

RESPONSE TO COMMENTS
General Permit for Bulk Fuel Storage Facilities in Guam
NPDES Permit No. GUG000001

EPA received comments from the United States Fish and Wildlife Service Pacific Islands and Wildlife Office (USFWS) on EPA's draft NPDES General Permit for Bulk Fuel Storage Facilities in Guam (GGP). EPA has summarized the comments and responded to comments below.

COMMENT 1: USFWS provided information about federally listed species that may be present within or near the project area as follows: “The federally threatened Mariana fruit bat (*Pteropus marianus marianus*) may forage or roost in forested areas; the threatened green sea turtle (*Chelonia mydas*) and endangered hawksbill sea turtle (*Eretmochelys imbricata*) may nest on shoreline areas; and the endangered Mariana common moorhen (*Gallinula chloropus guami*) may occur in wetland or riverine habitats on or near your proposed project work sites. The federally endangered snails (*Partula radiolata*) Guam tree snail, (*Partula gibba*) Humped tree snail, or (*Samoana fragilis*) Fragile tree snail, may be present in the more forested, humid, riverine areas. (*Phyllanthus saffordi*) and (*Hedyotis megalantha*) are savanna species that may be found within or close to your project area. We also have determined that there is no proposed or designated critical habitat within the project area. We recommend that work only occur between 7 am and 5 pm, as artificial lighting used for construction work at night can disorient nesting turtles, foraging or roosting bats, and seabirds, which are protected under the Migratory Bird Treaty Act. Steps should be put in place to dispose of materials and waste properly and litter control to prevent attracting or spreading pest species. If any of this information changes, please contact us before proceeding with the project.

RESPONSE 1: The permit factsheet was amended to include the additional species indicated by the USFWS, and EPA reviewed information available and determined that there was no nexus between the three listed snail species and two listed plant species identified and this permit in lieu of the existing individual permits permit would not affect these species either. Additionally, under the Special Conditions section in the final permit, EPA included language to address potential issues related to artificial lighting, construction, disposed of materials and waste, as well as litter control at the facilities covered under this permit.

EPA received comments from the Mobil Oil Guam Inc. (MOGI) on EPA draft NPDES General Permit for Bulk Fuel Storage Facilities in Guam (GGP). EPA has summarized the comments and responded to comments below.

COMMENT 2: MOGI commented on Section III.C. of the factsheet which addresses the Types of Discharges Authorized. MOGI stated that:

The proposed permit lists five categories of discharges from the bulk terminal. It further states that storm water contaminated by “coming in contact with spills, leaks, improperly stored materials and wastes, and an inadequately cleaned facility” are not authorized by the General Permit but rather are regulated by the Multi-Sector General Permit (MSGP). MOGI believes that this provision is unclear because it appears to require terminals to also apply for the MSGP for the same outfalls authorized by the proposed bulk terminal permit. In addition, MOGI’s current NPDES permit authorizes “water from maintenance activities” that is not one of the five enumerated categories of authorized wastewater.

Maintenance activities include repair of pumps that are in product service. Wash down water associated with these activities, following dry clean up, may contain small amounts of petroleum materials. These wastewaters are no different from the “ship to shore transference minor spills and incidental leaks” that are identified as authorized discharges in the proposed permit. MOGI requests that the category of “equipment maintenance activities” be added to the authorized wastewaters for discharge under the proposed General Permit.

MOGI also requests clarification of the reference to the MSGP. Does EPA expect bulk terminals to also apply for MSGP coverage for the same outfalls identified in the proposed General Permit? MOGI does have MSGP coverage for areas of the terminal that do not drain through Outfalls 001 and 002 and are eligible for such coverage.

RESPONSE 2: EPA did not intend for MOGI or other permittees to also apply for MSGP coverage for the same outfalls identified in the proposed General Permit. EPA therefore has removed the language in the factsheet Section III.C. referring to the MSGP. EPA has included the category of “water from maintenance activities” as an enumerated category.

COMMENT 3: MOGI stated that in Section IV.A.4. of the factsheet which refers to the basis for Specific Permit Conditions for Benzene:

The proposed General Permit would establish a limit of 16 µg/L or 0.016 mg/L as a daily maximum. The Fact Sheet indicates that MOGI discharge data for benzene demonstrates a reasonable potential to exceed this limit and thus proposes benzene limit for the discharge.

EPA based its reasonable potential analysis (RPA) for benzene on data submitted by MOGI for the 2012 Cabras Terminal permit. In its application to renew and amend the permit that was filed with EPA on May 4, 2017 MOGI submitted benzene data consisting of 38 Outfall 002 effluent samples analyzed during the term of the current permit (Outfall 001 had no discharge during the permit term). The highest measured benzene concentration is 8.7 µg/L (0.0087 mg/L). Using the EPA RPA equations on page 56 of the Technical Support Document for *Water*

Quality-based Toxics Control (EPA /505/2-90-001) and a coefficient of variation (CV) of 0.6, the Outfall 002 discharge would not have a reasonable potential to exceed the proposed 16 µg/L limit. Therefore, MOGI requests that EPA revise the reasonable potential analysis for benzene for Outfall 002 using data supplied in the 2017 application, which will demonstrate the effluent does not have a reasonable potential to exceed the benzene standard and thus no limit is needed.

In the event that EPA concludes that a benzene limit is necessary, MOGI requests a mixing zone based on its completed mixing zone study. The critical dilution factor is 10.4 to 1 for Outfall 002 and 29.1 to 1 for Outfall 001.

RESPONSE 3: EPA agrees with the commenter that the data submitted with the May 4, 2017 application on benzene indicates that there may be no reasonable potential for benzene to be exceeded in the effluent. However, benzene is present in petroleum products, which are what the bulk fuel facility is designed to store, therefore monitoring for benzene is appropriate. The General Permit is amended to indicate that the 0.016 mg/L level is a monitoring level and not a permit limit. If monitoring data indicates that this level is exceeded then the permit has a re-opener provision to allow for imposition of a permit limit.

As the discharger has demonstrated that there is no reasonable potential for exceedance of the benzene limit there is no need for EPA to authorize a mixing zone for benzene.

COMMENT 4: MOGI further stated that in Section IV.A.6. of the factsheet which refers to the basis for Specific Permit Conditions for Ammonia.

The proposed General Permit would continue the existing limit for proposed ammonia of 0.15 mg/L. In its individual NPDES permit application submitted to EPA in October 2017 MOGI requested a mixing zone for ammonia based upon the analysis in its 2014 mixing zone report. MOGI requests that the General Permit limits for total ammonia for Outfall 002 be adjusted to account for mixing zone with a critical dilution factor of 10.4 to 1 and for Outfall 001 of 29.1 to 1.

RESPONSE 4: In its May 4, 2017 application MOGI indicated that Outfall 001 discharges to Apra Harbor through a pipe at a vertical angle of 0° (horizontal with respect to the water surface). The pipe depth at opening is -1.0 meter (m) at mean sea level (MSL) (-3.28 feet) and discharges approximately 6 m from shore at low tide. The port lies on the bay bottom. The pipe diameter is 0.305 m (12 inches). Further, Outfall 002 discharges through coral rip-rap at the bank of the harbor. It is not submerged, even at high tide. The discharge pipe diameter is 0.305 m (12 inches).

Pursuant to Section 5104(d)(2)(A) For non-thermal discharges to coastal waters, the mixing zone shall be equal in depth to the depth of the water over the diffuser, in width to twice the depth of the water plus the width of the diffuser, and in length to twice the depth of the water plus the

length of the diffuser, with the diffuser geographically centered within the mixing zone. Based on the information provided by MOGI a mixing zone is not allowable with the current configuration and location of Outfalls 001 and 002.

COMMENT 5: MOGI further stated that in Section IV.A.8. of the factsheet which refers to the basis for Specific Permit Conditions for Zinc.

The proposed General Permit would continue the existing limit for total recoverable zinc of 0.086 mg/L. In its individual NPDES permit application submitted to EPA in October 2017 MOGI requested a mixing zone for ammonia based upon the analysis in its 2014 mixing zone report. MOGI requests that the General Permit limits for total ammonia for Outfall 002 be adjusted to account for mixing zone with a critical dilution factor of 10.4 to 1 and for Outfall 001 of 29.1 to 1.

RESPONSE 5: In its May 4, 2017 application MOGI indicated that Outfall 001 discharges to Apra Harbor through a pipe at a vertical angle of 0° (horizontal with respect to the water surface). The pipe depth at opening is -1.0 meter (m) at mean sea level (MSL) (-3.28 feet) and discharges approximately 6 m from shore at low tide. The port lies on the bay bottom. The pipe diameter is 0.305 m (12 inches). Further, Outfall 002 discharges through coral rip-rap at the bank of the harbor. It is not submerged, even at high tide. The discharge pipe diameter is 0.305 m (12 inches).

Pursuant to Section 5104(d)(2)(A) For non-thermal discharges to coastal waters, the mixing zone shall be equal in depth to the depth of the water over the diffuser, in width to twice the depth of the water plus the width of the diffuser, and in length to twice the depth of the water plus the length of the diffuser, with the diffuser geographically centered within the mixing zone. Based on the information provided by MOGI a mixing zone is not allowable with the current configuration and location of Outfalls 001 and 002.

COMMENT 6: MOGI questions the justification and value of once/month monitoring for lead applicable to all bulk fuel terminals. As stated in the Fact Sheet (page 7), only one terminal (South Pacific Petroleum Corporation Cabras Island) has sufficient lead concentrations in its effluent to result in a calculated reasonable potential to exceed the water quality criterion. The Fact Sheet states that the proposed once/month testing for lead will be used to determine if any of the other terminals should have WQBELs for lead.

The effluent lead concentration submitted in the Cabras Terminal 2017 application to renew its NPDES permit is 0.0001 mg/L, compared to the water quality criterion of 0.0081 mg/L. Lead data submitted in the 2012 application for the current NPDES permit were all reported as “non-detects”.

Based on the absence of any data suggesting that the bulk terminals that do not show reasonable potential for exceeding the lead water quality criterion, MOGI requests that EPA set the frequency of lead analyses of no more than once/year. This frequency is consistent with the monitoring requirements for ethylbenzene, toluene and xylene and would provide EPA with data that can be used to validate the reasonable potential evaluations for lead.

RESPONSE 6: EPA agrees with MOGI that data does not currently show reasonable potential for exceeding the lead water quality criterion at MOGI's Cabras Terminal. However, as lead may be present in petroleum products that may be stored at the Terminal, annual monitoring for lead is appropriate. The permit has been amended accordingly.