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Greg Roche
Director, Business Development

Clean Energy
North America's leader in clean transportation

September 20, 2007

Commander
U.S. Army Corps of Engineers
Los Angeles District
c/o Dr. Spencer D. MacNeil
P.O. Box 532711
Los Angeles, California 90053-2325

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

Re: Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR) for the Berth 136-147 (TRAPAC) Container Terminal Project

Dear Commander and Dr. Appy:

Clean Energy applauds the leadership efforts of TraPac to address air quality impacts of the proposed Container Terminal Project. As noted in the recently released 2005 emissions inventory for the Port of Los Angeles (POLA), air quality improvements are being achieved. However, there are still challenges ahead in achieving healthy air.

The purpose of our comments are to draw your attention to the role that natural gas technology can play in improving air quality at POLA and specifically with respect to the Container Terminal Project. Natural gas technology offers a uniquely beneficial solution because no other fuel has all of these benefits:

- Reduces toxic diesel emissions in Port communities
- Reduces emissions of NOx by 33% to over 90%
- Provides a greenhouse gas (GHG) benefit of up to 20%
- Diversifies the fuel supply
- Supports energy independence with a renewable fuel that is 97% domestic, and is moving rapidly into renewable biogas sources

CE-1

Natural gas engines have already achieved significant emission reduction numbers, and these trends will continue into the future. One natural gas engine, the Cummins Westport ISL-G, is the first and only engine to meet the 2010 emission standards – 3 years ahead of deadlines. In addition to eliminating or greatly reducing diesel particulate matter, natural gas engines have much lower NOx ratings compared to new diesel engines:

CE-1

	On-Road Engines			
	2007-09 On-Road Diesel	2007 Westport HPDI Natural Gas	2008 Planned Westport HPDI Natural Gas	2007 Cummins Westport ISL-G Natural Gas
NOx (g/bhp-hr)	Target is 1.2. Cap is 2.0 under the EPA Phase-In Standard, and 4.0 under the Phase-Out Standard	0.8	0.6	0.2
Reduction Compared to the Phase-In Standard	0	33% to 60%	50% to 70%	83% to 90%

Natural gas fuel has many applications in port operations such as trucks and vehicles, cargo handling equipment, marine vessels, and cold ironing. Our comments on specific mitigation measures are provided below.

CE-2

MM AQ-6 Alternative Marine Power:
AQ-6 involves using shore power from the electric grid to supply ship power requirements while at berth. The phase-in schedule extends to 2020. Shore power provided by the electric grid may eventually power all of the ships while at berth. However, there is another option that can play either a transitional role or provide a long-term solution for certain situations. Shore power from a natural gas fueled mobile generator has been shown to accomplish significant emissions reductions. The mobile generator system offers a flexible solution that can be deployed today with no infrastructure cost in electrifying the berth. Ship modifications to connect to the generator have only a modest cost. This solution can accelerate the benefits of shore power.

Testing was performed in July of this year on a container ship to demonstrate system functionality and emissions reductions. The system performed flawlessly and provided continuous reliable power to the ship for the duration of the test. Emissions reductions from the test compared to ship emissions were reported as follows (http://www.cleanairmarinepower.com/about_us):

- NOx reduced by 90%
- SOx totally eliminated
- PM_{10} eliminated by > 99%
- CO_2 reduced by 57%
- CO was reduced by 35%

There are two specific potential applications to the Container Terminal Project:

- **Transitional Solution**: Natural gas fueled mobile generators can be immediately deployed for early emissions reductions. The generators can "fill the gap" in powering ships while berth electrification and ship modifications are performed. Over time, as berths are electrified, ships will transition to using shore power from the utility grid.

- **Long-Term Solution**: There could be situations in which shore power from the utility grid will not be feasible. In these cases, natural gas generators can solve the problem by providing the flexible, low cost solution for emissions reductions.

CE-2

MM AQ -7 & 8 Cargo Handling Equipment: The mitigation measure calls for using either alternative fueled or diesel fueled yard tractors. It is important to know that natural gas engines are significantly cleaner than their diesel counterpart. In fact, the Cummins Westport ISL-G engine is the first and only engine to achieve compliance with the 2010 standard – 3 years ahead of schedule. Deploying a fleet of natural gas yard tractors will completely eliminate diesel particulate matter, and significantly reduce NOx and greenhouse gases. NOx emissions are reduced by **over 90%** compared to a new 2007 on-road diesel engine:

On-Road Engines	NOx (g/bhp-hr)
2007 Cummins Westport ISL-G, natural gas	0.2
2007 Cummins ISB, diesel	2.2

CE-3

Deploying natural gas yard hostlers today with the ISL-G engine will accelerate the benefits of the 2010 standards – even with the assumption that diesel engines will actually be able to comply with the 2010 standards. It should be noted that the 2010 standards allow engines up to 0.5 NOx by using fleet averaging and emission credits. With the natural gas engine, you know exactly what you are getting – low emissions today.

MM AQ-9 Heavy Duty Trucks: The mitigation measure calls for progressive deployment of 2007 diesel trucks. Under the EPA phase-in rules, a 2007 through 2009 diesel truck can have NOx emissions up to 2.0 g/bhp-hr with a target level of 1.2 g/bhp-hr. However, natural gas trucks have significant emission reductions benefits:

2007-09 Diesel, NOx Cap	2.0 g/bhp-hr
2007-09 Diesel, NOx Target	1.2
2007 Westport HPDI Natural Gas, NOx	0.8
2008 Westport HPDI Natural Gas, NOx (planned)	0.6

CE-4

Natural gas engines reduce NOx by between 33% and 70% compared to the standards. Diesel particulate matter is reduced by 95% and greenhouse gas is reduced by up to 20%.

CE-4

The 2005 emissions inventory shows that NOx emissions from trucks have increased by 36% at the Port of Los Angeles since 2001 and by 45% at the Port of Long Beach since 2002. While progress has been made in reducing emissions from other port operations, emissions from trucks are growing with container volume. The ports are projected to triple their container shipping volume. Natural gas engines can play a key role in reducing diesel truck emissions while goods movement increases.

CE-5

Summary: Clean Energy appreciates the opportunity to submit comments and again applauds TraPac's leadership efforts to improve air quality. Clean Energy is willing to do our part to help implement clean air solutions. Should natural gas technology play a role in the project, Clean Energy is prepared to provide the natural gas fuel infrastructure. With air pollution at critical levels in the port area, we urge decision makers to seriously consider the air quality benefits offered by domestic natural gas fuel.

Sincerely,

Greg Roche
Director, Business Development

CC:
Port of Los Angeles Harbor Commissioners
Geraldine Knatz, Executive Director, Port of Los Angeles

Clean Energy, September 20, 2007

CE-1 Thank you for your comment. The Final EIS/EIR has accelerated implementation of some mitigation measures proposed in the Draft EIS/EIR, as discussed in more detail in response to comments SCAQMD-7 through SCAQMD-24. As proposed in Mitigation Measures AQ-17 and AQ-18B, it is possible for the Project terminal operator to consider new emission control technologies in the future, such as natural gas-powered sources. The CAAP's Technology Advancement Program is also a process that will achieve this objective.

CE-2 Thank you for your comment. Please see the response to comment CE-1.

CE-3 Thank you for your comment. Please see the response to comment CE-1.

CE-4 Thank you for your comment. Please see the response to comment CE-1.

CE-5 Thank you for your comment.

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LM1

August 9, 2007

Commander, U.S. Army Corps of Engineers,
Los Angeles District, c/o Dr. Spencer D. MacNeil
P.O. Box 532711
Los Angeles, California 90053-2325

Dr. Ralph Appy, Director Environmental Management Division
425 South Palos Verdes Street
San Pedro, CA 90731

Re: DRAFT ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT (EIS/EIR) FOR THE BERTH 136-147[TRAPAC] CONTAINER TERMINAL PROJECT

Gentlemen:

We would like to comment on the above EIS/EIR regarding the Mitigation Measures outlined in Section 3.2 page 62-65.

The mitigation measures proposed are the application of Alternative Maritime Power (AMP) only, with no consideration of alternative technologies which are equivalent to or better than AMP. And, the schedule of use of AMP for ships calling at Berths 136-147 while hotelling is

2009 - 25 percent of total ship calls
2010 - 40 percent of total ship calls
2012 - 50 percent of total ship calls
2015 - 80 percent of total ship calls
2018 - 100 percent of total ship calls

ACTI-1

Also, AMP would only cover auxiliary engines not the diesel fired boilers.

ACTI-1

A very viable alternative technology which could be used to fill the time gap while waiting for full deployment of AMP (and be able to cover the boilers too), is the Advanced Maritime Emissions Control System (AMECS) developed and built by Advanced Cleanup Technologies Inc (ACTI). A full description of AMECS is provided in Appendix 1.

AMECS captures all the exhaust gas emissions from the ship's stack, including auxiliary engines and boilers, transfers them to a treatment unit on a barge tied to the container ship and reduces the NOx , SOx and PM. The full scale treatment unit, comprising a Cloud Chamber Scrubber and a Selective Catalytic Reactor system was used for test runs, sponsored by EPA, CARB, SCAQMD, Placer County APCD etc. conducted on large locomotive diesel engines in Union Pacific's repair yard. Both low sulfur CARB diesel and EPA diesel fuel were used. Results were reductions of 97% NOx, 98% SOx and 92% PM.

ACTI, Metropolitan Stevedore Company and the Port of Long Beach will be testing AMECS on ships' exhaust gases starting in October 2007 using a dock-based system. The AMECS system will be able to treat the exhaust gases from two ships simultaneously while they are berthed at Metropolitan's berths. Testing of the bonnet on ships' stacks will commence in August 2007

ACTI-2

ACTI could supply enough AMECS barges to TraPac to handle the container ships not being AMP'd, including these ships which have not been retrofitted to accept AMP. AMECS does not require infrastructure investment by the Port or TraPac to supply high voltage electrical power and is not affected by power brown outs. Each barge has a power generator on board.

AMECS cost effectiveness is better than AMP.

San Pedro Bay Ports (SPBP) Clean Air Action Plan (CAAP) is complied with by use of AMECS;

- OGV-2; No electrical infrastructure is required
- OGV-3; AMECS can handle auxiliary marine engines burning fuels ranging from high sulfur bunker fuel oil to 0.2% Sulfur MGO to 15 ppm sulfur diesel
- OGV-4; AMECS can handle start of main engines for 15-30 minutes but is designed to service auxiliary marine engines and boilers.
- OGV-5; AMECS can reduce PM, NOx and SOx by over 90% in all fuels used in auxiliary marine engines and boilers by OGV's

The full scale AMECS treatment system has been successfully tested. The bonnet emissions capture system has been manufactured and will be tested on actual operating ships shortly.

We would like to request that you include AMECS as an alternative technology to AMP in the EIS/EIR for the Berth 136-147 TraPac container terminal project. ACTI-2

If you have any questions, please call me at 310-763-1423.

Sincerely,

Matthew F Stewart
Executive Vice President

Advanced Maritime Emissions Control System (AMECS)

Advanced Cleanup Technologies Inc.(ACTI) specializes in Full Service Environmental Waste Management.. The Company was founded in 1992 and provides innovative, cost-effective hazardous materials cleanup services to private industry and government regulatory agencies. ACTI has a highly skilled staff experienced in emergency response l cleanup and waste management services, with the capabilities to manage multiple incidents.

The technology developed by ACTI is a system to capture the exhaust emissions from various sources and treat the exhausted gas stream by removing harmful polluting gases and carcinogens prior to being exhausted into the atmosphere.

The systems are environmentally friendly and incorporate the latest in emissions control devices. They include several innovative exhaust capture systems, designed to accommodate the many geometries of exhaust stacks of ocean-going vessels. They are cost-effective, well under the target set by the Carol Moyer Program and designed for a life span of twenty- years.

Several patents have been awarded and applied for as a result of the design and development of the technology being developed by ACTI.

The Advanced Maritime Emissions Control System (AMECS) is designed for marine applications to capture and treat the exhaust emissions froorm ocean-going vessels while at anchorage within the harbor and while berthed for loading and unloading. There are two variations of the system, a Barge-Based and a Dock-Based configuration.

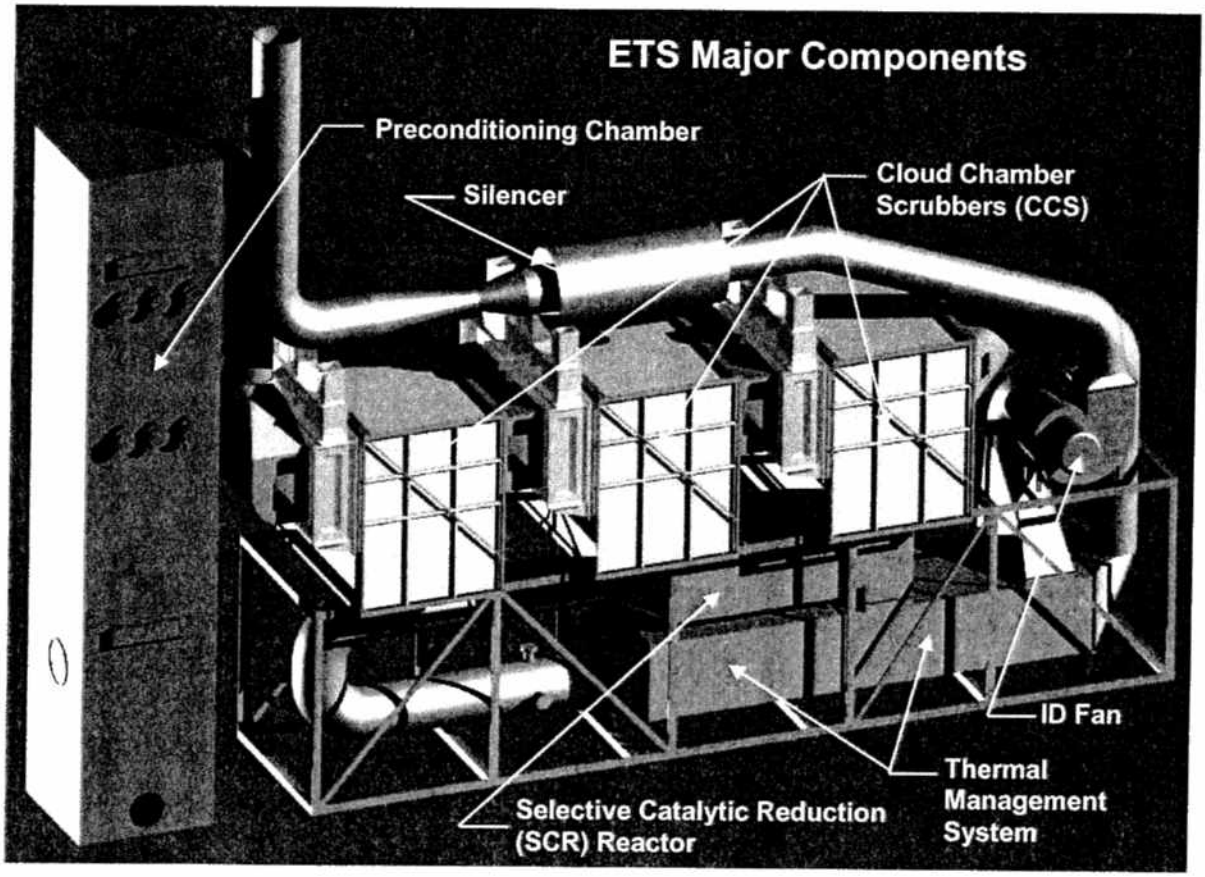
The Barge-Based system consists of four major subsystems. These are the Exhaust Capture Subsystem (Support Tower, Robotic Arm and Exhaust Intake Bonnet); Emissions Treatment Subsystem (Cloud Chamber Scrubber and Selective Catalyst Reduction (SCR) Reactor); Operation Control Subsystem (where the monitoring and control systems are housed); and a Seagoing Barge. Each AMECS will be serviced by support vessels, and monitored and maintained through a centralized support facility. It is designed to treat an exhaust flow of up to 12,000 scfm.

The Capture Subsystem is used to capture the ocean-going vessel's (OGV) exhaust gases by attaching a bonnet, at the end of a robotic arm, over the vessel's exhaust stack and ducting the exhaust gases down the Support Tower into the Emissions Treatment Subsystem. The Emissions Treatment Subsystem is where the exhaust gas is treated to remove the harmful pollutants. The Exhaust Capture System is designed to withstand winds of 25 knots during operations as well as 45 knot gusts. At 60 knots it is stowed. A station- keeping system continuously monitors the position of the vessel stack relative to the robotic arm and makes adjustments to motions caused by tidal variation, unloading and loading operations of the vessel or from wind- and wave-induced motions of the arm.

The Emissions Treatment Subsystem is the heart of the system. The ETS utilizes a state-of-the-art Cloud Chamber Scrubber (CCS) system and a Selective Catalytic Reduction (SCR) Reactor system to remove pollutants (including SOx, NOx and Particulate Matter) from the ship exhaust gas stream.

The ETS consists of four major components: a Preconditioning Chamber (PCC) that removes oxides of sulfur (SO_X) and an amount of hydrocarbons (THC); a Cloud Chamber Scrubber (CCS) that removes particulate matter (PM); a Thermal Management System to increase operating efficiency' and a Selective Catalytic Reduction (SCR) Reactor for removal of oxides of nitrogen (NOx).

Shown below in Figure 1, is the ETS and relative location of its components.



The first component the exhaust gas encounters as it enters the system is the PCC which serves several functions. First, it cools the gas adiabatically through a counter flow water spray and in the process increases the water vapor content to near saturation. This feature is required by the following stage, which cannot accept hot gas. Secondly, it removes most of the soluble hydrocarbons and other water soluble compounds. Third, the water is rendered caustic by means of a metered injection of sodium hydroxide to remove 95% to 99% of the SO_2, depending on inlet concentration. The fourth function of the PCC is to cause the nanometer size PM particles to agglomerate into larger particulate globules, which facilitates their removal in the next stage

The path of the exhaust emissions flow through the ETS, along with the relative positions of the major components is shown in Figure 2.

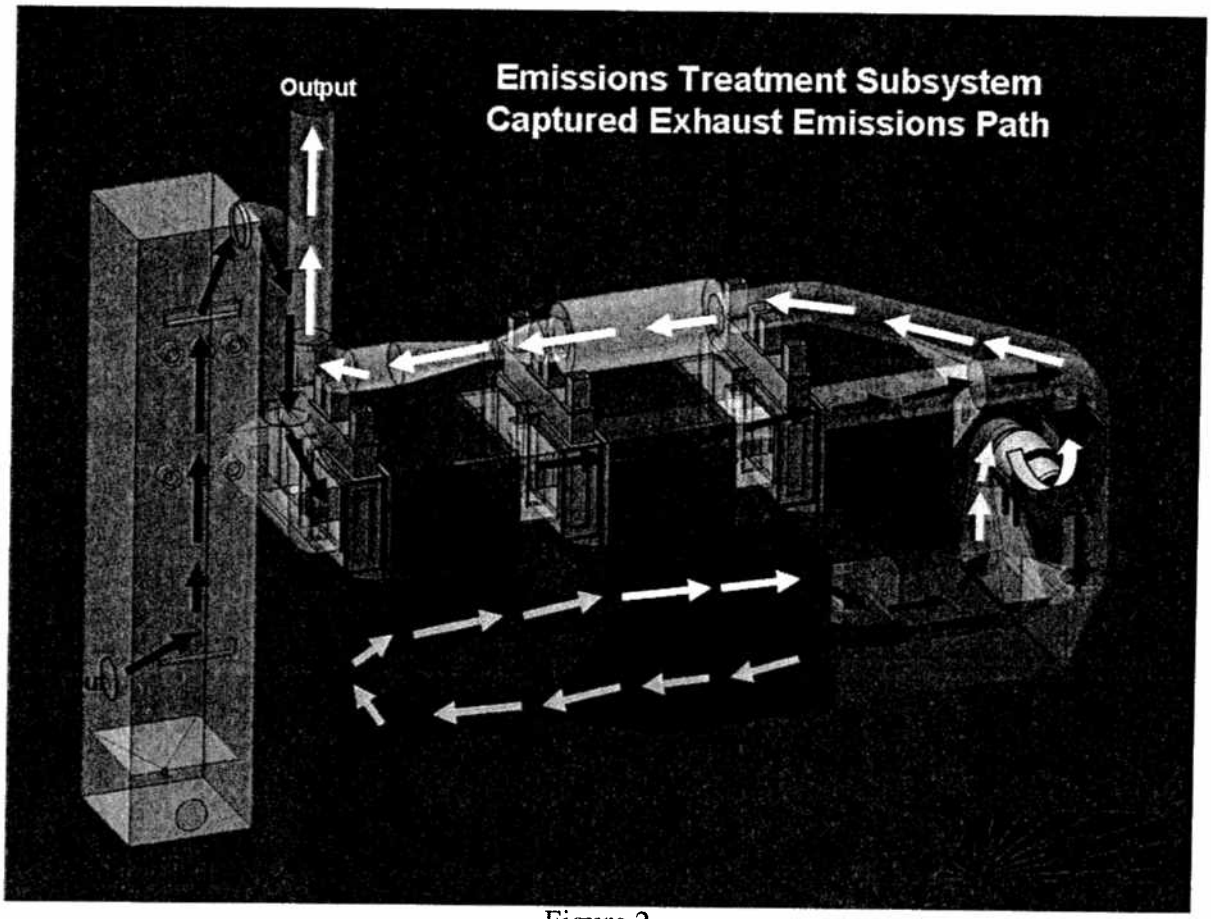


Figure 2

The gas exits the PCC at a temperature of about 140° F. This gas is directed to the first of three Cloud Chamber Scrubbers (CCS). These vessels are empty, except that they are filled with a fog of minute water droplets generated by an array of spray nozzles collinear with the exhaust gas stream. Each droplet is charged to a high voltage immediately after leaving its nozzle. This charge causes particulate matter in the gas stream to be attracted to and adhere to the water droplets, with each of the billions of water droplets collecting many particles.

The particles thus collected are flushed through a solids removal system where they are

collected for subsequent removal from the premises and disposal using approved regulatory means. The removal system consists of a solids separation device for inline solids removal, water extraction, and compaction.

The SCR Reactor requires a temperature of approximately 600° F to operate. The exhaust gas exiting the CCS has been cooled to about 140° F and stripped of SO_2, PM, soluble hydrocarbons, and condensed (particulate) hydrocarbons and sulfates. This clean but cool gas must now be reheated. This is accomplished by a Heat Exchanger – Heater System that is connected to the treatment system. In this scheme, the hot exhaust from the SCR Reactor is used to heat the cold gas entering the SCR Reactor. Approximately 80% of the available heat is recovered from the hot gas leaving the SCR Reactor by this heat exchanger. The additional heat increment required to bring the gas stream up to 600° is provided by a natural gas or propane-fired burner.

The exhaust emissions flow through the Heat Exchanger-Heater System with the relative positions of the components shown below in Figure 3.

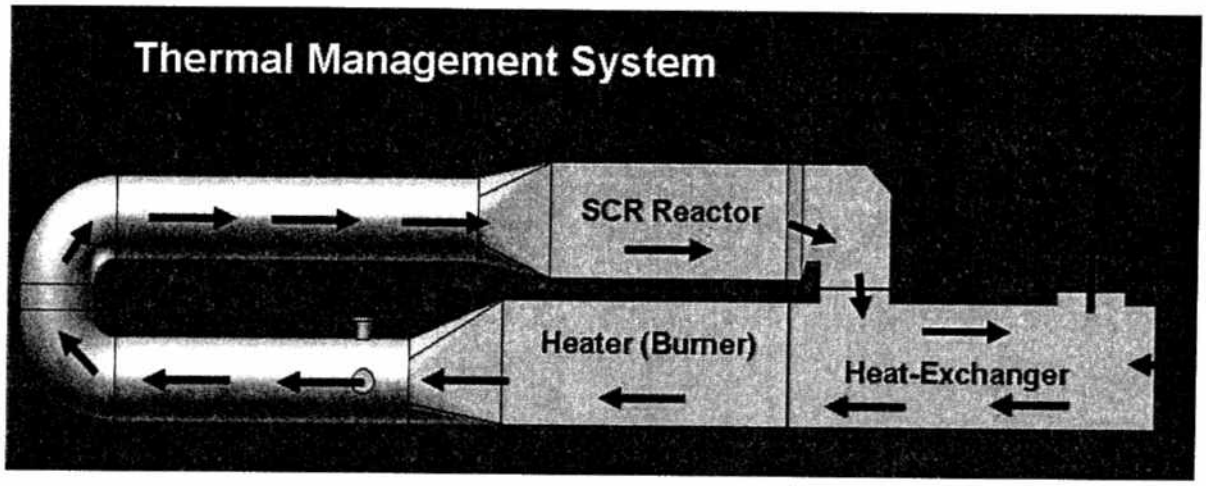


Figure 3

Urea is the reagent this system uses as the source of ammonia. The urea is injected into the system immediately after the burner. Special atomizer nozzles and flow modification devices ensure uniform distribution, and a long mixing duct assures complete conversion of urea to ammonia. The 600°F gas is passed through the SCR Reactor for NOx removal. In the SCR Reactor, ammonia combines chemically with NOx in the presence of the catalyst, converting the NOx and ammonia into water vapor and nitrogen gas

A low noise Induced Draft (ID) fan is located downstream of the SCR Reactor and Thermal Management System, and a silencer is located downstream of the Induced Draft fan. This fan draws the exhaust gas from the ship through the ducting into the ETS. The flow and pressures are controlled by dampers and the fan's variable speed drive motor.

In addition to the silencer, which acts as a muffler, the downstream ducting and fan housing are acoustically insulated to ensure that the systems operating noise level is reduced to an acceptable level.

Shown below in Figure 4, is a picture of the actual ETS in Roseville, California

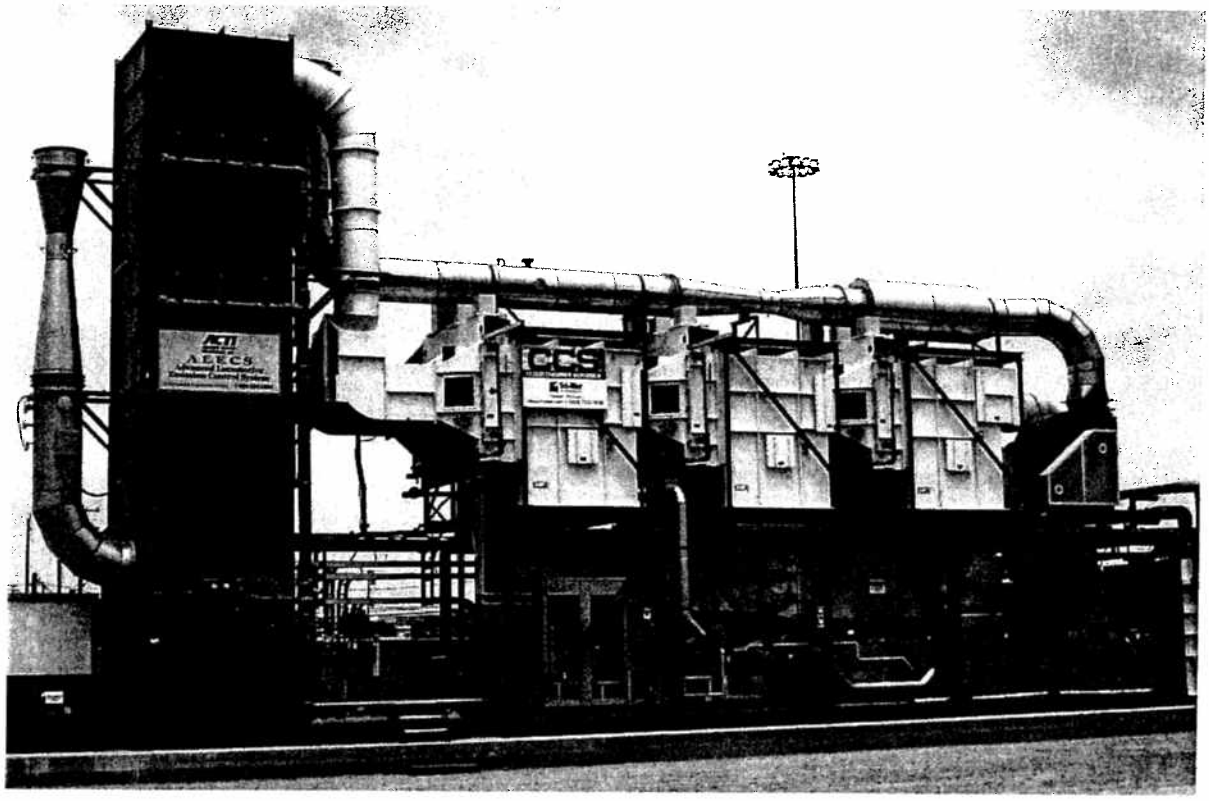


Figure 4

The AMECS arrangement of pollution removal systems (CCS before SCR) greatly extends catalyst life by presenting the catalyst with a clean gas stream. Both particulate matter and sulfur compounds, which are removed by the scrubber, would otherwise quickly degrade the performance and life of the catalyst. By removing these pollutants upstream of the catalyst, system cost effectiveness is significantly improved.

The Cloud Chamber Scrubber (CCS) manufactured by Tri-Mer Corporation is where the sulfur dioxide (SO_2), particulate matter (PM), and water-soluble volatile organic compounds (VOCs) are removed. It is designed to remove over 95% of NOx and SO_2, and over 95% of PM .

The CCS system consists of a Preconditioning Chamber (PCC) and the Cloud Generation Chambers (CGC). The PCC is a counter flow unit that injects a spray of water directly into the gas stream. This water spray cools the OGV exhaust gas stream to approximately 140 degrees F, and aggregates submicron size particles into larger agglomerations that are more efficiently captured in the CGC.

The Selective Catalytic Reduction (SCR) Reactor system is built by Argillon. The system is designed to remove over 95% of oxides of nitrogen (NOx). Liquid urea is injected into the hot gas-stream ahead of the SCR as a source of ammonia. The ammonia reacts with the NOx while passing through the catalyst to form nitrogen and water which are vented to atmosphere.

The OCS houses all operational controls of the system, including monitoring, control, measurement, and recording functions. Audible and visual alarms and backup systems are provided for fail-safe operations and are located within the centralized control center as well.

The entire system is mounted on a seagoing barge. Placing the system on a barge, allows access to the vessels stack from the opposite side of the unloading and loading operations, minimizing any interference with port operations. A drawing is shown in figure 5

The fleet of AMECS barges will be serviced by shuttle services boats and a central support facility. This will permit the direct transfer of AMECS barges from ship to ship and thus maximize the utilization of each AMECS barge. Replenishment of chemicals, water and parts, removal of waste liquids and solids and crew transport will be provided by shuttle service boats. Storage of chemicals and parts, disposal of waste products, maintenance functions and central monitoring of AMECS operations will be based at the central support facility.

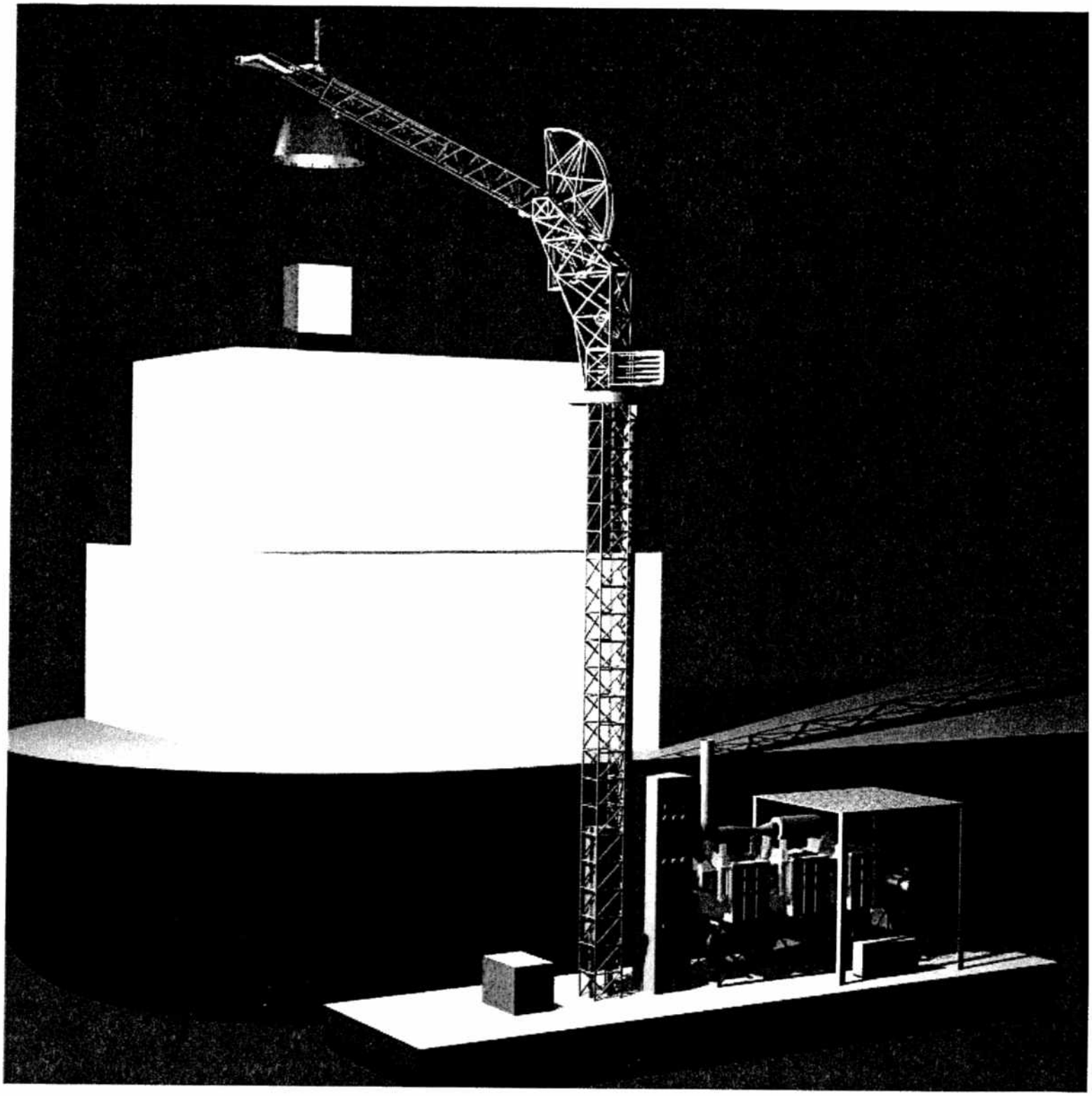


Figure 5

Advanced Cleanup Technologies, Inc., August 9, 2007

ACTI-1. Thank you for your comment. Since the feasibility and reliability of Alternative Maritime Emission Control System (AMECS) is unknown, it is currently not a legitimate measure to mitigate vessel berthing emissions for this CEQA/NEPA process. The Final EIS/EIR has accelerated implementation of some mitigation measures proposed in the Draft EIS/EIR, as discussed in more detail in response to comments SCAQMD-7 through SCAQMD-24. As proposed in Mitigation Measures AQ-17 and AQ-18B, it is possible for the Project terminal operator to consider new emission control technologies in the future, such as AMECS. The CAAP's Technology Advancement Program is also a process that will achieve this objective.

ACTI-2. Thank you for your comment. Please see the response to comment ACTI-1.

Laboratories, Inc.

Excellence in Service Since 1949

July 30, 2007

Dr. Spencer D. MacNeil,
U.S. Army Corps of Engineers, Los Angeles District
P.O. Box 532711
Los Angeles, CA 90053-2325

Dr. Ralph G. Appy
Port of Los Angeles
425 S. Palos Verdes St
San Pedro, CA 90731

Re: TraPac EIS/EIR

Dear Dr. MacNeil & Dr. Appy,

On behalf of BC Laboratories, Inc., I am writing to support the EIS/EIR process for the TraPac Container Terminal Project, which represents an important step to ensure green growth at the Port of Los Angeles. BC Laboratories Inc. congratulates the Port of Los Angeles, commissioners and staff for producing the draft EIS/EIR – the first step in ensuring that our ports can efficiently manage expected growth while mitigating environmental impacts.

As you're well aware, the Ports of Los Angeles and Long Beach are a major economic driver, providing approximately 500,000 jobs in the greater five county region and more than 3 million jobs nationally. At the same time, the ports continue to grow at a staggering rate. Over the last 10 years, annual growth has averaged 10.7%. Last year, the ports grew a combined 11%, and demand is expected to at least double by 2020.

We firmly believe that port growth, and the appropriate accommodation of that growth, is critical not only to the Southern California and national economy, but also to our air quality.

Re-development of the TraPac terminal is an important step towards efficiently managing the expected growth in container volume and mitigating environmental impacts. Terminal efficiency will nearly double, while minimizing truck idling and increasing use of rail. As a result, the EIR shows that the proposed project will reduce emissions of green house gasses and criteria pollutants below baseline levels. The proposed project also meets the green growth goals of the CAAP and significantly reduces health risk to local communities through numerous environmental features. In addition, a 30-acre landscaped buffer zone separating the community from port operations would provide much needed green space and recreational facilities to community members.

BC Lab-1

Conversely, the "no project" alternative clearly shows that a failure to complete this project is detrimental to local and regional air quality in the local community and the region. In fact, even if no changes are made to the existing facility, the container cargo volume at the TraPac terminal is expected to nearly double without any of the environmental benefits of redeveloping the site. Moreover, it's clear that certain improvements can only be provided with the site redesign outlined in the EIR.

BC Lab-2

We believe that this project represents an important "green growth" initiative to provide more efficient goods movement through the Port of Los Angeles. We therefore support the project in concept, and encourage the Port of Los Angeles to continue moving the environmental review process forward to completion.

BC Lab-3

Sincerely,

Carolyn Jackson
President
BC Laboratories, Inc.

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www.bclabs.com

BC Laboratories, Inc., July 30, 2007

BC Lab-1. Your comment is appreciated and will be forwarded to the Board of Harbor Commissioners.

BC Lab-2. The comment is acknowledged and appreciated.

BC Lab-3. The comment is noted and will be forwarded to the Board of Harbor Commissioners for their consideration.