



THE PORT
OF LOS ANGELES
Executive Director's
Report to the

Board of Harbor Commissioners

DATE: MAY 9, 2012

FROM: ENVIRONMENTAL MANAGEMENT

SUBJECT: RESOLUTION NO. _____ - APPROVAL OF FUNDING AGREEMENT BETWEEN CITY OF LOS ANGELES HARBOR DEPARTMENT AND TRAPAC, INC. TO FUND A MOBILE EMISSIONS TREATMENT BARGE UNIT PROJECT

SUMMARY:

Staff recommends that the Board of Harbor Commissioners (Board) approve and enter into a Funding Agreement with TraPac, Inc. (TraPac) located in Oakland, California for the Mobile Emissions Treatment Barge Demonstration Project (Project) in the amount of \$1,500,000 (Agreement). The Project would demonstrate a barge mounted emission control system, developed by Clean Air Engineering (CAE) which is designed to reduce ocean going vessel at-berth auxiliary engine emissions. It is anticipated that the overall emissions reduction will be at least 81% for diesel particulate matter (DPM), sulfur oxides (SOx), and oxides of nitrogen (NOx).

RECOMMENDATION:

It is recommended that the Board of Harbor Commissioners:

1. Approve the Funding Agreement for the Mobile Emissions Treatment Barge Demonstration Project between the City of Los Angeles Harbor Department and TraPac, Inc., substantially as to form;
2. Authorize the Executive Director to execute and the Board Secretary to attest to the said Agreement with TraPac, Inc., in a not-to-exceed amount of \$1,500,000; and
3. Adopt Resolution No. _____.

DISCUSSION:

Background - On November 20, 2006, during a joint meeting between the Boards of Harbor Commissioners of the Ports of Los Angeles and Long Beach (POLB), the Final 2006 San Pedro Bay Ports Clean Air Action Plan (CAAP) was adopted. A significant initiative of the CAAP is the Technology Advancement Program (TAP), which will

DATE: MAY 9, 2012

PAGE 2 OF 5

SUBJECT: FUNDING AGREEMENT TO FUND A MOBILE EMISSIONS TREATMENT BARGE UNIT

accelerate the availability of new strategies into the suite of control measures that will ultimately result in significant reductions of DPM, NOx, SOx, and other pollutants. The Mission Statement for the TAP is:

"To accelerate the verification or commercial availability of new, clean technologies, through evaluation and demonstration, to move towards an emissions free port."

The TAP is the catalyst for identifying, evaluating, and demonstrating new and emerging emissions reduction technologies applicable to the port industry that could be utilized in future updates to the CAAP as new control measures, alternatives to existing measures, or as additional mitigation options for new projects.

Project Description - The TAP Advisory Committee (AC), comprised of representatives of the U.S. Environmental Protection Agency, California Air Resources Board, SCAQMD, and technical and administrative staff from both Ports, recently received and evaluated a proposal from TraPac to demonstrate the use of a barge mounted, emission control system developed by CAE. The Project was evaluated by the TAP AC to assess the technological merit of the proposed technology but was not recommended for TAP funding as with standard TAP submissions. As a result, The Port of Long Beach is not providing any TAP cost-sharing for the Project and staff is recommending Board approval of a Funding Agreement (Transmittal 1) between the Harbor Department and TraPac.

The system consists of two sub-systems: (1) a hood/transfer line/crane assembly designed to capture greater than 90% of the at-berth auxiliary engine exhaust, and 2) a Tri-Mer Corporation emissions treatment unit (Transmittal 2) designed to achieve greater than 90% reduction in captured PM and NOx. The Tri-Mer unit is a fourth generation design composed of a cloud chamber scrubber and a selective catalytic reduction unit to reduce the PM and NOx emissions, respectively. The overall emissions reduction is anticipated to be at least 81%, thus meeting the California Air Resources Board (CARB) At-Berth Shorepower Regulation reduction goals for alternative technologies.

The Project consists of two demonstration phases. Phase I will measure the capture efficiency of the hood/transfer/crane assembly (emissions capture device) at the Pasha terminal, and Phase II will demonstrate a fully integrated system with the emissions capture device coupled with the emissions treatment unit on a mobile barge at the TraPac terminal.

Phase I - Up to 15 vessels, of various types, will be demonstrated and 4 will be measured for in-use exhaust collection efficiency of the emissions capture device. Both

DATE: MAY 9, 2012

PAGE 3 OF 5

SUBJECT: FUNDING AGREEMENT TO FUND A MOBILE EMISSIONS TREATMENT BARGE UNIT

the emissions capture device and emissions treatment unit will be land-based. Different hood designs will be applied to determine which design is most efficient in exhaust gas collection relative to various exhaust stack geometries and auxiliary engine flow rates.

Phase II - This phase of the demonstration will utilize the fully integrated CAE system; a unit with an optimized emissions capture device, coupled to the Tri-Mer emissions treatment unit, and mounted on a barge. This phase includes full-scale testing, consisting of official, post-treatment emissions measurements, on one vessel and demonstration on an additional four vessels calling at TraPac.

TraPac Lease Agreement - Section 6.9.1 of the TraPac lease (Transmittal 3) acknowledges the tenant's desire to develop and implement an emissions treatment technology as an alternative to satisfy their Alternative Maritime Power requirements. The lease requires TraPac to submit an official TAP proposal for evaluation of the technological merits by the TAP AC. The Harbor Department committed to fund \$1.5 million for the development and implementation of an emissions technology, provided that all conditions of 6.9.1 have been met.

ENVIRONMENTAL ASSESSMENT:

The proposed action is approval of a Funding Agreement with TraPac to fund a project to demonstrate a barge mounted emission control system. As an activity involving data collection, research and resource evaluation which does not result in a serious major disturbance to an environmental resource, the Director of Environmental Management has determined the proposed action is exempt from the California Environmental Quality Act (CEQA) in accordance with Article III, Class 6 of the Los Angeles City CEQA Guidelines.

FINANCIAL IMPACT:

The total cost of this Project is approximately \$11,000,000 paid by the following funding partners:

TraPac	\$1,000,000
Harbor Department	\$1,500,000
Clean Air Engineering	\$8,500,000
TOTAL	\$11,000,000

DATE: MAY 9, 2012

PAGE 4 OF 5

SUBJECT: FUNDING AGREEMENT TO FUND A MOBILE EMISSIONS TREATMENT BARGE UNIT

Funds for fiscal year (FY) 2011/12 for this Project are available in Account 59965, Center 0330, Program No. 000 and will be reimbursed as follows:

FY 2011/2012	\$500,000
FY 2012/2013	\$500,000
FY 2013/2014	\$500,000
TOTAL	\$1,500,000

Funds in future fiscal years will be requested through the Harbor Department budget process.

ECONOMIC BENEFITS:

Spending under the proposed Agreement will support 9 direct and 12 secondary one-year equivalent jobs for the five-county region.

DATE: MAY 9, 2012

PAGE 5 OF 5

SUBJECT: FUNDING AGREEMENT TO FUND A MOBILE EMISSIONS TREATMENT BARGE UNIT

CITY ATTORNEY:

The Office of the City Attorney has reviewed and approved the Agreement as to form and legality.

TRANSMITTALS:

- 1. Proposed Funding Agreement with TraPac Inc.
- 2. Schematic of the Tri-Mer Emission Treatment Unit
- 3. TraPac Lease - Section 6.9.1

FIS Approval: WR (initials)

CA Approval: TAH (initials)

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Director of Environmental Management

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APPROVED:

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BOARD MEETING: 05/17/12