



Jared Blumenfeld
Secretary for
Environmental Protection



Department of Toxic Substances Control

Meredith Williams, Ph.D., Director
8800 Cal Center Drive
Sacramento, California 95826-3200



Gavin Newsom
Governor

RECEIVED

August 25, 2021

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Ms. Dianna Tickner
Director, Decommissioning and Demolition
Dynergy/Luminant
1500 Eastport Plaza Drive
Collinsville, Illinois 62234

City of Morro Bay
Community Development Dept.

REVIEW AND COMMENTS ON THE DRAFT FINAL SCREENING-LEVEL RISK ASSESSMENT REPORT FOR GROUNDWATER – DYNEGY-OWNED PORTION OF THE FORMER MORRO BAY POWER PLANT, MORRO BAY, CALIFORNIA, EPA ID NO. CAT080011646

Dear Ms. Tickner:

By email dated March 4, 2021, Terraphase Engineering Inc. (Terraphase) on behalf of the Morro Bay Power Company LLC (MBPC) for the Morro Bay Power Plant (MBPP) site (Site), submitted the *Response to Department of Toxic Substances Control (DTSC) Comments on the Draft Screening-Level Risk Assessment Report For Groundwater (SLRARGW) – MBPC-Owned Portion of the Former Morro Bay Power Plant (RTCs)* to DTSC. The RTCs describe the responses to DTSC comments, and also include a Draft Final SLRARGW which incorporates the responses into the revised Report. The draft SLRARGW was prepared to analyze the most current site data for groundwater to identify whether any portions of the Site require a land use covenant for groundwater; the previous document titled Draft Screening Level Human Health Risk Assessment, prepared for the site, only analyzed soil. Based on discussions with and recommendations from DTSC, Dynergy prepared the Draft SLRARGW to fully evaluate Site groundwater, and to determine whether a Land Use Covenant (LUC) recorded for the site would need restrictions on part or all of Site groundwater.

DTSC's Human and Ecological Risk Office (HERO) and Geological Services Unit (GSU) have reviewed the RTCs and the Draft Final SLRARGW and their memoranda (Memos) are enclosed. HERO's Memo makes a recommendation to language in Section 3.6 to clarify potential future contaminant breakdown. One additional DTSC comment is listed below.

Comment 1. There is a mistake in the calculations in Section 3.3 (Data Selection) of the Draft Final SLRARGW. The equation listed, as well as narrative supporting it, determine

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that if a drinking water well were installed at the site, the radius of influence of the hypothetical wells would be approximately 1,000 feet. However, DTSC performing these same calculations, came up with a far lower number of approximately 27 feet. Finding this error, DTSC emailed Terraphase on May 20, 2021, to try and identify whether this was a calculation error or mistake in the text. Terraphase informed DTSC that the pumping or flow rate for a single-family dwelling should have been three gallons per minute, rather than three gallons per day as listed in the Draft Final SLRARGW.

Before DTSC could transmit the above comment and HERO's and GSU's enclosed Memos, DTSC had a discussion with the MBPC contact, Ms. Dianna Tickner, concerning DTSC's review status of the Draft Final SLRARGW. Ms. Tickner requested the specific comments from DTSC that would be made on this document, to allow the MBPC to address these comments with a new version of the SLRARGW and reduce the number of comment and document revision cycles. Based on the above and enclosed DTSC comments, Terraphase submitted the *Final Screening-Level Risk Assessment Report for Groundwater (Revised SLRARGW)* on June 21, 2021. The cover letter for the Revised SLRARGW identifies these DTSC comments and how the Revised SLRARGW was updated to address them.

Based on DTSC review of the Revised SLRARGW, DTSC approves the Revised SLRARGW which incorporates the above and attached comments. DTSC considers the Revised SLRARGW as final.

DTSC would also like to identify that the Revised SLRARGW technically supports the conclusion that a Land Use Covenant (LUC) for groundwater is not warranted to protect human health¹ and the environment at the Site. With DTSC's concurrence of the Conclusions in the Revised SLRARGW, Site groundwater will not need to be incorporated into the proposed LUC to be recorded for a portion of Area of Concern 1 at the Site. This will be documented in the upcoming Revised Statement of Basis for the Site.

Also, based on the Revised SLRARGW, DTSC is determining that since Site groundwater meets potable and non-potable groundwater use, that No Further Action is necessary for Site groundwater. A separate Corrective Action Complete without Controls letter will be produced to document this determination and the analyses supporting it.

¹ While the SLRARGW does not address ecological risk, ecological risks at the Site have been previously evaluated, and the ecological risks were determined to be *de-minimis*.

Ms. Dianna Tickner
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If you have any questions regarding this letter, please contact Mr. John Bystra of my staff at (916) 255-3669 or through e-mail at John.Bystra@dtsc.ca.gov.

Sincerely,

Hortensia
Muniz

Digitally signed by
Hortensia Muniz
Date: 2021.08.25 15:56:33
-07'00'

Hortensia Muniz
Branch Chief – Sacramento Office
Site Mitigation and Restoration Program
Department of Toxic Substances Control

Enclosures: Memorandum prepared by Uta Hellmann-Blumberg for the Draft Final SLRARGW, dated May 10, 2021 / Memorandum prepared by Yun Zhang for the Draft Final SLRARGW, dated May 24, 2021

cc: (Via email)

Mr. Peter T. Zawislanski
Principal Hydrogeologist & Vice President
Terraphase Engineering Incorporated
1404 Franklin Street Suite 600
Oakland, California 94612

Ms. Sharon Reackhof, PG&E
Ms. Carol Yamane, PG, PG&E
Ms. Jennifer Low, Jacobs Engineering
Ms. Kelsey Gerhart, Central Coast Regional Water Quality Control Board
Mr. Sarah Treadwell, Central Coast Regional Water Quality Control Board
Mr. Greg Bishop, Central Coast Regional Water Quality Control Board
Mr. Noel Shrum, DTSC
Dr. Uta Hellmann-Blumberg, DTSC-HERO
Mr. Yun Zhang, PG, DTSC-GSU
Dr. Ed Fendick, DTSC
Mr. John Bystra, DTSC

The site has eight areas of concern (AOCs). Site investigation and cleanup activities conducted by PG&E for AOCs 1-4 and 6 were completed in 2018.

AOC 5 (the Switchyard) is currently in use by both PG&E and Dynegy, and thus is effectively inaccessible for groundwater sampling unless it were shut down temporarily. AOC 7 (the Power Building) has not undergone environmental investigations due to the building still being present and AOC 8 was clean closed in 2008. Previously it was assumed that Dynegy would record a land use covenant (LUC) including restrictions on groundwater (GW) use for the Site.

The stated purpose of the Report is to "*demonstrate that a LUC for groundwater use is not warranted to protect human health*". A Draft Report was submitted to DTSC on September 23, 2020, and DTSC provided a comment letter on January 22, 2021. The Draft Report included a screening level Human Health risk assessment (HHRA). Although HERO agreed that the HHRA is providing support for the conclusions, the rationale was not presented in a clear and easy-to-follow manner which reduced the transparency. In response to the comments provided by HERO Terraphase made significant changes to the Report and key tables.

Scope of the Review:

HERO has reviewed the documents with focus on issues that could affect the evaluation of human health risks and the scientific defensibility of conclusions regarding such risks.

General Comment:

1. Responses adequate: The comments HERO had provided are adequately addressed in the RTCs and the revised Report. Previously missing elements such as Section 3.6 which lists several factors contributing to uncertainties were added. In addition, changes such as switching Table 1 and the appendix tables make it much easier to follow the risk assessment and the conclusions in the revised Report.

Specific Comment:

1. Section 3.6 Uncertainties: The last bullet of Section 3.6 has the following potentially misleading language in the last sentence: "...*concentrations will decrease with time due to natural attenuation*". Although similar language is commonly found in reports, it is missing the point. The issue is not whether natural processes will eventually take care of a problem spot but when that will happen. Often, residual contamination that has been on the site for decades is recalcitrant to the current natural forces and is not expected to naturally attenuate in a reasonable timeframe unless conditions change. HERO suggests replacing "will decrease with time" with "may decrease".



Jared Blumenfeld
Secretary for
Environmental Protection



Department of Toxic Substances Control

Meredith Williams, Ph.D., Director
8800 Cal Center Drive
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Gavin Newsom
Governor

MEMORANDUM

TO: John Bystra
Hazardous Substances Engineer
Military and Corrective Action Unit
Site Mitigation and Restoration Program

FROM: Yun Zhang, PG, CHG 
Engineering Geologist,
Geological Services Branch – Sacramento Unit
Site Mitigation and Restoration Program



REVIEWER: Dan Gallagher, PG, CHG 
Senior Engineering Geologist,
Geological Services Branch – Sacramento Unit
Site Mitigation and Restoration Program

DATE: May 24, 2021

SUBJECT: SCREENING-LEVEL RISK ASSESSMENT REPORT FOR
GROUNDWATER, DYNEGY-OWNED PORTION OF THE FORMER
MORRO BAY POWER PLANT, MORRO BAY, MONTEREY COUNTY

PROJECT CODE – DTSC102365-48/22120/TECHMEMO/WR20073899

DOCUMENTS REVIEWED

Response to DTSC Comments on the Draft Screening-Level Risk Assessment Report for Groundwater, MBPC-Owned Portion of the Former Morro Bay Power Plant, Morro Bay, California (RTCs), prepared by Terraphase Engineering, Inc. on behalf of Dynegy Morro Bay, LLC., and dated March 4, 2021.

Draft Final Screening-Level Risk Assessment for Groundwater, MBPC-Owned Portion of the Former Morro Bay Power Plant, Morro Bay, California (Revised Report), prepared by Terraphase Engineering, Inc. on behalf of Dynegy Morro Bay, LLC., and dated March 4, 2021.

INTRODUCTION

Per your request, the Geological Services Unit (GSU) of the California Department of Toxic Substances Control (DTSC) has reviewed the above-referenced Response to Comments (RTCs) and the Revised Report and has the following comments. If you have any questions or comments regarding this memorandum, please contact Yun Zhang at yun.zhang@dtsc.ca.gov.

BACKGROUND

The RTCs and the Revised Report were prepared in response to DTSC's previous comments presented in a DTSC letter for project manager's comments and two memoranda from DTSC's Human and Ecological Risk Office (HERO) and GSU, respectively. The Revised Report was prepared to evaluate whether concentrations of petroleum hydrocarbons in shallow groundwater warrant groundwater use restrictions in the Dynegy-owned portion of the Former Morro Bay Power Plant (MBPP), located at 1290 Embarcadero Road in Morro Bay, California (Site). Concentrations of total petroleum hydrocarbons (TPH) as diesel (TPH-d) and TPH as motor oil (TPH-mo) detected in groundwater at the site were statistically evaluated for the 95% upper confidence level (UCL) of the mean to compare to the Environmental Screening Level (ESL) of hydrocarbon oxidation products (HOPs) developed by the San Francisco Regional Water Quality Control Board. Based on the evaluation, the Report concludes that a land use covenant (LUC) for groundwater use is not warranted to protect human health.

COMMENTS

Based on the review of the RTCs and the Revised Report, GSU finds that the RTCs and the Revised Report have adequately addressed GSU's previous comments presented in a memorandum dated December 2, 2020.

GSU has no additional comments regarding the RTCs and the Revised Report.

John Bystra
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Dynegy Morro Bay

Conclusion

HERO reviewed the RTC and Draft Final Report for Groundwater. HERO is satisfied with the changes and the improved transparency. HERO recommends making a minor change to improve a statement with somewhat misleading language.

If you have additional questions, please feel free to contact Dr. Uta Hellmann-Blumberg at (916) 255-4326 or Uta.Hellmann-Blumberg@dtsc.ca.gov.

Peer Review:

Karen W. DiBiasio, Ph.D.
Staff Toxicologist
Human and Ecological Risk Office
Sacramento (Cal Center) Office



Concurrence Review:

Brian Endlich, Ph.D.
Senior Toxicologist
Chief, Central California Unit
Human and Ecological Risk Office
Berkeley Regional Office



cc: Yun Zhang
Engineering Geologist
Geological Services Unit, Sacramento