South Coast Air Quality Management District
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Dr. Spencer D. MacNeil, Commander
U.S. Army Corps of Engineers, Los Angeles District
P.O. Box 532711
Los Angeles, CA 90053-2325

Dr. Ralph G. Appy, Director of Environmental Management
Port of Los Angeles
425 South Palos Verdes Street
San Pedro, CA 90731

Dear Dr. MacNeil and Dr. Appy:

Draft Environmental Impact Statement/Environmental Impact Report
(Draft EIS/EIR) for the Berth 136 – 147 (TraPac) Container Terminal Project

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The TraPac terminal is located in the Port of Los Angeles near already impacted residential communities that are currently experiencing health risks in excess of 500 in a million[1]. The proposed TraPac project is a container terminal expansion project that will substantially increase the number of truck trips, annual ship calls, and trips by line-haul locomotives. At full implementation, the proposed TraPac project will generate over 1.8 million truck trips, 330 ship calls, and 1,400 rail trips annually.

The SCAQMD staff acknowledges the efforts of the Lead Agencies to include many of the measures in the Ports of Los Angeles' and the Long Beach's Clean Air Action Plan (CAAP). The proposed TraPac project includes a wide range of mitigation measures and commits to implementing a vessel speed reduction program, shore-side power for marine vessels, use of lower sulfur fuel for main and auxiliary engines, introduction of lower emitting trucks, and cleaner intermodal equipment. Implementation of these and other mitigation measures are expected to reduce daily VOC, NOx, SOx, CO, and PM10 operation emissions below 2003 emission levels before 2015 for the proposed TraPac project.

The Draft EIS/EIR concludes, however, that air quality impacts from the proposed project are significant prior 2015 for operational impacts and up to 2025 for construction impacts. As is described below, additional mitigation measures are feasible, and some measures included in the

[1] California Air Resources Board. April 2006. "Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach."

Draft EIS/EIR can be feasibly be accelerated. In addition, operational mitigation measures can be used to mitigate significant construction emissions. Such measures must be included as required by CEQA Guidelines §15126.4 to reduce impacts below significance as soon as possible. Many of the measures described below seek to strengthen existing mitigation measures and/or accelerate the implementation schedule of measures already included in the proposed TraPac project. Examples include earlier introduction of 0.2 percent sulfur fuel for main and auxiliary engines, 0.1 percent sulfur fuel for main engines by 2010, and greater specificity regarding main engine control requirements. In addition, SCAQMD staff believes that the relocated Pacific Harbor Lines (PHL) Pier A Rail yard meets the definition of new or redeveloped (modified) rail yard and application of mitigation measures consistent with CAAP Measure RL-3 should be implemented.

The SCAQMD also staff urges the Lead Agencies to ensure that the proposed TraPac project is consistent with California Environmental Quality Act (CEQA) Project Objective 2 which states one of the supporting objectives is to "provide on-dock rail capabilities to promote direct transfer of cargo between ship and rail." The proposed TraPac project can do more to meet this objective. The SCAQMD staff recommends the proposed project include sufficient on-dock rail capacity for all containers destined to be transported by rail. This will minimize highway congestion impacts caused by truck drayage to near and off-dock rail yards, and will reduce the need for additional capacity at near and off-dock rail yards which are in relative close proximity to already-impacted residences and schools. We understand that space for on-dock yards is limited, but CAAP measure RL-3 committed the ports to explore all opportunities to maximize on-dock rail and explore alternative operating procedures such as transporting containers by rail from the docks unsorted by destination as a means of freeing up space devoted to creating single destination trains.

Approval of the proposed TraPac project would result in granting a long-term 30 year lease or permit, and mitigation measures are expected to evolve during the lease term as technological advances occur and new pollution control technologies are developed. The SCAQMD staff urges the lead agencies to develop a mechanism to update mitigation measures in the lease or permit as future technologies develop. Such mechanism should include adequate requirements or incentives to ensure implementation. In addition, if the controls relied upon to mitigate project impacts cannot be implemented, the lead agencies must identify other feasible mitigations, either on- or as near as possible off-site, and implement them. Finally, given the rate of growth in port cargo throughput and the lack of perfect knowledge regarding future cargo levels, a mechanism must be developed to ensure that if cargo throughput exceeds projections assumed in the Draft EIS/EIR, additional feasible mitigation measures will be imposed.

CEQA requires consideration of cumulative impacts. In addition, the CAAP includes a Project Specific Standard stating that the contribution of emissions from a project to cumulative effects will allow for timely achievement of the San Pedro Bay Standards. The ports have been working on emissions inventories and forecasting methodologies that they will use to develop projections to aid in establishing the San Pedro Bay Standards, but the Bay Standards have not yet been adopted. We urge the Ports to proceed as expeditiously as possible to adopt these standards. Although the proposed TraPac project operational emissions will be mitigated below 2003 baseline emission levels after 2015, it is uncertain if the residual emissions and health risk from

the TraPac Terminal over the course of the 30 year lease will allow for the timely achievement of the San Pedro Bay Standards. In the absence of the San Pedro Bay Standards, the SCAQMD staff urges the Port of LA to compare residual emissions from this proposed project, including cumulative emissions from all other foreseeable port actions, with the 2007 Air Quality Management Plan (AQMP) mass emissions and risk targets for the ports, and ensure project approval is consistent with achieving those targets.

The lead agency is not permitted by CEQA to approve a project with significant environmental impacts without incorporating *into the project approval* feasible mitigation measures within the authority of the lead agency. (Public Resources Code §21080(a)(1)(finding that changes "have been required in, or incorporated into, the project which mitigate or avoid significant effects..."). Attachment I identifies additional means to feasibly strengthen mitigation measures for the proposed project.

The SCAQMD staff appreciates the opportunity to comment on this important project. We appreciate the countless hours that the Port of LA is investing towards improving the air quality and health effects in and around the port. The SCAQMD staff looks forward to working with the Port of LA on this and future projects. If you have any questions, please call me at (909) 396-3105.

Sincerely,

Susan Nakamura
Planning Manager

Attachment

Attachment I
Additional Comments on the DEIS/EIR for Berth 136 – 147 (TraPac) Container Terminal Project

The following includes more detailed and specific comments on the Proposed TraPac Container Terminal Project.

Mitigation Measures

Pursuant to CEQA Guidelines §15126.4 (a)(2) mitigation measures must be fully enforceable through permit conditions, agreements or other legally binding instruments. One means of making the mitigation measures for the proposed project legally binding is for the Lead Agencies to incorporate them into the Terminal Operator's lease agreement. Furthermore, the lease agreement or permit language with the Terminal Operator must specifically contain binding requirements to monitor the air quality mitigation measures and must provide a legal mechanism to allow the Lead Agencies to enforce the mitigation measures. The lease agreement or permit language should also include an annual environmental status report wherein the terminal operator would be required to provide a status update of implementation of mitigation measures. In addition, the mitigation monitoring plan must include specific dates and milestones and measurable performance standards to ensure that mitigation measures are appropriately implemented.

Exceedance of Projected Throughput. The lease agreement or permit should mandate the performance of an annual analysis of cargo throughput. The SCAQMD staff urges the lead agencies to establish requirements in the lease providing that if the analysis shows the throughput is above levels assumed in the Final EIS/EIR, additional mitigation measures will be required.

Harbor Craft While at Berth. The DEIS/EIR air quality analysis assumes that the harbor craft fleet associated with this project will be repowered or retrofitted through CAAP Measure HC-1, Performance Standards for Harbor Craft. This measure is not proposed to become a condition of project approval or otherwise included in this project due to the fact that terminal operators do not have direct contractual relationships with tugboat operators and, according to the port, this control measure is better addressed through a "port-wide" measure. Since the implementation of CAAP Measure HC-1 cannot be anticipated to occur prior to construction and operational impacts, the use of repowered and retrofitted (when they become available) tugs to be used in mitigating the impacts from the tugs should be incorporated as a condition of project approval. Specifically, the Draft EIS/EIR should include a mitigation measure for harbor craft (tugboats) that are home-ported at POLA or POLB and could potentially be retrofitted with additional control devices. This measure should require all harbor craft used during the construction phase of the project to, at a minimum, have been repowered to meet the cleanest existing marine engine emission standards or the proposed U.S. EPA Tier 3 (which are proposed to be phased-in beginning 2009) or cleaner marine engine emission standards. In addition, to the extent that harbor craft powered by engines that meet the proposed U.S. EPA Tier 4 marine engine standards are available, these harbor craft should be used.

MM AQ-1: Expanded VSR Program

The SCAQMD concurs with the proposed mitigation measure for expanded VSR Program.

MM AQ-2: Fleet Modernization for On-road Trucks
SCAQMD staff urges the lead agency to require that, as part of this mitigation measure, the Lead Agencies use of the cleanest available trucks. Specifically, Phase I construction (2008 – 2015) trucks should operate on engines with the lowest certified NOx emissions levels, but no greater than the 2007 NOx emission standards In addition, Phase II construction (Post 2015) trucks should meet U.S. EPA 2010 emission standards.

MM AQ-3: Fleet Modernization for Construction Equipment
Similarly, it is feasible as part of this mitigation measure the use of the cleanest available construction equipment. Specifically, Phase I construction (2008 – 2015) equipment should meet the cleanest off-road diesel emission level available, but no greater than Tier 3 NOx emission standards. In addition, Phase II construction (Post 2015) equipment should meet Tier 4 emission standards.

MM AQ-4: Best Management Practices (BMPs)
SCAQMD staff concurs with proposed BMPs. In addition to the BMPs specified, in-use off-road equipment idling should be restricted to 5 minutes per proposed CARB regulation.

MM AQ-6: Alternative Maritime Power (AMP)
SCAQMD staff urges the Lead Agencies to change the 2015 target to a 2014 target to coincide with the South Coast Basin's PM2.5 attainment schedule. In addition, all ships retrofitted for AMP should be required to use AMP while hoteling at 100 percent compliance rate, with the exception of circumstances when an AMP-capable berth is unavailable due to utilization by another AMP-capable ship. Lastly, beginning with the 2010 target of 40 percent of total ship calls, the mitigation measure should also require 100 percent AMP while hoteling for all frequent caller vessels (5 ship calls or more per year).

MM AQ-7: Yard Tractors
SCAQMD staff concurs with proposed mitigation for yard tractors. The Lead Agencies, however, should modify any references to "Tier 4 on-road emission standards" to "Tier 4 non-road emission standards", as it is assumed to be a typographical error. In addition, Page 3.2-62, lines 27 – 32 of the DEIS/EIR appears to be a typographical error, as it is a duplicate of lines 21-26.

MM AQ-8: Low-NOx and Low-PM Emission Standards for Top Picks. Forklifts, Reach Stackers, Rubber-Tiered Gantries (RTGs), and Straddle Carrier
The lead agencies should use electric rail-mounted container gantry cranes whenever possible. The Port of Los Angeles is the Lead Agency for the proposed Burlington Northern Santa Fe Southern California International Gateway rail yard which is proposing use of electric rail-mounted container gantry cranes whenever possible. In addition, the Lead Agencies should modify any references to "U.S. EPA Tier 4 on-road or Tier 4 non-road engine standards" to "U.S. EPA Tier 4 non-road engine standards", as it is assumed to be a typographical error.

MM AQ-9: Fleet Modernization for On-road Trucks
The Ports of Los Angeles and Long Beach are developing the Port Clean Truck Program to implement the CAAP HDV-1 Truck Measure. As a condition of project approval, any trucks providing drayage service for the facility must comply with the Clean Truck Program. However, prior to 2014, those drayage trucks that meet 2007 or 2010 NOx standards should be used over trucks that have only been retrofitted. After 2014, all trucks entering the Port should meet 2010 NOx emission standards. In addition, the Lead Agencies should delete references to Tier 4 emission standards for on-road heavy-duty diesel engines, as it is assumed to be a typographical error.

MM AQ-10: Vessel Speed Reduction Program (VSRP)
SCAQMD staff concurs with the commitment to implement MM AQ-10. The SCAQMD requests that the Lead Agencies, however, identify in the mitigation monitoring plan the specific mechanisms expected to be used to ensure that this measure is adequately monitored and enforced.

MM AQ-11: Ship Auxiliary Engine, Main Engine, and Boiler Fuel Improvement
Mitigation measure AQ-11 calls for a phasing-in of low sulfur (<0.2 percent sulfur) marine fuel in the main and auxiliary engines of ships calling at the TraPac terminal in San Pedro. Specifically, MM AQ-11 includes the following phase-in schedule for usage of 0.2 percent sulfur fuel:

2009 – 10% of total ship calls
2010 – 20% of total ship calls
2012 – 50% of total ship calls
2015 – 100% of total ship calls

According to the Draft EIS/EIR, MM AQ-11 assumes that 0.2 percent sulfur fuel will be "readily available by the required dates" of the phase-in schedule. It also states that TraPac's proposed implementation schedule "allows time for technical equipment upgrades on the vessels, including installing new tanks and piping."

Reducing fuel sulfur is one of the most significant and feasible means of expeditiously reducing particulate and sulfur oxides emissions from the TraPac terminal. SCAQMD staff believes that, given the experience implementing low sulfur fuel to date by MAERSK as well as other information summarized below, the phase-in schedule proposed in the DEIR can feasibly be accelerated. In addition, all vessels should utilize 0.1 percent sulfur fuel by 2010.

We thus urge the lead agencies to accelerate use of low sulfur fuel in main and auxiliary engines of vessels calling at the Berth 136 - 147 Terminal, as follows:

- Within 6 months after approval of the TraPac project, all vessels calling at the terminal shall use fuel with sulfur content no higher than 0.2 percent when they are within 40 nm of Point Fermin.
- Staff understand that the port staff has concerns about the schedule to limit fuel sulfur of ships not operated by the parent company of TraPac, Mitsui O.S.K. (MOL). Staff believes Maersk has demonstrated that switching to low sulfur fuel is currently feasible,

and recommends that TraPac mitigation measures require all vessels to utilize low sulfur fuel. If, however, the port determines that it must provide additional time for vessels not operated by MOL, we urge that such provision be limited to vessels that require equipment modifications. The following condition would accomplish this:

- Within 6 months after approval of the TraPac project, all vessels operated by entities other than MOL calling on the terminal shall use fuel with a sulfur content no higher than 0.2 percent within 40 nm of Point Fermin, *unless* the operator demonstrates to the satisfaction of the port that the vessel is not capable of switching fuel due to unavailability of necessary tankage or separate piping. Tankage or piping shall be considered "available" if (1) the vessel is equipped with tankage and piping that can supply stored low-sulfur fuel to main engine from independent tank(s), and (2) such tankage and piping is capable of providing 0.2 percent sulfur fuel within 40 nm of Point Fermin (i.e. no exceptions due to a failure of the vessel to carry 0.2 percent fuel).
- If such exemption is allowed, any vessels that need modification should have them made as soon as possible. We urge that the following provision be adopted to accomplish this:
  - Upon approval of the project, no vessel may make more than one call at the TraPac terminal unless the vessel operator demonstrates to the satisfaction of the port that any modifications to the vessel needed to utilize 0.2 percent sulfur fuel will be made at the earliest possible date.

- Finally, on or before January 1, 2010, *all vessels* shall use fuel in main and auxiliary engines with sulfur content no higher than 0.1 percent within 40 nm of Point Fermin.

Such strengthening of the mitigation measure will ensure that all feasible mitigation measures are employed as specified in CEQA. This amendment would also help implement the South Coast AQMP which calls for 0.1 percent sulfur fuel by 2010.

The balance of this comment addresses technical feasibility and fuel availability issues. We also highlight the extraordinary capabilities and resources of TraPac's parent company, because they are germane to the issue of feasibility.

1. Low Sulfur Fuel for TraPac Ships Are Feasible

Maersk's Successful Experience. In March of 2006, Maersk began using low sulfur marine diesel fuel in ships within 24 NM of the California coast. At that distance from shore, Maersk ships switch from high sulfur RFO fuels to distillate fuels with 0.2 percent or lower sulfur content. Maersk has to date implemented hundreds of ship calls involving switches to 0.2 percent sulfur fuel. While Maersk still is evaluating this program, its experience strongly supports the feasibility of switching to low sulfur fuels when approaching port.

Engine Manufacturers Guidance. Despite past and recurring statements of concern raised about the operation of ship main and auxiliary engines on fuels with low sulfur content, information provided by vessel engine manufacturers continues to show that switching fuels when required is a normal and routine operation. In addition, over the last year of operation, Maersk has reported no technical problems (e.g., no lubricity problems, no increased fuel pump or engine wear, no fuel storage problems) associated with implementation of fuel switching. Maersk considers fuel

switching to be "normal engineering practice" and states there is "no special training provided" to the crew.[2] Indeed, as described in a recent CARB Maritime Air Quality Technical Working Group Meeting (27 July 2007), vessel engine manufacturers have provided advice regarding means to accomplish fuel switching, stating, for example, that if the engines are to operate for longer periods of time on low sulfur fuel, the strict lubricating oil specifications for residual fuel operation could be relaxed to allow a lower base number.

Tankage Availability. The large majority of ships in service are equipped with multiple tanks (although many operators currently choose to use residual fuel to run auxiliary engines due to cost considerations). Maersk uses separate tanks for the storage of the distillate fuel to avoid compatibility issues.[3]

No Barriers to Timing. Over a period of roughly 13 months, Maersk initiated use of 0.2 percent low sulfur fuels in 78 of its vessels. Records of vessel calls at the TraPac terminal over the last year indicate that 46 percent of all calls were by ships owned by TraPac's parent company, MOL. These calls were conducted by just 18 unique ships. Based on Maersk's performance of initiating low sulfur fuel in 78 vessels within 13 months, it appears feasible that a major international shipping company like MOL (see below) could switch to low sulfur fuels for just 18 vessels in a much shorter timeframe.

Non-MOL Ships. Half the calls to the TraPac terminal are made by ships not owned by MOL. Based on the past year of TraPac records, this non-MOL fleet has been composed of approximately 43 unique ships and only eight shipping lines. Notably, the majority of these ship calls have been handled by only three shipping lines and just 26 unique ships. The limited number of lines and ships should facilitate TraPac in working with its customers to require use of low sulfur fuel. In addition, the port has the legal authority as landlord to specify conditions of entry for all ships utilizing the TraPac terminal. We thus are not aware of any information indicating a need for non-MOL ships to be granted more time to begin using low sulfur fuel.

Feasibility of 0.1% Sulfur Fuel. There is no indication that the implementation process or technical feasibility of using low sulfur fuels is significantly different between fuels with 0.1 percent or 0.2 percent sulfur content. We thus assume that *only* the availability and price of the fuel are the main issues with regard to lowering the fuel sulfur content limit from 0.2 percent to 0.1 percent. We note in this connection that a number of bodies have stated support for 0.1 percent sulfur limits. The California Air Resources Board is considering adopting, and the United States has proposed that the International Maritime Administration adopt, a 0.1 percent sulfur limit for main engines by 2010 or 2011. The World Shipping Council, whose members transport 90 percent of containerized marine cargo, has stated its support for the U.S. proposal as follows:

> "…The proposal by the U.S government is 0.1 percent, a standard that has already been set for future use in European ports and in Southern California. WSC has no objection to a 0.1% or a 0.2% standard, so long as fuel meeting the standard is reasonably available. 0.2% or

[2] "Maersk Pilot Fuel Switch Initiative," presentation by Jai Alimchandani, Manager, Regulatory Compliance, Technical Organization, and James Flanagan, General Manager, Regulatory Affairs, Maersk; CARB Maritime Air Quality Technical Working Group Meeting , 27 July 2007, accessed at: http://www.arb.ca.gov/ports/marinevess/presentations/072407/072407maepres.pdf

[3] Id.

> lower sulfur fuel is used by a number of WSC lines in certain areas today on a voluntary basis… The only obvious condition WSC sees as necessary is that fuel meeting this standard is reasonably available from refiners on a global basis by the proposed implementation date of 2011, and we are not aware of a reason to believe that it would not be available if the IMO can act promptly and provide refiners with a clear and uniform standard and date." (emphasis added)[4]

2. Availability of Low Sulfur Marine Fuels For Use at TraPac Terminal

Based on data reported by the Department of Energy,[5] about 3.1 percent of distillate fuel sold/delivered in California (2,600 MT/day) goes to vessel bunkering. The U.S. EPA released a report[6] that estimated marine distillates are as much as 90 percent (by sales) rebranded on-road diesel. A survey by DNV Petroleum Services supports these estimates, finding that the average DMA fuel in the San Francisco and Los Angeles regions has significantly less than 0.1 percent sulfur content.[7] This is consistent with Maersk's experience, and it suggests that the TraPac operation can obtain fuel that achieves a faster compliance rate than required by MM AQ-11. Given that the majority (~96 percent) of distillate that was imported to PADD 5 had sulfur contents between 500 ppm and 2,000 ppm, the California supply of marine distillate likely enables full compliance without significant phase-in time.

In addition, based on records of TraPac vessel calls, an average of one ship every 1.4 days calls at the terminal. Maersk cites roughly 24 metric tons of distillate fuel used per switching operation based on a 24 NM boundary. If the boundary is extended to 40 NM, usage of distillate fuel will increase. Provided the increase is roughly proportional to the increase in the boundary distance, then it is anticipated that a ship calling to TraPac would consume 40 metric tons of distillate fuel. This amounts to an average demand of 28.5 metric tons of distillate per day. On an annual basis, full compliance for all ships at TraPac would require some 600-650 thousand tons of distillate fuel. This transfer from high-sulfur distillate to low sulfur distillate represents a reduction in no more than 15 percent of the West Coast (PADD 5) distillate greater than 500 ppm sulfur supplied currently, and an increase of less than 3 percent in the 15-500 ppm sulfur distillate sold/delivered currently in California. This data provides further support for concluding that a fuel switch would not require a significant phase in period. Moreover, the experience to date of Maersk Lines suggests that there is little difficulty sourcing these quantities of 0.2 percent or lower sulfur fuel on the U.S. West Coast.[8]

We also note that other nations are likely capable of providing low-sulfur fuel for ships calling on TraPac terminals. The most common trade routes for ships calling at TraPac include visits to Chinese and Japanese ports and the Port of Oakland. Roughly 87 percent of all ships visiting TraPac included a Chinese port in their rotation, and about 45 percent of ships included a

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[4] http://www.worldshipping.org/Vessel_air_emissions_WSC_position_paper_on_USG_proposal.pdf. It is also noteworthy that the 2005 Starcrest study for POLA found that France and the Netherlands will make such fuel available beginning in 2008. Notably, TraPac's parent company MOL has just signed a "lease contract" with the Port of Rotterdam, which includes "building the superstructure, equipping and operating" a new terminal at this large bunkering port in the Netherlands. This connection with the EU's largest port located within a SECA should help further MOL's experience with 0.1% sulfur marine fuels by 2010.

[5] http://tonto.eia.doe.gov/dnav/pet/pet_cons_821dst_dcu_SCA_a.htm

[6] http://www.epa.gov/otaq/regs/nonroad/420d07001chp1.pdf

[7] "Current Marine Distillate Fuel – Low Sulfur Fuel Availability," presentation by Dr. Rudolph Kassinger, Technical Consultant, DNV Petroleum Services, Inc., CARB Maritime Air Quality Technical Working Group Meeting , 27 July 2007, http://www.arb.ca.gov/ports/marinevess/presentations/072407/072407dnvpres.pdf

[8] "Maersk Pilot Fuel Switch Initiative," presentation at CARB workshop, 07/27/07. http://www.arb.ca.gov/ports/marinevess/presentations/072407/072407maepres.pdf

Japanese port. This is important because Maersk reported that sourcing low sulfur marine distillate, while "difficult" in Singapore and Hong Kong, is "available" in Japan. The ships bound for the TraPac terminal that called in Japan were owned by MOL. Therefore, it is reasonable to assume that all MOL ships make calls in at least two regions (Japan and Los Angeles), where 0.2 percent or lower sulfur fuel is currently available.

We believe that the non-MOL ships will also be able to acquire low sulfur fuels. Marine carriers have expertise in strategic planning of fuel acquisitions, generally deciding when and where to purchase fuel based on price (Starcrest, 2005). And history has demonstrated that fuel providers are responsive to demand, including when new environmental standards require lower emitting fuels. Coordinating the purchase of relatively small amounts of low sulfur fuel for operation within the relatively limited regions defined by the draft EIR would not appear to stretch the abilities of the lines. For example, for those vessels in repeat service to the U.S west coast, low sulfur fuel could be acquired here in sufficient quantities for both the outbound and return trips.

3. Extraordinary Capabilities and Resources of TraPac's Parent Company

As noted, TraPac is the wholly owned terminal-operating subsidiary of Mitsui O.S.K. Lines Ltd. (MOL). In recommending that the TraPac EIR include a more aggressive phase in of low-sulfur marine fuel, it is recognized that there will be cost and logistical challenges. However, MOL is a multi-national corporation of extraordinary size and resources. According to its own website,

> Mitsui O.S.K Lines (MOL) is one of the worlds largest, most versatile and most potent shipping companies. The MOL of today harnesses a work force of over 16,500 people and a fleet exceeding 500 vessels of about 34 million dead weight tons. Every year, nearly 2600 MOL voyages criss-cross the globe to link over 200 ports in more than 100 countries. MOL offices all over the world are linked by a state-of-the-art network that gives customers instant access to a range of information -- vessel and cargo tracking, scheduling, bills of lading, booking. And we continue to improve our information technology (IT) systems to offer more convenient services such as online schedule information, cargo tracking, and booking.

Further, the website states that "MOL plays a key role in the global energy trade, operating the world's largest tanker fleet." It describes MOL's impressive capability to transport an extraordinary variety of transportation fuels and energy sources, including those that are environmentally friendly.

Finally, as shown in Figure 1 in MOL's website, MOL's "corporate principles" include a commitment to "advance global economic growth" while also promoting and protecting the environment. Expediting the use of 0.2 percent sulfur marine fuel at its TraPac facility in the Port of Los Angeles will make a very important, direct contribution to both of those key goals.

In closing, we believe that there is substantial evidence that acceleration of use of low sulfur fuels is feasible and that sufficient fuel can be made available. TraPac, and, we believe, other companies that operate marine vessels, have substantial technical, logistical and economic resources to do this. Fuel availability issues and cost impacts are limited because the region in which low sulfur fuel would be required encompasses but a small portion of total trip distances.

To the extent there is any uncertainty about fuel availability in all locations, establishing requirements in the EIR to utilize low sulfur fuel will provide impetus for fuel providers to make needed fuels available in a wider range of ports.

MM AQ-12: Slide Valves in Ship Main Engines
The SCAQMD staff supports use of slide valves in ship main engines. Slide valves are available technology that can be readily retrofitted into existing engines without need to enter dry-dock. Many such applications have occurred. The phase-in schedule in the draft EIR (culminating in 95 percent of ship calls by 2015) can be feasibly be expedited. We urge that 95 percent of ship calls be equipped with slide valves no later than two years after project approval.

Slide valves and other control technologies could be used in combination to obtain higher control rates, and can be retrofitted to existing vessels. These additional control technologies can feasibly be applied to ship main engines and should be required by the project approval. Below is a table listing feasible measures with the associated emission reduction estimates compiled SCAQMD staff.

List of Feasible Controls

Control	Control Details	Estimated Emission Reductions		
		PM	NO_x	Other
SCR and DOC	Selective Catalytic Reduction with Urea Injection and Diesel Oxidation Catalyst	25-50%	90%	90% CO
Slide Valves	Replace existing engine valves with slide valves designed to improve fuel efficiency and achieve emission reductions	-	30%	
Exhaust Gas Water Treatment	Exhaust Gas Mixes with Sea Water	80%	20%	90% SO_2
Water Injection	Humidification of Fuel-Air Mixture	10-20%	20-40%	N/A
Injection Timing Delay	Reduces Pressure at Auto Ignition Reducing Peak Flame Temperature	10-30%	N/A	N/A

Slide valves that provide around a 30 percent reduction in NOx emissions are available from Mann, one of the leading marine engine manufacturers. These slide valves have been installed on several ocean-going vessels and are being demonstrated as part of a joint effort with the California Air Resources Board (CARB). Water injection, emulsified fuels, or humid air are established technologies in use in Europe. In addition, SCR is a mature technology in use on a wide variety of sources including marine vessels. It has not to the SCAQMD staff's knowledge been applied to a large container ship. However, based on SCAQMD staff visits to European marine vessel operators, such an application is feasible and merely a matter of appropriate engineering. Utilization of the control device could be limited to areas adjacent to the coast.

Space constraints would be an issue, thus making installation most feasible in new builds, but SCR may be retrofitted if space issues are addressed.

Many of the above retrofit technologies are summarized in the attached report by Lovblad and Fridell (2006). The report can be found at www.profu.se or please be obtained from the SCAQMD staff.

Based on the above, SCAQMD staff urges the lead agencies to modify this mitigation measure to require that:

> Main engines on vessels calling at TraPac that are first placed into service after 2011 shall: 1) be equipped with SCR, if feasible; or 2) if SCR is not feasible (as determined by the port), shall be equipped with a combination with slide valves, water injection, or other technology capable of achieving a NOx reduction of at least 60 percent and PM reduction of at least 30 percent. This requirement shall be met by vessels making at least 20 percent of calls to TraPac in 2010 and 50 percent of calls in 2015.

Marine vessels first placed into service 2011 and later would be subject to MM AQ-13 for Main Engines in New Vessel Builds.

MM AQ-13: Main Engines in New Vessel Builds
This mitigation measure lacks commitments that are specific or enforceable. Based on the information and plans summarized in the preceding section, SCAQMD staff urges inclusion of language in the mitigation measure requiring vessels put into service after January 1, 2011 that call at TraPac to be equipped with technologies achieving at least an 80 - 90 percent reduction in NOx and a 60 percent reduction in PM.

The relative feasibility of installing advanced control in new builds as discussed in MM AQ-12 underscores the importance of acting immediately to establish control requirements for new vessels in the proposed terminal operator's lease. There are currently an extraordinary number of vessels on order to be constructed. Once those vessels are built and in the water, the technical and economic challenges to control them will be much greater.

MM AQ-14: Clean Rail Yard Standards
The SCAQMD staff concurs that the on-dock rail facility shall incorporate the cleanest locomotive technologies consistent with CAAP measure RL-3. The SCAQMD staff recommends that the Final EIS/EIR include specific language clarifying the types of technologies and timeframe that this measure will be implemented. Highly effective control technologies are feasible. U.S. EPA in its proposed rulemaking for locomotives and marine engine standards, provided a detailed discussion of state of control technologies (U.S. EPA Draft Regulatory Impact Analysis: Control of Emissions of Air Pollution from Locomotive Engines and Marine Compression-Ignition Engines Less than 30 Liters per Cylinder – EPA420-D-07-001, March 2007). We strongly agree with U.S. EPA's assessment that there exist control technologies that could be utilized to further reduce emissions from existing Tier 2 locomotives. Such control technologies could be equipped on a smaller volume of locomotives in an earlier timeframe than what U.S. EPA envisions since EPA's rulemaking is on a national basis.

In addition, the Class 1 railroads operating in the South Coast Air Basin are deploying switcher locomotives that achieve lower emissions levels than current EPA Tier 2 standards. Union Pacific and BNSF are deploying 66 locomotives recently developed by National Railway Equipment Corporation that employ several non-road engines on a locomotive chassis. The non-road engines are relatively well controlled. Notably, these "multi-engine switcher" locomotives were developed in a relatively short time period without involvement of the two major national locomotive manufacturers. Moreover, these engines could feasibly be retrofitted with DPF and SCR after treatment technologies to further reduce PM and NOx emissions.

While use of these switchers is important, it should be noted that switcher locomotives create a relatively small portion of regional locomotive emissions. Approximately 90 percent of such emissions are created by line haul locomotives. The SCAQMD technical staff is not aware of any technical or economic reason that would preclude deployment of such multi-engine technologies for the purpose of moving container trains across the South Coast Air Basin. Such technology could be deployed within a few years, and could substantially expedite the schedules in EPA's proposed locomotive rule. Several hundred of such locomotives could be in service by 2014, potentially sufficient to pull all trains in the South Coast Air Basin if the locomotives are dedicated to this region.

MM AQ-16: Truck Idling Reduction Measures
This mitigation measure should be consistent with California State requirements and the idling should be limited to 5 minutes per idling event.

Green-Container Transport System. The Final EIS/EIR should commit to a process of implementing zero- or near-zero emission transport technologies such as rail electrification. Through implementation of the CAAP the Ports of Los Angeles and Long Beach are evaluating advanced cargo transportation technologies. The Lead Agencies should include a mitigation measure that would incorporate this commitment.

Peak Daily Emissions Estimate Assumptions
Vessels. Page 3.2-58 line 25 and 38 of the DEIS/EIR states that in 2007, one 3,000 to 5,000 TEU and one 5,000 to 6,000 TEU capacity vessel would be assumed to be at berth and one 3,000 to 5,000 TEU capacity vessel would perform a round trip transit in and out of the Port in calculating the peak daily emissions. However, in Section 2.4.2.6 (Terminal Operations) describes, a total of four vessels could be berthed at the terminal and any one time and according to Figure 1.2 (Existing Container Terminal) aerial photograph on page 1-5 or 1-6 in the Introduction clearly show three ships at berth. Based on the Figure and the possibility of having 4 ships at berth, calculating emissions with only two ships at berth may not capture the most representative peak daily emissions. Furthermore, the 3,000 to 5,000 TEU capacity vessel performing a round trip transit in an out of the port would not be consistent with the vessel selection assumption used in 2015 to create the peak daily emissions. SCAQMD staff requests that the lead agencies clarify if peak daily emissions associated with operation of Berth 136-147 reflects the peak daily potential emissions. Specifically, the Final EIS/EIR should incorporate careful selection of vessel types, the number of vessels, and a discussion that would be more representative of a peak daily scenario.

Train Trips and Associated Cargo Throughput. Page 3.2-61 line 1 of the DEIS/EIR discusses an assumption of train trips and associated cargo throughput at off-site/on-site rail yards during each project year. SCAQMD staff seeks clarification of this assumption and how this assumption was derived.

Idling Assumptions for Line-Haul Locomotives. Page 3.2-46, line 2 of the DEIS/EIR states that the idling times for line-haul locomotives at the rail yards were adjusted from 1.9 to 1.0 hours starting in 2006 in response to the 2005 CARB/Railroad Statewide Agreement. Although the statewide agreement includes a provision for idling, there are many exceptions to this provision. In addition, there is no assurance that even the agreed upon idling scenarios would be limited to 1 hour, since the Statewide Agreement contains exemptions for self-determined "essential" idling and ARB enforcement staff cannot feasibly enforce more than a small portion of idling events. If the analysis assumes a 1 hour idling limitation for line-haul locomotives, the Lead Agencies should include an enforceable mitigation measure that would reflect this idling assumption. Alternatively, the Lead Agencies should adjust the idling time taking into account the many exceptions to the Statewide Agreement.

Container Hauling. Page 2-31, line 30 of the DEIS/EIR states that a loaded double-stack train is typically pulled by three or four line-haul locomotives or two or three smaller locomotives. SCAQMD staff recommends that PHL operate all trains by utilizing the two or three smaller locomotives causing less emissions as compared to utilizing three or four line-haul locomotives. The Final EIS/EIR must explain how the Lead Agencies are minimizing the emissions through use of smaller locomotives.

Average Sulfur Content for Line-haul Locomotives. Page 3.2-46, line 9 of the DEIS/EIR assumed line-haul locomotives use diesel fuel with an average sulfur content of 2,200 ppm before June 2007. However, in the HRA portion of the DEIS/EIR, Page D3-6, in the continuing paragraph for locomotives, states that the HRA analysis assumed that line-haul locomotives use diesel fuel with an average sulfur content of 1,927 ppm before 2008. SCAQMD staff seeks clarification of this discrepancy.

Annual Ship Calls. Page 3.2-42, line 7 and the Table D1.2-PP-1 of the DEIS/EIR states that in 2015 and 2038 the air quality analysis evaluated 279 and 311 annual ship calls, respectively. However, Page 2-3 and Page 2-43 states that in years 2015 and 2038, the annual ship calls projected are 309 and 334, respectively. SCAQMD staff seeks clarification for the difference. Also clarify the impact the difference has on the projected annual TEUs and emissions, if any.

Hoteling Time/Visit. Page 3.2 – 43, line 10 and Table D1.2-PP-1 of the DEIS/EIR states vessel hoteling durations. However, when reviewing the data, SCAQMD staff noticed inconsistencies between the various types of ships. It is understandable that additional cranes would be utilized to reduce ship hoteling time for the larger ships, however the amount of TEU moves/crane hour should not change. It is expected that the crane operator would not be able to pick up more TEUs in one hour, just because the ship is larger. SCAQMD staff seeks clarification on how the hoteling time/visit were calculated for each ship type and proposed project scenario.

Cargo Throughputs. Page 3.2-43, line 1 of the DIER/EIS states that throughputs for 5,000 – 6,000 TEU vessels were based upon the average throughput of vessels >5000 TEUs at Berths 121-131 in year 2001. In addition, throughputs for 8,000-9,000 TEU vessels were based upon a capacity of 8,800 TEUs times 1.43 (the ratio of TEU throughput per ship visit to the TEU capacity for vessels >5,000 TEUs that called at Berths 121-131 in 2001). SCAQMD staff recommends using site specific data whenever possible. If the Lead Agencies determine that the use of West Basin Container Terminal (Yang Ming) data from 2001 in this analysis is most appropriate for the proposed terminal, this should be clearly explained in the Final EIS/EIR.

Truck Idling Assumption. Page 3.2-45, line 22 of the DEIS/EIR states that on-terminal idling occurred for 33 minutes in 2003 and would occur for 15 minutes in subsequent years, based upon current and expected operational characteristics of Berth 136 – 147. SCAQMD staff requests clarification on the "current and expected operational characteristics of the Berth 136-147 terminal that would reduce truck idling to 15 minutes."

New and Relocated Rail Facilities

On-Dock Rail Yard. Page 2-19, line 24 of the DEIS/EIR states that the Project includes an on-dock rail yard to be constructed where the Pier A rail yard is presently located. In comparing Figures 2-1 and 2-4 to 2-3 (Proposed Project Layout), it appears that the existing PHL Pier A Rail Yard acreage will be decreased with less track limiting the new on-dock rail yard capacity. The Final EIS/EIR should include additional information with regards to new on-dock rail development as compared to the current PHL Pier A Rail Yard setup to confirm that the on-dock rail is maximized. According to Table 2.1 (Project Throughput Comparison) on Page 2-3, percent TEUs by on-dock rail decreases from year 2015 to 2038, at 31.6 percent to 29.3 percent respectively. The DEIS/EIR does not provide details in the percent TEU by on-dock rail decrease, but the limiting factor appears to be the new on-dock rail TEU capacity. If the reason for the percent decrease by on-dock rail is due to the limited TEU capacity, the Project should then include a larger on-dock rail with possible alternatives of having an inland port to increase efficiency at the terminal if space and capacity is limited.

Relocated Pier A Rail Yard.

Page 2-19, line 30 and Page 3.2-12, line 11 of the DEIS/EIR provides limited details about PHL's Pier A Rail Yard relocation. The proposed PHL Pier A Rail Yard relocation to the 70-acre area northeast of the existing terminal, between the Consolidated Slip and Alameda Street appears to be an expansion with an increase in capacity compared to the proposed On-dock Rail Yard area of 10 acres. The DEIS/EIR does not provide activity data for this proposed rail yard. SCAQMD staff seeks additional information with regards to the relocation in the DEIS/EIR as part of the Project emissions, if any.

Page 3.2-45, line 38 of the DEIS/EIR states that emission factors for the yard locomotives at the proposed Berths 136-147 Terminal rail yard were adjusted to account for the commitment by PHL to replace their existing yard locomotives with engines that meet the Tier 2 standard per CAAP measure RL-1. If CAAP measure RL-3 is not applied to the relocated Pier A Rail Yard, the Final EIS/EIR should clarify the status of the of the PHL operating agreement, including all amendments with respect to the implementation schedule. Lastly, SCAQMD staff firmly believes that the proposed PHL Pier A Rail relocation is a new rail yard and should comply with

CAAP measure number RL-3 for New and Redeveloped Rail Yards and SCAQMD's 2007 Air Quality Management Plan (AQMP) rail measures.

Alternatives

Alternative 1 – No Project. SCAQMD staff reviewed Table 3.2-38 on page 3.2-118, an overview of the cancer risk under the No Project Alternative. SCAQMD staff recommends that the lead agencies adjust the emissions to assume a No Project Alternative that accounts for implementation of CAAP measures. This will provide a more realistic comparison of Project and No Project emissions since many CAAP measures can and should be adopted whether or not the proposed project is approved.

Construction

Dredging. Section 2.4.4.2, starting on Page 2-38 of the Draft EIS/EIR states that filling/dredging is assumed to be accomplished by 1) hydraulic dredge pumping and 2) barge-mounted clamshell dredge maneuvered by a tugboat and supported by one or two workboats. SCAQMD staff seeks use of construction equipment that would produce the least amount of emissions.

Peak Daily Emission

Operation. Page 3.2-59, Table 3.2-23 of the Draft EIS/EIR provides peak daily emissions generated for each Project scenario/activity and then quantified at certain critical Project years. However, SCAQMD staff noted when you subtract the CEQA Baseline 2003 from the Project Year Total, the Net Change from the CEQA Baseline for the Project Year is incorrect. SCAQMD staff seeks clarification of the Net Change from the CEQA Baseline in the Final EIS/EIR.

Operational Emission in 2010. Page 3.2-79 and 83 of the Draft EIS/EIR states that operational emissions in year 2010 would produce the highest Project annual air quality impacts. The SCAQMD staff recommends that the Final EIS/EIR present 2010 daily operation emissions.

Health Risk Assessment

Use of China Shipping Project Data. Page D3-2 and D3-3 of the Draft EIS/EIR references China Shipping Project data to delineate boundaries of emission sources for use in the HRA. SCAQMD staff is concerned in using data from another terminal due to differences in activity levels, distance to receptors, and others factors that may cause the data to be inappropriate for use at the proposed terminal. If the Lead Agencies feel that the use of China Shipping Project data is most appropriate for the proposed terminal, please clarify in detail. The SCAQMD staff believes that use of site specific data in the HRA is most appropriate and should be used when available.

Terminal Equipment. Page D3-5 of the DEIS/EIR states that the useful life (replaced) of terminal equipment has been assumed to be 15 years based on discussions with the proposed terminal operator. SCAQMD staff recommends that since 15 years is assumed in the analysis, the Lead Agencies require as part of the proposed Project that all terminal equipment be replaced at least every 15 years.

CEQA Baseline. Page D3-22 (Table D3-6) and D3-25 (Table D3-8) of the DEIS/EIR provides two tables of maximum health impacts due to the proposed Project without mitigation and with mitigation. The CEQA baseline appears to be different between the two tables. SCAQMD staff seeks detailed information on how the CEQA baseline was determined for both tables and the reason for the differences in the baseline.

Maximum Individual Cancer Risk (MICR). Page D3-22 (Table D3-6) and D3-25 (Table D3-8) of the DEIS/EIR provides two tables of maximum health impacts due to the proposed Project without mitigation and with mitigation. A comparison of Maximum Individual Cancer Risk (MICR) per Receptor Type is quantified in these two tables. However, the Final EIS/EIR should provide a comparison of the MICR baseline to the MICR proposed Project.

Fairway Transit. Page D3-2 of the DEIS/EIR states that only the closest 14-nm of Fairway transit was considered in the HRA and the more distant emissions in the transit were not included based on a sensitivity analysis for China Shipping. The more distant emissions contributed less than 1 percent of the total risks at the maximum and residential receptors according to the DEIS/EIR. It is unlikely that the ignored impacts would change the risk levels associated with the project, however SCAQMD staff requests the lead agencies provide a more complete citation and explanation of the sensitivity analysis used in the Final EIS/EIR.

Locomotive Hauling. Page D3-2 to D3-3 of the DEIS/EIR states that project trains traveling north along the San Pedro Subdivision rail line were considered in the HRA and project train emissions north of Anaheim Street were not included, based on a sensitivity analysis for China Shipping. The project emissions north of Anaheim Street emission contributed no greater than 0.2 percent to the total risks from all project sources at the maximum residential and occupational receptors according to the DEIS/EIR. Based on the results of the sensitivity analysis, it may be acceptable to exclude these risks since the vast majority of the emissions (and thus the impacts) are concentrated in the Port area; however SCAQMD staff requests the lead agencies provide a more complete citation and explanation of the sensitivity analysis used in the Final EIS/EIR.

Truck Hauling. Page D3-3 of the DEIS/EIR states that project trucks traveling north along I-110 and Alameda Street were considered in the HRA and project truck emissions north of Anaheim Street were not included, based on a sensitivity analysis for China Shipping. The emissions north of Anaheim Street contributed no greater than 0.2 percent to the total risks from all project sources at the maximum residential and occupational receptors according to the DEIS/EIR. Based on the results of the sensitivity analysis, it may be acceptable to exclude these risks since the vast majority of the emissions (and thus the impacts) are concentrated in the Port area; however SCAQMD staff requests the lead agencies provide a more complete citation and explanation of the sensitivity analysis used in the Final EIS/EIR.

Truck Emissions. Page D3-3 of the DEIS/EIR (third complete paragraph) states that the HRA evenly distributed truck on-terminal driving and idling emission throughout Berths 136-147 terminal for all project scenarios. SCAQMD staff requests additional rationale for evenly distributing truck on-terminal driving and idling emissions throughout Berths 136-147 terminal in the Final EIS/EIR. It is the understanding of SCAQMD staff that trucks are restricted to

specific areas or routes according the DEIS/EIR and therefore it may not be appropriate to evenly distribute the emissions throughout the Berths 136-147 terminal.

Volume Source Heights. Page D3-13 to D3-15 of the DEIS/EIR provides release heights for project ships, trains, and trucks that are similar but not exactly equal to those assumed by CARB in their DPM Exposure Assessment Study for the Ports. SCAQMD staff would like to see justification for those instances where the release heights are greater than CARB's assumptions in the Final EIS/EIR.

Meteorological Data. Page D3-16 of the DEIS/EIR states that due to the varying wind conditions within the Port region, the most accurate way to perform the project HRA was to split the modeling domain into distinct Inner/Outer Harbor Port meteorological areas. SCAQMD staff concurs with the approach of using different meteorological data for inner and outer harbor sources. However, it would be helpful to SCAQMD staff, that the lead agencies provide a map showing the locations of the monitoring sites as support for the decision in the Final EIS/EIR.