereby are

authorized to examine the records of the company and determine which records no longer be kept and destroy the same.

See NWMAR104765-NWMAR104766. George Grebe (b) (6)

After Respondent acquired NWM on 14 April 1989, historical records again were destroyed in the ordinary course of business to obviate the need for additional document storage space. Respondent has been unable to locate documentation regarding what records were destroyed and believes that such documentation does not exist. The information regarding document destruction in 1989 was obtained in interviews with former and current employees of NWM and Respondent.

82. Provide a description of all records available to you that relate to all of the questions in this request, but which have not been included in your responses.

Response 82: Respondent has excluded records that constitute confidential client-attorney communications or attorney work product. Respondent submitted a privilege log listing these records with the Prior Responses (NWMAR109964-NWMAR109986). All other such records have been produced with the Prior Responses or herewith.

DECLARATION

I declare under penalty of perjury that I am authorized to respond on behalf of Respondent and that the foregoing is complete, true, and correct.

Executed on May 28, 2014.

BAE Systems San Diego Ship Repair Inc.
(formerly Southwest Marine, Inc.)

Signature Steven J. Busch for

Robert A. Kilpatrick
Type or Print Name

Vice President & General Manager
Title

Mailing Address:
2205 East Belt Street
San Diego, CA 92113

Approved as to form:

Raymond A. Parra
Assistant Secretary and General Counsel