



NPDES Industrial Storm Water Investigation and Case Development Worksheet

Background Information

National Database Information		General	
Inspection Type	Industrial Stormwater	Inspector Name	Rick Sakow, US EPA, R9
WDID Number	GUR05A267	Telephone	(415) 972-3495
Inspection Date	July 18-19, 2013	Entry Time	9:47 AM, July 18, 2013
Inspector Type	Clean Water Act and RCRA Hazardous Waste	Exit Time	11:55 AM, July 19, 2013
Facility Type/SIC	SIC 3731, Shipbuilding and Repair	Signature	<i>Rick Sakow</i> 11/2/2013

Facility Location Information				
Name/Location/ Mailing Address	Guam Shipyard Building 20 Sumay Drive Sumay Cove Santa Rita, GU 96915			
GPS Coordinates (as measured in Google Earth Pro)	Latitude	133°26'20.21" N	Longitude	144 39' 49.08" E
Receiving Water(s)	Apra Harbor			
	Name		Telephone	
Owner	U.S. Navy owns the property and subleases it to the Guam Economic Development and Commerce Authority, which subleases the land to Guam Shipyard.			
Operator	Mathew Pothen, President and CEO		(671) 339-1637/58	

Basic Permit Information (bold one)			Summary Site Evaluation*	
Permit Coverage	Y	N	Permit Coverage	S
Permit Type	General	Individual	SWPPP (field review)	M
Copy of SWPPP on Site?	Y	N	Records (review includes maintenance, inspection training logs)	U
Copy of permit on site?	Y	N	SWPPP (implementation)	U

*Use the following codes: (S=Satisfactory, M=Marginal, U=Unsatisfactory, N=Not Evaluated)



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<u>Introduction</u>	
Introduction	<p>On July 18-19, 2013, US EPA Region 9 (EPA) conducted a NPDES compliance evaluation inspection of Guam Shipyard to determine its compliance with the NPDES Multi-Sector Industrial Storm Water General Permit for Storm Water Discharges Associated with Industrial Activity (Industrial Storm Water Permit), Permit No. GU005A267. During the two day inspection, EPA also evaluated Guam Shipyard's compliance with its RCRA Permit (RCRA ID Number GUR 000 032 540). A separate report was written for the RCRA evaluation.</p> <p>Representatives from US EPA Region 9, Guam EPA, U.S. Coast Guard and Guam Shipyard participated during the inspection. Attachment 2 provides a complete list of inspection participants. Inspectors held an opening conference with Guam Shipyard Chief Operations Officer Bob Kennedy on the morning of July 18, 2013 and held a close-out conference on July 19, 2013, which management did not attend.</p> <p>The weather during the inspection ranged from sunny to cloudy with multiple isolated showers of varying magnitudes.</p>
Site History	<p>Naval Ship Repair Facility (SRF) Guam began its operations in 1945 under the ownership and operation of the U.S. Navy. In 1997, the U.S. Navy closed the SRF, making the facility available for use by the government of Guam. The Navy owns the property and leases it to the Guam Economic Development and Commerce Authority, who subleases the property to Xeno Technix, Inc., DBA Guam Industrial Services, DBA Guam Shipyard. The transfer of operations was memorialized on February 13, 1998 in the Territory Of Guam, Office of the Governor, Executive Order No. 98-10 (Attachment 3).</p>
NPDES Permits and Inspection History	<p>At the time of the inspection, Guam Shipyard had coverage under two NPDES permits:</p> <ul style="list-style-type: none"> • Individual NPDES Permit (Permit No. GU0020362) for discharges to Apra Harbor from its floating drydock, and • Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity (Industrial Storm Water Permit, No. GUR05A267). <p>Guam Shipyard submitted a Notice of Intent on November 5, 2009 (Attachment 8) for coverage under the 2008 MSGP. The Notice Of Intent cover the following industrial sectors:</p> <p>MSGP Sector K - Hazardous Waste Treatment, Disposal or Storage, MSGP Sector R – Ship and Boat Building and Repairing Yards.</p> <p>EPA inspected Guam Shipyard's compliance with the Industrial Storm Water Permit on May 6, 2010 and noted the following deficiencies:</p> <ul style="list-style-type: none"> • Exposed pollutant sources including rusty debris and recyclable materials, • Pier scuppers were not sandbagged during ship repair activities <p>EPA conducted an additional multi-day inspection that spanned from April 27 to May 6, 2011. The inspection noted the following deficiencies:</p> <ul style="list-style-type: none"> • Exposed pollutant sources including sandblasting grit and rusting materials.



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General

Facility Description

Guam Shipyard (facility) is located at Point Orote across the entrance into Apra Inner Harbor from Polaris Point in the Territory of Guam. Storm water runoff discharges into Inner and Outer Apra Harbor through a network of storm drains and outfalls. The facility covers approximately 100 acres of land with an offshore floating drydock on which Guam Shipyard performs overhaul, repair and alteration work on a variety of marine vessels.

Below is a Google Earth Pro aerial photograph of the Guam Shipyard. This aerial was taken March 27, 2013. A site map of the facility has been included in Attachment 4.



Industrial Activity

Guam Shipyard provides ship repair and industrial services to the U.S. Navy, U.S. Coast Guard, Military Sealift Command, U.S. Flag Commercial Ships and other commercial operators. According to Guam Shipyard's webpage (<http://www.guamshipyard.net/#!services> accessed 7/29/13) Guam Shipyard offers metal fabrication, welding of various metals, engine servicing, electrical repair, pipe formulating, hydro blasting, vessel painting among other services.

The facility is categorized under Standardized Industrial Code 3731 – Ship Building and Repair.



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Storm Water Controls	
<p>List the structural and non-structural controls employed by the facility.</p>	<p>A summary of each type of BMP is provided below with references to photographs and supporting information.</p> <p>Structural:</p> <p><u>Inlet Protection</u> None of the storm drain inlets observed during the inspection were protected with filter fabric, straw wattles or other BMPs to prevent or minimize the discharges of pollutants.</p> <p><u>Stockpile Management</u> Numerous stockpiles of sandblasting grit, metal shavings and other pollutant sources were stored in outdoor areas near storm drain inlets with no perimeter controls (berms, straw wattles, silt fencing, etc.) (See IMGP3416 and IMGP3425.)</p> <p><u>Container Management</u> Numerous multiple open containers of used oil and other pollutants were stored in outdoor areas without cover or secondary containment (see IMGP3371, IMGP3424, IMGP3425, P7180067 and P7180108 in Attachment 1.)</p> <p><u>Secondary Containment</u> Secondary containment valves in both the Used Oil Lot and the Less Than 90 Day Hazardous Materials building were left in the open position, allowing any spilled materials and/or contaminated storm water runoff to discharge into Apra Harbor through scuppers located along the harbors edge.</p> <p>Non-Structural:</p> <p><u>Sweeping</u> Metal shavings and sandblasting grit had accumulated throughout the outdoor areas of the facility (see IMGP3392, IMGP3393, IMGP3395 and IMGP3425.) Table 4.6.1-1 of the Guam Shipyard SWPPP prescribes that "facility personnel maintain a regular general sweeping and cleaning schedule." However, it appeared that sweeping has not recently occurred at any outdoor portions of the facility.</p> <p><u>Spill Response</u> In addition, oil staining and evidence of unaddressed spills (see P7180067) were observed in multiple outdoor locations. The spill kit located in the Used Oil Lot was completely empty of spill response equipment at the time of the inspection. Table 4.6.3-3 of the Guam Shipyard SWPPP prescribes that "Spill kits will be readily available at the facility. Any spill of used oil or significant material will be controlled immediately. Drums of absorbent material and spent absorbent material will be located on site. Spent absorbent material will be managed and disposed of appropriately in accordance with applicable regulations."</p>



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Are the controls reasonable and appropriate for the facility?	<p>No. Materials in the outdoor sandblasting area need to be covered and/or contained to prevent the discharge of sandblasting grit to the harbor.</p> <p>Additional spill kits are needed throughout the facility to address spills and leaks.</p>
Are the controls maintained in effective operating condition?	<p>No. Secondary containment valves in the Used Oil Lot and Less Than 90 Day Hazardous Waste Storage Area were left in the open position at the time of the inspection.</p> <p>Sandblasting grit and other pollutants were observed throughout the facility with no controls.</p> <p>The spill kit in the Used Oil Lot was empty at the time of the inspection (see IMGP3375). Inspectors did not observe spill kits at other portions of the facility during the inspection. As stated on the previous page, Table 4.6.3-3 of the Guam Shipyard SWPPP requires that any spill of used oil will be controlled immediately.</p>



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Evidence of Non-Storm Water Discharges

Used Oil Lot Discharges

Inspectors observed active discharges from the Used Oil Lot from an open valve in the secondary containment berm (see IMGP3367 and P7180060). Inspectors placed a rod through the valve to make certain that the drainage valve was open (see IMGP3370). The slope of the pavement beneath the valve is angled in a northeast direction toward Apra Harbor, where scuppers are located along the wharf's edge (see IMGP3369 and IMGP3381.)

Multiple exposed pollutant sources were observed within the Used Oil Lot, including:

- a) A 55-gallon drum with the lid partially placed over a portion of the container. The unlabelled container held used oil and bagged waste materials with approximately 3 inches of freeboard (see IMGP3371),
- b) Additional open containers which held oil (see P710067),
- c) Evidence of previous oil spills at the Used Oil Lot (see P7180067) and
- d) An elevated tank of oil with accumulated absorbent material in its secondary containment basin which was saturated with oil, indicating previous spills or ongoing leaks from the tank (see IMGP3376.)

The spill response equipment locker located in the Used Oil Lot was empty at the time of the inspection.

Guam Shipyard Safety Technician Joe Blas explained that he collects samples of the accumulated storm water at the Used Oil Lot and performs a visual analysis prior to opening the valve and draining the Used Oil Lot. He records the date and condition of the runoff in the "Accumulated Stormwater Discharge / Drainage Record / Log" (Attachment 5). The log documents the date and time in which Used Oil Lot is drained, and describes the condition of the accumulated storm water runoff (oil sheen, cloudy, etc.) prior to drainage. All of the discharge reports (ranging from January 15, 2013 to June 27, 2013) reported clean runoff with no pollutants in the runoff.

There was no logged discharge report to correspond to the open drainage valve observed at the Used Oil Lot during the July 18, 2013 inspection. Further, there were no inspections logged since June 27, 2013 and July 18, 2013. Rain data collected from the National Climatic Data Center at the Guam Airport weather station (Attachment 6) reports 17 days of precipitation between June 27, 2013 and July 18, 2013, with a total of 4.2 inches of rainfall.

During the in-office interview on July 19, 2013, Guam Shipyard Safety Technician Joe Blas confirmed that the drainage valve was left in the open position in order to drain the storm water that accumulates at the Used Oil Lot.

Outdoor Sandblasting Area Discharges

Inspectors observed multiple exposed stockpiles of different waste materials in the outdoor sandblasting area, including:

- a) Spent sandblasting grit used to prepare metal (black piles shown in P7180073),
- b) Spent sandblasting grit used to remove marine paint. This material was stored in 35 open and deteriorating one-ton Super Sacks (see IMGP3416 and IMGP3425) and in open and uncontained piles.



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Evidence of Non-Storm Water Discharges Continued

EPA has documented from previous inspections and enforcement actions that sandblasting grit used to remove marine paint often contains Lead, Chromium, Cadmium and/or PCBs. EPA's *Guide to Pollution Prevention for the Marine and Maintenance Repair Industry* also cites that sandblasting grit Wastewater often contains organic paint sludges, heavy metals and stripping chemicals, among other pollutants.

Table 3.2-2 of Guam Shipyard's Storm Water Pollution Prevention Plan dated July 29, 2009 requires that Guam Shipyard dry sweep and dispose of "Hazardous paint scraping or sandblasting [material] (e.g., marine paints or paints containing lead or tributyl tin)" as hazardous waste.

- c) Metal shavings and metal sludge generated from operations at the floating drydock (see IMGP3414.)
- d) Miscellaneous pollutants. Inspectors noted accumulated piles of rusting metal, (see IMGP3390, IMGP3391) uncontained oily rags and undetermined debris (see IMGP3418).

Stockpiles of the above materials lacked any cover or secondary containment and inspectors observed comingling of these waste streams. Accumulated sandblasting material and paint chips were observed throughout the facility, beyond the area of the outdoor sandblasting area and inspectors observed this material entering multiple storm drains (see IMGP3385, IMGP3386, IMGP3392, IMGP3394 and IMGP3395).

Less Than 90 Day Hazardous Waste Storage Area Discharges

The drainage valve for the secondary containment berm in the outdoor portion of the Less Than 90 Day Hazardous Waste Storage Area was also found to be left in the open position during the time of the inspection. The outdoor area was covered with a roof, however inspectors noted accumulated puddles of rainwater in portions of the outdoor area. Inspectors placed a broken broom handle through the valve to demonstrate that it was open (see IMGP3364). Furthermore, soil material accumulated inside the containment berm matched the material on the outside of the berm, indicating that this material had passed through the opening. Inspectors noted multiple leaking drums within the Less Than 90 Day Hazardous Waste Storage Area (see P7180052 and P7180040). The outdoor area of the Less Than 90 Day Hazardous Waste Storage Area also contained multiple drums of waste materials.



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Monitoring	Notes:
<p>Required MSGP and Inspections Monitoring</p>	<p>The Industrial Storm Water Permit requires Guam Shipyard to conduct the following monitoring activities:</p> <ul style="list-style-type: none"> a) Quarterly Benchmark Monitoring, (requires analytical sampling) b) Quarterly Visual Assessments of Storm Water Discharges, c) Comprehensive Site Inspections, d) Impaired Waters Monitoring, (requires analytical sampling) e) Sector-Specific Benchmark Monitoring (requires analytical sampling) <p>The information below was assembled by reviewing Guam Shipyard's submissions to EPA in their Annual Reports from 2008 – 2011 (Attachment 9) and from narrative discussions with the Guam Shipyard Compliance-Safety / Environmental Manager during the course of the inspection. Additionally, EPA asked for copies of all NPDES / Storm Water inspection records located on-site at the time of the inspection. The Guam Shipyard Compliance-Safety / Environmental Manager could not locate previous inspection reports beyond what was provided in the annual reports and could not locate Section 5 of the SWPPP: <i>Monitoring and Reporting Program Plan</i>.</p> <p>Guam Shipyard staff could not locate storm water sampling equipment during the inspection and ordered a new set of storm water sampling equipment on July 19, 2013. Guam Shipyard Safety Technician Joe Blas stated that the Monitoring Plan did not exist on site. During the in-office interview on July 19, 2013, Safety Technician Joe Blas stated that there has been no storm water monitoring for 2012 and the first, second and third quarters of 2013. He also stated during the interview that there are no sampling records since 2011.</p> <p>Section 4.1.1 of the Industrial Storm Water Permit requires that routine inspections be performed by qualified personnel. During the in-office interview on July 19, 2013, Guam Shipyard Compliance-Safety / Environmental Manager Danilo Aguilar stated that he has never received nor led any training related to stormwater management. He added that Safety Technician Joe Blas may have had informal training from previous Guam Shipyard staff, but he could not locate any training records. Section 5.4 of the Industrial Storm Water Permit requires that facilities maintain, among other things, records of employee training, including dates training was received.</p> <p>Quarterly Benchmark Monitoring</p> <p>Section 6.2.1.2 of the Industrial Storm Water Permit requires facilities to conduct quarterly benchmark monitoring sampling for the first 4 full quarters of permit coverage. If the analysis of the storm water discharges show a "benchmark exceedance", the permit requires the discharger to determine if modifications to control measures are necessary, as specified by Section 3.2 of the Industrial Storm Water Permit.</p> <p>The annual reports from 2008 – 2012 indicate that no storm water samples were collected and analyzed. Furthermore, each annual report from 2008 – 2011 states that "All sources of discharges in this report are "known discharges" that required only field sampling and evaluation."</p> <p>The Guam Shipyard Compliance-Safety / Environmental Manager located during the inspection sampling analytical results for storm water discharges collected on January 10, 2010, June 21, 2010 and August 31, 2010, which were sent to M.E. Environmental Laboratories, LLC (Attachment 7).</p> <p>The figures below show the reported levels from the January 10, 2010 sampling</p>



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event. Two samples were collected – one from the Hazardous Waste Lot and another from Outfalls 11 and 12.

Hazardous Waste Lot Results:

Parameter	Lab Analysis	EPA Benchmark
Ammonia	1.93 mg/L	2.14 mg/L
Cadmium*	<0.003 mg/L	Hardness Dependent
Chemical Oxygen Demand	<0.50 mg/L	120 mg/L
Lead*	0.010 mg/L	N/A
Silver*	<0.010 mg/L	Hardness Dependent
Total Arsenic	Not Analyzed	0.15 mg/L
Total Cadmium*	<0.003 mg/L	Hardness Dependent
Total Cyanide	<0.005 mg/L	0.22 mg/L
Total Magnesium*	1.70 mg/L	0.64 mg/L
Total Mercury	<0.0002 mg/L	0.0014 mg/L
Total Selenium	<0.050 mg/L	0.0050 mg/L

*Sampling parameters required for Sector K (Hazardous Waste Treatment, Storage, or Disposal) Facilities

Outfall 11 and 12 Results:

Parameter	Lab Analysis	EPA Benchmark
Ammonia	1.0 mg/L	2.14 mg/L
Cadmium*	<0.003 mg/L	Hardness Dependent
Chemical Oxygen Demand	<0.50 mg/L	120 mg/L
Lead*	0.010 mg/L	N/A
Silver*	<0.005 mg/L	Hardness Dependent
Total Arsenic	Not Analyzed	0.15 mg/L
Total Cadmium*	<0.003 mg/L	Hardness Dependent
Total Cyanide	<0.005 mg/L	0.22 mg/L
Total Magnesium*	1.70 mg/L	0.64 mg/L
Total Mercury	<0.0002 mg/L	0.0014 mg/L
Total Selenium	<0.025 mg/L	0.0050 mg/L

*Sampling parameters required for Sector K (Hazardous Waste Treatment, Storage, or Disposal) Facilities

The figures below show the reported levels from the June 21, 2010 sampling event. Two samples were collected – one from the Hazardous Waste Lot and another from Outfalls 11 and 12.

Hazardous Waste Lot Results:

Parameter	Lab Analysis	EPA Benchmark
Ammonia	ND	2.14 mg/L
Cadmium*	Not Analyzed	Hardness Dependent
Chemical Oxygen Demand	ND	120 mg/L
Lead*	2.60 ug/L (0.0026 mg/L)	N/A
Silver*	ND	Hardness Dependent
Total Arsenic	Not Analyzed	0.15 mg/L
Total Cadmium*	ND	Hardness Dependent
Total Cyanide	ND	0.22 mg/L
Total Magnesium	2290 ug/L (2.29 mg/L)	0.64 mg/L
Total Mercury	ND	0.0014 mg/L



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Total Selenium	ND	0.0050 mg/L
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*Sampling parameters required for Sector K (Hazardous Waste Treatment, Storage, or Disposal) Facilities

The figures below show the reported levels from the August 31, 2010 sampling event. Two samples were collected – one from the "HZWST Stg Lot".

Hazardous Waste Lot Results:

Parameter	Lab Analysis	EPA Benchmark
Ammonia	ND	2.14 mg/L
Cadmium*	ND	Hardness Dependent
Chemical Oxygen Demand	9.25 mg/L	120 mg/L
Lead*	1.10 ug/L (0.0011 mg/L)	N/A
Silver*	ND	Hardness Dependent
Total Arsenic	Not Analyzed	0.15 mg/L
Total Cadmium*	ND	Hardness Dependent
Total Cyanide	ND	0.22 mg/L
Total Magnesium	0.330 ug/L (0.000330 mg/L)	0.64 mg/L
Total Mercury	ND	0.0014 mg/L
Total Selenium	ND	0.0050 mg/L

*Sampling parameters required for Sector K (Hazardous Waste Treatment, Storage, or Disposal) Facilities

This analysis above included a grab composite of two outfalls (outfalls 11 and 12) and a sample from the "HAZWST Lot". Storm water sampling locations must be representative of the volume and nature of the monitoring activity, as described in Appendix B, Subsection 10.D of the Industrial Storm Water Permit. Guam Shipyard implements multiple industrial activities outdoors with different potential storm water pollutant sources, and the three sampling locations noted above likely do not provide a complete profile of the storm water runoff leaving the facility.

Quarterly Visual Assessments of Storm Water Discharges

Section 4.2.1 of the Industrial Storm Water Permit requires that facilities collect samples of storm water runoff once each quarter for the entire permit term and visually assess each of the samples.

According to the 2008 Annual Report, Guam Shipyard only conducted visual assessments for the second quarter (April 1 – June 30). Monitoring records do not exist for the other three quarters. Additionally, the 2008 Annual Report cites within each inspection report that "No standing or flowing water was present". A review of rain data (Attachment 6) shows 31 days in calendar year 2008 with 0.5 inches or greater of precipitation.

According to the 2009 Annual Report, Guam Shipyard only conducted visual assessments for the second quarter (April 1 – June 30). Monitoring records do not exist for the other three quarters. Additionally, the 2009 Annual Report cites within each inspection report that "No standing or flowing water was present". A review of rain data (Attachment 6) shows 31 days in calendar year 2009 with 0.5 inches or greater of precipitation.

According to the 2010 Annual Report, Guam Shipyard conducted visual assessments each quarter, however only specific outfalls were sampled each quarter and no justification was given for the outfalls which were not sampled.



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The 2011 Annual Report did not contain any inspection data for the 2011 calendar year, rather, it only included visual inspections conducted on January 4, 2012 (first quarter).

Guam Shipyard failed to submit an Annual Report for 2012, however as stated above, the 2011 Annual Report included one rain sampling event conducted in 2012.

Comprehensive Site Inspections

Section 4.3.1 of the Industrial Storm Water Permit requires dischargers to conduct an annual comprehensive site inspection which includes a review the SWPPP for any necessary updates and a review of monitoring data. Documentation to support the Comprehensive Site Inspections was nearly identical within each submission.

Impaired Waters Monitoring

Section 6.2.4.2 of the Industrial Storm Water Permit requires dischargers to monitor once per year at each outfall (except substantially identical outfalls) discharging to impaired waters without an established TMDL. Apra Harbor was listed as impaired for Polychlorinated Biphenyls (PCBs) in EPA's 2006 and 2008 303(d) List. Guam Shipyard's November 5, 2009 Notice of Intent failed to identify that the facility discharged into an impaired water. Section 6.2.4.2 of the Storm Water Permit required Guam Shipyard to sample annually for PCBs, however there is no record of sampling or analysis within any of the annual reports reviewed by EPA from 2008 – 2013.

It should be noted that ships painted prior to 1979 often contain PCBs in the marine paint. As noted above, inspectors observed sandblasting grit mixed with marine paint fragments entering storm drain inlets throughout the site.

Sector-Specific Benchmark Monitoring

In its November 5, 2009 Notice of Intent, Guam Shipyard identified itself as operating under Sector K (Hazardous Waste Treatment, Storage, or Disposal Facilities) and Sector R (Ship and Boat Building and Repairing Yards.) Sector K requires additional sampling that includes one grab sample per year to test for specific parameters, including Arsenic. This monitoring did not test for Arsenic, as required by the Industrial Storm Water Permit section 8.K-5, Table 8.K-1. The analysis information obtained from Guam Shipyard (lab results from 2010 (Attachment 7)) did not include any testing for Arsenic. Additionally, none of the Annual Reports reviewed from 2008 – 2011 included any documentation to support that Sector-Specific Benchmark Monitoring was conducted. As noted above, Guam Shipyard failed to submit an Annual Report for 2012, and the Guam Shipyard Compliance-Safety / Environmental Manager Danilo Aguilar confirmed that no monitoring or analysis activities had been conducted in 2012 or 2013.

Training	Notes:
Required MSGP and Inspections Monitoring	<p>Section 2.1.2.9 of the Industrial Storm Water Permit requires training for all employees who work in areas where industrial materials or activities are exposed to stormwater and for all staff who are responsible for implementing activities necessary to meet conditions of the permit (e.g., inspectors, maintenance personnel) as well as all members of the Pollution Prevention Team.</p> <p>Section 8.R.3.2 of the Industrial Storm Water Permit includes additional training requirements for Sector R dischargers (Ship and Boat Building and Repair Yards). Sector R Dischargers are required to implement</p>



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	<p>training that addresses, at a minimum, the following activities: used oil management, spent solvent management, disposal of spent abrasives, disposal of vessel wastewaters, spill prevention and control, fueling procedures, general good housekeeping practices, painting and blasting procedures, and used battery management.</p> <p>At the time of the inspection, Guam Shipyard staff could not locate storm water training records for staff. During the in-office interview on July 19, 2013, Guam Shipyard Compliance-Safety / Environmental Manager Danilo Aguilar stated that he has never received nor led any training related to stormwater management. He added that Safety Technician Joe Blas may have had informal training from previous Guam Shipyard staff, but he could not locate any training records. He later added that training records do not exist prior to 2012.</p> <p>Section 5.4 of the Industrial Storm Water Permit requires that facilities maintain, among other things, records of employee training, including dates training was received.</p> <p>The only training documents that Guam Shipyard staff could locate were for HAZWOPER and Hazardous Materials Transportation training for six Guam Shipyard employees.</p> <p>As required by a Consent Agreement and Final Order dated June 6, 2006, Guam Shipyard developed an Environmental Compliance Management Practices (ECMP) training program and associated checklists. The ECMP included a segment on storm water. Guam Shipyard staff could not locate any records of staff who received the training.</p>
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SWPPP Review

General		Notes:	
Does the SWPPP contain the signature of a responsible party?	Y	N	The SWPPP was certified by the General Manager and President on July 30, 2009 and was also signed by the former Environmental Safety Manager, Sonne Alston on July 29, 2009, who is no longer an employee at Guam Shipyard.
Is an individual/team responsible for developing/implementing SWPPP identified (e.g. pollution prevention team)?	Y	N	The SWPPP did not include the current Compliance-Safety / Environmental Manager, Danilo T. Aguilar nor the current Safety Technician, Joe Blas. Table 2.3.-1 of the SWPPP lists roles and responsibilities, however all staff are listed under acting job title and does not include specific staff responsible for developing and implementing storm water controls and SWPPP maintenance.

Site Map and Narrative		Notes:	
Is there a site map?	Y	N	
Drainage patterns/ outfalls?	Y	N	The SWPPP did not contain a map that shows all areas of the Guam Shipyard with directions of flows to specific outfalls. The SWPPP did contain maps that provide this information for the Metal Yard, the Ship Repair Building (Building 21), the ancillary floating drydock and loading dock. These maps do



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			not cover the sandblasting waste storage area, hazardous materials storage area and other remaining portions of the facility.
Identification of types of pollutants likely to be discharged from each drainage area?	Y	N	
Do the storm water inlets correspond with the site map?	Y	N	
Location of major structural controls used to reduce pollutants in runoff?	Y	N	The SWPPP describes buildings which are roofed / covered, but does not include descriptions of structural controls, such as storm drain inlet protection. Such descriptions were said to be included in Appendix J of the SWPPP, which was not on site at the time of the inspection. The SWPPP includes structural information (sumps, drainage, berms, etc.) for some of the buildings.
Name of receiving water(s) listed?	Y	N	
Location of significant materials exposed to storm water?	Y	N	
List of significant spills and leaks, description of response taken, and actions to prevent similar spills in the future?	Y	N	The SWPPP did not include a list of previous spills and leaks.
Location of fueling, maintenance, loading and unloading, material storage, waste disposal?	Y	N	

Summary of Potential Pollutant Sources		Notes:
Description of activities, materials, features of site with potential to contribute significant amounts of pollutants to storm water?	Y	N

Storm Water Controls		Notes:
Does the SWPPP describe the structural and non-structural controls that will be used to prevent/reduce discharge of pollutants in storm water runoff?	Y	N
Does the SWPPP describe other controls that will be used to prevent/reduce off-site tracking or blowing of sediment, dust and raw, final or waste materials, or other	Y	N

Partially. The SWPPP contains checklists for specific areas that vaguely describe pre-existing and proposed containment structures as well as housekeeping activities. Said containment structures were not observed at the outdoor sand blasting storage area at the time of the inspection. These checklists do not prescribe a frequency for maintenance activities.

The Industrial Storm Water Permit requires that Sector R facilities (Ship and Boat Building and Repair Yards) include in their SWPPP, among other things, good housekeeping measures for blasting and painting areas (as required by Industrial Storm Water Permit Part 8.R.3.1)

The SWPPP describes the location of sandblasting activities,



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solid materials and floating debris?			but does not describe the location for spent sandblasting materials or BMPs to prevent the offsite discharge of sandblasting grit and related materials.
Does the SWPPP incorporate baseline controls (good housekeeping, minimizing exposure, PM, spill prevention/response procedures, routine inspections and comprehensive site evaluations, employee training, sediment and erosion control, runoff management)?	Y	N	Section 4.6.5.1 of the SWPPP states that sandblasting activities occur outdoors and has the potential to contaminate storm water, but does not prescribe cover and containment BMPs to contain sand blasting waste.
Does the SWPPP contain completed inspection reports/logs regarding reportable implementation baseline controls?	Y	N	See notes in Monitoring section.
Does the SWPPP describe the pollutant or activity to be controlled by each selected control and provide an implementation schedule?	Y	N	

Non-Storm Water Discharges			Notes:
Does the SWPPP describe methods to prevent non-storm water discharges?	Y	N	
Does the SWPPP describe the monitoring process for non-storm water discharges (quarterly dry weather screening)?	Y	N	The SWPPP references a 'Storm Water Sampling and Analysis Program, Chapter 5', however this was not included with the SWPPP and Guam Shipyard Staff could not locate any sampling or analysis plan. Furthermore, Guam Shipyard Safety Technician Joe Blas stated that the Monitoring Plan did not exist on site.
Does the SWPPP discuss benchmark monitoring and responses to any monitoring with results over benchmark values?	Y	N	As stated above, the SWPPP discusses benchmark sampling, however the July 29, 2009 SWPPP reviewed during the inspection did not include any corresponding analytical monitoring data.

Photograph Log	
<i>All photographs on this log were taken with a Pentax Optio W80 by Rick Sakow, Enforcement Division, EPA Region IX on July 18-19, 2013.</i>	
IMGP3363	Guam Shipyard 90 day hazardous waste storage area.
IMGP3364	Open scupper at 90 day hazardous waste storage area. Inspector Sakow placed broken red broom handle through scupper to confirm it was open.
IMGP3365	Containers of used oil and other materials without secondary containment stored in the 90 day hazardous waste storage area shown in IMGP3364.



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IMGP3366	View of the 90 day hazardous waste storage area showing Apra Harbor in the background. Potential discharges through the scupper shown in IMGP3364 would discharge to Apra Harbor via sheet flow.
IMGP3367	Open drainage valve in the used oil storage area. Guam EPA inspector Darryl Guzman confirmed that the valve was in an open position by placing a metal wire through the valve. During an in-office interview on 7/19/13, Guam Shipyard Safety Technician employee Joe Blas stated that the valves were left in the open position to drain rain water.
IMGP3368	View of Apra Harbor behind the used oil storage area. Drainage from the used oil storage area would drain to Apra Harbor via sheet flow.
IMGP3369	View of Apra Harbor behind the used oil storage area.
IMGP3370	View of the valve shown in IMGP3367 after it had been shut and locked by Guam Shipyard Safety Technician Joe Blas.
IMGP3371	55 gallon drum filled with used oil and bagged materials, presumably oily rags. EPA inspectors found this drum cracked open, allowing rain to enter. The drum had approximately 3 inches of freeboard remaining. Overflowing materials would presumably drain through the open valve shown in IMGP3367 to Apra Harbor.
IMGP3372	55 gallon drums shown in IMGP3371 and containers of oily water.
IMGP3373	Container of oil with absorbent placed within its attached containment berm, indicating possible leakage or spills.
IMGP3374	55 gallon drums of used oil and diesel fuel tanks in the background.
IMGP3375	Spill kit (grey bin) which was empty. Guam Shipyard Safety Technician Joe Blas confirmed that this was the spill kit.
IMGP3376	View of container of oil with absorbent placed within its attached containment berm, as shown in IMGP3373.
IMGP3377	3,000 gallon container of used oil and water.
IMGP3378	3,000 gallon container of diesel fuel.
IMGP3379	Guam Shipyard Safety Technician Joe Blas visually estimated the 3,000 gallon container of diesel fuel to be half full.
IMGP3380	3,000 container of oily water and sludge. Guam Shipyard employee Joe Blas visually evaluated the container and said it was mostly empty with sludge at the bottom.
IMGP3381	Drainage scuppers into Apra Harbor downgradient of the used oil storage area.
IMGP3382	View of the perimeter of the facility with scuppers and the 90 day hazardous waste storage area in the background on the left of the photo.
IMGP3383	View of a sand blasting warehouse. Guam Shipyard staff stated that the white totes of sand blasting grit are new material.
IMGP3384	Outdoor sandblasting area. Guam Shipyard staff stated that unpainted metal is sandblasted in this area before the metal is painted.
IMGP3385	Accumulated sand blasting grit on the pavement.
IMGP3386	Rust colored sand blasting grit mixed with spent sandblasting grit.
IMGP3387	White totes of sand blasting grit used to remove paint. All totes were not securely closed and several had punctures, further depicted in IMGP3416-IMGP3425.
IMGP3388	Sand blasting area.
IMGP3389	Stockpiles of sandblasting material. Guam Shipyard staff said that the mounds of sandblasting material existed in 1997 when the Shipyard attained the property from the Navy.
IMGP3390	Rust colored material and metal fragments mixed within the stockpile of spent sandblasting grit that was said to only be used to prepare unpainted metal.



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IMGP3391	Rust stained sandblasting grit.
IMGP3392	Storm drain near sandblasting area. Joe Blas stated that this drain discharges to Outfall 11 into Apra Harbor. Note the accumulated sandblasting grit next to the drain inlet.
IMGP3393	Sandblasting grit accumulated throughout the facility.
IMGP3394	View of general area with pockets of accumulated sandblasting grit.
IMGP3395	Storm drain with accumulated sandblasting grit. This inlet drains to Outfall 11.
IMGP3396	View of path through jungle to access Outfall 11.
IMGP3397	Guam Shipyard employee Joe Blas walking through jungle to access Outfall 11.
IMGP3398	Guam Shipyard employee Joe Blas pointing to path through dense jungle vegetation to access Outfall 11.
IMGP3399	Actual outlet of Outfall 11 is shown beneath the leaves in the left side of the picture. The outfall is almost completely buried with debris and inspectors did not attempt to access it further due to the presence of jungle spiders, mosquitoes and snakes.
IMGP3400	Location where Guam Shipyard employee Joe Blas thought the outfall was. The group had to traverse back to find the outfall.
IMGP3401	Guam EPA inspector Maricar Quezon pointing to a break in Outfall 11's pipe located approximately 15 feet from the outfall shown in IMGP3399.
IMGP3402	Used oil sampling equipment. Guam Shipyard staff could not locate any storm water sampling equipment and said they would order more.
IMGP3403	Copy of the most recent SWPPP, dated July 30, 2009 and July 30, 2009.
IMGP3404	Photo of a holding tank located on a drydock in Apra Harbor owned and operated by Guam Shipyard.
IMGP3405	View of the ballast tank shown in IMGP3404 and the platform of the drydock.
IMGP3406	"Skid Box" used to transport metal sludge that accumulates in the ballast tanks.
IMGP3407	View of an outfall / scupper. The Individual NPDES Permit, GU0020362, states that the drydock has 10 outfalls, which are all sampling points.
IMGP3408	View of a blue pump which was actively draining fluids from the ballast tanks to Apra Harbor during the inspection. Guam Shipyard employee Joe Blas stated that pressure washing activities had not been conducted for the last three to four months and the liquid being drained from the ballasts was accumulated rain water.
IMGP3409	View of the ballast water drainage as depicted in IMGP3408.
IMGP3410	View of a hose draining the ballast water into Apra Harbor.
IMGP3411	View of a hose draining the ballast water into Apra Harbor.
IMGP3412	Photo taken from the dock facing the drydock. Note accumulated sandblasting material on the pavement and bulging 55 gallon barrels of used oil on the left portion of the photo.
IMGP3413	View of 55 gallon bulging unlabeled barrels without secondary containment and an oil
IMGP3414	Stockpile of rust and scrap metal collected from the ballast tank shown in IMGP3408-3410.
IMGP3415	Stock pile of rust and scrap metal and sandblasting grit stockpile.
IMGP3416	Photo of broken white tote of sandblasting material used to remove paint. The sandblasting grit used to remove paint had comingled with the sandblasting grit used to prepare unpainted metal for painting.
IMGP3417	Open / unsealed white tote of sandblasting grit used to remove paint.
IMGP3418	Stockpile of sandblasting grit and miscellaneous debris.



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IMGP3419	Open / unsealed white totes of sandblasting grit used to remove paint.
IMGP3420	Open / unsealed white totes of sandblasting grit used to remove paint that appeared to be spilling and comingling with sandblasting material said to be used to prepare unpainted metal.
IMGP3421	Unsealed white totes of sandblasting grit used to remove paint that is comingling with pile of sandblasting grit that was said to be used to prepare unpainted metal.
IMGP3422	Open / unsealed white totes of sandblasting grit used to remove paint.
IMGP3423	Open / unsealed white totes of sandblasting grit used to remove paint.
IMGP3424	Open 55 gallon drum of sandblasting material and miscellaneous materials marked "USED OIL."
IMGP3425	Overview white totes. Guam Shipyard employee Joe Blas stated that all of the sandblasting grit in the white totes was used to remove paint. Inspector Sakow counted 28 unsealed / open white totes and 7 torn / deteriorated / leaking totes for a total of 35 totes.
IMGP3426	Used battery storage area in the covered picture shop. (This photo was taken for the purpose of a RCRA hazardous waste inspection.)
IMGP3427	Used battery storage area – close up of two waste lead acid batteries. (This photo was taken for the purpose of a RCRA hazardous waste inspection.)
IMGP3428	Unlabelled box of fluorescent bulbs with a piece of cardboard covering them. (This photo was taken for the purpose of a RCRA hazardous waste inspection.)
IMGP3429	Opened box of fluorescent bulbs with a piece of cardboard covering them. (This photo was taken for the purpose of a RCRA hazardous waste inspection.)
IMGP3430	Satellite accumulation area of empty spray cans and oily rags. (This photo was taken for the purpose of a RCRA hazardous waste inspection.)
IMGP3431	Good batteries next to a charger. (This photo was taken for the purpose of a RCRA hazardous waste inspection.)
IMGP3432	Close up of good batteries next to a charger. (This photo was taken for the purpose of a RCRA hazardous waste inspection.)
IMGP3433	Overview of good batteries next to a charger. (This photo was taken for the purpose of a RCRA hazardous waste inspection.)
	<i>All photographs below were taken with an Olympus Tough TG-310 by Jennifer MacArthur, Enforcement Division, EPA Region IX. Please note that each photograph number listed below begins with "P71800" and the log starts with photograph number 24.</i>
P7180024	Less than 90-day storage building
P7180025	Contents of less than 90-day storage building, aisle space issue
P7180026	Contents of less than 90-day storage building, aisle space issue
P7180027	Unlabeled 55-gallon containers; according to a facility representative the containers held oily waste
P7180028	Bulging container of oily waste and liquid on floor under container
P7180029	2 bulging containers of oily waste
P7180030	Non-hazardous waste label on container of oily pads and sludge; container showed signs of leaking
P7180031	Leaking container - oily liquid on top of lid; no visible label



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P7180032	Container of oily rags; no visible hazardous waste label
P7180033	Container of oily rags marked as non-hazardous waste with accumulation start date of 2/13/13
P7180034	Oily debris/liquid on floor underneath drums of oily waste in less than 90-day storage area
P7180035	Soiled rags on floor and pallets in less than 90-day storage area
P7180036	Waste paint with accumulation start date of 3/11/13
P7180037	Leaking container/oily liquid on top of bulging lid
P7180038	Empty aerosol can of electro contact cleaner and small rusted container of Amercoat cleaner on top of 55-gallon container
P7180039	Broken eyewash/shower unit
P7180040	Oily liquid on floor underneath drums of oily waste in less than 90-day storage area
P7180041	Hazardous waste label on container of waste paint with accumulation start date of 4/10/13
P7180042	Hazardous waste label on second container of waste paint with accumulation start date of 4/10/13
P7180043	Non-hazardous waste label on container of oily rags with an accumulation start date of 11/27/12
P7180044	Non-hazardous waste label on container of oily rags with an accumulation start date of 2/13/13
P7180045	Leaking container/oily liquid on top of container lid
P7180046	Non-hazardous waste label on container of sludge/oily pads with an accumulation start date of 4/12/13
P7180047	Aerosol can crusher attached to 55-gallon container
P7180048	Badly corroded metal container (approximately 8 gallons) with small amount of sludge inside
P7180049	Punctured used oil container
P7180050	Container marked as "Item 29 Assateague" and "used JW coolant (heat exchanger)"
P7180051	Container of hazardous waste paint with accumulation start date of 3-11-13
P7180052	Oily liquid on floor of less than 90-day storage area
P7180053	Container marked as "Item 29 Assateague" and "used JW coolant (heat exchanger)" – in poor condition; small open plastic container containing small amount of sludge
P7180054	Broken gate bulb broken in secondary containment around less than 90-day storage area
P7180055	Debris inside secondary containment area near broken gate bulb
P7180056	Floor epoxy corroded inside less than 90-day storage area
P7180057	Bulging container of oily waste (also shown in photo 29)
P7180058	Tag on fire extinguisher; last service date May 2013
P7180059	Used oil storage yard/lot
P7180060	Run-off from secondary containment/bermed area surrounding used oil storage lot
P7180061	500 gallon used oil tank and empty drums
P7180062	3000 gallon oil tank
P7180063	55-gallon drums of used oil, sludge and oily debris
P7180064	Contents of 55-gallon drum of oily rags, container lid wasn't secured and liquid close to overflowing
P7180065	Open bung on unlabeled container in oil storage lot
P7180066	55-gallon drums of used oil, sludge and oily debris
P7180067	Oily water pumped into container
P7180068	Liquid with oily sheen under drums of product in the machine shop



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P7180069	Oily rags and debris in machine shop
P7180070	Sandblasting yard overview
P7180071	Piles and tote bags/sacks full of used sandblasting grit
P7180072	Water collecting in sandblasting yard area
P7180073	Sandblasting yard and piles of used grit
P7180074	Outside sandblasting area covered with used grit
P7180075	Outside sandblasting area covered with used grit
P7180076	Outside sandblasting area and tote bags full of used grit
P7180077	Piles and tote bags/sacks full of used sandblasting grit
P7180078	Piles of used sandblasting grit
P7180079	Used sandblasting grit migrating outside sandblasting lot
P7180080	Sandblasting yard overview with sandblasting building in background
P7180081	Paint debris in used sandblasting grit
P7180082	Sandblasting yard overview
P7180083	Sandblasting yard and outside of sandblasting building
P7180084	Entrance to sandblasting building, used grit on ground
P7180085	Interior of sandblasting building, steel plates
P7180086	Interior of sandblasting building, steel plates
P7180087	Containers of paint in paint shop area
P7180088	Empty paint containers wrapped and ready for disposal
P7180089	SAA in paint shop area, open bung on container of waste paint and thinner
P7180090	Close up of pen bung on container of waste paint and thinner
P7180091	SAA in paint shop area with 4 containers of dry solid paint; over 55-gallon limit
P7180092	Label on container of dry solid paint
P7180093	Mix of waste paint and product; needs waste determination
P7180094	Label on container of used oil marked for disposal in hazardous materials building
P7180095	Northern wall of hazardous materials building
P7180096	Waste paint containers
P7180097	Containers of old materials marked for disposal
P7180098	Waste paint/materials marked for disposal
P7180099	Overview of southern wall of hazardous materials building
P7180100	Label on waste paint containing solvent marked for disposal
P7180101	Liquid/paint on floor underneath tote container from leaking container of waste paint on shelf above
P7180102	Close up of liquid/paint on floor underneath tote container
P7180103	Source of leak shown in photos 101 and 102
P7180104	Stained board under leaking container of paint
P7180105	Northern wall of hazardous materials building; materials too high to be reached by forklift
P7180106	Southern wall of hazardous materials building



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P7180107	Open bung on container of oily rags in the equipment shop
P7180024	Rusted containers outside equipment shop; determined to be non-hazardous grease