NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
FACT SHEET
Proposed Modification – 10/03/2019

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NPDES Permit No.:	GU0020397

PART I - STATUS OF PERMIT

Cabras Marine Corporation (hereinafter, the "Permittee") has applied for a federal Clean Water Act ("CWA") National Pollutant Discharge Elimination System (NPDES) permit pursuant to U.S. Environmental Protection Agency (EPA) regulations set forth in Title 40, Code of Federal Regulations (CFR), Section 122.21, for the discharge of some storm water and ballast water from the floating (AFDL-21) dry dock facility to Apra Harbor located in Guam. These regulations require any person who discharges or proposes to discharge pollutants from a point source into waters of the United States to submit a complete application for a NPDES permit, including renewal of an existing permit. EPA issued an NDPES permit to the Permittee's dry dock facility in 2012. The Permittee submitted an NPDES permit renewal application to EPA on July 5, 2017. EPA issued the renewed NPDES permit to the Permittee on June 12, 2018, with an effective date of August 1, 2018. The permit is set to expire on July 30, 2021

The Permittee submitted a request for modification to the NPDES permit to EPA on June 26, 2019 with descriptions of an added rainwater filtration system to treat storm water captured on the dry dock prior to discharge to Apra Harbor. This proposed permit modification is to authorize one additional outfall for discharges of such treated storm water into Apra Harbor.

Permittee also operates a shoreside ship repair facility ("shoreside facility") that supports its dry dock facility operations at Apra Harbor. The shoreside facility is located at 178 Industrial Avenue, Piti, Guam. On January 30, 2018, Permittee obtained separate NPDES permit coverage for discharges of stormwater from the shore side facility under EPA's multi-sector general permit (MSGP) for industrial activities. *See* MSGP #GUR053010. This permit for the dry dock

facility does not replicate, nor duplicate permit coverage provided by the MSGP permit for shore side activities.

NOTE: This NPDES permit does not authorize the discharge of wash water or non-contact cooling water associated with the Permittee's dry dock operations to surface waters. The Permittee indicates it will capture 100% process water and all non-contact cooling water on the dry dock deck and pump these waters on shore for treatment or diverted into the local sewer collection system. *See* Appendix D: Letter, dated October 23, 2012, from Guam Waterworks Authority to Permittee serving as conditional permit for discharging process wash water from Permittee's facility into sewer system.

PART II - DESCRIPTION OF FACILITY

The Permittee operates and discharges from the floating dry dock located in the Apra Harbor Complex in the Territory of Guam. The AFDL-21 dry dock is located at the facility to primarily provide ship repair and maintenance services to small vessels typically 75-100 feet long *e.g.*, tug boats, personnel support boats, government owned vessels and barges. The dry dock is 200 feet long and 64 feet wide, with a lifting capacity of 1,000 tons. Typical industrial activities that occur on the dry dock include, but are not limited to, abrasive blasting, pressure washing, application and removal of marine surface coat materials, hydrostatic testing, metal work, electrical work, mechanical work, and material storage. The Permittee anticipates each vessel will be serviced within 30 days, with a total 60-day cycle for the vessel within the dry dock facility.

The Permittee's application describes how the dry dock facility has been modified to capture all process wash water and most stormwater and divert such water on shore for treatment. Specifically, the Permittee has installed a four-inch flexible hose and pump system to capture process wash water used within the dry dock and then pump this water through a pretreatment/filtration system located onshore. The Permittee has two options to dispose of the process wash water after treatment: Store on-site and have it hauled off via commercial operator or discharge it to the local sewer collection system operated by Guam Waterworks Authority ("GWA").[1] Either disposal method will divert 100% process wash water, which contains pollutants associated with hydroblasting, sandblasting and servicing vessels within the dry dock, from discharging to Apra Harbor.

The Permittee's application also describes how the dry dock facility manages stormwater. The Permittee has installed nine-inch high retention berms at each end of the dry dock to capture "normal thunderstorms and rainfall" for the Guam area, i.e., up to but not including once in 25yr/24 hr storm events. In addition, the Permittee applied marine strength sealant at the base of

[1] On October 23, 2012, the Permittee received letter from Guam Water Authority (GWA) serving as a conditional permit for discharging wastewater (i.e., "wash water") into the GWA sewer collection system. This permit assumes the Permittee will capture, perform pre-treatment/filtration and discharge of process wash water to the local sewer system. Within the letter, GWA has outlined several conditions that Permittee must follow, including monitoring requirements of wash water, discharge flow and several water quality parameters prior to entering the sewer collection system. If, for some reason, GWA decides in future to alter or revoke this conditional permit for wash water, then EPA may choose to revise this NPDES permit for Permittee due to altered discharge conditions.

the retention berms in 2017 to ensure maximum recovery of water from the pontoon deck. The Permittee's request for permit modification (June 2019) describes that stormwater collected on the dry dock deck and pumped on shore will be directed through a rainwater filtration system for treatment and removal of particulate matter and oily substances. This rainwater filtration system (RWFS) is comprised of a 2000-gallon storage tank followed by an oil-water separator and several sequential filters to remove particulate matter down to the 100 micron pore size. This treated water will then be discharged to Apra Harbor at a new outfall-013; this new outfall is located next to the floating drydock. The Permittee has indicated the rainwater filtration system is not intended for treating process water, non-contact cooling water, nor rainwater from larger storms that discharges through outfalls 001-004. Only during "large storm events" (i.e., greater than one 25yr/24 hr storm event) may the Permittee discharge stormwater runoff from the dry dock without treatment or capture to Apra Harbor (through Outfall Nos. 001-004). Such extreme storm events likely result in discharges of stormwater that contains minimal or residual amounts of pollutants.

This permit modification would allow stormwater to be captured on deck, pumped on shore, passed through the on-shore rainwater filtration system and then discharged into Apra Harbor thru a new outfall (013). The Permittee's request for permit modification included initial testing results for the following parameters:

Parameter:	Initial RWFS test results
Total suspended solids	1.1 to 2.2 mg/L
pH	6.65 to 6.69 S.U.
Oil and Grease (hexane extractable materials)	<1.5 mg/L

The Permittee's application also describes how the AFDL-21 dry dock unit walls and (interior) ballast tanks were serviced, cleaned, and maintained in March 2012 prior to the dry dock's arrival in Apra Harbor, Guam. The Permittee has applied to discharge the dry dock's ballast water from Outfall Nos. 005-012 to Apra Harbor.

The Permittee has not requested authorization under this permit to discharge 'non-contact' cooling water (e.g., steam condensate, emergency generating cooling water and air conditioner condensate) to Apra Harbor since no equipment that would generate 'non-contact" cooling water will be utilized within the dry dock. Nor has the Permittee applied for permit authorization to discharge fire protection relief water associated with its testing of fire equipment.

PART III - DESCRIPTION OF DISCHARGE AND RECEIVING WATER

A. Discharge(s)

The Permittee acknowledges that stormwater will discharge directly from the dry dock through Outfall Nos. 001-004 only in response to "extreme weather events," *i.e.*, storms beyond the normal thunderstorms and rainfall conditions in Guam. Dry dock ballast water will be discharged through Outfall Nos. 005-012.

The Permittee desires to discharge treated rainwater from small storms from the rainwater filtration system through Outfall No. 013 directly into Apra Harbor.

Table 1. Summary of Discharge Points for the Cabras Marine Corporation Facility.

Outfall Number	General Type of Waste Discharged	Outfall Latitude	Outfall Longitude	Receiving Water
001-004	Stormwater [(1)(a)]	13°26'30"N	144°39'24"E	Apra Harbor
005-012	Ballast water	13°26'30"N	144°39'24"E	Apra Harbor
013	Treated Storm Water[(2)] captured from drydock	13° 27' 42.57" N	144° 39' 53.73" E	Apra Harbor

[(1)(a)] Stormwater runoff associated with large storms: i.e., greater than 25yr/24hr storm events will discharge off the drydock into receiving waters, i.e., Apra Harbor.
[(2)] Storm water associated with rainfall amounts less than once in 25 yr/24hr storm events are captured on dry dock, pumped and stored onshore and then treated by rainwater filtration system before discharged to Apra Harbor at outfall 013. For Guam, the National Weather Service, defines a 25-yr/24-hr storm event as 12.6 inches of rainfall.

In addition to the discharges described above, pollutants are continuously released from the cathodic protection anodes attached to the dry dock hull to Apra Harbor.

1. Large Storm water runoff

Stormwater will discharge from Outfall Nos. 001-004 only in response to "extreme weather events," *i.e.*, storms beyond the normal thunderstorms and rainfall conditions in Guam. EPA anticipates only residual amounts of pollutants are likely to be included in 25 yr/24hr. storm events or greater.

Monitoring requirements established in the proposed NPDES permit for stormwater discharges are summarized in Table 2.

Table 2. Monitoring Requirements for Large Stormwater Discharges from Outfall Nos. 001-004.

Parameter	Units	Effluent Limitations		
		Average Quarterly	Daily Maximum	Frequency
Visual monitoring	N/A	Monitor only		when discharge occurs
Priority Pollutants [(1)]	µg/L	Monitor only		once in 5 yrs

[(1)] When stormwater discharge occurs within a five-year cycle, the Permittee shall, to the extent feasible, collect one (1) grab sample from a minimum of one (1) outfall for chemical monitoring of priority pollutants per 40 CFR Part 131.36.

Since this is the Permittee's initial permit application, no discharge monitoring report ("DMR") data was available for review during the permitting process.

2. Small Stormwater

Storm water generated by normal rainfall conditions in Guam, i.e., rain events less than the once in 25 yr/25 hr. storm event, will be captured behind the dry dock's berms, diverted onshore, stored in 2000-gallon tank and then treated via rainwater filtration system prior to discharge through outfall 013 to Apra Harbor.

Table 3. Monitoring Requirements for Small Stormwater Discharges from Outfall No. 013.

Parameter	Units	Effluent Limitations		
		Average Quarterly	Daily Maximum	Frequency
Total Suspended Solids	mg/L	5 mg/L and 10 mg/L		Weekly when discharge occurs
pH	µg/L	6.5 to 8.5 S.U.		Daily when discharge occurs
Oil and Grease	mg/L	N/A		Once when discharge occurs

(2) When stormwater discharge occurs within a five-year cycle, the Permittee shall, to the extent feasible, collect one (1) grab sample from a minimum of one (1) outfall for chemical monitoring of priority pollutants per 40 CFR Part 131.36.

3. Process water

Activities expected to occur on the dry dock that are potential sources of pollutants in process wash water include abrasive blasting; hydroblasting; pressure washing; sanding; painting; electrical work; mechanical work; metal work; short-term material storage (paints, lubricants, solvents, zinc anodes, etc.); heavy equipment operations; and other industrial activities.

Abrasive blasting involves removing sea growth and paints from ship surfaces to prepare them for resurfacing. By-products of this process include spent abrasive, rust, scale, and paint particles, which may contain a number of pollutants (including copper, lead, zinc, and possibly tributyltin) that may release to the environment and discharge to waters through direct air deposition and/or surface runoff.

Hydroblasting and pressure washing uses water to remove sea growth and surface materials from ship surfaces. The resulting "process wash" water may contain rust, scale, paint particles, and associated pollutants. These pollutants have the potential to contaminate surface runoff and receiving waters.

Coating operations involve resurfacing ship surfaces with paints and other materials. Products typically used include anti-corrosives to prevent rust and anti-foulants to prevent sea growth. These materials contain a variety of pollutants including copper, lead, zinc, and possibly tributyltin. Like abrasive blasting and pressure washing, these pollutants may enter waters via direct deposition and/or surface runoff. Electrical work, sanding, mechanical work, metal work, heavy equipment operations, and short-term

material storage are also potential pollutant sources for petroleum products, metals, debris, and other pollutants through surface runoff and direct deposition.

Best management practices ("BMPs") are expected to minimize the exposure of stormwater to potential pollutants and potential discharge. The capture and retention system is expected to capture the maximum amount of pollutants associated with dry dock facility operations by diverting storm water generated by normal rainfall conditions to the local sewer system instead of discharging it to ambient waters. Discharges of only residual amounts of pollutants in stormwater from the dry dock in response to extreme weather events, e.g., typhoons, is expected as a result of good housekeeping BMPs such as rinsing the dry dock's inner walls and floor prior to the dry dock's submergence (and diverting this wash water onshore for pretreatment/filtration).

4. Ballast Water for Dry Dock Operations

Ballast water intake is necessary for the lowering of the dry dock, which is necessary to bring vessels onto the dry dock. Ballast water discharges are necessary to raise the dry dock so that the work can be safely performed on the vessel-in-dock. The Permittee's application describes the total ballast tank capacity is 764,950 gallons for its AFLD-21 dry dock.

EPA has determined that a ballast water discharge prohibition is inappropriate after taking into account the following considerations:

- Ballast water discharge is necessary for the dry dock's operation. The discharge of ballast water during the rising and lowering (cycling) of the dry dock is expected to occur throughout the year, with a concurrent need to discharge approximately 765,000 gallons of ambient seawater per cycle.

- The dry dock's ballast water tanks were cleaned as part of the service and maintenance of the dry dock prior to its arrival in Guam, and therefore the discharge of ballast water pollutants[2] would be limited to pollutants already present in the ambient receiving water, and potential pollutants that might leach from the inside of the dry dock's ballast tanks. For instance, the primary water quality concern associated with ballast water is invasive aquatic nuisance species (ANS). ANS may be released from a vessel's ballast tanks into native waters when a vessel has taken in ballast water from other locations. Here, ANS are not a concern because: (a) the dry dock's ballast tanks were recently cleaned and serviced prior to its arrival in Apra Harbor; and (b) the dry dock is expected to remain in Apra Harbor.

[2] Ballast water can contain rust inhibitors, flocculent compounds, epoxy coating materials, zinc or aluminum (from anodes), iron, nickel, copper, bronze, silver, and other material or sediment from inside the ballast tanks, pipes, or other machinery.

- BMPs that the Permittee must implement under the Permit are expected to minimize the discharge of pollutants in dry dock ballast water; *e.g.*, prohibiting the use of additives to the ballast water will also control the presence of pollutants that might be discharged.

- The discharge of ballast water is expected to be as infrequent as twice per 60 day-cycle.

Based on these considerations, the EPA does not expect that the uptake and discharge of ambient waters for the purposes of dry dock ballast will lower water quality within Apra Harbor. Thus, the EPA has authorized the discharge of ballast water from the dry dock under this Permit, subject to the certain discharge requirements as described in sections IV.A.2, IV.D.4, and V. of this Factsheet. In addition, EPA finds that the Permittee's management of its discharge of dry dock ballast water into Apra Harbor is consistent with Guam's anti-degradation policy (section 5101 of the GUAM WQS).

5. Cathodic Protection

Sacrificial anodes are commonly used by vessels and dry docks to minimize corrosion of vessel hulls. Sacrificial anodes are usually made of zinc, magnesium, or aluminum, and are potential sources of pollution for the discharge of these pollutants. Pollutants from the anodes attached to the dry dock's hull are discharged into the receiving water through direct contact with the receiving water. Additional pollutants may be discharged through contact stormwater and wash water from the anodes attached to the unit-in-dock, anodes removed from the unit-in-dock, or stored anodes. BMPs are expected to minimize the discharge of zinc, magnesium, or aluminum to the receiving water.

The regulation of this discharge is presumed to enhance and protect water quality and beneficial uses of the receiving water, and the continuation of this discharge is not expected to significantly lower water quality. The regulation of the discharge of pollutants from cathodic protection anodes into Apra Harbor by the Permittee is consistent with Guam's anti-degradation policy (section 5101 of the GUAM WQS).

6. Other Discharges

The discharge of bilge water from both the dry dock and vessel-in-dock is prohibited. Any other discharges not specified above are not authorized discharges under this NPDES permit.

B. Receiving Water

The Permittee proposes to discharge to Apra Harbor. To protect the designated uses of surface waters of the United States, Guam has adopted water quality standards for marine waters depending on the level of protection required. GEPA classifies Apra Harbor as "Good" quality marine water (M-2 category).

Beneficial uses assigned to this category of water include:

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1. Propagation and survival of marine organisms, especially shellfish and other similarly harvested aquatic organisms, corals, and reef-related resources;
2. Whole body contact recreation;
3. Mariculture activities; and
4. Aesthetic enjoyment and related activities.

Apra Harbor is listed in the 2016 Guam 303(d) list for impaired water bodies for PCBs based on a 1999 fish advisory. A TMDL has not currently been developed for this water body, and is targeted as a low priority water body for TMDL development.

On April 11, 2012, the Permittee collected water and sediment samples in waters alongside F2 Wharf to provide baseline monitoring results. This one sampling event provides a snap shot of current water quality conditions in the nearby ambient waters of future dry dock operations and discharges. Appendix E provides further details regarding the baseline monitoring results provided by the Permittee as part of this application. The EPA provides a brief summary of the baseline monitoring results below:

Water column samples were collected at sub-surface and near bottom depth at four sites close to F2 Wharf. Oil & grease and BOD results were non-detect. Turbidity, pH, magnesium and boron concentrations were below Guam EPA's water quality criteria for marine waters. Total suspended solids ("TSS") ranged from 19 to 79 mg/L (three samples exceeded Guam's WQS for TSS (40 mg/L)). Chemical oxygen demand ranged from 680 to 1600 mg/kg; however, there is no Guam WQS for comparison.

Sediment samples were collected at six sites close to F2 Wharf. Bulk sediment concentrations of arsenic, cadmium, chromium, copper, mercury, tin and zinc were within typical levels for marine sediments. PCBs, individual polycyclic aromatic hydrocarbons and high molecular weight diesel concentrations were also within normal ranges for marine sediments. Lead concentrations were elevated in two of six sample results: Site 001 at eastern most point of wharf and Site 005 near west end of wharf.

PART IV - DETERMINATION OF EFFLUENT LIMITATIONS

The Clean Water Act ("CWA") requires point source Permittees to control the amount of pollutants that are discharged to waters of the United States. The control of pollutants is established through effluent limitations and other requirements in NPDES permits. When determining effluent limitations, EPA must consider limitations based on the technology used to treat the pollutant(s) (*i.e.*, technology-based effluent limits) and limitations that are protective of water quality standards (*i.e.*, water quality-based effluent limits).

For this renewal NPDES permit application, EPA evaluated NPDES permits for similar dry dock facilities to determine the water quality parameters for effluent limitations and those parameters for ambient surface water monitoring. EPA also applied best professional judgment ("BPJ") to evaluate the Permittee's modifications to the dry dock to retain and capture all process wash water and most stormwater (associated with normal thunderstorms and rainfall) for diversion to

the local sewer system. And EPA considered best practicable treatment, best available treatment and water quality based effluent limitations ("WQBELs") for discharges from this facility.

A. Applicable Technology-based Effluent Limitations

The CWA requires that technology-based effluent limitations be established based on several levels of controls:

- Best practicable treatment control technology ("BPT") represents the average of the best performance by plants within an industrial category or subcategory. BPT standards apply to toxic, conventional, and non-conventional pollutants.

- Best available technology economically achievable ("BAT") represents the best existing performance of treatment technologies that are economically achievable within an industrial point source category. BAT standards apply to toxic and non-conventional pollutants.

- Best conventional pollutant control technology ("BCT") represents the control from existing industrial point sources of conventional pollutants, such as TSS, pH, and oil and grease. The BCT standard is established after considering the "cost reasonableness" of the relationship between the cost of attaining a reduction in effluent discharge and the benefits that would result, and also the cost effectiveness of additional industrial treatment beyond BPT.

- New source performance standards ("NSPS") represent the best available demonstrated control technology standards. The intent of NSPS guidelines is to set limitations that represent state-of-the-art treatment technology for new sources.

The CWA requires EPA to develop effluent limitations, guidelines and standards ("ELGs") representing application of BPT, BAT, BCT, and NSPS. Section 402(a)(1) of the CWA and 40 CFR § 125.3 authorize the use of best professional judgment ("BPJ") to derive technology-based effluent limitations on a case-by-case basis where ELGs are not available for certain industrial categories and/or pollutants of concern.

1. Numeric Technology-based Effluent Limitations.

Numeric effluent limitations are proposed for discharge of treated stormwater from Outfall 013. Specifically, numeric limits are proposed for total suspended solids and pH based on data submitted in the permit modification request and best professional judgment, since no applicable effluent limitation guidelines exist for this industrial category.

No numeric effluent limitations are proposed for the discharge of stormwater from Outfall Nos. 001-004.

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2. Non-numeric Effluent Limitations.

The proposed permit requires the Permittee to implement specific BMPs during normal facility operations. *See* permit Part III, section D. The permit also requires the Permittee to develop and implement a stormwater pollution prevention plan ("SWPPP"), and a BMP Plan. The specific BMPs and the requirements for the SWPPP and BMP Plan are provided in section III of the permit and shall serve as technology-based effluent limitations for the discharge of stormwater runoff and dry dock ballast water. The requirements of the SWPPP and BMP Plan are further discussed in Part VIII, Special Conditions, of this fact sheet.

Section 304(e) of the CWA and 40 CFR §§ 122.44(k)(3) and (4) allow the permitting authority to require pollution prevention measures or BMPs when numeric effluent limitations are infeasible, or the practices are reasonably necessary to achieve effluent limitations and standards, or to carry out the purposes and intent of the CWA.

3. Compliance with Federal Anti-Backsliding Regulations for Proposed Technology-based Effluent Limitations.

Sections 402(o)(2) and 303(d)(4) of the CWA and 40 CFR § 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the current permit, with some exceptions where limitations may be relaxed. The requirement to develop and implement a SWPPP and BMP Plan has been requested for all applicable discharges, including discharges not addressed in the current permit. Thus, the proposed changes are consistent with federal anti-backsliding regulations and Guam's anti-degradation policy.

B. Water Quality-based Effluent Limitations.

Pursuant to 40 CFR § 122.44(d)(1), WQBELs are required in NPDES permits when the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an excursion above any water quality standard. Applicable water quality standards are established in GUAM WQS, which incorporates CWA section 304(a)'s federal water quality criteria. Criteria for priority toxic pollutants designated under section 307(a)(1) of the CWA are based on EPA's National Recommended Water Quality Criteria. For purposes of this permit, only criteria for the protection of aquatic life (acute and chronic) and human health (consumption of organisms) were used.

When determining whether an effluent discharge causes, has the reasonable potential to cause, or contributes to an excursion above narrative or numeric criteria within State (or Territory) water quality standards, the permitting authority uses procedures which account for: existing controls on point and non-point sources of pollution, the variability of the pollutant or parameter in the effluent, the sensitivity of species to toxicity testing, and, where appropriate, dilution of the effluent in the receiving water. *See* 40 CFR §122.44(d). As described in EPA's *Technical Support Document for Water Quality-based Toxics Control* (TSD; EPA/505/2-9-001), when determining whether or not a discharge

causes, has the reasonable potential to cause, or contributes to an excursion above a numeric or narrative water quality criterion for individual toxicants, EPA can use a variety of factors and information where facility-specific effluent monitoring data are unavailable. As described above, for this renewal permit application, we have reviewed similar dry-dock permits in Guam, American Samoa and Hawaii and information therein.

EPA recommends the use of a permit limit derivation procedure where the acute, chronic, and human health criteria are statistically translated into effluent limitations based on the more stringent acute, chronic, or human health criteria (section 5 of TSD). As described in section 5.2.2 of EPA's TSD, WQBELs for NPDES Permittees are established based on the need to maintain effluent quality for a pollutant at a level that will comply with water quality standards even during critical conditions in the receiving water. This level is determined by the criteria for the particular pollutant. The criteria, in turn, dictates the necessary treatment performance level for the pollutant through the calculation of a long-term average ("LTA") to ensure that the criteria is met under critical conditions over a long-term period.

Sections 5101.B.4 of the GUAM WQS require that when more than one set of water quality criteria apply, the more stringent standards shall be applied.

Section 5104.C, D, and E of the GUAM WQS provide for the application of alternate standards within an area surrounding the discharge point, or zone of mixing, when it is not feasible to achieve an effluent quality that meets water quality standards at the point of discharge (i.e., end of the pipe). No mixing zones have been authorized for this discharge.

C. **Compliance with Federal Anti-Backsliding Provisions for Proposed WQBELS**.

Section 402(o) of the CWA and 40 CFR § 122.44(l) prohibits the renewal or reissuance of an NPDES permit that contains WQBELs less stringent than those established in the current permit, with some exceptions. This proposed permit modification does not establish any effluent limits less stringent than those in the existing permit; thus, , anti-backsliding provisions do not apply.

D. **Antidegradation Policy**

EPA's antidegradation policy under CWA Section 303(d)(4) and 40 CFR 131.12 and Guam EPA water quality standards require that existing water uses and the level of water quality necessary to protect the existing uses be maintained.

As described in this Fact Sheet, the permit establishes effluent limits and monitoring requirements to ensure that all applicable water quality standards are met. The permit does not include a mixing zone, therefore the proposed effluent limits will apply at the end of pipe without consideration of dilution in the receiving water. Although the proposed permit modification allows a new discharge outfall and the Permittee estimates

up to 15,000 gallons of storm water discharge per month, the storm water captured and pumped on shore will be treated prior to discharge into Apra Harbor. Initial testing results discussed above in Part II, show low levels of suspended solids, moderate pH levels and negligible amounts of oil and grease. Additionally, the discharge must meet the narrative standards which states that "the discharge shall be substantially free from visible floating materials, grease, oil, scum, foam, and other floating material attributable to sewage, industrial wastes, or other activities of man". The waterbody is not listed as an impaired waterbody for total suspended solids or oil and grease under section 303(d) of the CWA.

Therefore, due to the low levels of conventional pollutants present in the effluent, the high level of treatment being obtained on small discharge volume, and the requirement to meet both numeric and narrative water quality-based effluent limitations, the discharge is not expected to adversely affect the receiving water body or result in any degradation of water quality.

D. Summary of Monitoring Requirements.

1. The Permittee shall maintain compliance with monitoring requirements specified in Tables 2 and 3 (above) for the discharge of stormwater through Outfall Nos. 001-004 and Outfall 013 to Apra Harbor.

2. Ballast Water and Cathodic Protection Leachate

   The Permittee shall operate in a method consistent with their BMP Plan.

PART VI - MONITORING AND REPORTING REQUIREMENTS

The permit requires the Permittee to monitor facility operations – via photographs, inspections and reporting – and document maintaining best management practices to minimize discharge of pollutants associated with process wash/rinse water and normal stormwater capture. This monitoring also applies to the physical condition of the dry dock walls and floor.

A. Effluent and Ambient Monitoring and Reporting.

The permit requires the Permittee to conduct effluent and ambient monitoring to evaluate compliance with the permit conditions. This includes collecting a sample(s) for visual monitoring of effluent whenever discharge of stormwater runoff occurs in this first five-year permit cycle. Ambient water monitoring is not expected in this first five-year permit cycle. The Permittee shall perform all monitoring, sampling and analyses in accordance with the methods described in the most recent edition of 40 CFR Part 136, unless otherwise specified in the permit. This includes monitoring effluent discharged from the rainwater filtration system at outfall 013. All monitoring data shall be reported via NetDMR and submitted quarterly to USEPA and Guam EPA, as specified in the permit.

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B. Priority Pollutants Scan.

The permit requires the Permittee to conduct a priority pollutants scan at least once during the five-year permit term to ensure that the treated stormwater discharge does not contain toxic pollutants in concentrations that may cause a violation of water quality standards. Preferably the priority pollutant scan will be completed before starting the fifth year of this permit cycle, so these results will be available prior to Permittee's re-application and renewal. The Permittee shall perform all effluent sampling and analyses for the priority toxic pollutants scan in accordance with the methods described in the most recent edition of 40 CFR Part 136, unless otherwise specified in the permit. The method quantitation limit should be lower than the most stringent applicable water quality criterion. If such method is not available, then the method with the lowest quantitation limit shall be used. 40 CFR § 131.36 provides a complete list of priority pollutants.

PART VII - STANDARD CONDITIONS

A. Re-opener Provision.

In accordance with 40 CFR Parts 122 and 124, the permit may be modified by EPA to include effluent limits, monitoring, or other conditions to implement new regulations, including EPA-approved water quality standards or TMDLs; or to address new information indicating the presence of effluent toxicity or the reasonable potential for the discharge to cause or contribute to exceedances of water quality standards.

B. Standard Provisions.

The permit requires the Permittee to comply with EPA Region 9 Standard Federal NPDES Permit Conditions, dated July 1, 2001.

PART VIII - SPECIAL CONDITIONS

A. Implementation of Best Management Practices

1. The Permittee is required to capture the following discharge types (and percentage amounts): 100% process wash water, most stormwater runoff under normal thunderstorm and rainfall conditions and 100% non-contact cooling water. These types of water discharges will be captured and diverted to the local sewer system; therefore, no discharge is allowed into receiving waters, except for stormwater discharges resulting from storm conditions greater than once in 25 yr/24 hr storm event. This is consistent with the Permittee's application whereby Cabras Marine describes how they have installed a capture and diversion system to pump such discharges to a sewer receptacle on shore which flows to the local sewer treatment plant. EPA acknowledges and supports this 'capture and divert' aspect of the facility's operations. Nonetheless, EPA has identified effluent limits, in the form of Best Management Practices (BMPs), for the Permittee to operate under and thereby minimize any potential pollutants entrained with stormwater runoff included in this permit. See Example BMPs, Table 3, below.

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2. For each day a vessel is in the dry dock or work is performed on the dry dock itself, the Permittee is required to daily inspect and document (photos, logs, records) good housekeeping practices for the first two years of this permit cycle; thereafter, the Permittee may request to decrease the frequency of such documentation requirements. See BMPs, section D, below.

3. Prior to releasing the vessel in dock, and within 2-4 hours prior to lowering the dry dock, the Permittee shall wash the walls and floor of the dry dock itself and capture and divert this process water to pump onshore for local sewer system treatment. Before washing the dry dock itself, the Permittee shall also remove any maintenance equipment (unrelated to power washing) and other items with potential pollutants.

B. Development and Implementation of Best Management Practices Plan.

Pursuant to section 304(e) of the CWA and 40 CFR § 122.44(k)(4), EPA may impose BMPs which are "reasonably necessary…to carry out the purposes and intent of the CWA." The pollution prevention requirements or BMPs proposed in the permit operate as technology-based limitations on effluent discharges that reflect the application of BAT and BCT. The permit requires the Permittee to practice specific BMPs as part of normal facility operations which will minimize pollutants from becoming entrained into potential stormwater discharges. The Permittee is also required to develop and implement a BMP Plan with appropriate pollution prevention measures or BMPs designed to prevent pollutants from entering Apra Harbor.

C. Development and Implementation of Stormwater Pollution Prevention Plan.

In accordance with section 304(e) of the CWA and 40 CFR § 122.44(k)(2), the Permittee shall develop and implement a Stormwater Pollution Prevention Plan (SWPPP) that is consistent with Sector R, Ship and Boat Building and Repairing Yards, of the Final Reissuance of the NPDES Stormwater Multi-Sector General Permit (MSGP) for Industrial Activities (73 FR 56572; September 29, 2008). The permit requires the Permittee to develop (or update) and implement a SWPPP with appropriate pollution prevention measures or BMPs designed to prevent pollutants related to stormwater from entering Apra Harbor.

This permit modification requires the Permittee to update the BMP Plan or SWPPP to incorporate BMPs related to small storm water capture and treatment through the rainwater filtration system.

BMPs to be considered for implementation in the BMP Plan and SWPPP shall include, but not be limited to the following:

Table 3. Example BMPs.

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Category	Practices
Pressure Washing	• Collect discharge and remove visible solids • Use no detergents or additives • Direct deck drainage to a collection system sump • Implement diagonal trenches or berms and sumps to collect wash water • Use solid decking, gutters, and sumps at lift platforms and collect for possible reuse
Surface Preparation, Sanding, and Paint Removal	• Enclose, cover, or contain blasting and sanding activities • Use the least hazardous blasting media economically available • Cover drains, trenches, and drainage channels; prohibit uncontained blasting or sanding activities over open water • Clean stormwater conveyances of deposits of blasting debris and paint chips • Prohibit blasting or sanding activities during windy conditions • Inspect and clean sediment traps • Sweep accessible areas of the dry dock • Collect spent abrasives and store under a cover to await proper disposal
Painting	• Enclose, cover, or contain painting activities • Prohibit uncontained spray painting over open water • Prohibit spray painting during windy conditions • Mix paints and solvents in designated areas away from drains, ditches, piers, and surface waters, preferable indoors, under a shed • Have absorbent and other cleanup items readily available for immediate cleanup of spills; allow empty paint cans to dry before disposal; keep paint and paint thinner away from traffic areas • Recycle paint, paint thinner, and solvents • Train employees on proper painting and spraying techniques
Dry Dock Maintenance	• Clean and maintain dry dock • Perform routine clean up of litter and debris • Sweep accessible areas to remove debris and spent sandblasting material prior to flooding • If using hosing then collect process wash waster to remove solids • Clean remaining areas of the dock after vessel has been removed and the dock raised • Remove and dispose of floatable and other low-density waste

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Category	Practices
Dry Dock Activities	• Use plastic barriers beneath the hull, between the hull and dry dock walls for containment • Use plastic barriers hung from the flying bridge of the dry dock, from the bow or stern of the vessel, or from temporary structures for containment • Weight down the bottom edge of containment • Use plywood and/or plastic sheeting to cover open areas between decks when sandblasting • Install rings or cleats, cable suspension systems, or scaffolding to make containment easier • Have absorbent materials and oil containment berms readily available • Use the least toxic cathodic protection anodes economically available (magnesium is less toxic than aluminum, which is less toxic than zinc) • Replace flaking cathodic protection anodes • Store old and new cathodic protection anodes out of contact with stormwater or areas that may contact stormwater (e.g., dry dock floor)
Non-Dry Dock Activities	• Hang tarpaulin from the boat, fixed, or floating platforms to reduce pollutants transported by wind • Place plastic sheeting or tarpaulin underneath boats to contain and collect waste and spent materials • Use fixed or floating platforms with appropriate plastic or tarpaulin barriers as work surfaces and for containment when work is performed on vessel in the blast material or paint overspray • Sweep debris before using hose to clean dry dock surfaces

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Category	Practices
Engine Maintenance and Repairs	• Maintain an organized inventory materials used in the maintenance shop • Dispose of greasy rag, oil filters, air filters, batteries, spent coolant, and degreasers properly • Minimize contamination of precipitation and surface runoff • Perform operations indoors • Label and track the recycling of waste material • Drain oil filters before disposal or recycling • Store cracked batteries in non-leaking secondary containers • Promptly transfer used fluids to proper container • Do not leave full drip pans or other open containers around the shop • Empty and clean drip pans and containers • Do not pour liquid waste down floor drains, sinks, or outdoor storm drain inlets • Plug floor drains that are connected to the storm or sanitary sewer • Inspect maintenance area regularly • Train employees on proper waste control and disposal procedures • Store permanent tanks in paved area surrounded by dike system which provides sufficient containment for the larger of either 10 percent of the volume of all containers or 110 percent of the volume of the largest tank • Prohibit hosing down the shop floor
Bulk Liquid Storage and Containment	• Maintain good integrity of all storage tanks • Routinely inspect storage tanks for leaks • Routinely inspect piping for failures or leaks • Train employees of proper filling and transfer stations • Store containerized materials in a protected, secure location and away from drains or otherwise minimize the contamination of precipitation and surface runoff • Cover fueling areas • Use spill and overflow protection

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Category	Practices
Containerized Material Storage	• Store reactive, ignitable, or flammable liquids in compliance with the local fire code • Label all containerized materials • Identify potentially hazardous materials, their characteristics, and use • Control excessive purchasing, storage, and handling of potentially hazardous materials • Keep records to identify quantity, receipt date, service life, users, and disposal routes • Secure and carefully monitor hazardous materials to prevent theft, vandalism, and misuse of materials • Educate personnel for proper storage, use cleanup, and disposal of materials • Provide sufficient containment for outdoor storage areas with a minimum of 110 percent of the volume of the largest tank • Use temporary containment where required by portable drip pans; use spill troughs for drums with taps • Mix paints and solvents in designated areas with secondary containment and away from drains, ditches, piers, and surface waters • Locate designated material storage areas indoors or under a shed or otherwise minimize the contamination of precipitation and surface runoff
Designated Material Mixing Areas	• If a spill occurs, immediately stop the source; contain the liquid until cleanup is complete; deploy oil containment booms if spill may reach water; cover spill with absorbent material; keep area well ventilated; dispose cleanup materials properly; do not use emulsifier or dispersant
Shipboard Process Water Handling	• Keep process and cooling water used aboard ships separate from sanitary wastes • Keep process and cooling water from contact with spent abrasives and paint • Keep wash water from contact with spent abrasives, cathodic protection anodes, and paint • Inspect connecting hoses for leaks
Ballast Water	• No chemical additives used to treat ballast water contents • Implement operational procedures to minimize the amount of ballast water discharged essential for dry dock operations • Routinely inspect the integrity of the ballast tanks to ensure pollutants from other dry dock operations are not contacting and polluting ballast water • Routinely inspect the receiving water during cycling events for oil sheens

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PART IX - OTHER CONSIDERATIONS UNDER FEDERAL LAW

A. Endangered Species Act

The discharge is to Apra Harbor and both the National Marine Fisheries Service (NMFS) and the United States Fish and Wildlife Service (USFW) have jurisdiction. EPA obtained a recent list of threatened and endangered species from NMFS as well as USFW. The list includes three animals and several plant species within the outfall vicinity as follows: Green Sea Turtle (*Chelonia mydas*), Hawksbill Sea Turtle (*Eretmochelys imbricate*), Scalloped hammerhead shark (*Sphyrna lewini*) and several coral species: *Acropora globiceps, Seriatopora aculeata and Acropora retusa*. Apra Harbor is also listed as essential fish habitat by the National Marine Fisheries Service.

No new construction, new pipelines, land, habitat, or hydrology alterations are associated with the permit reissuance. The effluent limits in the permit will not result in acute or chronic exposures to contaminants that would affect federally listed threatened and endangered species, nor impair any designated critical habitat. The effluent limits and monitoring requirements in the permit are designed to be fully protective of the beneficial uses of the receiving waters. Thus, EPA believes that this permit reissuance will not affect any federally listed threatened and endangered species. If, in the future, EPA obtains information or is provided information that indicates that there could be adverse impacts to federally listed species, EPA will contact the appropriate agency or agencies and initiate consultation, to ensure that such impacts are minimized or mitigated. EPA will provide the Services with copies of this fact sheet and the draft permit during the public notice period.

B. Impact to Coastal Zones

The Coastal Zone Management Act (CZMA) requires that Federal activities and licenses, including Federally permitted activities, must be consistent with an approved state Coastal Management Plan (CZMA Sections 307(c)(1) through (3)). Section 307(c) of the CZMA and implementing regulations at 40 C.F.R. Part 930 prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State (or Territory) Coastal Zone Management program, and the State (or Territory) or its designated agency concurs with the certification. Permittee has received this consistency certification renewal from the Guam Bureau of Statistics and Plans on April 5, 2018.

C. Impact to Essential Fish Habitat

The 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act (MSA) set forth a number of new mandates for NMFS, regional fishery management councils and other federal agencies to identify and protect important marine and anadromous fish species and habitat. The MSA requires Federal agencies to make a determination on Federal actions that may adversely impact Essential Fish Habitat (EFH) in marine environments. Apra Harbor is also

listed as essential fish habitat by the NMFS. EPA will send the draft permit and factsheet to NMFS for their review during the public comment period.

NMFS agrees with EPA's determination that the proposed permitting action may have adverse effects to EFH, although those effects are likely to be minimal, because the Permittee has agreed to procedures that will capture of the potential pollutants (abrasive blasting materials and removed paint etc.) from ship repair and maintenance and then pump this process water onto shore for treatment and/or disposal. In addition, the facility is designed to adequately deal with stormwater discharge volumes up to 25-year storm events. NMFS will not provide additional conservation recommendations for this project, thus satisfying the EFH provisions of the MSA as described by 50 CFR Part 600, Subpart K. (NMFS email communication to EPA Region 9 dated April 11, 2018.)

D. Impact to National Historic Properties

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effect of their undertakings on historic properties either listed on, or eligible for listing on, the National Register of Historic Places. Pursuant to federal requirements of NHPA and 36 CFR § 800.3(a)(1), EPA has evaluated the Permittee's location and determined the proposed permit does not have the potential to affect any historic or cultural properties.

PART X - ADMINISTRATIVE INFORMATION

A. Public Notice.

In accordance with 40 CFR § 124.10, the EPA Director shall give public notice that a proposed permit has been prepared under 40 CFR § 124.6(d) by mailing a copy of the notice to the permit applicant and other federal and state agencies, and through publication of a notice in a daily or weekly newspaper within the area affected by the facility. On February 16, EPA issued a notice inviting public comment on this permit renewal and the public notice allowed at least 30 days for public comment on the draft permit.

B. Public Comment Period.

In accordance with 40 CFR §§ 124.11 and 124.12, during the public comment period, any interested person may submit written comments on the proposed permit and may request a public hearing, if no hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. In accordance with 40 CFR § 124.13, all persons must raise all reasonably ascertainable issues and submit all reasonably available arguments supporting their position by the close of the public comment period.

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Comments, submittals, and additional information relating to this proposal may be directed to:

Peter Kozelka, (415) 972-3448
kozelka.peter@epa.gov

EPA Region 9
75 Hawthorne St. (WTR 2-3)
San Francisco, CA 94105

C. Public Hearing.

In accordance with 40 CFR § 124.12, the EPA Director shall hold a public hearing whenever he finds, on the basis of requests, a significant degree of public interest in the draft permit. The Director may also hold a public hearing at his discretion when, for instance, such a hearing might clarify one or more issues involved in the permit decision. Public notice of such hearing shall be given as specified in 40 CFR § 124.10.

D. Territorial Certification.

In accordance with 40 CFR § 124.53, Under section 401(a)(1) of the CWA, EPA may not issue a permit until certification is granted or waived in accordance with that section by the State or Territory in which the discharge originates. 40 C.F.R. § 124.53. Territorial certification under section 401 of the CWA shall be in writing and shall include the conditions necessary to assure compliance with referenced applicable provisions of sections 208(e), 301, 302, 303, 306, and 307 of the CWA and appropriate requirements of Territorial law.

In a letter dated November 28th, 2012, Guam EPA issued a 401 Water Quality Certification operating permit to Cabras Marine Corporation. The certification stipulated several conditions which must be complied with in accordance with the Clean Water Act, Public Law 95-127 and the Guam Water Quality Standards 2001 Revisions (GWQS), pursuant to the Guam Water Pollution Control Act, Chapter 47, Title 10 GCA. These discharge limits are authorized under Guam's anti-degradation policy GWQS 5101.B. The letter and certification are included with this fact sheet (Appendix D).

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PART XI - REFERENCES

GEPA (Guam Environmental Protection Agency). 2001. *Guam Water Quality Standards.* Guam Environmental Protection Agency.

USEPA (U.S. Environmental Protection Agency). 2008. Draft National Pollutant Discharge Elimination System (NPDES) Vessel General Permits for Discharges Incidental to the Normal Operation of Vessels, U.S. Environmental Protection Agency, Office of Water. *Fed Regist*., June 17, 2008, 73:34296.

USEPA. 2010. *Fact Sheet, Guam Shipyard, NPDES Permit No. GU0020362.* Environmental Protection Agency, Region 9.

USEPA. 2010. *Fact Sheet, MYD Samoa, NPDES Permit No. AS0020036.* Environmental Protection Agency, Region 9.

USEPA. 2008. Final National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Industrial Activities, U.S. Environmental Protection Agency, Office of Water. Fed Reg., September 29, 2008, 73:56572.

USEPA. 1993a. Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity. Washington (DC): Office of Research and Development, EPA. Report nr EPA/600/R-92/080. Available from: http://cfpub.epa.gov/npdes/

USEPA. 1993b. Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity. Washington (DC): Office of Research and Development, EPA. Report nr EPA/600/R-92/081. Available from: http://cfpub.epa.gov/npdes/

USEPA. 1992. Toxicity Identification Evaluations: Characterization of Chronically Toxic Effluents, Phase I. Washington (DC): Office of Research and Development, EPA. Report No. EPA/600/6-91/005F. Available from: http://cfpub.epa.gov/npdes/

USEPA. 1991. *Technical Support Document for Water Quality-based Toxics Control*. U.S. Environmental Protection Agency, Office of Water Enforcement and Permits, March 1991. EPA/505/2-90-001.

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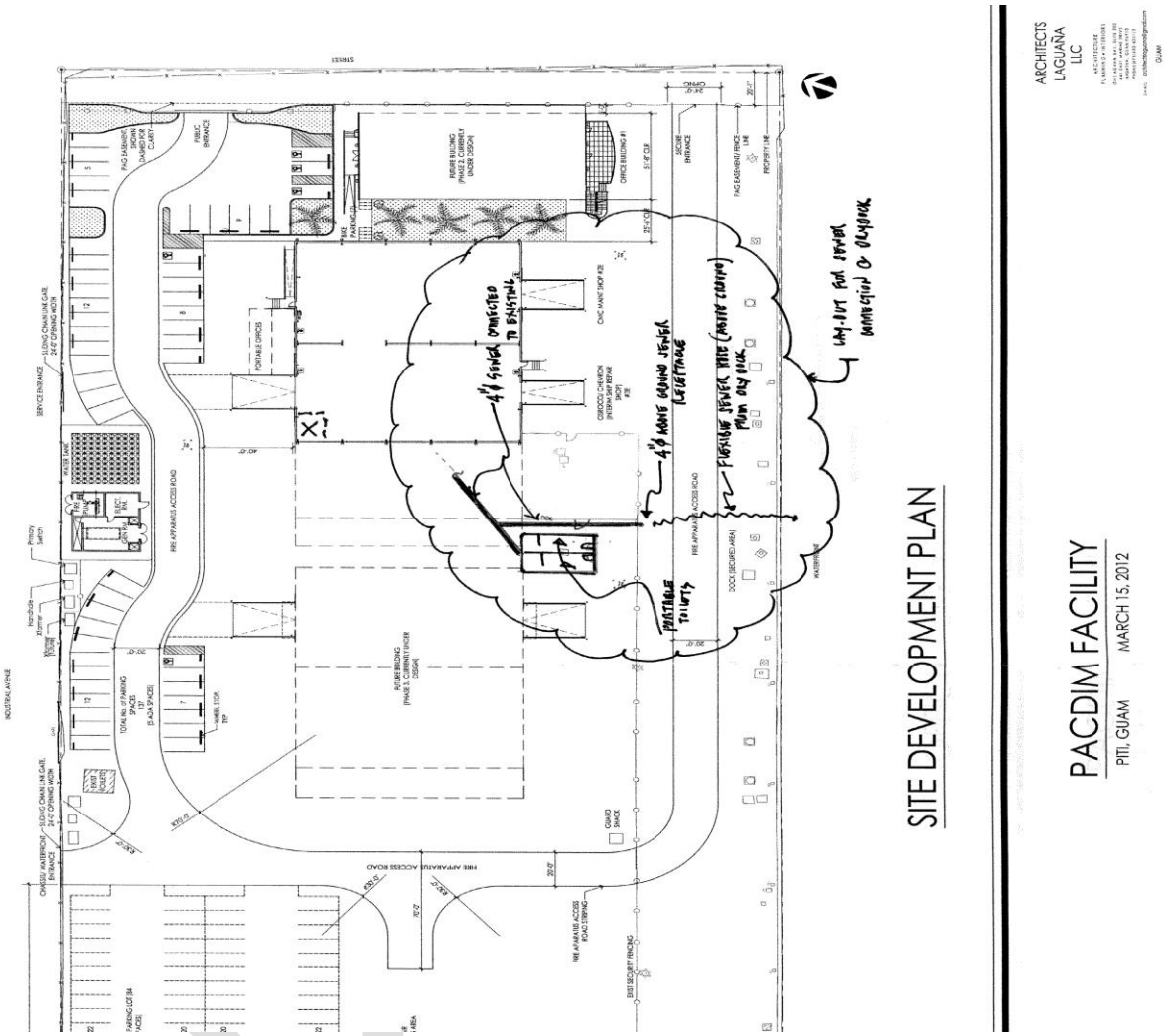
PART XII - APPENDICIES

APPENDIX A

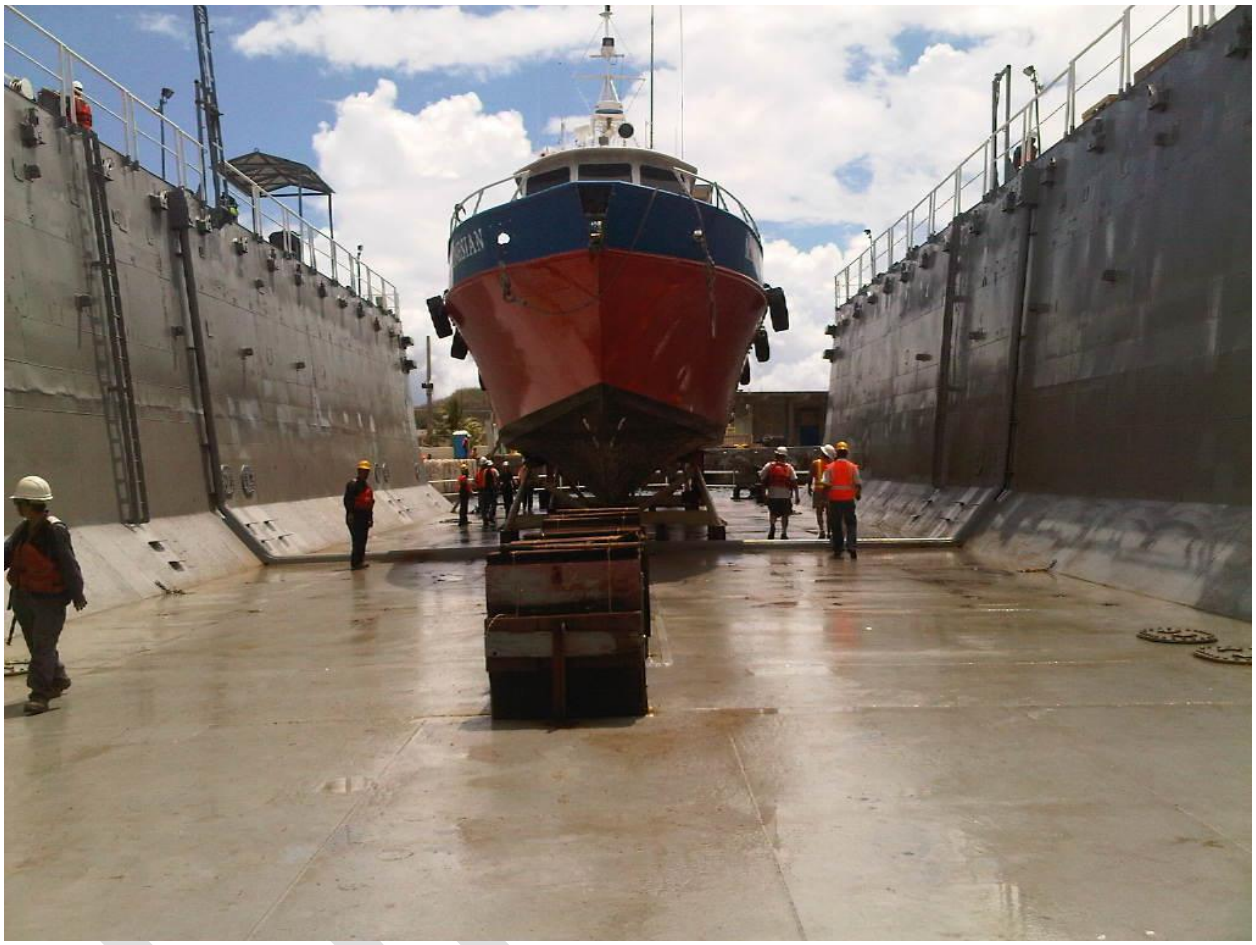
Facility Diagram for Cabras Marine Corporation



Cabras on-shore site plan for connections to local sewer (for process wash water) and temporary storage (for most stormwater).

APPENDIX B

Cabras Marine Corp. Dry Dock AFDL-21



Close up of interior walls and flooring (May 2012)

APPENDIX C

Photos of Dry Dock sump

Stormwater collection on deck of Cabras Dry Dock.

Sump and hose used to remove stormwater from deck of Dry Dock.

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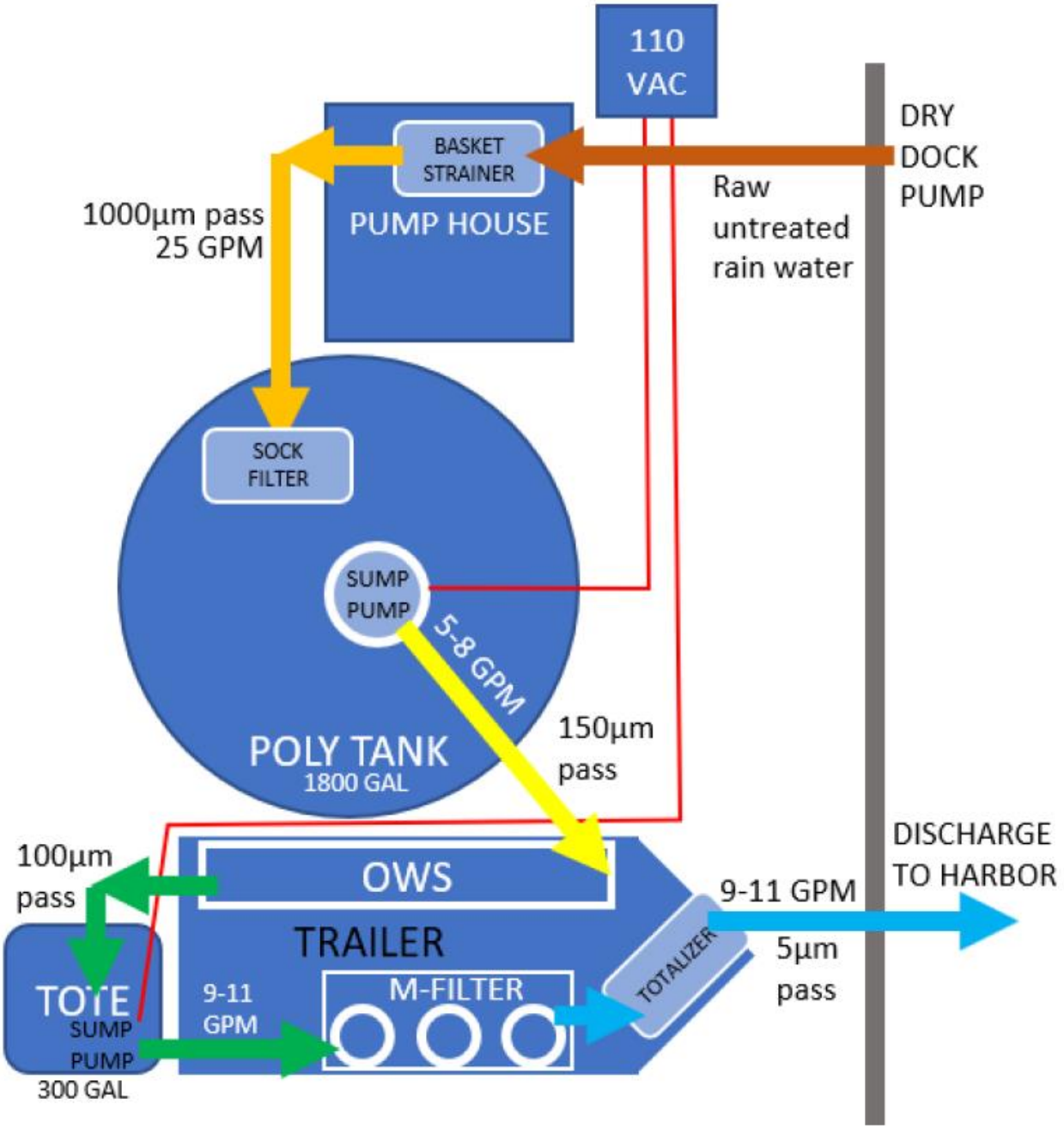

Schematic of Rainwater Filtration System

APPENDIX D

Guam EPA Section 401 Water Quality Certification Permit
(from 2012)

GUAM ENVIRONMENTAL PROTECTION AGENCY

Section 401 Water Quality Certification:

Section 401 Water Quality Certification Temporary Operating Permit for **AFDL-21 Floating Dry Dock in Apra Harbor, at Pier F2, Applicant: Mr. Joseph L. Cruz, President, Cabras Marine Corporation.**

The Guam Environmental Protection Agency hereby issues Section 401 Water Quality Certification: ***401WQC 12-03*** in accordance with the Clean Water Act, Public Law 95-127 and the Guam Water Quality Standards 2001 Revisions (GWQS), pursuant to the Guam Water Pollution Control Act, Chapter 47, Title 10 GCA. These discharge limits are authorized under Guam's anti-degradation policy GWQS 5101.B.

Section 401 Water Quality Certification permit is only valid until all permit conditions are met. The issuance of Water Quality Certification does not exempt or waive any other local and federal requirements or allows the applicant to injure or damage surrounding properties.

No person shall willfully deface, alter, forge, counterfeit, or falsify this certification.

ERIC M. PALACIOS
Acting Administrator

04.18.12
date: