

August 9, 2023

Submitted via www.regulations.gov

US Environmental Protection Agency, Region 4 Ms. Bridget Staples, MPH Water Protection Division 61 Forsyth Street SW Atlanta, GA 30303-8960

RE: Offshore Operators Committee Comments

Notice of Draft National Pollutant Discharge Elimination System (NPDES) General Permit for the Eastern Portion of the Outer Continental Shelf (OCS) of the Gulf of Mexico (GEG460000); Availability of Draft National Environmental Policy (NEPA) Categorial Exclusion (CatX) (88 FR 37878 (June 9, 2023)).

Dear Ms. Staples,

The Offshore Operators Committee, the American Petroleum Institute, the National Ocean Industries Association, and the Louisiana Mid-Continent Oil and Gas Association, hereinafter referred to as "the Joint Trades," appreciate the opportunity to provide detailed comments on the above-captioned NPDES General Permit. Comments submitted are submitted without prejudice to any member's right to have or express different or opposing views. It is from this perspective that these comments have been developed.

Offshore Operators Committee (OOC) member companies represent approximately 90% of the oil and gas production in the Gulf of Mexico OCS with oil and natural gas operators, drilling contractors, and service providers. Our members recognize that offshore operations must be conducted safely and in a manner that protects the environment. The offshore industry has a long history of safe operations that have advanced the energy security of our nation and provided energy resources which are crucial to our nation's economy.

The American Petroleum Institute (API) is a national trade association representing nearly 600 member companies involved in all aspects of the natural gas and oil industry, both onshore and offshore. API's members include producers, refiners, suppliers, pipeline operators, and marine transporters, as well as

service and supply companies that support all segments of the industry. API and its members are dedicated to meeting environmental requirements while economically developing and supplying energy resources for consumers.

The National Ocean Industries Association (NOIA) represents the interests of all segments of the offshore energy industry, including offshore oil and gas, offshore wind, offshore minerals, offshore carbon sequestration, and other emerging technologies. With regard to offshore oil and gas, our membership includes the various key operators and leaseholders with a direct interest in the draft National Pollutant Discharge Elimination System (NPDES) general permit for the Outer Continental Shelf (OCS) of the eastern portion of the Gulf of Mexico (General Permit No. GEG460000).

Founded in 1923, The Louisiana Mid-Continent Oil & Gas Association (LMOGA) is Louisiana's longest standing trade association, exclusively representing all aspects of the oil and gas industry onshore and offshore, including exploration, production, mid-stream activities, pipeline, refining and marketing.

Comments

OOC's detailed technical comments are included in the following attachments:

- Attachment A Technical Comments
- Attachment B Sub Sea Fluids Biomonitoring Report

OOC believes the information included in the attached comments is important and critical to providing a final permit that is protective of water quality in the GOM, as well as a practical permit that allows the continued development of our nation's energy resources. The attached comments are structured to include suggested edits to the proposed permit language and justification for the suggested change.

Whole Effluent Toxicity (WET) Testing of Treatment, Completion and Workover (TCW) Fluids

One concern that the Joint Trades would like to highlight is the proposed requirements for TCW fluid WET testing and monitoring. The limitations for 48-hour acute WET testing and the monitoring requirements for 7-day chronic WET testing of TCW fluids should be removed from the permit. As discussed in detail in Attachment A, the use of 48-hour and 7-day testing regimens are overly conservative for short duration, intermittent, low volume discharges.

In addition, the industry-wide TCW fluids study concluded that:

• TCW fluid discharges are typically of short duration. 75% of the discharges sampled during the study were less than 2 hours in duration (median discharge time was 1-hour). A 48-hour or 7-day test exposure is extremely conservative and is not representative of the hazard and effects of these discharges in the marine environment.

- TCW fluid discharges are small volumes. TCW fluid discharges are estimated to be 0.01% of produced water discharge volumes.
- Of the substances evaluated during the study, no concentration was greater than conservative acute saltwater ecological thresholds.

TCW fluids do not pose an unreasonable risk to the aquatic environment, and additional WET testing does not provide any added environmental benefit. Implementation of WET testing requirements increases operational complexity and risk.

Gel-like or Solid Phase Substances

Another concern the Joint Trades would like to address is the discharge prohibition of gel-like or solid phase substances. The Joint Trades recommends removing this prohibition.

The industry-wide TCW fluid toxicity study forms the basis for this recommendation. During the study, results were limited to 5 samples containing gel-like substances out of the 28 samples tested. This small sample size illustrates the limited experience throughout industry segments to test specifically for these substances prior to discharge. Following the study's conclusion, industry has successfully performed toxicity testing for discharges with these components without modifications to the existing test methods referenced in existing and proposed permit language.

Compliance Implementation Periods for Several Proposed Requirements

The Joint Trades have also included a few recommendations for EPA to consider regarding the use of compliance implementation periods in our comments in Attachment A. These recommendations are made (details in Attachment A) for the following items:

- TCW fluid 48-hour acute WET testing
- TCW fluid 7-day chronic WET testing
- Gel-like or Solid Phase Substances

If these requirements are retained in the final permit, it is imperative that a compliance implementation period be included to allow operators time to establish procedures, processes and resources to achieve compliance. The Joint Trades strongly recommend that EPA establish a schedule of compliance for implementation of the new requirements as outlined in 40 CFR 122.47. Offshore facilities subject to these new requirements may require capital upgrades making immediate compliance with the new requirements impossible.

Planned Discussion for Further Explanation

Also, the Joints Trades, through OOC, will request a meeting with EPA Region 4 staff, after the comment period closes, to review the attached technical comments, and answer any clarifying questions the

agency may have regarding the information provided here.

The Joint Trades appreciate EPA's efforts regarding the draft permit and look forward to working with the agency on the critical issues included in our comments as the permit is finalized. If you have any questions or require additional information, please contact Stephanie Kusinski at stephanie@theooc.org.

Sincerely,

Evan Zimmerman Executive Director

Offshore Operators Committee

Andy Radford

Sr. Policy Advisor – Upstream Policy American Petroleum Institute

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cc (via email):

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| 1 | Summary (pg. 8) | This permit shall become effective at midnight, Eastern Standard Time, on XXXXXX. Administratively continued coverage under the previous NPDES general permit will cease for operators 30 days after the effective date of this permit. Therefore, such operators must submit a new NOI to be covered under this general permit within 30 days after the effective date of this permit. If a permit application for an individual permit is filed, the coverage under the previous general permit terminates when a final action is taken on the application for an individual permit. | The Joint Trades request EPA consider having the permit become effective at midnight at the beginning of a calendar quarter to reduce complication and provide clarity for operators related to sampling, recordkeeping, and quarterly discharge monitoring reporting. |
| 2 | Part I. Requirements for NPDES Permits, A. Permit Applicability and Coverage Conditions, 4. Notification Requirements (Existing Sources and New Sources) (pg. 16-17) | u. Information on the specific chemical composition of any additives currently being used or proposed for use in well treatment, completion, or workover operations or as biocides for sump/drain systems. If the information on the additive is not known at the time of the submittal of this NOI, operators shall include the information in a report that shall be submitted on to the EPA Region 4 on September 30th of each year. Aside from submitting this information with the NOI, this information is also required to be recorded and retained on site for no less than five years from the issuance date of the permit. See Part I.6.a.iii. | The Joint Trades are requesting the changes to reference the full section identifier of the permit (i.e. adding "A" to the citation after "Part I"). u. Information on the specific chemical composition of any additives currently being used or proposed for use in well treatment, completion, or workover operations or as biocides for sump/drain systems. If the information on the additive is not known at the time of the submittal of this NOI, operators shall include the information in a report that shall be submitted on to the EPA Region 4 on September 30th of each year. Aside from submitting this information with the NOI, this information is also required to be recorded and retained on site for no less than five years from the issuance date of the permit. See Part I.A.6.a.iii. |

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| | | | Rationale: Providing a full reference for the permit section increases clarity of the requirement and provides certainty to the regulated community. |
| 3 | Part I. Requirements for NPDES Permits, A. Permit Applicability and Coverage Conditions, 4. Notification Requirements (Existing Sources and New Sources) (pg. 17) | w. Statement indicating intent, or not, to participate in the alternative Industry-wide Study regarding Whole Effluent Toxicity Testing of Well Treatment, Completion and Workover Fluids (Part I.B.6.b, page 50). | The Joint Trades support the proposed change. |
| 4 | Part I. Requirements for NPDES Permits, B. Effluent Limitations and Monitoring Requirements for New and Existing Sources (pg. 21) | Note: Discharge of radioactive materials under the jurisdiction of the US Nuclear Regulatory Commission (NRC) are not independently authorized by this permit. | The Joint Trades recommend moving the proposed note regarding discharge of radioactive materials from "Part 1. Section B. Effluent Limitations and Monitoring Requirements for New and Existing Sources" to "Part I. Section C., Other Discharge Limitations". Part I. Section C. is the portion of the permit where general discharge limitations and prohibitions are described. The limitations described in this proposed note are better aligned for inclusion in Part I. Section C. Additionally, the Joint Trades recommend revising the title of the suggested destination for this note (Part 1. Section C, as referenced above) as follows: Other Discharge Limitations Prohibitions and Discharges Not Authorized by this Permit Regardless of the implementation of either change suggested above, the Joint Trades recommend harmonizing the title for Part I. Section C. as listed the Table of Contents with the title found in the body of the permit by making both references |

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| | | | contain the exact same language (i.e. currently, the title in the body of the permit reads "Other Discharge Limitations" while the Table of Contents refers to this section as "Other Discharge Conditions"). |
| | | | Rationale: These changes would reflect the full scope and intent of the section contents and increase consistency within the permit itself. |
| 5 | Part I. Requirements for NPDES Permits, B. Effluent Limitations and Monitoring Requirements for New and Existing Sources, 1. Drilling Fluids, c. Monitoring Only Requirements (pg. 26) | In addition to the above limitations, the following monitoring and reporting apply. | The Joint Trades are requesting the word "requirements" be added to the text after the word "reporting". In addition to the above limitations, the following monitoring and reporting requirements apply. |
| 6 | Part I. Requirements for NPDES Permits, B. Effluent Limitations and Monitoring Requirements for New and Existing Sources, 3. Produced Water, b. Limitations (pg. 41) | When saltwater is added to produced water prior to discharge, the total produced water flow, including the added saltwater, shall be used in determining the critical dilution from Table 7 of Appendix A. When freshwater is added to produced water prior to discharge, the total produced water flow, including the added freshwater, shall be used in determining the critical dilution from Table 8 of Appendix A. | The Joint Trades are requesting that the term "seawater" be retained in the description of this requirement rather than changing the word to "saltwater". When seawater saltwater is added to produced water prior to discharge, the total produced water flow, including the added seawater saltwater, shall be used in determining the critical dilution Rationale: Given that there is no accompanying definition for "saltwater," using that term instead of the existing term "seawater" could lead to confusion in implementing this requirement due to several factors: |

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| | | | Without an accompanying definition, the regulated community could potentially equate "saltwater" with "brine", which may be utilized in day-to-day operations that are unrelated to this requirement. |
| 7 | Part I. Requirements for NPDES Permits, B. Effluent Limitations and Monitoring Requirements for New and Existing Sources, 6. Well Treatment Fluids, Completion Fluids, or Workover Fluids, d. (pg. 46) | d. This permit prohibits the discharge of a combination of compounds that form a gel-like or solid phase substance when added to or mixed with wastewater. | The Joint Trades recommend removing this prohibition. Rationale: The industry-wide TCW fluid toxicity study forms the basis for this recommendation. The study concluded that several factors limit the potential for aquatic toxicity risks and including: TCW fluid discharges are small volumes. TCW fluid discharges are estimated to be 0.01% of produced water discharge volumes. Of the substances evaluated during the study, no concentration was greater than conservative acute saltwater ecological thresholds. During the study, results were limited to 5 samples containing gel-like substances out of the 28 samples tested. This small sample size illustrates the limited experience throughout industry segments to test specifically for these substances prior to discharge. Following the study's conclusion, industry has successfully performed toxicity testing for discharges with these components without modifications to the existing test methods referenced in existing and proposed permit language. Some of this work has been conducted in anticipation of, and to comply with, the new toxicity requirements under the Region 6 NPDES OCS GOM permit, which allows discharge of these components tested under |

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| | | | standard methods during the two-year monitoring-only period while data is being gathered. |
| | | | During the industry-wide TCW fluids study, one gel-like fluid required additional stirring in order for the WET testing procedure to be executed. Industry acknowledges that the Clean Water Act (CWA) regulations require approval of such modified methods before discharge would be allowed. Until these methods were approved, no discharges would be allowed. |
| | | | To facilitate this approach to implementation, Region 4 could include a note stating that: |
| | | | All monitoring under this permit is required to comply with the approved test method procedure as described in 40 CFR Part 136, 40 CFR Part 435, and any protocol specified in this permit. This includes sample collection, preparation, preservation, and analysis protocol and use of sufficiently stringent test methods. Any changes to methods or protocol must be approved through the alternate test method procedures in accordance with 40 CFR Part 136. This approach is also found in "Section B. Effluent Limitations |
| | | | and Monitoring Requirements, Note 2" of the EPA Region 6 OCS GOM NDPES permit. |
| | | | Should EPA intend to prohibit discharge combinations of compounds that form a gel-like or solid phase substance when |

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| | | | added to or mixed with seawater, the Joint Trades request that: |
| | | | EPA demonstrate a cost/benefit analysis for requiring a prohibition of the discharge of combinations of compounds that form a gel-like or solid phase substance when added to or mixed with seawater. EPA's current proposal to prohibit the discharge presents no information to support the benefits of prohibition given the cost to implement. |
| | | | This analysis would be important to consider when weighed against the results of the industry-wide TCW study, which found that these fluids do not pose an unreasonable risk to the aquatic environment, and that additional WET testing does not provide any added environmental benefit. Offshore facilities subject to these new requirements may require capital upgrades (e.g., fabrication / installation of piping, tanks, and storage to collect and dispose of these fluids) making immediate compliance with the new requirements impossible. |
| | | | The Joint Trades recommend EPA Region 4 include the following language to the permit to allow for a compliance implementation period rather than prohibiting these discharges on the effective date of the permit: |
| | | | "Compliance with this limitation must be achieved within two years after the effective date of this permit." |

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| | | | Including this language would provide certainty to industry that while attempts were being made to ensure compliance with the new requirement there would be no violations for discharging these fluids. |
| 8 | Part I. Requirements for NPDES Permits, B. Effluent Limitations and Monitoring Requirements for New and Existing Sources, 6. Well Treatment Fluids, Completion Fluids, or Workover Fluids, e. Whole Effluent Toxicity Requirements for Well Treatment, Completion or Workover Fluids that are Not Commingled with Produced Water, i. Chronic Whole Effluent Toxicity Testing (pg. 46-47) | e. Whole Effluent Toxicity Requirements for Well Treatment, Completion or Workover Fluids that are Not Commingled with Produced Water. i. Chronic Whole Effluent Toxicity Testing: Well treatment, completion or workover fluids that are not commingled with produced water discharges lasting four or more days must be monitored for at the limiting permissible concentration (LPC) at the edge of a 100-meter mixing zone. The LPC is defined as the No Observed Effect Concentration (NOEC). The LPC must be equal to, or greater than, the predicted effluent concentration at the edge of a 100-meter mixing zone. Predicted effluent concentrations, referred to as critical dilutions, are presented in Tables 4 and 5 of Appendix A for a range of discharge rates and pipe diameters. The critical dilution shall be determined using Tables 4 and 5 of Appendix A of this permit based on the highest monthly average discharge rate for the three months prior to the month in which the test sample is collected, discharge | The Joint Trades are recommending that EPA consider removing the monitoring requirements for 7-day chronic WET Limitations for TCW fluids as currently proposed. The Joint Trades are recommending 2 options for EPA to consider regarding implementation of 7-day chronic WET monitoring for TCW fluids. These options are as follows (and discussed further in the "Rationale" section below): 1. Removal of the monitoring requirements from the permit, or 2. Adding a compliance implementation period for the monitoring-only chronic discharge testing. Rationale: 1. Removal of the monitoring requirements from the permit Most TCW fluid discharges are short duration, intermittent, and low volume. The nature of these discharges brings into question the appropriateness and necessity of 7-day chronic testing as it would not be representative of how these discharges interact with the marine environment given that the aquatic environment would not typically be exposed to such discharges for the 7-day chronic testing period. Chronic testing is simply not appropriate for most of these types of discharges. |

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| | | pipe diameter, and depth difference between | In addition, chronic testing was not part of the industry-wide |
| | | the discharge pipe and the sea bottom. Facilities | TCW fluids study. There is no evidence to support inclusion of |
| | | which have not previously reported well | chronic testing as a permit requirement. By including chronic |
| | | treatment, completion, or workover fluids not | testing in the permit EPA would be adding additional burden |
| | | commingled with produced water flow on the | to the regulated community that is not based on scientific |
| | | DMR shall use the estimated monthly average | evidence. It is also an unnecessary use of vertebrate test |
| | | flow that was discharged during the first month | organisms. Wherever possible the EPA should reduce, refine, |
| | | of water flow for determining the critical dilution | and replace all vertebrate testing for ethical reasons |
| | | from Tables 4 and 5 of Appendix A of this permit. | especially considering the industry-wide TCW fluids study |
| | | | found the invertebrate test (M. bahia) on average more |
| | | The NOEC shall be calculated by conducting 7- | sensitive than the vertebrate test (Menidia beryllina). |
| | | day chronic toxicity tests in accordance with | |
| | | methods published in Short Term Methods for | 2. Adding a compliance implementation period for the |
| | | Estimating the Chronic Toxicity of Effluents and | monitoring-only chronic discharge testing. |
| | | Receiving Water to Marine and Estuarine | The Joint Trades strongly recommend that EPA provide |
| | | Organisms (EPA/821-R-02-014), or most current | justification of this monitoring requirement and establish a |
| | | edition. Grab samples shall be used. | schedule of compliance for implementation of the new |
| | | | requirements as outlined in 40 CFR 122.47. If monitoring |
| | | Testing to determine the NOEC shall be done | (meaning no "pass / fail" for compliance and DMR reporting) |
| | | every month (or once per discharge, whichever | for 7-day chronic WET testing for TCW fluid discharges lasting |
| | | is more frequent). Permittees that pass four | more than four days is included in the final permit, it is |
| | | consecutive toxicity tests will be allowed to | imperative that a 60-day compliance implementation period |
| | | reduce sampling to a frequency of once every six | be included to allow operators time to establish procedures, |
| | | months. | processes and resources to implement the sampling and |
| | | | testing for chronic toxicity monitoring. The Joint Trades |
| | | | propose the following language be added to this section of |
| | | | the permit: |
| | | | Compliance with 7-day chronic WET monitoring |
| | | | requirements must begin within 60 days of the |
| | | | effective date of the permit. |

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| | | | If both acute and chronic testing were required concurrently, to avoid the dual sample requirements, reduce complexity, and ensure the same fluid is used for both acute and chronic data, we ask that EPA acknowledge that results for the acute 48-hour test may be derived from the 7-day chronic test. |
| 9 | Part I. Requirements for NPDES Permits, B. Effluent Limitations and Monitoring Requirements for New and Existing Sources, 6. Well Treatment Fluids, Completion Fluids, or Workover Fluids, e. Whole Effluent Toxicity Requirements for Well Treatment, Completion or Workover Fluids that are Not Commingled with Produced Water, i. Chronic Whole Effluent Toxicity Testing (pg. 47) | Testing to determine the NOEC shall be done every month (or once per discharge, whichever is more frequent). Permittees that pass four consecutive toxicity tests will be allowed to reduce sampling to a frequency of once every six months. | If the requirements are finalized as proposed, the Joint Trades request that EPA clarify whether this permit language would require testing to return to a monthly or once per discharge schedule for a given lease block / NOI after the specified number of consecutive passing tests for reduced sampling have been met in certain scenarios. For example, if well operations conducted for a lease block / NOI were undertaken for a period of less than six months and the required number of discharges passed the required number of consecutive toxicity tests, a six-month sampling schedule would begin. If those operations (and discharges) ceased before that six-month period ended but were restarted within the newly established sampling frequency timeframe, would the same type of discharge require testing according to a monthly or once per discharge schedule when they began again? Rationale: The language as it is written is vague and may result in confusion when these discharges are short duration, intermittent, and low volume. Operators may not interpret the language as requiring additional monthly or once per discharge testing in the above example. |

| Trades request that a clarification be made to this ent to state that the test shall be resumed only if the is still occurring. ly, the Joint Trades request that the requirement for |
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| er of consecutive passing tests before resuming the trequency following a failed test be changed from ree. at any time, a test result indicates the NOEC is eater than the critical dilution a failed test, the emittee must resume testing at a greater frequency hile the discharge is occurring, as set forth in Part A.15, until such time that the facility demonstrates impliance through four three consecutive tests. cknowledges that monitoring means no "pass / fail" inchedited in any chronic well in the language so that "failed test" is more clearly "the NOEC is greater than the critical dilution" in that a sample becomes compromised in any way insportation or if toxicity tests are inconclusive or wing the opportunity of collecting another sample be possible if the discharge is no longer occurring, ause these discharges are short in duration. |
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| | | | Making the change from four to three consecutive tests would ensure consistency with the permit requirements for Produced Water (Part 1., Section 3. b. ii.). |
| 11 | Part I. Requirements for NPDES Permits, B. Effluent Limitations and Monitoring Requirements for New and Existing Sources, 6. Well Treatment Fluids, Completion Fluids, or Workover Fluids, e. Whole Effluent Toxicity Requirements for Well Treatment, Completion or Workover Fluids that are Not Commingled with Produced Water. ii. Acute Whole Effluent Toxicity Testing (pg. 50-52) | ii. Acute Whole Effluent Toxicity Testing Limit for Well Treatment, Completion or Workover Fluids - The following Acute Whole Effluent Testing requirements apply to discharges of well treatment, completion or workover fluids not commingled with Produce Water that last less than four days. Permittees must monitor and report the acute critical dilution (ACD) at the edge of a 100-meter mixing zone. The ACD is defined as 1.0 times the LC50. The ACD and the predicted effluent concentration at the edge of a 100-meter mixing zone must be reported on the DMR. To be in compliance, the ACD must be equal to, or greater than, the predicted effluent concentration at the edge of a 100-meter mixing zone. Predicted effluent concentrations, referred to as "critical dilutions," are presented in Tables 4 and 5 of Appendix A for a range of discharge rates and pipe diameters. Critical dilution shall be determined using Tables 4 and 5 of this permit based on the most recent discharge rate, discharge pipe diameter, and water depth between the discharge pipe and the ocean bottom. LC50 shall be calculated by conducting 48-hour, non-static renewal, toxicity tests once per discharge using Mysidopsis bahia and Menidia beryllina (Inland silverside | The Joint Trades are recommending 3 options for EPA to consider regarding 48-Hour Acute WET Limitations for TCW fluids. Those options, in order of priority, are as follows (and discussed further in the "Rationale" section below): 1. Removal of the limitations from the permit, or 2. Modify the limitation to a monitoring requirement, and / or 3. Adding a compliance implementation period for the limitation. Rationale: 1. Removal of the limitation from the permit A 48-hour Acute WET limitation for TCW fluids is not appropriate and the Joint Trades strongly recommend that this requirement be removed from the permit. The industry-wide TCW fluid toxicity study forms the basis for this recommendation. The study concluded that several factors limit the potential for aquatic toxicity risks, including: • TCW fluid discharges are typically of short duration. 75% of the discharges sampled during the study were less than 2 hours in duration (median discharge time was 1-hour). A 48-hour test exposure is extremely conservative is not representative of the behavior of these discharges in the marine environment. |

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| | | minnow). Additional acute toxicity testing | TCW fluid discharges are small volumes. TCW fluid |
| | | requirements are contained in Part V.15.b of this | discharges are estimated to be 0.01% of produced water |
| | | permit. | discharge volumes. |
| | | | Of the substances evaluated during the study, no |
| | | | concentration was greater than conservative acute saltwater |
| | | | ecological thresholds. TCW fluids do not pose an |
| | | Grab samples for the acute WET tests shall be | unreasonable risk to the aquatic environment, and additional |
| | | obtained at the nearest accessible point after | WET testing does not provide any added environmental |
| | | final treatment and prior to discharge to surface | benefit. Implementation of WET testing requirements |
| | | waters. | increases operational complexity and risk. Some of the |
| | | | operational considerations include: |
| | | | • Increases in onshore waste volumes from fluids that may no |
| | | | longer be discharged. |
| | | | Safety risks increase due to increased material handling and |
| | | | transfer of fluids. |
| | | | Potential for increased risk for human exposure pathways |
| | | | due to waste being disposed of onshore. • Increases in GHG emissions due to increased vessel and |
| | | | |
| | | | ground transportation. • Burden on lab operations, impacting lab capacities and |
| | | | availability for testing, increase in testing |
| | | | materials/equipment, and increase in consumption of |
| | | | animals/organisms during testing. Currently, there are only 2- |
| | | | 3 laboratories on the Gulf Coast that are capable of |
| | | | performing this type of WET testing. |
| | | | Offshore operations have unique challenges in meeting WET |
| | | | test hold times. Experience from the industry-wide study |
| | | | shows that holding times required by the WET test method |
| | | | are extremely difficult and sometimes impossible to meet. |
| | | | Implementation of 48-hour WET testing for TCW fluids will |
| | | | result in added cost and burden to the regulated community |

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| | | | in the form of "special order" flights and ground transportation. • Implementation of 48-hour testing significantly increases compliance uncertainty. Most TCW fluid discharges will have concluded before the sample reaches the laboratory. In the event of a sample not meeting the toxicity limits there will be nothing for an operator to do to take corrective action (the discharge will be over). This uncertainty will likely result in many operators choosing not to discharge the fluids. In essence, EPA is establishing a "de facto" zero discharge limitation on these fluids. In addition, as noted the industry-wide study report, the critical dilutions listed in the Appendix D Table are overly- |
| | | | conservative for assessing TCW fluid discharges. The industry-wide TCW fluid toxicity study concluded the following: "Recognizing that the median duration of the sampled TCW discharges was 1-h, a series of toxicity tests using a 2-h exposure was performed. These tests showed that toxicity for 2-h exposures was generally less than toxicity in 48-h exposure tests. This suggests that, since TCW discharges are of short duration, a comparison of a 48-h NOEC with a critical effluent dilution (CD) as an indicator of potential acute toxicity has a high degree of conservatism." The conservative nature of existing Critical Dilution tables to TCW fluid discharges provides additional rationale for removing the WET testing requirements from the permit. TCW fluid discharges are not steady-state, continuous |

| discharges. These discharges are intermittent, and low volume discharges. In 2017 EPA Region 6 acknowledged in GMG290000 permit's fact sheet that the numb experienced, and qualified laboratories for limited. We agree with this statement. Given TCW discharges that will require testing, laboratories cannot manage the volume of to that EPA is proposing for TCW fluids. This in to quality control issues. Laboratories only cul number of test age organisms. Increasing the required tests in a short time frame is not possonly 2-3 laboratories that can perform testing and gas discharges. Inability to predict extendowntime periods (i.e., intermittent product issues for these specific monitoring and testing and weather (i.e., hurricanes and other tropic also be problematic with an increase in test required toxicity testing would not only increase on the operator and the testing laboratoric | |
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| In 2017 EPA Region 6 acknowledged in GMG290000 permit's fact sheet that the numb experienced, and qualified laboratories for limited. We agree with this statement. Given TCW discharges that will require testing, laboratories cannot manage the volume of to that EPA is proposing for TCW fluids. This in tu quality control issues. Laboratories only cul number of test age organisms. Increasing t required tests in a short time frame is not poss only 2-3 laboratories that can perform testing and gas discharges. Inability to predict exte downtime periods (i.e., intermittent product issues for these specific monitoring and testing and weather (i.e., hurricanes and other tropic also be problematic with an increase in test required toxicity testing would not only increase on the operator and the testing laboratorion. | hort duration, |
| GMG290000 permit's fact sheet that the numbe experienced, and qualified laboratories for limited. We agree with this statement. Given TCW discharges that will require testing, laboratories cannot manage the volume of to that EPA is proposing for TCW fluids. This in tu quality control issues. Laboratories only cul number of test age organisms. Increasing t required tests in a short time frame is not poss only 2-3 laboratories that can perform testing and gas discharges. Inability to predict exte downtime periods (i.e., intermittent product issues for these specific monitoring and testing and weather (i.e., hurricanes and other tropic also be problematic with an increase in test required toxicity testing would not only increase on the operator and the testing laboratories. | |
| GMG290000 permit's fact sheet that the numbe experienced, and qualified laboratories for limited. We agree with this statement. Given TCW discharges that will require testing, laboratories cannot manage the volume of to that EPA is proposing for TCW fluids. This in tu quality control issues. Laboratories only cul number of test age organisms. Increasing t required tests in a short time frame is not poss only 2-3 laboratories that can perform testing and gas discharges. Inability to predict exte downtime periods (i.e., intermittent product issues for these specific monitoring and testing and weather (i.e., hurricanes and other tropic also be problematic with an increase in test required toxicity testing would not only increase on the operator and the testing laboratories. | |
| experienced, and qualified laboratories for limited. We agree with this statement. Given TCW discharges that will require testing, laboratories cannot manage the volume of to that EPA is proposing for TCW fluids. This in tu quality control issues. Laboratories only cul number of test age organisms. Increasing t required tests in a short time frame is not poss only 2-3 laboratories that can perform testing and gas discharges. Inability to predict exte downtime periods (i.e., intermittent production issues for these specific monitoring and testing and weather (i.e., hurricanes and other tropicals observed to the problematic with an increase in test required toxicity testing would not only increase on the operator and the testing laboratoric | • |
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| laboratories cannot manage the volume of to that EPA is proposing for TCW fluids. This in to quality control issues. Laboratories only cul number of test age organisms. Increasing to required tests in a short time frame is not possionly 2-3 laboratories that can perform testing and gas discharges. Inability to predict extendowntime periods (i.e., intermittent product issues for these specific monitoring and testing and weather (i.e., hurricanes and other tropicals of the problematic with an increase in test required toxicity testing would not only increase on the operator and the testing laboratorial. | |
| that EPA is proposing for TCW fluids. This in tu quality control issues. Laboratories only cul number of test age organisms. Increasing t required tests in a short time frame is not poss only 2-3 laboratories that can perform testing and gas discharges. Inability to predict exte downtime periods (i.e., intermittent product issues for these specific monitoring and testing and weather (i.e., hurricanes and other tropic also be problematic with an increase in test required toxicity testing would not only increase on the operator and the testing laboratorial | |
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| required tests in a short time frame is not possonly 2-3 laboratories that can perform testing and gas discharges. Inability to predict extendowntime periods (i.e., intermittent product issues for these specific monitoring and testing and weather (i.e., hurricanes and other tropic also be problematic with an increase in test required toxicity testing would not only increase on the operator and the testing laboratoric | |
| only 2-3 laboratories that can perform testing and gas discharges. Inability to predict exte downtime periods (i.e., intermittent product issues for these specific monitoring and testing and weather (i.e., hurricanes and other tropic also be problematic with an increase in test required toxicity testing would not only increase on the operator and the testing laboratori | |
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| issues for these specific monitoring and testing and weather (i.e., hurricanes and other tropic also be problematic with an increase in test required toxicity testing would not only increase on the operator and the testing laboratori | • |
| and weather (i.e., hurricanes and other tropic also be problematic with an increase in test required toxicity testing would not only increase on the operator and the testing laboratori | |
| also be problematic with an increase in test required toxicity testing would not only increase on the operator and the testing laboratori | • |
| required toxicity testing would not only increasing on the operator and the testing laboratori | = |
| on the operator and the testing laboratori | • |
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| Lincroaco the enerator's risk tor additional n | |
| increase the operator's risk for additional material resulting in administrative non-compliances. | sseu samples |
| resulting in administrative non-compliances. | |
| 2. Modify the limitation to a monitoring requ | rement |
| If EPA disagrees that the 48-hour acute WET | |
| TCW fluids should be removed, then the | |
| recommend that EPA provide the rationale a | |
| 48-hour acute limitation to a 48-hour acute | - |
| requirement. As discussed above, the indus | • |

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| # | Section / Page Number (PDF) | ZUZ3 Proposed Permit Language | concluded that several factors limit the potential for aquatic toxicity risks, including: • TCW fluid discharges are typically of short duration. 75% of the discharges sampled during the study were less than 2 hours in duration (median discharge time was 1-hour). A 48-hour test exposure is extremely conservative is not representative of the behavior of these discharges in the marine environment. • TCW fluid discharges are small volumes. TCW fluid discharges are estimated to be 0.01% of produced water discharge volumes. • Of the substances evaluated during the study, no concentration was greater than conservative acute saltwater ecological thresholds. TCW fluids do not pose an unreasonable risk to the aquatic environment. However, data collection through additional monitoring could provide a mechanism to further validate these conclusions. In addition, a monitoring requirement may also present an opportunity for EPA and industry to collaborate on developing a more appropriate test procedure that better represents how these fluids are introduced into the marine environment. A test of less than 48 hours in duration would be more representative and less conservative. 3. Adding a compliance implementation period for the |
| | | | limitation. Finally, if 48-hour acute WET testing for TCW fluids is included in the final permit, it is imperative that a compliance implementation period be included to allow operators time to establish procedures, processes and resources to achieve |

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| | | | compliance. Industry acknowledges that acute discharge |
| | | | testing limitation as proposed in the permit is a "pass / fail" |
| | | | requirement for compliance and DMR reporting for TCW fluid |
| | | | discharges. The Joint Trades strongly recommend that EPA |
| | | | establish a schedule of compliance for implementation of the |
| | | | new requirements as outlined in 40 CFR 122.47. Offshore |
| | | | facilities subject to these new requirements may require |
| | | | capital upgrades (e.g., fabrication / installation of diffusers or |
| | | | seawater dilution systems) making immediate compliance |
| | | | with the new requirements impossible. Accordingly, should |
| | | | EPA require 48-hour WET testing, the Joint Trades request |
| | | | EPA include a compliance schedule of two years for |
| | | | permittees to determine how to implement the new |
| | | | requirement. The Joint Trades propose the following |
| | | | language be added to this section of the permit: |
| | | | Compliance with 48-hour Acute WET testing must be |
| | | | achieved within two years of the effective date of |
| | | | the permit. |
| | | | This type of compliance implementation period would allow |
| | | | the regulated community to: |
| | | | • Train operational personnel on the new requirements, |
| | | | Establish logistical plans and schedules to meet required |
| | | | holding times, |
| | | | • Identify the impacts to industry laboratories to determine |
| | | | what additional resources are needed to accommodate the |
| | | | new testing, |
| | | | Allow for fabrication and installation of diffuser and/or |
| | | | seawater dilution systems if needed, |

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| | | | Allow for constructing, contracting, and/or acquisition of additional vessels capable of compliantly managing materials for disposal, and Identify and plan for onshore disposal facility capacities and limitations and expansions as needed. If both acute and chronic testing were required concurrently, to avoid the dual sample requirements, reduce complexity, and ensure the same fluid is used for both acute and chronic data, we ask that EPA acknowledge that results for the acute 48-hour test may be derived from the 7-day chronic test. |
| 12 | Part I. Requirements for NPDES Permits, B. Effluent Limitations and Monitoring Requirements for New and Existing Sources, 7. Sanitary Waste (Facilities Continuously Manned for 30 or more consecutive days by 10 or More Persons), b. Limitations (pg. 52-53) | b. Limitations Total Residual Chlorine. Discharges of sanitary waste must contain a minimum of 1.0 mg residual chlorine per liter and shall be maintained as close to this concentration as possible at all times. A grab sample must be taken once per month and the minimum and average concentrations for the monitoring period shall be reported on the DMR. The approved analytical methods are Hach CN-66-DPD or the EPA method specified in 40 CFR Part 136 for Total Residual Chlorine. Samples must be taken at the nearest accessible location prior to discharge and after final treatment. Exception - Any facility which properly maintains a marine sanitation device (MSD) that complies with pollution control standards and regulations under Section 312 of the Act shall be deemed in | The Joint trades recommend the following revisions to the permit language. b. Limitations Total Residual Chlorine. Discharges of sanitary waste must contain a minimum of 1.0 mg residual chlorine per liter and shall be maintained as close to this concentration as possible at all times. A grab sample must be taken once per month and the minimum and average concentrations for the monitoring period shall be reported on the DMR. The approved analytical methods are Hach CN-66-DPD or the EPA method specified in 40 CFR Part 136 for Total Residual Chlorine. Samples must be taken at the nearest accessible location prior to discharge and after final treatment. Equivalent Disinfection – Other Technologies. The use of other disinfection technologies, including, but |

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| # | Section / Page Number (PDF) | compliance with permit prohibitions and limitations for sanitary waste. The MSD shall be tested annually for proper operation and the test results maintained at the facility or at an alternative site if not practicable. The operator shall indicate use of an MSD on the DMR. | not limited to, bio-membrane filtration and ultraviolet light, are allowed as substitutes for total residual chlorine provided that those technologies result in equivalent or improved disinfection of the sanitary waste stream. Exception - Any facility which properly maintains a marine sanitation device (MSD) that complies with pollution control standards and regulations under |
| | | | Section 312 of the Act shall be deemed in compliance with permit prohibitions and limitations for sanitary waste. The MSD shall be tested annually for proper operation and the test results maintained at the facility or at an alternative site if not practicable. The operator shall indicate use of an MSD on the DMR. |
| | | | Rationale: The Joint Trades recommend that the EPA consider updating this standard to include additional types of disinfection technologies. Modern sanitary treatment equipment may also utilize other means by which to disinfect sanitary waste, such as bio-membrane technology and ultra-violet light. The single standard for total residual chlorine may limit the use of such technologies. Such technologies are proven and have been utilized in the treatment of sanitary waste for many years. In addition, USCG-approved MSDs are already in use that do not utilize chlorine for disinfection. These types of units are approved by the USCG and the International Maritime Organization (IMO). |

| 10. Miscellaneous Discharges The following miscellaneous discharges are authorized for discharge: Desalination Unit recommending that a definition of "subsea cleaning". |
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| Discharge; Blowout Preventer Control Fluid; Uncontaminated Ballast Water; Uncontaminated Bilge Water; Mud, Cuttings, and Cement (including tracers) at the Seafloor; Uncontaminated Seawater; Uncontaminated Freshwater; Boiler Blowdown; Source Water and Sand; Diatomaceous Earth Filter Media; Subsea Production Control Fluids; Umbilical Steel Tube Storage Fluid, Leak Tracer Fluid, Riser Tensioner Fluid, Well Test Fluids, Bulk Transfer Operations Powder (Note: Authorized discharge is limited to dust emitted from vents that falls into water directly. No discharge of collected dust powder is authorized); Excess Cement Slurry, (Note: Discharges) of cement slurry used for testing cement handling equipment are not authorized.) Cement Equipment Washdown, Hydrate Control Fluid (i.e., pipeline brines), and Aqueous Film Forming Foam (AFFF). Discharges of cement slurry used for testing equipment are not authorized); Excess Cement Slurry, (Note: Operations Powder (Note: Authorized discharge). Subsea Production Control Umbilical Steel Tube Storage Fluid; Leak Tracer Fluid, Well Test Fluids, Bulk Transfer Operations Powder (Note: Authorized discharge is limited to dust emitted from vents that falls into water directly. No discharge of cement slurry used for testing cement authorized); Cement Equipment Washdown, Hydrate Control Fluid or Brine used as piping equipment are not authorized); Excess Cement Slurry, (Note: of cement slurry used for testing cement equipment are not authorized). Cement Equipment preservation fluid (i.e., pipeline brines), and Aqueous Film Forming Foam (AFFF). |

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| | 2023 Proposed Permit Language | Rationale: As subsea structures rest on the seafloor at depths greater than 2,000 feet for long periods from a few years to decades, structure components accumulate marine deposits/scale on and between component and connection sealing surfaces, e.g., wellhead, tubing head spools, hot stabs. These deposits include, but are not limited to, calcium carbonate and magnesium carbonate. During subsea maintenance and intervention activities of subsea equipment, equipment deployed from surface facilities, e.g., MODUs and MSVs, must connect to these surfaces and achieve a passing sealing test, as required by BSEE, to assure proper seating of equipment operating and to avoid ingress of extremely high subsea pressures and egress (losses of containment) of fluids to the environment. The accumulation of marine deposits frequently interferes with and prevents proper seating and sealing and must be removed. In most cases, mechanical removal via abrasive brushes (similar to a Scotch-Brite® pad) deployed via a ROV accomplished a sufficient, but not complete, removal in an hour or two of effort. In some cases, which are becoming more frequent as marine deposit accumulation intensifies on older subsea structures, multiple sets of brushes have been expended over more than twelve (12) hours of ROV removal effort with little effect on the thickening marine deposits. In an effort to remove the marine deposits in a more effective manner, provide a cleaner connection surface for optimal seal |
| | | performance, the open water, subsea application of an acidic cleaning agent to dissolve the deposits, usually in combination with mechanical removal by abrasive brushes, |

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| | | | can effectively accomplish this task. The cleaning agent can |
| | | | be carried as a solid contained in equipment or in a fluid |
| | | | reservoir mounted on and dispensed through chemical ports |
| | | | or mechanical brush head attached to the ROV. Small |
| | | | volumes, approximately 50 gallons, are expected to be |
| | | | discharged, per large connection surface cleaned. This |
| | | | method has been effectively deployed in the United Kingdom |
| | | | and Australia. (Example equipment and products: |
| | | | https://www.a60n.com/single-post/2018/01/08/solidcitric- |
| | | | subsea-cleaning-solution; |
| | | | https://www.oceaneering.com/brochures/wellhead- |
| | | | <pre>cleaning-tool/;</pre> |
| | | | https://macdermidoffshore.com/our-solutions/drilling- |
| | | | solutions/service-solutions/oceanic-cw-subsea-de- |
| | | | calcification-fluid). |
| | | | |
| | | | Considering the small volumes utilized and discharged and |
| | | | the currently permitted subsea fluid types and applications, |
| | | | one potential fluid has been tested utilizing the toxicity testing |
| | | | method, 7-day No Observable Effect Concentration (NOEC) of |
| | | | no less than 50 mg/l; the same method required for |
| | | | Miscellaneous Subsea Discharges of subsea wellhead |
| | | | preservation fluids, subsea production control fluids, |
| | | | umbilical steel tube storage fluids, leak tracer fluids, and riser |
| | | | tensioning fluids. For example, one potential fluid passes |
| | | | both Mysid shrimp (Mysidopsis bahia) chronic static renewal |
| | | | 7-day survival and growth test (Method 1007.0) and Inland |
| | | | Silverside minnow (Menidia beryllina) chronic static renewal |
| | | | 7-day larval survival and growth test (Method 1006.0) at the |
| | | | highest testing concentrations 200 mg/L (see Attachment B |

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| | | | Sub Sea Fluids Biomonitoring Report, EE USA Project No.: Q-2021-21, March 18, 2021) |
| 14 | Part I. Requirements for NPDES Permits, B. Effluent Limitations and Monitoring Requirements, 11. Miscellaneous Discharges of Freshwater and Seawater in Which Chemicals Have Been Added (pg. 57) | 11. Miscellaneous Discharges of Freshwater and Seawater In Which Treatment Chemicals Have Been Added, including, but not limited to: 1) excess seawater which permits the continuous operation of fire control and utility lift pumps, 2) excess seawater from pressure maintenance and secondary recovery projects, 3) water released during training of personnel in fire protection, 4) seawater used to pressure test, or flush, new and existing piping and pipelines, 5) ballast water, 6) water flooding discharges, 7) once through non-contact cooling water, 8) seawater used as piping or equipment preservation fluids, and 9) seawater used during dual gradient drilling. | The Joint Trades recommend the permit language be revised as follows: 11. Miscellaneous Discharges of Freshwater and Seawater In Which Treatment Chemicals Have Been Added, including, but not limited to: 1) excess seawater which permits the continuous operation of fire control and utility lift pumps, 2) excess seawater from pressure maintenance and secondary recovery projects, 3) water released during training of personnel in fire protection, 4) seawater used to pressure test, or flush, new and existing piping and pipelines, 5) ballast water, 6) water flooding discharges, 7) once through non-contact cooling water, 8) seawater used as piping or equipment preservation fluids, and 9) seawater used during dual gradient drilling and well operations. |
| | | | Rationale: Seawater and fresh water used for fluid displacement in well operations is drawn from chemically treated and uncontaminated sources. The chemically treated water sources are the same as, or similar to, those sources used for water released during training of personnel in fire protection, ballast water, once through non-contact cooling water, water used as piping or equipment preservation fluids, and water used during Dual Gradient Drilling. The change provides |

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| | | | clarity and would be more inclusive of current operations in industry. |
| 15 | Part I. Requirements for NPDES Permits, B. Effluent Limitations and Monitoring Requirements for New and Existing Sources, 11. Miscellaneous Discharges of, c. Toxicity (pg. 57) | The 7-day minimum and monthly average minimum NOEC, must be equal to or greater than the critical dilution concentration specified in this permit in Table 6 for seawater discharges and Table 7 for freshwater discharges. Critical dilution shall be determined using either Table 6 or 7 of this permit in conjunction with (1) the discharge rate, (2) discharge pipe diameter, and (3) the water depth between the discharge pipe and bottom. | The Joint Trades are requesting the following changes to reference the correct Table numbers of the permit (i.e. maintain the language from the previously-effective permit). The 7-day minimum and monthly average minimum NOEC, must be equal to or greater than the critical dilution concentration specified in this permit in Table 67 for seawater discharges and Table 78 for freshwater discharges. Critical dilution shall be determined using either Table 67 or 78 of this permit in conjunction with (1) the discharge rate, (2) discharge pipe diameter, and (3) the water depth between the discharge pipe and bottom. |
| 16 | Part I. Requirements for NPDES Permits, D. Special Conditions, 3. Cooling Water Intake Structure Requirements, d. Monitoring Requirements, New non-Fixed Facilities, i. (pg. 74) | New non-Fixed Facilities i. The operator must conduct either visual inspections or use remote monitoring devices (e.g., remotely operated vehicles (ROV), subsea cameras, or other monitoring device) during the period the cooling water intake structure is in operation. The operator must conduct visual inspections at least weekly or at a lesser frequency as approved by the Director, to ensure that the required design and construction technologies are maintained and operated so they continue to function as designed. Alternatively, the operator must inspect using remote monitoring devices to ensure that the | The Joint Trades are requesting that visual inspections be required at least every 6 months. This request is backed by visual and remote inspection data obtained in EPA Region 6. The operator must conduct either visual inspections or use remote monitoring devices (e.g., remotely operated vehicles (ROV), subsea cameras, or other monitoring device) during the period the cooling water intake structure is in operation. The operator must conduct visual inspections at least weekly every 6 months or at a lesser frequency as approved by the Director, to ensure that the required design and construction technologies are maintained and operated so they continue to function as designed. |

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| | | impingement and entrainment technologies are functioning as designed. | Alternatively, the operator must inspect using remote monitoring devices to ensure that the impingement and entrainment technologies are functioning as designed. |
| | | | Rationale: The observed rate of growth of biological material does not result in significant change over a one-week period. Changes are hard to discern over a monthly period. For a deepwater facility (does not employ a sea chest) that performed entrainment monitoring under the EPA Region 6 OCS GOM NPDES permit, the 2015 average monthly rate of growth expressed as % screen coverage was 2.5% with a monthly range of 0-6% growth. |
| | | | Visual or remote monitoring on dynamically positioned vessels involves shutting down thrusters in order to inspect the sea chest screens. In the high currents of the gulf stream this is a very risky operation as loss of station-keeping while attached to the well would lead to disastrous environmental impacts. A 6-month time period would allow time to plan a safer operation around obtaining the visual/remote monitoring, something Region 6 implemented in the 2017 GMG290000 permit. |
| 17 | Part I. Requirements for NPDES Permits, D. Special Conditions, 3. Cooling Water Intake Structure Requirements, d. Monitoring Requirements, New Fixed Facilities that do not employ sea chests as intake structures, i. (pg. 75) | New Fixed Facilities that do not employ sea chests as intake structures i. The operator must conduct either visual inspections or use remote monitoring devices (e.g., remotely operated vehicles (ROV), subsea cameras, or other monitoring device) during the | The Joint Trades are requesting that visual inspections be required at least every 6 months. This request is backed by visual and remote inspection data obtained in EPA Region 6. The operator must conduct either visual inspections or use remote monitoring devices (e.g., remotely |

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| " | Section / Lage Number (LDL) | period the cooling water intake structure is in operation. The operator must conduct visual inspections at least weekly, or at a lesser frequency as approved by the Director, to ensure that the required design and construction technologies are maintained and operated so they continue to function as designed. Alternatively, the operator must inspect using remote monitoring devices to ensure that the impingement and entrainment technologies are functioning as designed. | operated vehicles (ROV), subsea cameras, or other monitoring device) during the period the cooling water intake structure is in operation. The operator must conduct visual inspections at least weekly every 6 months or at a lesser frequency as approved by the Director, to ensure that the required design and construction technologies are maintained and operated so they continue to function as designed. Alternatively, the operator must inspect using remote monitoring devices to ensure that the impingement and entrainment technologies are functioning as designed. Rationale: The observed rate of growth of biological material does not result in significant change over a one-week period. Changes are hard to discern over a monthly period. For a deepwater facility (does not employ a sea chest) that performed entrainment monitoring under the EPA Region 6 OCS GOM NPDES permit, the 2015 average monthly rate of growth expressed as % screen coverage was 2.5% with a monthly range of 0-6% growth. |
| 18 | Part I. Requirements for NPDES Permits, D. Special Conditions, 3. Cooling Water Intake Structure Requirements, d. Monitoring Requirements, New Fixed Facilities that Employ Sea Chests as Intake Structures, i. (pg. 76-77) | New Fixed Facilities that Employ Sea Chests as Intake Structures i. The operator must conduct either visual inspections or utilize remote monitoring devices (e.g., remotely operated vehicles (ROV), subsea cameras, or other monitoring device) during the period the cooling water intake structure is in operation. The operator must | The Joint Trades are requesting that visual inspections be required at least every 6 months. This request is backed by visual and remote inspection data obtained in EPA Region 6. The operator must conduct either visual inspections or use remote monitoring devices (e.g., remotely operated vehicles (ROV), subsea cameras, or other monitoring device) during the period the cooling |

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| *** | Section / Page Number (PDF) | conduct visual inspections at least weekly, monthly, or at a lesser frequency as approved by the Director, to ensure that the required design and construction technologies are maintained and operated so they continue to function as designed. Alternatively, the operator must inspect using remote monitoring devices to ensure that the impingement and entrainment technologies are functioning as designed. | water intake structure is in operation. The operator must conduct visual inspections at least weekly every 6 months or at a lesser frequency as approved by the Director, to ensure that the required design and construction technologies are maintained and operated so they continue to function as designed. Alternatively, the operator must inspect using remote monitoring devices to ensure that the impingement and entrainment technologies are functioning as designed. Rationale: The observed rate of growth of biological material does not result in significant change over a one-week period. Changes are hard to discern over a monthly period. For a deepwater facility (does not employ a sea chest) that performed entrainment monitoring under the EPA Region 6 OCS GOM NPDES permit, the 2015 average monthly rate of growth expressed as % screen coverage was 2.5% with a monthly range of 0-6% growth. |
| 19 | Part III. Monitoring Reports and Permit Modification, B. Permit Modification, 3. (pg. 116-117) | 3. Pursuant to Section 7(a)(2) of the Endangered Species Act (ESA), EPA is required to consult with the U.S. Fish and Wildlife Service (FWS), and the National Marine Fisheries Service (NMFS) and ensure that ""agency action"" such as the issuance of this CWA NDPES permit does not jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of the critical habitat of such species. Section 7(d) of | The Joint Trades recommend striking the final sentence in Part III. Monitoring Reports and Permit Modification, B. Permit Modification, paragraph 3. Any such reasonable and prudent alternative measures may be added as conditions to this permit through the reopening and modification process. |

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| | | the ESA requires that, after initiation of | Rationale: |
| | | consultation under Section 7(a)(2), the Federal | During the drafting and development process for the NPDES |
| | | agency "shall not make any irreversible or | permit, EPA performs a consultation with NMFS as referenced |
| | | irretrievable commitment of resources with | in the paragraph. This process could occur again while |
| | | respect to the agency action which has the effect | developing the permit that may follow. Referencing a |
| | | of foreclosing the formulation or | potential reopening and modification of the permit outside of |
| | | implementation of any reasonable and prudent | this standard process creates uncertainty for the regulated |
| | | alternative measures which would not violate | community. |
| | | subsection (a)(2) of this section. EPA Region 4 | |
| | | completed consultation with NMFS using the | |
| | | step down process as required by the 2020 | |
| | | Biological Opinion on the Federally Regulated Oil | |
| | | and Gas Program Activities in the Gulf of Mexico. | |
| | | To ensure compliance with Section 7(a)(2) and | |
| | | 7(d) of the ESA, this permit may be revoked or | |
| | | reopened and modified at any time during the | |
| | | life of the permit if NMFS identifies reasonable | |
| | | and prudent alternative measures that are | |
| | | necessary to avoid jeopardy to an ESA | |
| | | threatened or endangered species or adverse | |
| | | effects to its critical habitat. Any such reasonable | |
| | | and prudent alternative measures may be added | |
| | | as conditions to this permit through the | |
| | | reopening and modification process. | |
| | Part V. Test Procedures and Definitions, A. Test | b. For each set of tests conducted, a grab sample | If the 7-day chronic testing requirements are included for |
| 20 | Procedures, 15. Whole Effluent Toxicity Testing, | of final effluent shall be collected and used to | monitoring-only in the final permit, the Joint Trades |
| 20 | a.1.b. | initiate the test within 36 hours of collection. | recommend modifying the proposed language in this |
| | (pg. 158) | | paragraph as follows: |
| | | | |

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| | | | b. For each set of tests conducted, a grab sample of |
| | | | final effluent shall be collected and used to initiate the |
| | | | test within 36 hours 72 hours of collection. |
| | | | Rationale: |
| | | | The hold time for TCW samples should be adjusted to the |
| | | | maximum of 72 hours. A 36-hour hold-time will introduce |
| | | | significant logistical complexity to well workover, completion, |
| | | | and treatment operations by creating the need for operators |
| | | | to have multiple vessels and flights dedicated to sample |
| | | | transportation only. The increased number of vessel and |
| | | | helicopter trips between offshore facilities and shore will |
| | | | increase emissions, noise, and other environmental impacts. |
| | | | They will also increase safety risks associated with |
| | | | landing/takeoff, vessel transport and transfer of samples. |
| | | | These risks will be more acute given a 36-hour time |
| | | | constraint. The requirement for additional flights/vessel trips |
| | | | will also increase costs, as operators compete for scarce |
| | | | supply of helicopters and fast vessels. Lastly, the competition |
| | | | for helicopters and fast vessels will result in project delays, |
| | | | which will further increase costs and result in additional |
| | | | environmental impacts. |
| | | | |
| | | | Additionally, the distance from many offshore facilities in the |
| | | | EPA Region 4 coverage area to the laboratories where testing |
| | | | will be performed could be greater than those in the EPA |
| | | | Region 6 coverage area. Difficulty in meeting a 36-hour test |
| | | | initiation time when transporting samples from locations in |
| | | | the EPA Region 6 coverage area has already been |
| | | | acknowledged as an extenuating circumstance, in which |

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| | | | utilization of the full 72-hour option to initiate testing would be appropriate. |
| 21 | Part V. Test Procedures and Definitions, A. Test Procedures, 15. Whole Effluent Toxicity Testing, a.1.c. (pg. 158-159) | If control mortality exceeds 20 percent in any test, the test(s) with that species (including the control) shall be repeated. For either species, a test will be considered valid only if control mortality does not exceed 20 percent. Each test must meet the test acceptability criteria for each species as defined in EPA-821-R-02-014, Section 13.12 for Menida beryllina and Section 14.12 for Mysidopsis bahia, or the most current edition. Additionally, all test results must be evaluated and reported for concentration-response relationship based on "Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)," EPA/821/B-00/004 (http://water.epa.gov/scitech/methods/cwa/we t/upload/2007_07_10_methods_wet_disk2_atx .pdf), or the most current edition. If the required concentration-response review fails to yield a valid relationship per EPA/821/B-00/004 (or the most current edition), that test shall be repeated. Any test initiated but terminated prior to completion must be reported with a complete explanation for the termination. If the conditions of test acceptability are met as described above and in Part V.15.4, and the percent survival of the test organism is equal to | The Joint Trades propose adding the phrase "if an additional sample can be obtained" due to potential difficulties with resampling. Additionally, all test results must be evaluated and reported for concentration-response relationship based on "Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing (40 CFR Part 136)," EPA/821/B-00/004 (http://water.epa.gov/scitech/methods/cwa/wet/upl oad/2007_07_10_methods_wet_disk2_atx.pdf), or the most current edition. If the required concentration-response review fails to yield a valid relationship per EPA/821/B-00/004 (or the most current edition), that test shall be repeated if an additional sample can be obtained. Any test initiated but terminated prior to completion must be reported with a complete explanation for the termination. If the conditions of test acceptability are met as described above and in Part V.15.4, and the percent survival of the test organism is equal to or greater than 80 percent in the critical dilution concentration and all lower dilution concentrations, the survival test shall be considered to be passing and the permittee shall report a survival NOEC of not less than the critical dilution in the DMR for monitoring purposes. |

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| | | or greater than 80 percent in the critical dilution concentration and all lower dilution concentrations, the survival test shall be considered to be passing and the permittee shall report a survival NOEC of not less than the critical dilution in the DMR. | Rationale: If a sample becomes compromised in any way during transportation or if toxicity tests are inconclusive or invalid, having the opportunity of collecting another sample may not be possible if the discharge is no longer occurring. This is because these discharges are short in duration. |
| 22 | Part V. Test Procedures and Definitions, A. Test Procedures, 15. Whole Effluent Toxicity Testing, 2.a (pg. 159) | Exception - Toxicity testing for chemicals/fluids used in subsea operations shall be once prior to use during the term of this general permit and at least annually thereafter on each product added to an operation after the effective date of this permit. Additionally, permittees that were covered under the previous general permit and that are currently performing toxicity tests for Produced Water discharges and have passed the most recent three consecutive toxicity test results shall continue beginning with a frequency of at least every six months, unless a subsequent non-compliance occurs or if the fluid formulation changes. For well treatment, well completion or well workover fluid discharges monitoring only requirements apply. Test results shall be reported as pass or fail. A failure will not be considered a violation of the permit. | The Joint Trades recommend retaining the language from the previous permit which was removed in the proposed permit language. For well treatment, well completion or well workover fluid discharges monitoring only requirements apply. Test results shall be reported as pass or fail. A failure will not be considered a violation of the permit. Rationale: Retaining this language would ensure clarity regarding "monitoring-only" requirements for TCW fluids in the permit and provide certainty to the regulated community that reporting failure results will not be considered violations. |
| 23 | Part V. Test Procedures and Definitions, A. Test Procedures, 15. Whole Effluent Toxicity Testing, b. (pg. 162) | (b) The following Acute Whole Effluent Toxicity testing requirements apply to Well Treatment, Well Completion or Well Workover Fluid | The Joint Trades are requesting that EPA acknowledge that if both acute and chronic testing were required concurrently, EPA would allow the results for the acute 48-hour test to be derived from the 7-day chronic test. This would assist in |

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| | | Discharges lasting less than four consecutive days. | avoiding the dual sample requirements, would reduce complexity, and would ensure the same fluid is used for both acute and chronic data. |
| | | Acute toxicity shall be used to determine the concentration of effluent that results in mortality of the test organisms during a 48-hour exposure. The control and dilution water will be natural or synthetic seawater at 25 parts per thousand salinity as described in EPA's acute WET test methods (2002), ""Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms, EPA-821-R-02-012 or the most current edition. | acute and chronic data. |
| | | For each set of tests conducted, a grab sample of final effluent shall be collected and used to initiate the test within 36 hours of collection. If control mortality exceeds 10 percent in any test, the test(s) with that species (including the | If the acute testing limitation requirements are included in the final permit, the Joint Trades recommend modifying the permit language on test initiation as follows: For each set of tests conducted, a grab sample of final effluent shall be collected and used to initiate the test |
| 24 | Part V. Test Procedures and Definitions, A. Test Procedures, 15. Whole Effluent Toxicity Testing, (b)(i) (pg. 164) | control) shall be repeated. Any WET test initiated but terminated prior to completion must be reported with a complete explanation for the termination. If the requirements of EPA's WET test method's TAC are met as described above and in Part V.15(b).4, and the percent survival of the test organism is equal to or greater than 90 percent in the critical dilution | within 36 hours 72 hours of collection. Additionally, the Joint Trades propose maintaining the phrase from the previous permit regarding "if an additional sample can be obtained". If control mortality exceeds 10 percent in any test, the test(s) with that species (including the control) shall |
| | | concentration and all lower dilution concentrations, the survival test shall be considered to be passing and the permittee shall | be repeated if an additional sample can be obtained . Any WET test initiated but terminated prior to completion must be reported with a complete |

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| | | report a LC50 greater than the critical dilution in the DMR. | explanation for the termination. If the requirements of EPA's WET test method's TAC are met as described above and in Part V.15(b).4 |
| | | | Rationale: In the event that a sample becomes compromised in any way during transportation or if toxicity tests are inconclusive or invalid, having the opportunity of collecting another sample may not be possible if the discharge is no longer occurring. This is because these discharges are short in duration. |
| | | | In regards to the recommendation to revise the test initiation time from 36 to 72 hours, see prior comments on "extenuating circumstances" for chronic testing in comment #20. |
| 25 | Part V. Test Procedures and Definitions, A. Test Procedures, 15. Whole Effluent Toxicity Testing, (b)(ii) (pg. 165) | ii. The permittee may reduce monitoring frequency to once per discharge for the duration of the permit for Well Treatment, Completion or Workover fluid discharges after two consecutive valid tests. These tests are referred to as "routine" tests. | Similar to the above comment, the Joint Trades propose maintaining the phrase regarding "if an additional sample can be obtained" due to potential difficulties with re-testing. ii. The permittee may reduce monitoring frequency to once per discharge for the duration of the permit for Well Treatment, Completion or Workover fluid discharges after two consecutive valid tests, if an additional sample can be obtained. These tests are referred to as "routine" tests. |
| | | | Rationale: In the event that a sample becomes compromised in any way during transportation or if toxicity tests are inconclusive or |

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| | | The summary laboratory reports shall include as | invalid, having the opportunity of collecting another sample may not be possible if the discharge is no longer occurring. This is because these discharges are short in duration. |
| 26 | Part V. Test Procedures and Definitions, A. Test Procedures, 15. Whole Effluent Toxicity Testing, (b)(ii) (pg. 165-166) | The summary laboratory reports shall include, as a minimum, the following information: (1) Permittee's Name (2) Name of WET test and EPA WET test method number (3) Name of WET test species (4) Outfall identification designation and type of wastewater (5) Name of biomonitoring laboratory (6) Date sample was collected (7) Date and time test initiated (8) Critical Dilution (9) Indicate if test is "valid." If not, state reasons why (i.e., what EPA WET test methods TAC not met). (10) LC50 for both the growth test and the survival test. | The Joint Trades recommend revising this requirement as follows: The summary laboratory reports shall include, as a minimum, the following information: (1) Permittee's Name (2) Name of WET test and EPA WET test method number (3) Name of WET test species (4) Outfall identification designation and type of wastewater (5) Name of biomonitoring laboratory (6) Date sample was collected (7) Date and time test initiated (8) Critical Dilution (9) Indicate if test is "valid." If not, state reasons why (i.e., what EPA WET test methods TAC not met). (10) LC50 for both the growth test and the survival test. Rationale: These changes would ensure clarity for laboratories performing the testing as acute test methods. |

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| 27 | Part V. Test Procedures and Definitions, A. Test Procedures, 15. Whole Effluent Toxicity Testing, (b)(iii) (pg. 166) | (iii) An LC50 of less than or equal to the CD% effluent in any valid routine or additional definitive Survival or Growth WET test for either species will not be a violation of this permit. | The Joint Trades recommend revising this requirement as follows: (iii) An LC50 of less greater than or equal to the CD% effluent in any valid routine or additional definitive Survival or Growth WET test for either species will not be a violation of this permit. Rationale: These changes would ensure clarity for laboratories performing the testing as acute test methods are survival only and do not include growth test methods. Additionally, striking the words "less" and "or Growth" would ensure the proper interpretation of this requirement as relating to acute test results, which could result in violations, while chronic test results would be for monitoring only. |
| 28 | Part V. Test Procedures and Definitions, A. Test Procedures, 15. Whole Effluent Toxicity Testing, (b)(iii) (pg. 166) | The first additional WET test shall begin within one day of the end of the routine WET test failure and shall be conducted every other day thereafter until two consecutive additional passing WET tests are completed. | The Joint Trades recommend revising this requirement as follows: If still discharging, the first additional WET test sample shall begin be collected within one day one week of receiving the end of the routine WET test failure results and shall be conducted collected every other day week thereafter until two consecutive additional passing WET tests are completed. Rationale: As written, operators would be required to sample for routine tests and then sample again before the results are known in order to meet the holding time at the laboratory to allow for |

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| | | | starting an additional test within one day. Additionally, requiring tests to be conducted every other day thereafter would require sampling for each subsequent re-test before knowing results of the prior re-tests. For most discharges lasting less than four days, the TCW discharge would have ceased before receiving test results. |
| 29 | Part V. Test Procedures and Definitions, B. Other Definitions (pg. 167) | All definitions contained in Sections 502 and 122.2 of the Act shall apply to this permit and are incorporated herein by references. Unless otherwise specified in this permit, additional definitions of words or phrases used in this permit are as follows: | The Joint Trades recommend revising this statement to clarify the references to the regulatory citation and implementing statute. All definitions contained in Sections 502 of the Act and 40 CFR 122.2 shall apply to this permit and are incorporated herein by references. Unless otherwise specified in this permit, additional definitions of words or phrases used in this permit are as follows: Rationale: These changes would reflect the full scope and intent of the statement. |
| 30 | Part V. Test Procedures and Definitions, B. Other Definitions (pg. 179) | 71. Produced Sand means the slurred particles used in hydraulic fracturing, the accumulated formation sands and scales particles generated during production | The Joint Trades are requesting the following change to address a typographical error whereby the word "slurried" was replaced with "slurred". 71. Produced Sand means the slurred slurried particles used in hydraulic fracturing, the accumulated formation sands and scales particles generated during production |

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| | Part V. Test Procedures and Definitions, B. Other | 72. Produced Water means the water (brine) brought up from the hydrocarbon-bearing strata during the extraction of oil and gas, and can include formation water, injection water, and any chemicals added downhole or during the oil/water separation process. Produced water also includes any wastewater generated during separation and processing operations or any | The Joint Trades request the following change: 72. Produced Water means the water (brine) brought up from the hydrocarbon-bearing strata during the extraction of oil and gas, and can include formation water, injection water, and any chemicals added downhole or during the oil/water/gas separation process. |
| 31 | Definitions (pg. 180) | chemicals added downhole, subsea or during separation and processing operations. | Rationale: The definition change would provide clarity, be more inclusive and would reflect a more realistic approach with current industry operations. The basic separation process at any offshore production facility is designed to separate oil, natural gas and produced water into three (3) distinct streams for processing, handling and/or treatment. |
| 32 | Part V. Test Procedures and Definitions, B. Other Definitions (pg. 181) | | The Joint Trades recommend adding a new definition to the permit: "Subsea cleaning fluids" means acidic cleaning agents used to dissolve marine deposits on subsea equipment during subsea maintenance and intervention activities to assure proper sealing of operating equipment and to avoid ingress of extremely high subsea pressures and egress (losses of containment) of fluids to the environment. Rationale: The Joint Trades request including this definition to accompany the request to add "subsea cleaning fluids" to the |

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| | | | Part I. Requirements for NPDES Permits, Section B. Effluent Limitations and Monitoring Requirements, 10. Miscellaneous Discharges" section of the permit. |
| 33 | Part V. Test Procedures and Definitions, B. Other Definitions (pg. 187) | Table 1. Summary of Effluent Limitations, Prohibitions, and Monitoring Requirements for the Eastern Gulf of Mexico NPDES General Permit for Existing Sources and New Sources (Refer to permit for specific, enforceable requirements) | The Joint Trades request that once all edits and changes to the permit text language have been completed, that Table 1 requirements be updated accordingly to match. The Joint Trades would prefer that Table 1 be removed completely from the permit. Rationale: EPA has historically stated that the permit text holds precedent over Table 1. Additionally, including the table in the permit could potentially insert inconsistencies between the permit language and Table 1. For example, there is a table entry in the proposed permit for "Workover Fluids (includes packer fluids)" that may introduce confusion on whether both chronic and acute WET testing requirements are intended to be "monitoring only" requirements, which may not be the intent of the text in the body of the permit as currently drafted. |



ATTACHMENT B SUB SEA FLUIDS BIOMONITORING REPORT

LELAP Certificate No.: 02027

Sub Sea Fluids Biomonitoring Report Menidia beryllina (EPA Method 1006) & Americamysis bahla (EPA Method 1007)

prepared for

EE USA Project No.: Q-2021-21 Critical Dilution: 50 mg/L Product (PR), Parameter No. 51726 NPDES Permit No.: GMG290000

M. beryllina

SURVIVAL 7-Day NOEC/LOEC = 200 mg/L/>200 mg/L PR, Parameter No's. TOP6B/TXP6B; Pass = 0. Parameter No. TLP6B GROWTH 7-Day NOEC/LOEC = 200 mg/L/>200 mg/L PR, Parameter No's. TPP6B /TYP6B; Pass = 0, Parameter No. TGP6B % CV = 9.56, Parameter No. TQP6B DMR Parameter No. 51712 = 0, Worst Case TLP6B & TGP6B

A. bahia

SURVIVAL 7-Day NOEC/LOEC = 200 mg/L/>200 mg/L PR, Parameter No's. TOP3E/TXP3E; Pass = 0, Parameter No. TLP3E GROWTH 7-Day NOEC/LOEC = 200 mg/L/>200 mg/L PR, Parameter No's, TPP3E /TYP3E; Pass = 0, Parameter No, TGP3E % CV = 14.9, Parameter No. TQP3E DMR Parameter No. 51713 = 0, Worst Case TLP3E & TGP3E

Report Date: March 18, 2021

ENVIRONMENTAL ENTERPRISES USA, INC.

58485 PEARL ACRES ROAD, SUITE D SLIDELL, LOUISIANA 70461 (800) 966-2788

This report contains seven pages plus five appendices, A - E. This report must not be reproduced in part, only in whole. The results and conclusions presented in this report apply only to the sample(s) tested. All results should be considered valid unless otherwise noted in the report.

Michele Ellis

Effluents Testing Supervisor

David L. Daniel President QA/QC Officer