

US EPA ARCHIVE DOCUMENT

Responses to Comments and Questions
June, 2011
Mobil Oil Mariana Islands, Inc., Saipan Terminal
National Pollutant Discharge Elimination System (NPDES) Permit No. MP0020397

The U.S. Environmental Protection Agency, Region IX (EPA) received comment letters from three parties: Fish and Wildlife Service - Pacific Islands Office (comments included with concurrence letter dated May 18, 2011), National Marine Fisheries Service - Pacific Islands Regional Office Protected Resources Division (dated May 18, 2011), and National Marine Fisheries Service - Pacific Islands Regional Office Habitat Conservation Division (dated June 20, 2011).

Fish and Wildlife Service – Pacific Islands Fish and Wildlife Office (FWS)

Responder's Note: The following comments were included as part of FWS's Endangered Species Act concurrence letter.

Comment:

Threatened and Endangered Species

You requested our concurrence that this proposed action may affect, but is not likely to adversely affect the federally endangered Mariana common moorhen (*Gallinula chloropus guami*), nightingale reed-warbler (*Acrocephalus luscini*), and hawksbill turtle (*Eretmochelys imbricata*) or the threatened green turtle (*Chelonia mydas*). The findings and recommendations in this consultation are based on: (1) your April 18, 2011, electronic email containing your consultation request letter; (2) telephone conversation on April 28, 2011, between Jodi Charrier, Service and Ms. Amelia Whitson, EPA; and (3) other information available to us. A complete administrative record is on file in our office. This response is in accordance with section 7 of the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

The Mariana common moorhen and the nightingale reed-warbler have been observed in the wetland areas surrounding Tanapag Harbor. In addition green and hawksbill turtles have been sighted in the seagrass beds near the American Memorial Park Harbor, and may have historically nested on the shore of the Saipan Lagoon. We recommend you consult with the National Oceanic and Atmospheric Administration (NOAA) on potential impacts to green or hawksbill turtles in the water.

The permit states that all discharge shall be capable of supporting desirable aquatic life and be suitable for recreation in and on the water and shall be free from pollutants in concentrations that are lethal to, or produce detrimental physiological response in plant or animal life. The proposed permit also contains a reopener provision if discharges from the facility exceed water quality standards set by the CNMI [Commonwealth of the Northern Mariana Islands] Environmental Protection Agency. Based on these measures, we concur with your determination that discharge from the Saipan bulk fuel terminal owned by Mobil Oil Mariana Islands, Inc. into Tanapag Harbor, Saipan may affect, but is not likely to adversely affect the above-listed species.

Response:

Comments noted. EPA sent a Biological Evaluation to NOAA for listed species under their jurisdiction, including the green and hawksbill turtles (see response to National Marine Fisheries Service – Pacific Islands Regional Office Protected Resources Division comments below).

Comment:*Marine Resources*

We are concerned with the potential impact this additional discharge will have on the marine resources in Tanapag Harbor. The biological analysis provided does not provide any marine resource assessment. Coral reefs or mangroves may be within the zone of mixing of the discharge. In order to assess impacts on marine resources, a biological assessment of the direct zone and nearby areas must be conducted as well as a determination of a mixing zone of the discharge.

The Public Notice included a fact sheet. The fact sheet included information regarding the "Dilution in the Receiving Water," section V.B.2. The section states that "the permittee has not provided any information to support the determination of a mixing zone, and no water quality based numerical effluent limits are proposed." The determination of a mixing zone and the location of sensitive marine resources such as coral and other coral reef organisms are vital to determine the potential impact of the proposed discharge. The Service recommends that a marine biological assessment be conducted in the area and this assessment be conducted in areas both within and outside the projected mixing zone. We further recommend collecting this information and evaluating the results prior permit issuance. If the information suggests potential effects on coral reef resources not previously considered, then we recommend adding coral reef monitoring to the permit conditions. The Service can provide technical guidance on a marine biological assessment and monitoring protocols.

Response:

Comment noted. The CNMI Division of Environmental Quality (DEQ) operates a monitoring station at 15.2263°N, 145.7377°E (station WB10, DPW Channel Bridge), approximately 300 feet east of Outfall 001A in the same Class A receiving water, for pollutants such as enterococci and dissolved oxygen. DEQ also operates a coral reef and seagrass biocriteria monitoring station in the same Class A receiving water (station 45), though no data were available from the previous reporting period. CNMI DEQ has not authorized a mixing zone for this discharge. Consequently, applicable water quality standards (which include protection of aquatic life from acute and chronic toxic effects) must be met end-of-pipe, before the effluent is discharged into the receiving water. EPA conducted a reasonable potential analysis (RPA) for the discharge to cause or contribute to an excursion above CNMI water quality standards. As no facility-specific effluent data exists, EPA used data from comparable petroleum bulk storage terminals for the RPA; results demonstrated that the discharge is not expected to cause, have the reasonable potential to cause, or contribute to an excursion above applicable water quality standards. However, the discharger must notify EPA if effluent samples exceed CNMI water quality standards applicable to the receiving water, and water quality-based effluent limits can be added to the permit accordingly. EPA expects that if the discharger complies with their NPDES permit requirements and meets water quality standards, marine resources will be protected.

National Marine Fisheries Service – Pacific Islands Regional Office Protected Resources Division (NMFS)

Responder's Note: EPA conducted a Biological Evaluation (BE), not a Biological Assessment (BA), in accordance with Section 7 Endangered Species Act consultation requirements. All of the commenter's mentions of EPA's "BA" refer to EPA's BE.

Comment 1:

I do not understand the justification for the species breakdown between no effect and NLAA [may affect, but not likely to adversely affect]. Both groups include species that are predominantly found in

offshore habitats (all of the whales, as well as leatherback, loggerhead, and olive ridley sea turtles). None of the whales are documented to enter the lagoon, none of those turtles nest in the Marianas, and of those three turtles, only the leatherback is ever seen (on occasion and in offshore areas). If the discharge is small and dilute enough that the action area is truly limited to the area indicated on pages 2 & 3 of the biological assessment (BA); "...the action area is shallow and nearshore, and within a coastal lagoon.", then it would seem reasonable that the "no effect" determination would include all of the whales as well as leatherback, loggerhead, and olive ridley sea turtles. Conversely, green and hawksbill turtles are known to reside in nearshore waters, including the lagoon, where they shelter, forage, and in the case of greens, nest. Another important point is that dugong and nesting sea turtles are under the jurisdiction of the US Fish and Wildlife Service (USFWS).

Response to Comment 1:

The action area is limited to within the Saipan Lagoon, based on the relatively low flow (0.0262 MGD average daily flow) and intermittent nature of the discharge. The effects determinations in the BE were based on information in NOAA and FWS species accounts (see "Literature Cited" section of the BE). Where it could not be determined from these sources whether the species might be found in the action area, the conservative determination was made that the species may be affected, but was not likely to be adversely affected, by the proposed discharge. Based on the new information from NMFS in Comment 1 (that the listed whales and the leatherback, loggerhead, and olive ridley sea turtles have never been documented to enter the lagoon), EPA agrees with the commenter that the discharge will have no effect on the endangered blue whale, fin whale, humpback whale, sei whale, sperm whale, dugong, and leatherback turtle, or the threatened loggerhead turtle and olive ridley turtle. The BE has been revised accordingly.

EPA sent a Biological Evaluation to FWS for listed species under their jurisdiction (see response to Fish and Wildlife Service – Pacific Islands Fish and Wildlife Office comments above).

Comment 2:

The BA suggests that the permit contains "technology-based" and "water-quality based" effluent limitations. Much of the NLAA determination seems to be based on the expectation that the effluent would be held to standards that would ensure that exposure to the effluent would not adversely affect ESA-listed marine species. However, the Discharge Limits column in Table 1 of the draft NPDES permit is virtually blank, because of the applicant's status as a new discharger. In other words, the proposed permit sets no limits that the effluent must meet. In order for NMFS to concur, under Section 7 of the ESA, that exposure to the effluent would be NLAA for ESA-listed marine species, the USEPA impact analysis must demonstrate that the expected concentration of pollutants that those species could be exposed to would be low enough that there would be no measurable adverse impacts. Adverse impacts could include temporary or permanent avoidance of an area, degradation or loss of forage resources, as well as physical harm due to exposure to the effluent (for acute and chronic exposure).

Response to Comment 2:

The Memorandum of Agreement Between the Environmental Protection Agency, Fish and Wildlife Service and National Marine Fisheries Service (EPA-823-R-02-003), under "Issuance of EPA Permits", states, "EPA will assure that all permits ensure the attainment and maintenance of State or Tribal water quality standards." Under NPDES permitting regulations, the permitting authority shall demonstrate that a discharge "causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard" (hereinafter referred to as

reasonable potential analysis or “RPA”) to provide a basis for establishing water quality-based permit limitations (see 40 CFR 122.44(d)).

When no facility-specific effluent monitoring data exists for a permit applicant (as is the case for this discharger), EPA’s Technical Support Document For Water Quality-based Toxics Control (EPA/505/2-90-001) allows for use of data from similar facilities within the same type of industry. EPA assessed reasonable potential for the discharge to cause or contribute to an exceedance of applicable water quality standards based on effluent data from two comparable petroleum bulk storage terminals, the Mobil Cabras Terminal in Guam and the ExxonMobil Southwestern Terminal in Los Angeles, California, as well as typical pollutants of concern for this industry in EPA’s *Technical Support Document for the 2004 Effluent Guidelines Program Plan*, and the classification and designated uses of the receiving water (found in CNMI Water Quality Standards, <http://www.deq.gov.mp/artdoc/Sec9art52ID133.pdf>). (See Section IV of the Fact Sheet). Based on this information, no reasonable potential was found for the discharge to cause or contribute to an excursion above the applicable CNMI water quality standards. As the action area is limited to within the Saipan Lagoon, based on the relatively low flow (0.0262 MGD average daily flow) and intermittent nature of the discharge, and the facility is not expected to cause or contribute to an exceedance of applicable water quality standards, EPA determined that the discharge will not cause any adverse impacts (either temporary or permanent) to listed species.

If new information (i.e. effluent monitoring data) demonstrates that there is reasonable potential for the discharge to cause or contribute to an excursion above applicable CNMI water quality standards for any parameter, the permit shall be re-opened to establish appropriate effluent limits in order to protect designated beneficial uses in the receiving water (as allowed under Part III.A of the permit). A provision has been added to the permit that the discharger must notify EPA in the “Comments” section of their DMRs if effluent samples exceed CNMI water quality standards applicable to the receiving water, and water quality-based effluent limits can be added to the permit accordingly.

Comment 3:

Under “Description of the Action & Action Area”, the BA states that the “Discharge is intermittent and expected to contain levels of pollutants at levels below water quality standards established to protect aquatic life” (p1). How was that expectation arrived at given that the proposed permit contains no “established standards” that effluent must meet?

Response to Comment 3:

The expectation that the discharge will contain levels of pollutants at levels below water quality standards was arrived at through a reasonable potential analysis, as described in the response to comment 2. Therefore, the permit includes no water quality-based effluent limits, but allows for limits to be established if effluent monitoring for this facility demonstrates reasonable potential for the discharge to cause or contribute to an excursion above applicable water quality standards.

A provision has been added to the permit that the discharger must notify EPA if effluent samples exceed CNMI water quality standards applicable to the receiving water, and water quality-based effluent limits can be added to the permit accordingly.

Comment 4:

The action area is not clearly defined here (p1 of the BA). How far into the Philippine Sea does the action area extend, or is it limited to the lagoon, as suggested on page 3 in the sei whale discussion?

Response to Comment 4:

The action area is limited to within the Saipan Lagoon, based on the relatively low flow (0.0262 MGD average daily flow) and the intermittent nature of the discharge.

Comment 5:

The paragraph under each species (p2-6 of the BA) that begins with “Water quality standards for Tanapag Harbor...” alludes to the CNMI “narrative” standards that apply to detectable impacts in the harbor at outfall 001A, past the point where the applicant could be reasonably be held accountable due to the shared nature of that outfall. The statement that the permit “allows for effluent limits to be established if...” does nothing to support the NLAA determination the USEPA wants NMFS to concur with. I recommend that the USEPA set limits now that the discharger must meet at outfall 001 (the “point of monitoring and compliance”), and those limits should be based on water quality standards that would support the determination that exposure to those levels would be NLAA for ESA-listed marine species. The USEPA must also consider effluent dilution and plume radiation into the harbor, the lagoon, and the Philippine Sea as appropriate to assess potential impacts on ESA-listed species. The BA also lacks an assessment of potential cumulative impacts that may occur when this new discharge is added to an already impacted and relatively enclosed water body.

Response to Comment 5:

Regarding the comment on permit limits, see response to comment 2. Regarding the comment on effluent dilution and plume radiation, see response to comment 9.

Comment 6:

Would not the impact from accumulated pollutants (described for sperm whales) apply to any of the species expected to be exposed to the effluent (p4 of the BA)?

Response to Comment 6:

Bioaccumulative pollutants (like PAHs and heavy metals) are expected to be discharged only in *de minimis* amounts, at concentrations well below applicable water quality standards for the protection of aquatic life, based on data from comparable facilities. Because of these low discharge concentrations and the relatively low flow (0.0262 MGD average daily flow) and intermittent nature of the discharge, bioaccumulation of any pollutants of concern is not expected to adversely impact any species in the action area. This determination has been added to the revised BE.

Comment 7:

The assessment presented is inadequate to support the NLAA conclusion given on page 6 of the BA. The issue of what species should be “no effect” vs. NLAA needs to be corrected here as well.

Response to Comment 7:

See responses to comments 1 and 2.

Comment 8:

Stormwater runoff from the yard and vehicle parking areas does not currently flow through oil-water separators (p3). Given the industrial nature of the site, mightn't that be a reasonable requirement to reduce the introduction of pollutants into marine waters?

Response to Comment 8:

As described in Part IV of the fact sheet, no industrial activities occur in the yard or parking areas. As part of the Pollution Prevention Plan (Part IV of the permit), the permit requires best management practices (BMPs) to be implemented in the yard and parking areas to minimize pollutant runoff during storm events. BMPs are appropriate and effective control measures for reducing pollutant levels in non-industrial stormwater runoff.

Comment 9:

Dilution in the Receiving Water (p7). In order to adequately assess impacts of the proposed discharge, the USEPA must consider the fate of the effluent, including its dilution and migration in marine waters after its discharge from outfall 001A.

Response to Comment 9:

The permittee is required to meet applicable water quality standards at their sampling point, before reaching the receiving water. If the effluent itself contains concentrations of pollutants below numeric water quality standards, the discharge will not cause concentrations of pollutants in the receiving water to exceed numeric water quality standards. Conducting an RPA based on 100% effluent concentration is a more stringent and protective approach than taking into account dilution of the effluent in the receiving water.

For discussion of potential bioaccumulation of pollutants, see response to comment 6.

Comment 10:

Rationale for Effluent Limits (p7-9). Using the lack of discharger-specific effluent data is an absurd justification for not setting limits on the effluent! This is particularly so considering that the USEPA has apparently based their NLAA determination on the expectation that the effluent would not contribute to an exceedance of water quality standards. Having no limits seems to remove any defensible expectation that the effluent would meet any water quality standards. As such, a determination that permitting that effluent would have insignificant impacts on protected species and their habitats becomes increasingly indefensible. If the USEPA has no limits of their own for these pollutants, yet base the effects determination on the expectation that the effluent would comply with CNMI water quality standards, then it seems reasonable that, at a minimum, the CNMI limits should be applied to the permit.

Response to Comment 10:

See response to comment 2. Numeric water quality-based permit limits were not established because an RPA demonstrated no reasonable potential for the discharge to cause or contribute to an excursion above applicable CNMI water quality standards, not because discharger-specific effluent data was not available. In place of discharger-specific data, effluent data was analyzed from two comparable petroleum bulk storage terminals, the Mobil Cabras Terminal in Guam and the ExxonMobil Southwestern Terminal in Los Angeles, California. All applicable water quality standards for the receiving water, as promulgated by CNMI DEQ, were considered in the RPA.

Comment 11:

The stance that no consideration is given to dilution (p9) is inadequate for consideration of potential impacts of the effluent on ESA-listed marine species.

Response to Comment 11:

See response to comment 9.

Comment 12:

Priority Toxic Pollutants Scan (p10). Given that this is a new discharger, with no data to suggest what levels pollutants are present in the effluent, it seems unreasonable that any parameters should be monitored on an annual periodicity, and quarterly is stretching the envelope of what would seem reasonable.

Response to Comment 12:

Given data from comparable petroleum bulk storage terminals facilities (the Mobil Cabras Terminal in Guam and the ExxonMobil Southwestern Terminal in Los Angeles, California) and information about this type of industry, we believe we have a suitable characterization of discharge from this facility. Monitoring frequencies were established based on this characterization (i.e. which pollutants are present, and how often discharges occur) and economic feasibility. These monitoring frequencies are sufficient to verify pollutant levels in the effluent, and are consistent with or more frequent than NPDES permit monitoring requirements for similar petroleum bulk storage terminals.

Comment 13:

Impact to Threatened and Endangered Species (p12). As described above, the analysis presented in the BA is inadequate to assess potential impacts on T&E species, and the breakdown between no effect and NLAA species makes no sense.

Response to Comment 13:

See responses to comments 1-12 above. The BE has been revised to conclude that the discharge will have no effect on the endangered blue whale, fin whale, humpback whale, sei whale, sperm whale, dugong, and leatherback turtle, or the threatened loggerhead turtle and olive ridley turtle, and may affect, but is not likely to affect, the endangered hawksbill turtle or the threatened green turtle.

The BE has also been revised to reiterate that no reasonable potential was found for the discharge to cause or contribute to an excursion above the applicable CNMI water quality standards, based on effluent data from two comparable petroleum bulk storage terminals, the Mobil Cabras Terminal in Guam and the ExxonMobil Southwestern Terminal in Los Angeles, California, as well as typical pollutants of concern for this industry in EPA's *Technical Support Document for the 2004 Effluent Guidelines Program Plan*, and the classification and designated uses of the receiving water (as explained in the permit fact sheet).

Furthermore, a provision has been added to the permit that the discharger must notify EPA if effluent samples exceed CNMI water quality standards applicable to the receiving water, and water quality-based effluent limits can be added to the permit accordingly. This requirement has been included in the revised BE.

Comment 14:

Effluent Limits: #1) I am unclear on the value of a blank list of “limits”. Are not there maximum allowable values that a discharger such as this is expected to comply with to ensure that the discharge would not have significant adverse impacts? As mentioned above (#10), the USEPA NLAA determination seems indefensible without some reasonable expectation that the pollutant levels in the discharge would meet standards that would ensure that the ESA-listed species are not adversely affected either directly (toxicity), or indirectly (through habitat degradation or through cumulative impacts).

Response to Comment 14:

See responses to comments 2 and 10.

Comment 15:

How are the CNMI Narrative standards (#3) measurable/enforceable standards directly applicable to the permit applicant, especially given that no concentration limits are provided and that outfall 001A is shared with other users?

Response to Comment 15:

Applicable CNMI narrative water quality standards were included in the permit as narrative limits, and are measurable and enforceable through the effluent monitoring and reporting (Part I.B, Table 1) and receiving water visual monitoring and reporting (Part I.E) requirements in the permit. The permittee is directly responsible and liable for meeting these narrative limits at Outfall 001A, unless the permittee can demonstrate beyond a reasonable doubt that non-compliance is not the result of discharge from the Mobil facility. The permittee’s relative contribution to discharge at Outfall 001A shall be assessed through effluent monitoring at Outfall 001.

EPA assessed reasonable potential for the discharge to cause or contribute to an exceedance of applicable water quality standards based on effluent data from two comparable petroleum bulk storage terminals, the Mobil Cabras Terminal in Guam and the ExxonMobil Southwestern Terminal in Los Angeles, California, as well as typical pollutants of concern for this industry in EPA’s *Technical Support Document for the 2004 Effluent Guidelines Program Plan*, and the classification and designated uses of the receiving water. (See Section IV of the Fact Sheet). Based on this information, no reasonable potential was found for the discharge to cause or contribute to an excursion above the applicable CNMI water quality standards.

A provision has been added to the permit that the discharger must notify EPA if effluent samples exceed CNMI water quality standards applicable to the receiving water, and water quality-based effluent limits can be added to the permit accordingly.

National Marine Fisheries Service – Pacific Islands Regional Office Habitat Conservation Division**Comment:**

The Habitat Conservation Division (HCD) of the NOAA Fisheries Pacific Islands Regional Office (PIRO) has reviewed, pursuant to §305(b) of the Magnuson Stevens Fishery Conservation and Management Act (MSA; 16 U.S.C. 1855(b)), the NPDES permit number MP0020397 for new discharge of industrial stormwater and wastewater from a petroleum bulk storage terminal at the Saipan Seaport on

Saipan, CNMI.

The facility, Mobil Oil Mariana Islands Inc., located on Petroleum Lane in Puerto Rico Village, stores and distributes petroleum products, specifically motor gasoline, jet fuel, and diesel. Other pollutants are involved such as lubricants and hydraulic fluids associated with the oil-filled operational equipment. The discharge consist primarily of stormwater, with additional discharges from storage tank bottom water draws, hydrostatic tests, firefighting and systems test, service water system leaks and maintenance activities.

Discharge will be intermittent, and flow into the Port's sewer which discharges into marine waters of Tanapag Harbor.

NOAA PIRO HCD considers that the proposed permit discharge will likely not adversely effect *[sic]* Essential Fish Habitat (EFH) as:

- the discharge is minor
- the non-stormwater discharge will be treated prior to discharge
- the effluent limits developed to protect aquatic life appear appropriate being based on analysis of discharge *[sic]* and effluent limits of similar facilities
- the permit specifies monitoring conditions and contains a re-opener provision which can/will be triggered by effluent limits being exceeded
- sensitive benthic organisms such as coral and seagrass (= EFH) are limited in abundance in receiving waters
- water quality is already considered to be heavily degraded in receiving waters (the permitted discharge will not contribute to listed pollutants pursuant to the 303(d) list).

We recommend that effort is made to ensure NDPES permit conditions are fully enforced, including monitoring compliance which is key for evaluation of effluent limits being met. We also ask to review the spill Prevention Control Plan and Quality Assurance Manual once these are developed, and to receive notice of any occurrence when the permit is re-opened.

Response:

Comments noted.