

US EPA ARCHIVE DOCUMENT

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
FACT SHEET

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NPDES Permit No.: GU0020397

PART I - STATUS OF PERMIT

Cabras Marine Corporation (hereinafter, the "Permittee") has applied for an initial 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 U.S. to submit a complete application for a NPDES permit, including renewal of a permit. The Cabras Marine dry dock facility has not previously been issued an NPDES permit in Guam. Additional application information was requested by EPA, and received in May and June 2012. The Permittee submitted a revised NPDES permit application to EPA on July 3, 2012.

NOTE: This NPDES permit does not allow discharge of dry dock operations process wash water to surface waters, since permittee has indicated that 100% process water will be captured from drydock deck, pumped on shore and then diverted into the local sewer collection system. See Appendix D: Letter, dated October 23, 2012, from Guam Waterworks Authority to Cabras Marine Corporation serving as conditional permit for discharging process wash water from Cabras' facility into sewer system.

PART II - DESCRIPTION OF FACILITY

The Permittee proposes to operate and discharge 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; e.g. tug boats, personnel support boats, government owned vessels and barges, etc. The dry dock is 200 feet long and 64 feet wide, with a lifting capacity of 1,000 tons. On-site operations on the dry dock consist of

service, repair and alteration work on a variety of small vessels, typically 75-100 feet long. Normal drydock activities such as abrasive blasting, pressure washing, application and removal of marine surface coat materials, hydrostatic testing, metal work, electrical work, mechanical work, material storage, and other related industrial activities occur during regular operations. The Permittee anticipates each vessel will be serviced within 30 days, with a total 60 day cycle for the vessel within the drydock unit.

The Permittee's application describes how the AFDL-21 floating dry dock facility has been modified to capture all process wash water and most stormwater and divert such water on shore. More specifically, the Permittee has installed a four-inch flexible hose and pump system to capture process wash water used within the dry dock, pump on shore and flow through a pretreatment/filtration system prior to entering the local sewer collection system operated by Guam Waterworks Authority.¹ This will divert 100% process wash water which contains pollutants associated with hydroblasting and sandblasting vessels in service prior to repainting and additional maintenance. Additionally for storm water, 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. This storm water retention system is designed to capture up to but not including once in 25yr/24 hr storm events. Once on shore, such stormwater is temporarily stored on site and then hauled off by commercial operator. Thus, the Permittee has applied to discharge storm runoff from drydock only during extreme storm events which may contain minimal or residual amounts of pollutants through Outfall Nos. 001-004 to Apra Harbor.

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

The Permittee has not applied for discharge of 'non-contact' cooling water (e.g., steam condensate, emergency generating cooling water and air conditioner condensate) since such equipment will not be utilized within the dry dock. Nor has the Permittee applied for a permit to discharge fire protection relief water due to testing fire equipment.

Shore side activities are covered under the multi-sector general storm water permit, and are not addressed in this permit.

PART III - DESCRIPTION OF DISCHARGE AND RECEIVING WATER

A. Discharge(s).

¹ On October 23, 2012, the permittee received letter from Guam Water Authority (GWA) serving as a conditional permit for discharging process wastewater (i.e., "wash water") into the GWA sewer system. This NPDES permit assumes the permittee will capture and perform pre-treatment/filtration on shore prior to discharge of process wash water to the local sewer system. GWA has outlined several conditions that Cabras Marine within the October 23, 2012 letter, including monitoring requirements of wash water discharge flow and several water quality parameters prior to entering the sewer collection system.

The Permittee acknowledges that when storm water runoff is discharged; it will occur during storms beyond the normal thunderstorms and rainfall conditions in Guam and will flow through Outfall Nos. 001-004. Dry dock ballast water will be discharged through Outfall Nos. 005-012.

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	Storm Water ^{(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

^(a) storm water associated with rainfalls less than once in 25 yr/24 hr storm events will be captured, stored onshore and then hauled off by commercial operator; whereas storm water associated with greater than 25 or 50 year storm events is likely to discharge to receiving waters.

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. Storm water runoff.

The permit application addresses the discharge of storm water through Outfall Nos. 001-004 to Apra Harbor. Storm runoff of storm conditions considered normal rainfall in Guam will be captured, and diverted onshore, therefore, only residual amounts of pollutants are likely to be included in once in 25 yr/24hr. storm events. Monitoring requirements established in the proposed NPDES permit for stormwater discharges are summarized in Table 2.

Table 2. Monitoring Requirements for Discharge of Storm Water 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 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 an initial permit application, no discharge monitoring report (DMR) data were available for review during the permitting process.

Activities expected to occur on the dry dock that are potential sources of pollutants to process wash water and storm 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. During these processes, a variety of pollutants (including copper, lead, zinc, and possibly tributyltin) may be released into the environment and be discharged 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. This produces "process wash" water, which may contain rust, scale, paint particles, and associated pollutants. These pollutants have the potential to contaminate surface runoff or contaminate the receiving water.

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 storm water to potential pollutants and potential discharge. The removal of all the process wash water from being discharged to ambient waters via the capture and retention system is expected to capture the maximum amount of pollutants associated with these facility operations and divert to local sewer system. Prior to submergence, the dry dock inner walls and floor will be rinsed and any wash water will be captured and diverted onshore too. Thus only residual amounts of pollutants are expected to be discharged only during extreme storm events, including typhoons. Additional BMPs will also be implemented to minimize direct deposition into the receiving waters of Apra Harbor; e.g., shrouds covering internal work areas within the dry dock walls.

2. 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 AFLD-21. The discharge of ballast water is necessary for the operation of a dry dock and discharge prohibition is inappropriate for this facility. As previously described, this AFLD-21 drydock has already been serviced and maintained prior to arrival in Guam; this includes cleaning and preparation of the ballast water tanks. Frequency of discharge is twice per

60 day-cycle. The Permittee describes the uptake and discharge of ambient waters within Apra Harbor for the purposes of dry dock ballast is not expected to lower water quality.

The discharge of ballast water from the dry dock is authorized under this permit and discharge requirements have been established as described in sections IV.A.2, IV.D.4, and V. of this factsheet. The regulation of the discharge of dry dock ballast water into Apra Harbor by the Permittee is consistent with Guam's anti-degradation policy (section 5101 of the GUAM WQS).

The discharge of ballast water during the rising and lowering (cycling) of the dry dock is expected to occur throughout the year, with an approximate discharge of 765,000 gallons of ambient seawater per cycle. Ballast water may 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. Such materials are not anticipated since the dry dock ballast tanks have been recently serviced prior to arrival in Guam. BMPs 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.

Typically the primary water quality concern 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. ANS are not a concern in the AFDL-21 dry dock ballast discharges because: (a) dry dock ballast tanks were recently cleaned and serviced prior to arrival in Apra Harbor; and (b) the dry dock is expected to remain in Apra Harbor, therefore any ballast water pollutants would include any pollutants already present in the ambient receiving water, and any potential pollutants that might leach from the inside of the AFDL-21 dry dock ballast tanks.

3. 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 storm water 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).

4. 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 facility proposes to discharge to Apra Harbor. To protect the designated uses of surface waters of the U.S., 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:

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 2010 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 listed as low priority.

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. Here is a brief summary of the baseline monitoring results.

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 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 PAHs, and HI Range 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 initial NPDES permit application, EPA evaluated NPDES permits for similar drydock facilities to determine the water quality parameters for effluent limitations and those parameters for ambient surface water monitoring. EPA also applied best professional judgment to evaluate the Permittee's modifications to the dry dock to retain, capture all process wash water and most stormwater (associated with normal thunderstorms and rainfall) and divert to the local sewer system. And EPA considered best practicable treatment, best available treatment and water quality based effluent limitations 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.

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

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 storm water pollution prevention plan (SWPPP), and a BMP Plan. The specific BMPS and the requirements for the SWPPP and BMP Plan are specified in section III of the permit and shall serve as technology-based effluent limitations for the discharge of storm water 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 incorporate section 304(a) 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, and 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 (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 initial 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.

1. 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. Because this is a permit for the initial application, anti-backsliding provisions do not apply.

D. Summary of Monitoring Requirements.

1. The permittee shall maintain compliance with monitoring requirements specified in Table 2 (above) for the discharge of storm water through Outfall Nos. 001-004 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. All monitoring data shall be reported on monthly DMR forms or via NetDMR and submitted quarterly to USEPA and Guam EPA, as specified in the permit.

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 storm water 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 Part 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 water², 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 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.³ 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.
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 first two years of this permit cycle; thereafter, the

¹ Process wash water is defined as any water used to cleanse or rinse off the vessel-in-dock during servicing and includes any wash water used to rinse off the inside walls or floor of the dry dock as part of the best housekeeping practices.

³ On October 23, 2012, 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 Cabras Marine 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, Guam Water Authority decides in future to alter or revoke this conditional permit for wash water, then EPA may choose to revise this NPDES permit for Cabras Marine Corporation due to altered discharge conditions.

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 powerwashing) 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 of the Act.” 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 Storm Water 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 Storm Water Pollution Prevention Plan (SWPPP) that is consistent with Sector R, Ship and Boat Building and Repairing Yards, of the Final Reissuance of the NPDES Storm Water 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 storm water from entering Apra Harbor.

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.

Category	Practices
Pressure Washing	<ul style="list-style-type: none"> • 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

Category	Practices
<p>Surface Preparation, Sanding, and Paint Removal</p>	<ul style="list-style-type: none"> • 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 storm water 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
<p>Painting</p>	<ul style="list-style-type: none"> • 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
<p>Dry Dock Maintenance</p>	<ul style="list-style-type: none"> • 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 water 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

Category	Practices
Dry Dock Activities	<ul style="list-style-type: none"> • 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 storm water or areas that may contact storm water (e.g., dry dock floor)
Non Dry Dock Activities	<ul style="list-style-type: none"> • 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

Category	Practices
<p>Engine Maintenance and Repairs</p>	<ul style="list-style-type: none"> • 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
<p>Bulk Liquid Storage and Containment</p>	<ul style="list-style-type: none"> • 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

Category	Practices
<p>Containerized Material Storage</p>	<ul style="list-style-type: none"> • 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
<p>Designated Material Mixing Areas</p>	<ul style="list-style-type: none"> • If a spill occurs, 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
<p>Shipboard Process Water Handling</p>	<ul style="list-style-type: none"> • 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
<p>Ballast Water</p>	<ul style="list-style-type: none"> • 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

PART IX - OTHER CONSIDERATIONS UNDER FEDERAL LAW

A. Endangered Species Act

The discharge is to Apra Harbor and therefore the US Fish and Wildlife Service is the federal agency with jurisdiction. EPA obtained a list of threatened and endangered species from the US Fish and Wildlife Service. The list includes four animal species as follows: Green Sea Turtle (*Chelonia mydas*), Hawksbill Sea Turtle (*Eretmochelys imbricate*), Leatherback Sea Turtle (*Dermochelys coriacea*), Loggerhead Sea Turtle (*Caretta caretta*).

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, or 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 under the NOAA National Marine Fisheries or US Fish and Wildlife Services jurisdictions that may be present in the area of discharge. 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 provided 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 CFR 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.

B. 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 the National Marine Fisheries Service (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. EPA provided the draft permit and factsheet to NMFS for their review during the public comment period.

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 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. 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.

On July 18, 2012, EPA published notification of availability of the proposed the draft permit and factsheet for public comment for 30 days of review. As of August 17, 2012, no public comments, nor requests for public hearing were received.

C. Public Hearing.

In accordance with 40 CFR 124.12, the EPA Director shall hold a public hearing whenever she finds, on the basis of requests, a significant degree of public interest in the draft permit. The Director may also hold a public hearing 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 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. 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 Territory law.

In a letter dated November 28th, 2012, Guam EPA issued a 401 Water Quality Certification temporary operating permit for Cabras Marine Corporation. The certification stipulated several conditions which must be complied with as enforced by Title 10, Chapter 47, GCA Water Pollution Control Act, Section 47111: penalties as amended by Public Law 17-87. The letter and certification are included with this fact sheet (Appendix D).

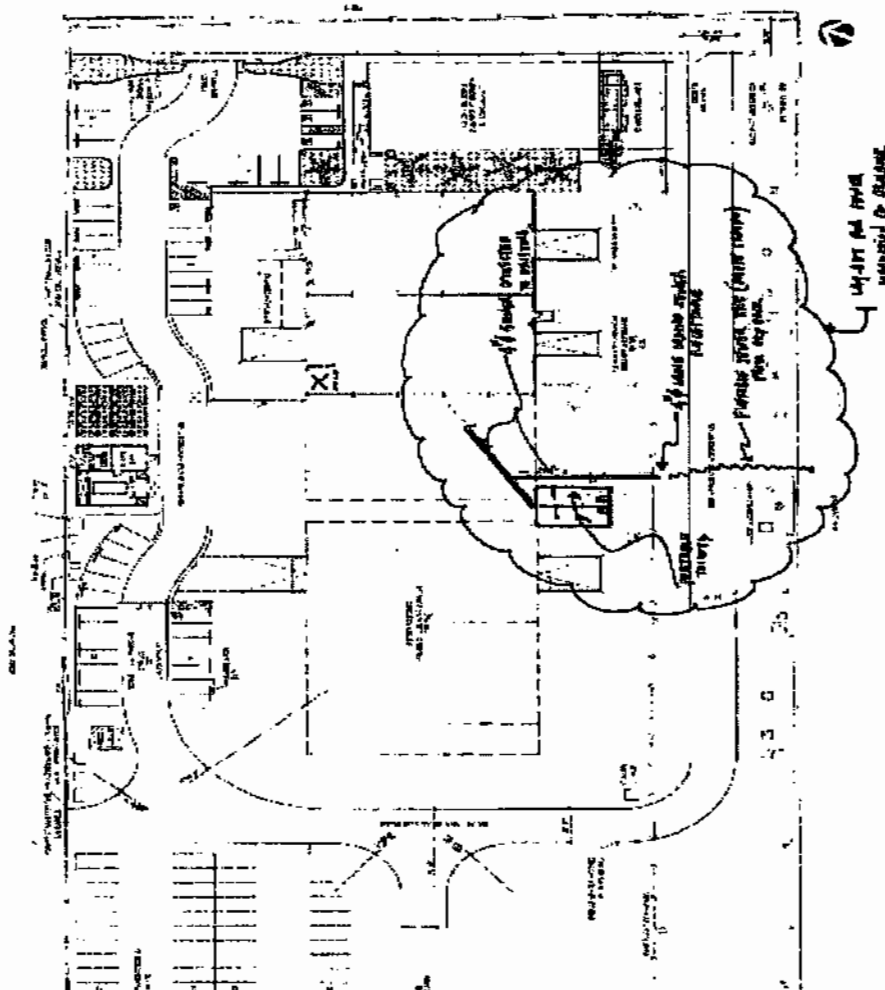
PART XI - REFERENCES

- 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 nr 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.

PART XII - APPENDICES

APPENDIX A

Facility Diagram for Cabras Marine Corporation



SITE DEVELOPMENT PLAN

ARCHITECT
LAGUNA
L.L.C.
1000 S. GARDEN AVENUE
LAGUNA BEACH, CA 92653
TEL: 949.261.1234
WWW.LAGUNAARCHITECTS.COM

PACDIM FACILITY
PTL CHAN MARCH 14, 2012

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

APPENDIX B

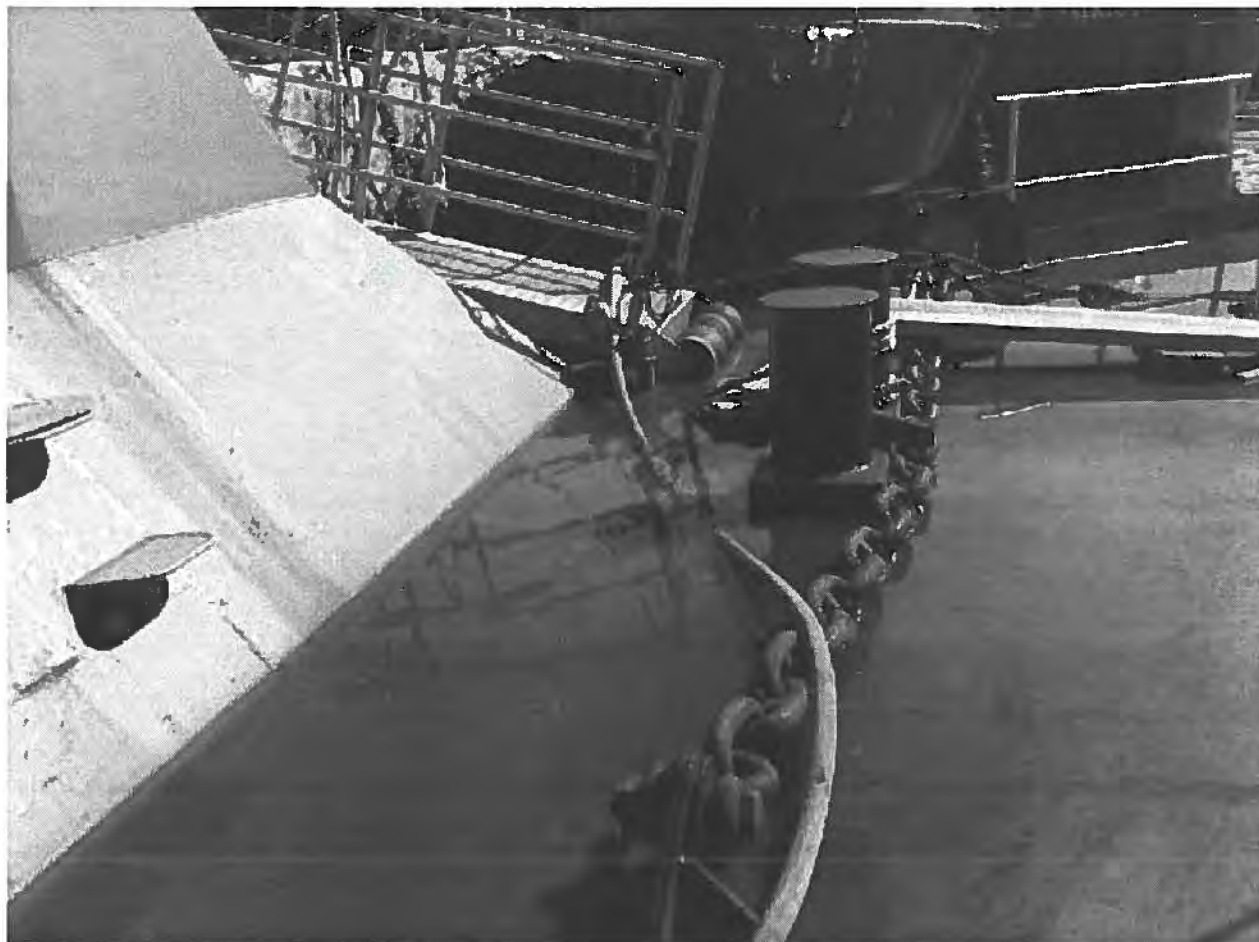
Cabras Marine Corp. Drydock AFDL-21



Close up of interior walls and flooring (May 2012)

APPENDIX C

Photos of Drydock sump



Stormwater collection on deck of Cabras drydock.



Sump and hose used to remove stormwater from deck of drydock.

APPENDIX D

Guam EPA Section 401 Water Quality Certification Permit

(see next pages)

US EPA ARCHIVE DOCUMENT



GUAM ENVIRONMENTAL PROTECTION AGENCY

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GUAM ENVIRONMENTAL
PROTECTION AGENCY
1973

EDDIE BAZA CALVO
GOVERNOR OF GUAM

RAY TENORIO
LT. GOVERNOR OF GUAM

ERIC M. PALACIOS
ADMINISTRATOR, GUAM EPA, ENERGY OFFICE

P.O. BOX 22439 BARRIGADA, GU 96921

P: (671)475-1658/59

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EPA.GUAM.GOV

Mr. Joseph L. Cruz, President
Cabras Marine Corporation
Suite 114, 1026 Cabras Highway
Piti, Guam 96915

NOV 28 2012

RE: 401 Water Quality Certification Permit for AFDL-21 Floating Dry Dock in Apra Harbor, Guam, NPDES GU0020397, 401WQC 13-03.

Hafa Adai Mr. Cruz,

The Guam Environmental Protection Agency (Guam EPA or the Agency) has reviewed the USEPA's, National Pollutant Discharge Elimination System (NPDES) Permit and Fact Sheets to authorize the discharge of stormwater and ballast water from the floating AFDL-21, your floating dry dock. The location of the (AFDL-21) dry dock at outfall 001-004 Stormwater located at 13° 26' 30" North, 144° 39' 24" East, at Pier F2 in the Commercial Port of Guam, Cabras Island. The light floating dry dock has an overall length (LOA) of 60.96 meters, overall width of 19.50 meters and a capacity/rating of 1,000 tons. It will be used mostly on small vessel repairs, like tugboat and barges.

Water Quality Designation

The water quality designation for this area of Apra Harbor is classified as M-3 (Fair). The beneficial water uses in this water quality category are intended for general, commercial and industrial uses including shipping, boating and berthing while allowing for the protection of aquatic life, aesthetic enjoyment and compatible recreation with limited body contact (Guam Water Quality Standards, Guam EPA 2001 Revision). Turbidity values in nephelometric turbidity units (NTU's) shall not exceed 1.0 NTU's over ambient conditions, except when due to natural conditions.

Effluent Limitations:

The control of pollutants is established through effluent limitations and other requirements in the USEPA Region IX, National Pollutant Discharge Elimination System NPDES Permit No. Gu0020397. The Clean Water Act requires the development of effluent limitation, guidelines and standards. Section 402(a) (1) of the Act authorizes

the use of best judgment to derive technology-based effluent limitations on a case-by-case basis where effluent limitation guidelines are not available for certain industrial categories and /or pollutants of concern.

Water Quality Based Effluent Limitations:

The criteria for priority toxic pollutants designated under Section 307(a)(1) of the Clean Water Act for the protection of aquatic life (acute and chronic) and human health (consumption of organisms) were utilized in accordance federal requirements and Guam Water Quality Standards (GWQS).

The NPDES permit will establish the most protective technology-base effluent limitations for oil and grease and total suspended solids. The requirement to develop and implement a Storm Water Pollution Prevention Plan and Best Management Plan will be carried over for all applicable discharges, including discharges not addressed in the application of the current NPDES permit, therefore; the proposed changes are consistent with Guam's anti-degradation policy of the GWQS.

Section 401 Water Quality Certification Conditions:

The Guam Environmental Protection Agency issues this Section 401 Water Quality Certification Permit with the following conditions. Water Quality Certification conditions may be added, amended, or changed and/or Water Quality Certification may be suspended or revoked to ensure discharge in compliance with Guam Water Quality Standards (GWQS). GWQS conditions to ensure compliance with applicable provisions of the Clean Water Act sections 208(e), 301, 302, 303, and 307 are as follows.

1. The discharger shall take immediate corrective actions or engineer measures to address non-compliance of water quality standards and notify the Agency within 24 hours.
2. Prior to first discharge, the Applicant should conduct sampling of marine water and the marine sediment in the vicinity of final berthing location, pier F-2, of dry dock within the Port Authority of Guam, to establish background levels for all listed constituents.
3. In-water work shall be suspended if any sea turtles are observed within the area. The sea turtles will be allowed to come into and out of the work area, unharassed, on their own accord.
4. Water Quality Monitoring shall adhere to corresponding NPDES Permit requirements.

5. The Permittee must strictly implement "good housekeeping" and Best Management Practices prior to each dry dock submergence to prevent accumulation of debris and corroded metal scale from the dry dock floor from being discharged into the receiving waters.
6. The Permittee will ensure that all contact water be collected and disposed off site pursuant to the "Conditional Permit" issued by Guam Waterworks Authority relative to Cabras Marine Corporation discharging wastewater into GWA sewer collection system.

A Notice of Violation/Work Stop Order will be issued if certification conditions are not adhered to or when significant or sustained water quality degradation occurs. Work or discharge shall be suspended or halted until the applicant addresses environmental problems/concerns to Guam EPA's satisfaction. Guam EPA may also levy penalties and fines (Title 10 GCA, Chapter 47, Water Pollution Control Act Section 477111: penalties as amended by Public Law 17-87). Invalidity or enforceability of one or more provisions of this certification shall not affect any other provisions of this certification.



ERIC M. PALACIOS
Administrator

Attachment: 401Water Quality Certificate
Guam Waterworks Authority "Conditional Permit"
USEPA Region IX, Draft NPDES Permit No., GU0020397/Fact Sheet

CC: ACOE, Guam Regulatory Office
USEPA, Region 9
Bureau of Statistics & Plans, GCMP
Guam Department of Agriculture, DAWR

US EPA ARCHIVE DOCUMENT

GUAM ENVIRONMENTAL PROTECTION AGENCY

Section 401 Water Quality Certification:

Section 401 Water Quality Certification for Discharge: **AFDL-21 Floating Dry Dock in Apra Harbor, Cabras, Piti, Guam, And Applicant: Mr. Joseph L. Cruz, President, Cabras Marine Corporation, Suite 114, 1026 Cabras Highway, Piti, Guam.** The Guam Environmental Protection Agency hereby issues Section 401 Water Quality Certification: **401WQC 13-03** 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 allow the applicant to injure or damage surrounding properties. No person shall willfully deface, alter, forge, counterfeit, or falsify this certification.


ERIC M. PALACIOS
 Administrator

Date: *11/28/12*



GUAM WATERWORKS AUTHORITY
578 North Marine Corp Drive, Tamuning, Guam 96931-4111

October 23, 2012

Carlos Salas
Cabras Marine Corporation
1026 Cabras Highway, Suite 114
Piti, Guam 96915

Subject: GWA Conditional Permit for Water and Sewer Services

Hafa Adai Mr. Salas,

GWA is issuing this letter to serve as a "Conditional Permit" relative to Cabras Marine Corporation discharging wastewater into the GWA sewer collection system. GWA understands that "wash water" generated during certain operational activities may contain constituents that are to be monitored and/or controlled prior to entering into the GWA system. The following are the conditions GWA will require of Cabras Marine Corporation:

- 1) The current account with GWA shall be changed to "Commercial 3" due to the "wash water" that will be coming into the GWA system.
- 2) Cabras Marine Corporation shall provide monthly flow for the wash waters discharged under this permit.
- 3) Quarterly reports shall be submitted to GWA Compliance and Safety office showing the wash water composition. Should the report reveal no constituents that are detrimental to the GWA system for four straight quarters the reports can be submitted annually.
- 4) Data collected in the quarterly reports shall be: Total Suspended Solids (TSS) in mg/L; 5 day Biochemical Oxygen Demand (BOD₅) in mg/L; pH; Total Dissolved Solids in mg/L (or conductivity in $\mu\text{s}/\text{cm}$).
- 5) Prior to any wash water being discharged into the GWA sewer collection system the wash water shall go through a pretreatment process/filtration system.
- 6) Cabras Marine Corporation and GWA may need to modify this permit if the National Pollution Discharge Elimination (NPDES) permit for the Hagåtña WWTP is modified by USEPA.

Should you have any questions or concerns please feel free to contact Paul Kemp, MS, Compliance and Safety Officer at 647-2605 or email him at paulkemp@guamwaterworks.org

Regards,

Martin L. Roush, P.E.
General Manager

CC: Chief Engineer *TFC*
Customer Service

