

Berths 238–239 [PBF Energy] Marine Oil Terminal Wharf Improvements Project

DRAFT MITIGATION MONITORING AND REPORTING PROGRAM

Document considered draft until Board considers document

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Table 1. Mitigation Measures for the Berths 238-239 [PBF] MOTEMS Project

<i>Mitigation Measure, Lease Measure or Standard Condition of Approval</i>	<i>Timing and Methods</i>	<i>Responsible Parties</i>
Air Quality and Meteorology: Operation		
<p>LM AQ 1 - At-Berth Vessel Emissions Capture and Control System Study. The Tenant shall evaluate the financial, technical, and operational feasibility of operating barge and land-based vessel emissions capture and control systems and any other systems associated with emission reductions (hereinafter “Control Systems”) that are available within three (3) months after the Effective Date. The City of Los Angeles (City) and Tenant will decide which systems should be considered for the reduction of emissions from all vessels calling at the Premises. The evaluation of feasibility shall consider any potential impacts upon navigation, safety, emission reductions. Cost Effectiveness (as defined below), and any other factors reasonably determined by Tenant to be relevant shall also be considered. For purposes of the feasibility evaluation, “Cost Effectiveness” shall be defined as the annualized cost (in Dollars per year) of the Control Systems (“Annualized Cost”) based on an agreed time period (the duration of such period determined with reasonable consideration of the Carl Moyer grant guidelines), divided by the annual net emission reductions (unweighted aggregate of net emissions reduction in tons per year of VOC, NOx, and PM₁₀) over the same time period during use of the Control Systems (“Net Annual Emission Reductions”). Annualized Cost shall include all costs associated with the Control Systems, including without limitation, all capital costs associated with design, permitting and construction of the Control Systems and all costs associated with system evaluation, operations and maintenance. Cost Effectiveness (dollars per ton) may be calculated pursuant to the formulas below.</p> <ul style="list-style-type: none"> • Cost Effectiveness (\$/ton) = Annualized Cost (\$/year) / Net Annual Emission Reductions (tons/year) • Net Annual Emission Reductions = Annual Vessel Emission Reductions – Annual Emissions Generated by Control System and Associated Equipment Operations <p>If Cost Effectiveness is greater than the Carl Moyer Program Guidelines as approved by the California Air Resources Board as of the Effective Date, then implementation of the Control Systems shall not be considered feasible.</p>	<p>Timing: Study shall be submitted within one year of lease agreement.</p> <p>LAHD will evaluate the findings within 6 months of receipt of study.</p> <p>If deemed feasible, Pilot Study will be completed within 3 years of feasibility determination.</p> <p>Methods: Specific methods are outlined in the lease measure.</p>	<p>Implementation: LAHD and PBF.</p> <p>Monitoring and Reporting: EMD</p>

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<p>Tenant shall provide the Director of Environmental Management Division for the Harbor Department with a written report (the “Report”) documenting the findings and conclusions of the feasibility analysis within one year of the Effective Date. The Report’s feasibility conclusion shall include, but not be limited to, specific findings in the following areas: (1) size constraints; (2) allowance for articulation of the recovery crane/device to service a variety of ship sizes that may reasonably call at the premises during the term of the proposed permit; (3) navigation for terminal operations as well as those of adjacent terminals; (4) compliance with Marine Oil Terminal Engineering and Maintenance Standards; (5) operational safety issues; and (6) compliance with the rules and orders of any applicable regulatory agency. The deadline for Tenant to submit the Report may be extended with the approval of the Board of Harbor Commissioners (Board), provided that such approval shall not be unreasonably withheld. City shall have six months to review and comment on the Report unless the Board reasonably determines that additional time is needed as a result of unanticipated events or any events beyond the reasonable control of the City. The Report and any associated staff comments from the City will be presented by the City to the Board at a public meeting. If the City’s review of the Report is delayed beyond one year, then the City shall present this information to the Board at a public meeting along with a proposed new comment deadline for the City.</p> <p>If the Board and Tenant agree that implementation of a Control System(s) is/are feasible, then Tenant shall complete a pilot study (“Pilot Study”) within three years of the later of (i) receiving all approvals and permits required by Applicable Laws for such study; (ii) receiving any and all licenses and other intellectual property rights required by Applicable Laws to conduct such study; (iii) commencing with terminal operations upon the completion of all New Improvements and Tenant Constructed Improvements; and (iv) Board providing Tenant with approval to proceed. The deadline for Tenant to complete the Pilot Study may be extended with approval by the Board, provided that such approval shall not be unreasonably withheld. The Pilot Study shall consist of (i) installation of a test control system (the “Test System”) for purposes of testing the performance of a Control System; and (ii) testing of the Test System and the collection of data therefrom. At the conclusion of testing, the Tenant shall submit a report (the “Pilot Study Report”) to the Board. The Pilot Study Report shall include the following information: vessels tested, operation and maintenance costs, emission reductions, operational considerations and any other information Tenant reasonably determines to be relevant. The results of the Pilot Study, and any intellectual property rights therein, shall be owned by Tenant. The City and the Board shall use the results and Pilot Study Report only for the evaluation of the</p>		

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<p>Pilot Study. City shall not issue any press releases or make any written public disclosures with respect to the Report or the Pilot Study Report without first providing Tenant with a reasonable opportunity to review such releases or disclosure for accuracy and to ensure that no technical information is disclosed where such public disclosure is not necessary (Tenant understands that nothing herein shall be interpreted to supersede the California Public Records Act and the City’s responsibilities thereto).</p> <p>If, based on the results of the Pilot Study set forth in the Pilot Study Report, the City and Tenant determine that all of the issues relating to feasibility and regulatory requirements of the Control System were adequately addressed, then Tenant shall, as soon as reasonably practicable after such determination, implement the Control System(s) into its operations throughout the remainder of the permit. All capitalized terms not otherwise defined herein shall have the meaning ascribed to them in the tenant’s permit.</p>		
Biological Resources: Construction		
<p>MM BIO-1: Protect marine mammals. Although it is expected that marine mammals will voluntarily move away from the area at the commencement of the vibratory or “soft start” of pile driving activities, as a precautionary measure, pile driving activities will include establishment of a safety zone, by a qualified marine mammal professional, and the area surrounding the operations (including the safety zones) will be monitored for marine mammals by a qualified marine mammal observer.¹ The pile driving site will move with each new pile; therefore, the safety zones will move accordingly.</p>	<p>Timing: Throughout pile driving operations.</p> <p>Methods: LAHD shall include this measure in the contract specifications for construction. LAHD shall monitor implementation of mitigation measures during construction.</p>	<p>Implementation: LAHD through Construction Contractor</p> <p>Monitoring and Reporting: EMD and Construction Management Division.</p>

¹ Marine mammal professional qualifications shall be identified based on criteria established by LAHD during the construction bid specification process. Upon selection as part of the construction award winning team, the qualified marine mammal professional shall develop site specific pile driving safety zone requirements, which shall follow NOAA Fisheries Technical Guidance Assessing the Effects of Anthropogenic Sound on Marine Mammal Hearing (NOAA Fisheries, 2016) in consultation with the Acoustic Threshold White paper prepared for this purpose by LAHD (LAHD, 2017). Final pile driving safety zone requirements developed by the selected marine mammal professional shall be submitted to LAHD Construction and Environmental Management Divisions prior to commencement of pile driving.

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