



November 6, 2019

Clerk's Office
California Air Resources Board (CARB)
1001 "I" Street
Sacramento, CA 95814

Subj: Comments on Proposed Control Measure for Ocean-Going Vessels at Berth

To CARB Staff:

I am writing to provide commentary on the proposed timeline for the design, permitting, construction, and testing of an At-Berth Shore Based Emission Control Program for tankers at California Ports. As an Oakland, CA resident and business owner, I share CARB's desire to implement regulations that achieve real world air quality goals.

My goal in writing is to share my experience as a California marine contractor – specifically as it applies to the lengthy project timelines of most marine projects in California and the reality of how difficult it is to move quickly through the phases of marine work. Marine projects routinely face regulatory hurdles and engineering constraints not found in land-based construction. These hurdles and constraints translate into long program schedules. I believe the timeline being considered for the proposed Control Measure is unrealistically short and doesn't consider the unique nature of designing, entitling, and constructing over-water structures and facilities.

As background, I am the President and Principle owner of Power Engineering Construction Co. We are a marine contractor based in Alameda, CA. The company has been in business for 33 years and I've been with the company for 27 years. Our business focuses on building and repairing in-water structures. Our slogan is "Engineering Construction near, on, and under the water". We routinely get involved in up-front preconstruction, design, and entitlement of marine structures and systems as part of the services we offer our clients. Our customer base is diverse and includes most major oil companies, a variety of municipal clients including SFPUC, the Port of San Francisco, WETA, and a range of private business owners working along the waterfront. For a small snapshot of projects we've completed throughout California, the attached graphic (**Exhibit A**) shows our recent San Francisco waterfront projects.

The range and breadth of our marine construction experience affords a unique perspective in how long it takes for a successful project to go from concept to operation. In general, we advise clients to expect a full project timeline of 8-10 years for a standard over-water marine facility. This timeline includes work from concept, through entitlement, to construction and operation.

One can quibble with the durations of individual tasks including site studies, engineering, the CEQA process, contracting, etc. However, empirically, all but the most basic marine construction projects prove to track into an 8 to 10-year timeline. The attached spreadsheet (**Exhibit B**) shows three example projects *outside* of the marine oil terminal industry that



support this assertion. Each of these projects was considered publicly desirable, faced little opposition, and each was managed by a very motivated team. Regardless, each example project followed a decadal life cycle due to the complexity of regulatory review, the challenges of over-water design, and the limitations and work windows imposed during construction.

While the three example projects demonstrate only a small sample size, these projects provide similarities to the work required to implement an At-Berth Emission Capture program. In a sense, the example projects provide a lower bound for the anticipated project duration as none was completed in an active marine terminal. An active marine fuel terminal imposes additional safety and scheduling constraints that generally result in longer construction durations.

Also, the three projects selected as examples do not consider one key element of the proposed new regulation: issues surrounding the technical feasibility of an At-Berth Shore Based Emission Control System. The Emission Capture equipment and supporting machinery will add to the overall project timeline through both feasibility testing and extended equipment procurement. The attached spreadsheet (**Exhibit C**) shows a sampling of recent heavy over-water equipment purchases (cranes and fuel loading arms) and demonstrates the additional timeline that may be required. One can assume the required emission control equipment, or the expansion of required electrical infrastructure, will follow a similar (if not longer) procurement cycle to these example purchases.

I believe the Proposed Emission Control Measure projects at California Marine Oil Terminals will likely take more than 10 years to design, permit, and construct when one considers the added on-going operational and safety issues. I ask the CARB staff to consider proposing on a minimum 10-year timeline for design, entitlement, and construction of an At-Berth Emission Control program in California Marine Terminals. This timeline should begin once a feasibility study is completed and appropriate emission control technology is proven to be readily available.

Should you have any questions, please contact me at 415-559-0097.

Sincerely;

Power Engineering Construction Co.

A handwritten signature in blue ink, appearing to read "David Mik", is written over the company name.

David Mik
President

Enclosed:

Exhibit A – Power Engineering Construction Co. example projects.

Exhibit B - examples of three relevant marine project timelines.

Exhibit C - examples of equipment procurement and installation timelines.

POWER
ENGINEERING CONSTRUCTION CO.

Ferry Building Pier Repairs

WETA Downtown SF Ferry Terminal Expansion

Pier 1 Seismic and Structural Upgrade

Pier 1.5 Water Taxi Dock Design-Build

Pier 3 Wharf Repairs

Pier 5 Substructure Strengthening

Pier 7 Wharf Repairs

Pier 9 Substructure Repairs

Pier 15 Water Taxi Dock Design-Build

Pier 15 & 17 Complete Pier Reconstruction

Pier 19 Dive Inspection & Repairs

Pier 23 Dive Inspection & Repairs

Pier 29 Wharf Repairs

Pier 29 & 31.5 Substructure Strengthening

Pier 31 Dive Inspection & Pile Testing

Pier 39 Timber Deck Replacement

Pier 43 Arch Foundation Improvements

Alcatraz Dive Inspection

Over Water Deck Extension to Alioto's

Rock Rip Rap Slope Improvements

Hyde Street Pier & Piling Repairs

Hyde Street Pier Hercules Berthing Dock

Fort Mason Rock Rip Rap Slope Improvements

China Basin Wharf Reconstruction

South Beach Harbor Marina Float Reconstruction

Pier 38 Below Deck Inspection

Pier 30-32 Inspection & Substructure Repairs

Pier 26 & 28 Inspection & Repairs

Pier 22.5 Emergency Pile Repairs

Pier 22.5 New Floating Fireboat Station 35
(in-progress)

Pier 52 Small Craft Dock Installation

Pier 50 Substructure Repairs

Pier 48 Substructure Repairs

Pier 40 Mooring Install

Pier 70 Pile Load Testing

SFPUC Southwest Ocean Outfall End Gate Replacement

WETA South San Francisco Ferry Terminal Design-Build

Oyster Point Marina Floating Breakwater

Oyster Point Marina Concrete Sheet Pile Wall

PG&E Hunters Point Tunnel Closures

Pier 1 Reconstruction

SF Marina Breakwater Seawall Repair

Christy Field Outfall Replacement

Presidio Pier Inspection

SFPUC Baker Street Outfall Repair

WHERE WE'VE WORKED
SAN FRANCISCO WATERFRONT
USA

