



July 27, 2020

Heather Arias
California Air Resources Board
1001 I Street
Sacramento, California 95812

Submitted Electronically

Comments on CARB Proposed At-Berth Regulation

Dear Ms. Arias:

On behalf of the Port of Hueneme (Port) we are submitting this comment letter on this final 15 Day version of the At Berth Regulation Draft. We appreciate the opportunity to comment on this draft regulation.

Our most important current comment is that we encourage CARB to ensure that the interim assessment be as robust as possible and consider compliance progress on a Port by Port, or terminal by terminal basis, as substantial differences in financial resources and physical characteristics will result in differing abilities to meet compliance deadlines. This is particularly critical during this pandemic and the hoped for, eventual economic recovery. As has been mentioned before, the assumptions of estimated vessel activity growth and subsequent increases in emissions will likely prove to have been overestimated for the smaller ports, which are going to struggle the most to fund and install the needed infrastructure to comply with the new rule without help from the State or Federal government.

Ports and terminals including the Port are going to need to invest millions of dollars into new infrastructure at a time when the economic vitality of the shipping industry is the most at risk. The Port has already begun preparation for the implementation of this new rule but it is critical to recognize the amount of detailed work that has to be completed before the Port can even get to the point of ordering new infrastructure equipment. All of this work has substantial costs and takes a great deal of time, particularly in today's world of socially distant work and online meetings. But the point is that operating the equipment required by the new rule is not as simple as paying for it, installing it and flipping a switch. To ensure that it works and that no one is harmed, Ports and terminals must very carefully plan and assess for this future. All of this work is done considering that to our knowledge no shoreside emissions capture system has ever been utilized to control the emissions of a RORO vessel. Therefore all of this effort is moving toward a completely new paradigm in ship emissions control.

To be able to comply with this new regulation, the Port's and terminals must assess all of the following which require substantial expense and time:

BOARD OF HARBOR COMMISSIONERS

Jess Herrera President
Jess Ramirez Vice President
Jason T. Hodge Secretary
Dr. Manuel M. Lopez Commissioner
Mary Anne Rooney Commissioner

PORT MANAGEMENT

Kristin Decas CEO & Port Director

Foreign Trade Zone #205



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1. Engineering: How much do systems like the emissions capture systems which will be required for RORO ships weigh? How will they be moved around the dockside? How large are these systems? Where can they be placed adjacent to a ship that is actively unloading cargo? Are the dock adjacent to the ship and any wharves over which it must travel strong enough to support the existing loads of cargo and equipment but also these emissions capture systems which are extremely heavy in their current iterations? How will these capture systems be physically connected to the vessels at berth? How will they be powered and refueled? Where will that power supply be located? Can this system be connected or the connection maintained when there are high winds or storms?
2. Financial: How much does the system cost? How does the Port gather the funds needed to pay for the emissions capture system in time for compliance requirements? How much will this system cost to operate per hour? How are those costs distributed? How much infrastructure is needed to power and move the system? We want to reiterate that the Port hope that the Board understands that at Hueneme it will not be “large multinational companies” paying for the infrastructure upgrades required for compliance, it will be the Port alone doing so.
3. Operations: How and where do you position an emissions capture system to not block cargo operations or pose a safety risk? When does the system need to be started prior to beginning operation? Will the positioning of the system to be ready once the vessel is made fast prevent access to bollards or other wharf features needed to safely secure a vessel to the berth? Will noise from the operation of the system prevent communication adjacent to the vessel side while it is berthed?
4. Safety: Can an emissions capture system safely operate adjacent to a RORO ship? Will vessel crew or labor have to work underneath or within the fall zone of the capture hose and nozzle and supporting crane? Within what wind speeds are these systems safe to operate? Will shoreside capture systems prevent safe securing of a vessel to the berth, such as blocking access to or compromising positioning of breast or spring lines? All of these considerations are critical to safely implementing an emissions capture system at the Port.

Additional questions which remain:

- Can bonnet systems be powered by Tier IV diesel generators? Will they be required to capture carbon emissions?
- If bonnet systems have to operate in zero emissions mode, the Port will need to work with our electrical utility to upgrade the service to the Port. This electrical service upgrade is of the magnitude of having a projected cost of \$40-60 million and taking 4-6 years to complete.
- Are projects installing infrastructure for compliance with this rule ineligible for public grant funds?
- How will compliance for seasonal vessel calls be handled under the new regulation? If a seasonal produce line only visits California ports three months of the year, would they be eligible for vessel incident exemptions?



The Port is committed to maintaining its critical role of being the economic engine for the region while growing its leadership in the path to a future of zero emission, sustainable goods movement. The Port envisions an equitable future in which economic opportunities and a clean, decarbonized environment are accessible locally and which both provide and give back to future generations.

Sincerely,

Giles Pettifor,
Environmental Manager



Previously Submitted Comments

On behalf of the Port of Hueneme we are submitting this comment letter on this final 15 Day version of the At Berth Regulation Draft. We appreciate the opportunity to comment on this draft regulation and encourage the California Air Resources Board (CARB) to consider delaying the implementation of these proposed changes as the hypothetical growth in future emissions is no longer possible given the current global economic depression.

Corona Virus Pandemic

It is imperative that CARB appreciate how serious the dire economic situation that is developing internationally will affect California's citizens and their ability to do basic things like pay rent and put on their family's table. With record unemployment and the wheels of trade grinding to a sudden stop an unprecedented downturn is beginning which will reverberate through our economy for many months to come. California's ports and their cargo movements partners are already struggling to continue the essential jobs of moving goods and essential equipment like fresh foods and medical equipment, and are witnessing ongoing decreases in vessel calls.

At the present time it is impossible for us to forecast the full impacts associated with this global pandemic, however based on the current status of unemployment filings within the U.S. (more than 26 million in 6 weeks), the level of small business stimulus already exhausted at the National level (\$365 billion), it is clear that the US economy whose circulatory system is goods movement is in the early stages of a massive economic depression. Initial estimates based on the current data available are estimating that this downturn will be the most severe since the great depression of nearly 100 years ago.

CARB has long argued that the expansion of the current At Berth rule is required due to the growth in emissions over the next decade from unregulated vessel calls. CARB forecasted that significant increase emissions will result from growth in vessel calls to the California ports. The COVID pandemic is going to significantly curtail ship calls to the ports of California for several years at a minimum. Therefore this spike of emissions this rule seeks to curtail will not be occurring. As this forecasted increase in emissions is no longer going to occur as vessel calls will be falling the projected health impacts will not happen and therefore the health benefits claimed in the Initial Statement of Reasons (ISOR) also will not occur. However if it continues to be implemented as planned regardless of the current situation the costs will remain and may likely increase due to the difficulty of working and planning during the pandemic.



If this rule change goes forward with no emissions to curtail but still forces ports and terminals to invest hundreds of millions of dollars in infrastructure that will not be utilized, CARB is going to be putting a huge economic handicap on the California ports and putting the entire State and its economy at a significant competitive disadvantage just as the economy is trying to recover post-COVID. Raising the cost of doing business in the State at the time when all ports nationwide are scrambling to get business is the opposite of how to help the California economy and families recover from this economic devastation. This is indisputable, and those impacts will likely be felt the most greatly at the State's smaller ports including Hueneme.

Hueneme Specific Situation:

While ports statewide will see reductions of vessel calls and impacts, of greatest concern locally is the Port and its impacts. The auto cargo moving through the Port generates nearly 60% of the Port's annual revenue.

Facts about Hueneme and Auto related trade:

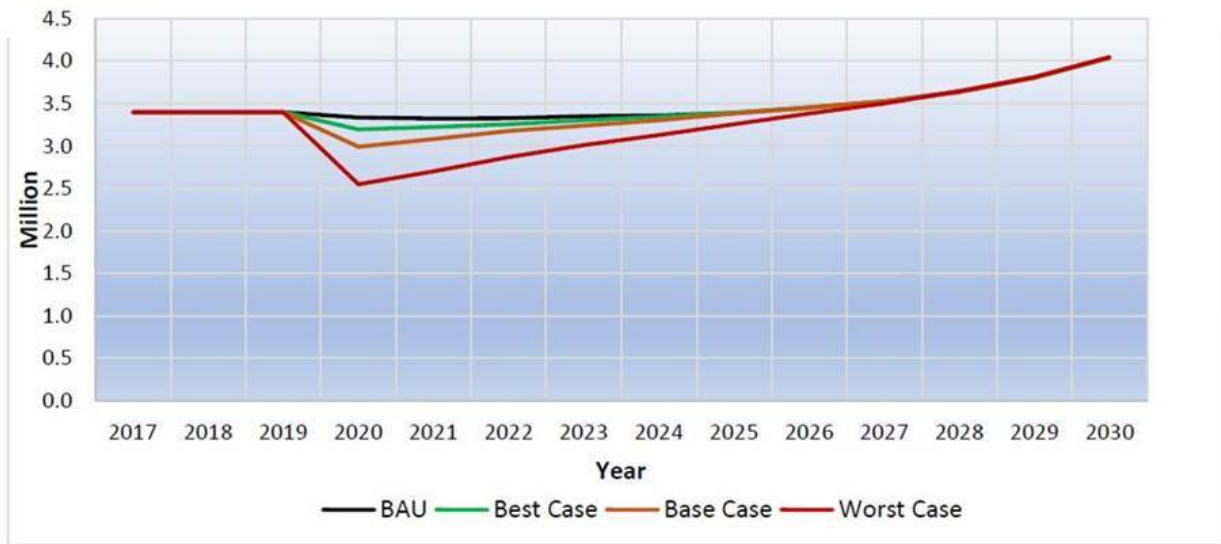
- 85% of our imported value annually is cars
- 33% of our imported tonnage annually is cars
- 40% of our exported value annually is cars
- 17% of our exported tonnage annually is cars

Forecasts for the global auto industry predict as much as a 20% decrease in sales from 2019 in 2020. In addition, 6 of the Port's top 10 partners by value of trade have shut down automotive production due to COVID-19 prevention. Also, 60% of our trading partners by value (cars) have shut down their automotive production plants to prevent virus spread. This link shows the numbers and countries we do business with, top commodity by value for import and export at the Port of Hueneme is cars.

<https://www.ustradenumbers.com/port/port-hueneme-calif/>

- ▶ **Best Case** - A fall in volume in 2020 of **0.14m** units (-4.1% from BAU, -6% from 2019)
- ▶ **Base Case** - A fall in volume in 2020 of **0.34m** units (-10.2% from BAU, -12% from 2019)
- ▶ **Worst Case** - A fall in volume in 2020 of **0.78m** units (-23.5% from BAU, -25% from 2019)

Figure 5.1 Rest of North America Automotive Sales Volume Forecast BAU Under 3 Scenarios 2017-2030 (units)



So in review the growth of emissions is going to happen, the health impacts will not thus result, and thus it will be impossible to achieve the economic benefits of mitigating those impacts, and yet the costs remain and may increase. Instituting a regulation with all of the costs and none of the benefits is in short, poor public policy making. Unfortunately at this time this regulation change cannot be justified.

It is also imperative that regulators fully appreciate the ongoing challenges of operating a heavily utilized shorepower system. The Port has been endeavoring since its installation to make available to its customers a fully functional array of shorepower vaults to facilitate their compliance and enable the incredible emissions reductions made possible by the current regulations. Nearly six years after the implementation of this regulation, the ports around the State continue to struggle to meet the requirements of this regulation in its current form. The lead times in acquiring parts, availability of qualified vendors to conduct repairs or maintenance all continue to be challenges which can lead to unavailability of shorepower vaults sometimes for weeks on end. For example, the Port just two weeks ago had the annual preventative maintenance completed on its six vaults by the qualified electrical contractor. Less than two weeks later several of the vaults have been plagued by outages with no clear source of faults. These systems are complicated, expensive and dangerous to operate. However, that being said the Port is fully committed to continuing the operation of these systems



The Port
OF Hueneme
Oxnard Harbor District



We write today to provide comment on the proposed rewrite of the Control Measure for Ocean-Going Vessels At Berth regulation. This letter presents the Port of Hueneme's (Port) updated comments on status of California Air Resources Board's (CARB) new proposed At Berth Regulations. In light of our extensive comments which are reproduced below unchanged from our 2017 and 2019 comments, we will update CARB with briefer commentary herein which is largely based upon the information and discussion conducted at the recent CARB Board meeting on December 5, 2019.

- The Port would first like to state unequivocally that it is in full support of regulating the emissions from Ocean Going Vessels (OGV) and has partnered with CARB and our local air district to achieve substantial emission reduction progress since the implementation of the first At Berth regulation. Thanks to the combination of the clean fuel rules and the current At Berth regulation **the Port has seen as greater than 84% reduction in the emission of diesel particulate matter from OGV at berth in the Port since 2008.**
- The Port believes that this rule rewrite has the potential to achieve further emissions reductions from OGV, however in order to ensure that the Port can continue its role as the engine which drives substantial regional economic activity, enabling employment of more than 15,000 people, these proposed revisions must be conducted in a manner which pursue the most cost effective reductions in emissions. For the Port, CARB is seeking to apply requirements for further emissions reductions which would be nearly completely reliant upon a technology that is not currently commercially available and is not yet approved for use by CARB. This alternative control system (ACT) will likely be a system which captures emissions from OGV and physically or chemically removes the pollutants from the exhaust gases. These systems are large, heavy, and technically complicated in their design and operation. The implementation of one of these systems at the Port will take substantial resources and time. **This is not to imply that the Port is in opposition to the use of an ACT system for emissions reductions in any way!** However as a steward of public funds the Port does not take lightly the responsibility of investing in a yet unproven technology which may have a cost equivalent to a third of its annual revenue.
- The CARB Board seemed during the December 5th meeting to favor moving the date of compliance for requiring an ACT for Roll On Roll Off (RORO) vessels from 2025 to 2023. At the present time the Port presumes that the State of California will require that the ACT system operate as a zero emission system which will require it to be powered by electrical power. Current barge based emissions capture systems use diesel fuel and produce significant emissions through the use of heavy machinery and generators to power the emissions filter process. Presently the Port is nearly at the maximum of its available electrical power ceiling as it seeks to continue the implementation of zero emission technologies on Port. Adding additional power load to the Port will require additional power supply from its utility provider Southern California Edison (SCE). SCE has notified the Port that the regional circuitry upgrades needed to supply the Port with additional power will be of such scale as to take three to five years to complete and cost \$30-50 million dollars. This utility upgrade would preclude the Port from being able to operate a zero emissions ACT by 2023.
- As noted, the annual revenue of the Port is approximately \$16-18 million dollars annually. It is estimated that additional shoreside power capacity at the Port would cost approximately \$20 million dollars. An ACT system for the Port is estimated to cost \$5-7 million dollars.

Additionally, the Port has only six major customers which move cargo through the Port enabling those 15,000 jobs. As noted in previous comment letters, some of the communities surrounding the Port are State designated disadvantaged communities and the Port takes seriously its role of providing the types of jobs which can enable individuals to reach ladders of opportunity. Port related jobs can bring families out of poverty and are increasingly uncommon in the state of growing economic disparity in Ventura County and the State in general. The loss of a single customer would have major economic implications to the surrounding region as each direct Port job has a multiplier creating an additional five to six jobs in the community.

- During the meeting on the 5th, many in the audience and the Commissioners stated that it would be “large multinational corporations” who would be forced to pay for these regulations and therefore the impact would be minimal amongst the “billions” which these corporations make in profits. Unfortunately, the reality is that most of the cost of these regulations will be carried by the State’s ports. Goods movement is a global system of connectivity which is structured to move goods from their location of manufacture to their location of consumption. The “large multinational corporations” involved in this process have a growing amount of choice when it comes to choosing a path through this supply chain and the ports of California are not their only choice for offloading their goods. Ports in the Gulf of Mexico and in other states along the Pacific Coast can be significantly cheaper. Rates of cargo diversion away from California will increase as California ports raise their rates to help fund the needed infrastructure improvements required by these new regulations. California ports will continue to lose market share and employment opportunities for local citizens, especially in areas already suffering from a lack of middle class jobs as the costs of doing business in California continues to increase. Additionally, the local demand for goods shipped from overseas will not diminish and that market will continue to demand fast cheap shipping for a plethora of goods from fresh produce to consumer goods. These goods will still have to reach consumers in California and when shipped into out of State ports will be trucked back into local stores and warehouses resulting in significant net increases in emissions of toxic pollutants and greenhouse gases.
- As part of its conversations with CARB over the last two years of the development of this proposed regulation, the Port has sought to make clear to the CARB staff how unique the characteristics of the Port are, and how these characteristics directly impact how it would comply with the proposed regulation. Due to our size and physical constraints solutions that work for ports like Los Angeles or Oakland are typically not well suited for application at Hueneme. However, the Port sought to show CARB that we are in full support of their goals to further reduce emissions from the Port. Thus, in an effort to help ensure that currently uncaptured emissions originating from the at berth time of the currently unregulated fleet could be reduced in the most cost effective way, the Port put together a list of potential projects which could achieve significant emissions reductions in the near term future and potentially at a lower cost. These “alternatives” were brought forward in a good faith effort to show the potential for in-lieu emissions reductions which could be financed in part by those customers of the Port in the unregulated fleets. Following months of collaborative communication with CARB staff, it was unexpected to the Port that the discussion at the December 5th meeting centered around these projects in no way being undertaken in lieu of the new requirements and could be required in the interim when direct compliance was infeasible on the short term. Thus it appears that CARB intends to require the Port and its customers operating RORO vessels be required to implement



the alternative projects which the Port proposed on an earlier timeline and not in lieu of any of the requirements of the proposed regulations. As noted by some of the audience members the operation of a modern seaport berth is a highly technical, dangerous, and expensive ballet of many players all of whom play a part in successfully moving cargo safely and efficiently. In applying new regulations into this system, the “devil is in the details,” as noted by several CARB Board members during the meeting on the 5th. As implied by Board members during this meeting, if CARB were to propose a scheme in which the alternative projects proposed by the Port were to be required as a short term compliance step, any such regulation would have to ensure that it was procedurally and legally sound, scientifically valid, and equitable to those parties subject to the rule.

- In closing the Port wishes to reiterate again, that it is fully on-board with further reducing emissions from its operations and has multiple efforts underway at present including:
 - Writing in conjunction with the Ventura County Air Pollution Control District, its own clean air plan which will assess a brand new emission inventory for all Port activities and operations; and
 - Has just installed the first reference grade air quality monitors at a local elementary school which once running and calibrated will provide current air quality information to the local community; and
 - Writing a Port wide electrical master plan which will help to guide the extensive engineering analyses and future scenario assessment needed to continue the Port on its plans toward zero emissions; and
 - In 2020 installing infrastructure including switchgear, transformers, conduit and plugs to plug in a new generation of zero emission electric cargo handling equipment at the Port, and
 - Will be operating in conjunction with partners, an electric hybrid mobile harbor crane as well as a zero emissions hydrogen fuel cell Class 8 heavy duty truck prototype, and the first electric terminal trucks within the next two years.

The Port is committed to maintaining its critical role of being the economic engine for the region while growing its leadership in the path to a future of zero emission, sustainable goods movement. The Port envisions an equitable future in which economic opportunities and a clean, decarbonized environment are accessible locally and which both provide and give back to future generations.

Sincerely,

Giles Pettifor,
Environmental Manager



The Port
OF HUENEME
Oxnard Harbor District



Spring 2019 Comments:

Our comments on the current process include:

- It is imperative that CARB identify the potential for real and profound economic impacts (especially at smaller, niche ports) as well as increased state-wide emissions, (from the diversion of cargo to out of state ports) which may result from increased costs associated with the proposed regulation. Without a cost benefit analysis on a port by port basis the real impact of these changes cannot be ascertained. The Port wishes to document its request prior to **CARB's moving forward that the regulation process must include the completion of a full cost benefit analysis at each of the subject ports!** These costs should be made clear in comparison against the quantity of emissions that will be reduced at each individual port subject to the new regulations.
- **CARB needs to identify the quantified emission reductions it is seeking to achieve via the implementation of the new regulations.** This targeted volume reduction should then be applied to the modelled emissions of each port, on a port by port basis to determine what is the scientifically calculated emission reduction goal. Bringing verified, valid emissions data into the analyses for this regulatory process will ensure that the cost benefit analysis, which must accompany this effort, is as accurate as possible. The emissions of each port are different as well as the basin status and these characteristics should be reflected in CARB's analyses.
- CARB estimates of **port emissions for each port subject to the regulations should be scientifically valid, using the best available science and valid methodologies** that both CARB and the subject ports concur are valid. CARB's reduction target should be applied to the agreed upon inventory emissions amount to ensure fair calculation of responsibility.
- **The costs of proposed emissions reductions should be grounded in emissions costs generated for other similar State programs** such as the Carl Moyer technology retrofit program.
- Many ports statewide, including the Port, are investing in developing air quality plans specifically tailored to their own emissions inventory, physical and logistical characteristics of their cargo and waterfront setting, as well as their own community inputs and resource availability. These **local plans should be recognized when appropriate as real alternatives to the regulations and are avenues to emission reduction opportunities not currently contemplated by CARB as they are quantifying strategies to meet emission reduction goals.**



As follows the original fall of 2017 Comment Letter from the Port to CARB:

I. Introduction

The Port of Hueneme (Port) would like to thank the California Air Resources Board (CARB) for this opportunity to provide formal comments on the proposed amendments to the existing At Berth Regulations. The Port enjoys a long history of working cooperatively with both CARB and the Ventura County Air Pollution Control District (APCD) and looks forward to continuing these productive relationships to ensure success in future emission reduction programs.

Our collective efforts realized the installation of shoreside power vault and substation systems to enable the plug in of regulated refrigerated vessel fleets. At the forefront of new and innovative technologies, California leads not only the nation, but the world with shoreside capabilities. In leading the world with clean technology, we become the first to learn how to tackle the challenges inevitable with new technologies. This comment letter puts forth recommendations to address those challenges and respectfully requests that getting the first phase of the regulations perfected be the main purpose of the at-berth regulation amendments.

In the workshops of August 28 and September 7, 2017, CARB presented the concept of expanding its regulatory authority to new fleets, a concept which need thoughtful consideration, particularly as we continue to iron out the challenges with existing systems under the current regulations. As a partner in sustainable economic development, we urge CARB to consider the potential of very real impacts to local economies and pursue a cost-benefit analysis of the socio-economic impacts of the proposed amendments prior to promulgation of regulations mandating requirements on all vessel calls. Further, the true air quality benefit to a given air quality basin coupled with the actual costs of the expanded amendments needs to be fully understood to ensure the enactment of sound public policy consistent with the Governor's Executive Order B-32-15¹ which calls for transitions to zero emission, efficiency and increased competitiveness.

The Port appreciates the challenge CARB faces in drafting these regulations with a level of detail and forethought which accounts for the inherent complexities of the global maritime industry as well as the unique characteristics of California's ports and in a way which does not place an undue burden on these ports and put them at a competitive disadvantage. Working together we can find a solution that meets our mutual goals. The following comments provide important data and strategies to best inform future policy and regulation specific to the Port of Hueneme. The ultimate goal being to find a tangible pathway forward to achieve ambitious air quality improvements while supporting the economic backbone of socioeconomically distressed communities.

II. Environmental Profile

Port of Hueneme's Environmental Framework

Located at nexus of vibrant coastal communities, precious coastal wetlands, and Pacific Ocean pathways to our global trade partners, the Port takes very seriously its stewardship of the environment. As part of

¹ http://dot.ca.gov/hq/tpp/offices/ogm/cs_freight_action_plan/main.html



this responsibility the Port focuses particularly on its surrounding communities of Oxnard and Port Hueneme, its commissioning jurisdictions. The Port exists to serve these communities as an economic center providing employment, tax revenue and trade benefits for local citizens. The Port also strives to minimize potential impacts to these communities as it is nestled in adjacent to homes, schools and businesses. Due to the proximity of these sensitive receptors, air quality is of particular interest to the Port, and the Port works every day to take steps to minimize impacts to air quality. In an effort to demonstrate the seriousness with which the Port takes these duties of protecting the environment, the Port adopted an Environmental Management Framework (EMF) in 2012. The EMF outlines the strategic efforts the Port will undertake to protect the environment, and covers eight environmental elements including:

1. Community engagement
2. Sustainability
3. Air Quality
4. Water Quality
5. Soil and sediment
6. Marine resources
7. Energy management
8. Climate change adaptation

Since adopting this proactive agenda of sustainability, the Port has pursued the integration of the elements of the EMF into its daily operations as well as long term planning. Progress has been made every year since, and in 2016 the Port became the first port in California to be certified by Green Marine, the preeminent third party environmental certification organization for marine facilities. The Port is fully committed to making environmental progress in every way that it can as it grows and changes with the global economy.

While the Port moves forward with the implementation of its EMF, it must work to expend its limited resources in a manner that balances maintenance of critical Port infrastructure with investments in new equipment and technology which help the Port to comply with regulations and improve environmental performance. For this reason, the Port is continually looking for solutions that are both cost efficient and effective for the Port's characteristics, its operations and the local community.

The Port is unique in many ways that set it apart from both the large Ports of Los Angeles/Long Beach (LA/LB) and other smaller ports like San Diego or Stockton. As the Port was constructed with private funds in the 1930's it is not a California State Tidelands Port, which gives the Port more control over its operations, more accountability directly to its commissioning communities and the ability to operate more nimbly. The Port operates on 120 dockside acres and while this is smaller than other ports, the Port is very efficient with its limited space and constantly strives to use every bit of it as efficiently as possible.

III. Port Hueneme's Air Quality Basin and Port Emissions

RECOMMENDATION: Apply the attainment status of Ventura County air basin to any regulation impacting the Port and consider the emissions data and growth rates specific to the Port as opposed to that of the LA/LB air basin or the Ports of LA/LB.



Air quality regulation respective to a port or similar emission source should begin with a very simple analysis with two major local components:

1. Basin Status - Historical and current air quality within the basin in which the port operates.
2. Emissions - Current and estimated future quantity and quality of the port's emissions.

When beginning with these two components, it becomes clear how different the Port is from LA/LB.

1. Basin Status

It is not just the Port's physical setting and operations which are different from nearby LA/LB, the air quality within its surrounding basin is also very different. Table 1 presents the projected dates of attainment with National Ambient Air Quality Standards (NAAQS) for the air basins surrounding both the Port and LA/LB. The ozone standards are shown as this pollutant has the potential to exacerbate respiratory illness symptoms in sensitive populations including children and the elderly and those with inflammatory airways or asthma, and is of particular concern for community health activists.

Ozone Standard	Attainment Date	
	VC Basin	LA Basin
2008 - 8hr.	2020	2032
2015 - 8hr.	2026	2037

Table 1 Comparison Dates of NAAQS Attainment for Ventura County and Los Angeles Air Basins

Table 1 makes clear that the air quality within the air basin around the Port is now and will continue to be substantially better than that of LA/LB. The air quality within Ventura County has steadily improved during the last twenty five years even while the County's population has grown by more than 30% during that time period as clearly shown in Figure 1. Despite this growth in population, Figure 2 shows that the average ozone concentrations within the County have decreased over time, driving the reductions in days over the NAAQS metric that are shown in Figure 1.

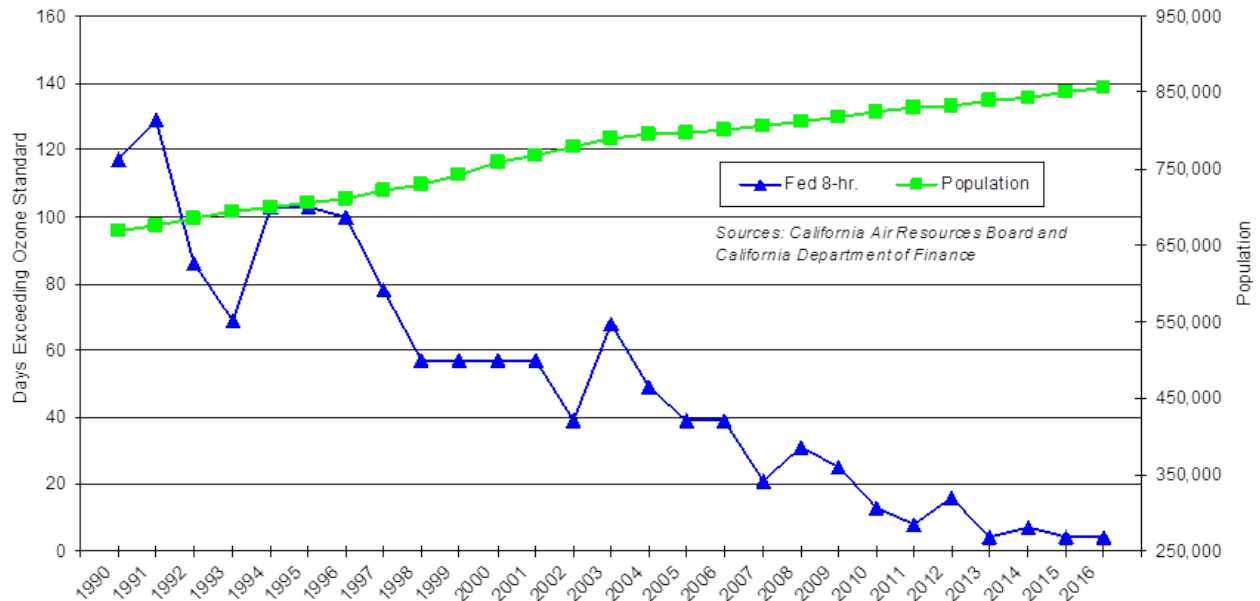


Figure 1 Ventura County Days Over Federal Ozone Standard vs. Population Growth.

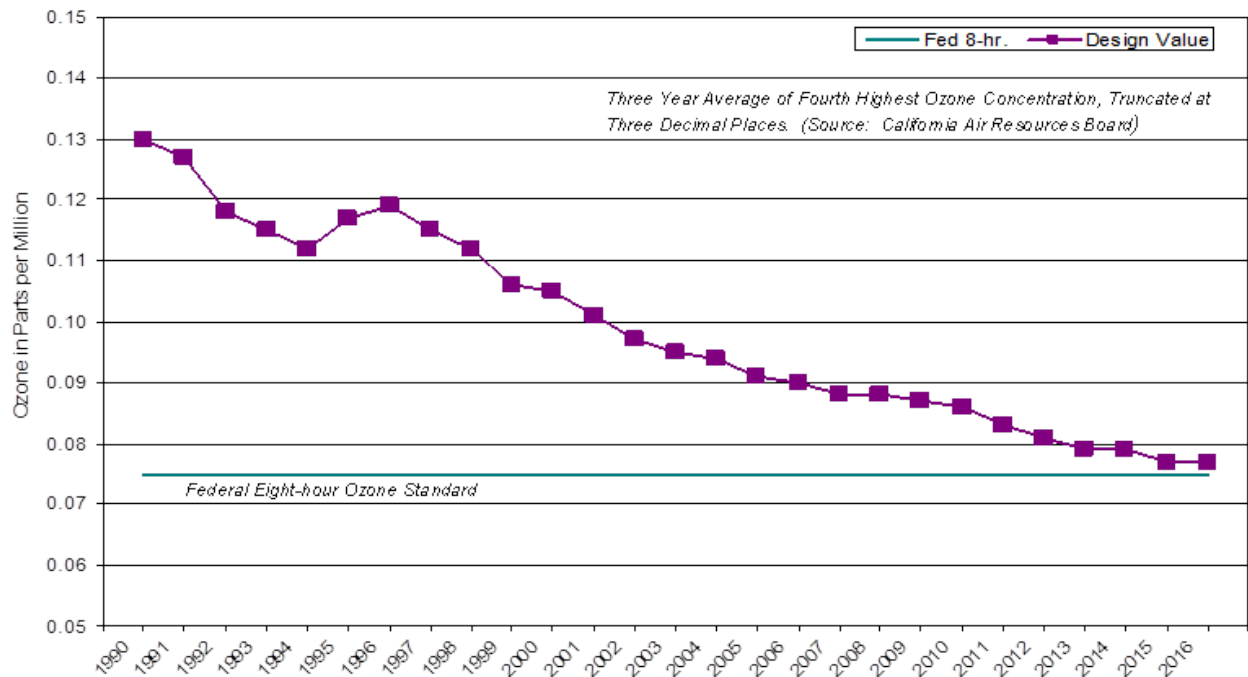


Figure 2 Ventura County 8-Hour Ozone Values

2. Emissions

OGV Emissions



Not only is the Ventura County air quality substantially better than that of the LA basin, a great deal of the air pollution within the air basins of Ventura County come from emissions from ocean going vessel (OGV) traffic offshore that is bound for LA/LB. The air basin over Ventura County extends three nautical miles offshore and is called the South Central Coast (SCC) Basin, while the basin which extends from three to one hundred nautical miles offshore is called the Outer Continental Shelf (OCS) Basin. CARB calculates attainment status for the SCC Basin using a photochemical model which incorporates emissions from both basins, meaning that transitory OGV emissions from LA/LB bound vessels in the OCS directly impact air quality in the SCC. When the pollutant quantities emitted by OGVs in both basins are analyzed, it becomes clear how much of a negative contribution is made by the OCS OGV, passing inside of the Channel Islands, as the majority of trans-Pacific traffic does, in transit to LA/LB.

Table 2 shows the estimated pollution contribution from OGV in both the SCC and OCS basins, while Figure 3 uses these numbers to clearly show how much greater the OCS portion is than that of the SCC basin, where the Port is located and represents a considerably low contribution to the problem.

		2020		2035	
Basin		ROG	NO _x	ROG	NO _x
OGV Emissions*	SCC	0.04	0.84	0.06	1.07
	OCS	0.86	12.54	1.6	9.63

Table 2. Emissions from Ocean Going Vessels within Ventura County SCC and OCS Basins²

² Ventura County Air Pollution Control District. *Final 2016 Air Quality Management Plan*. 2016

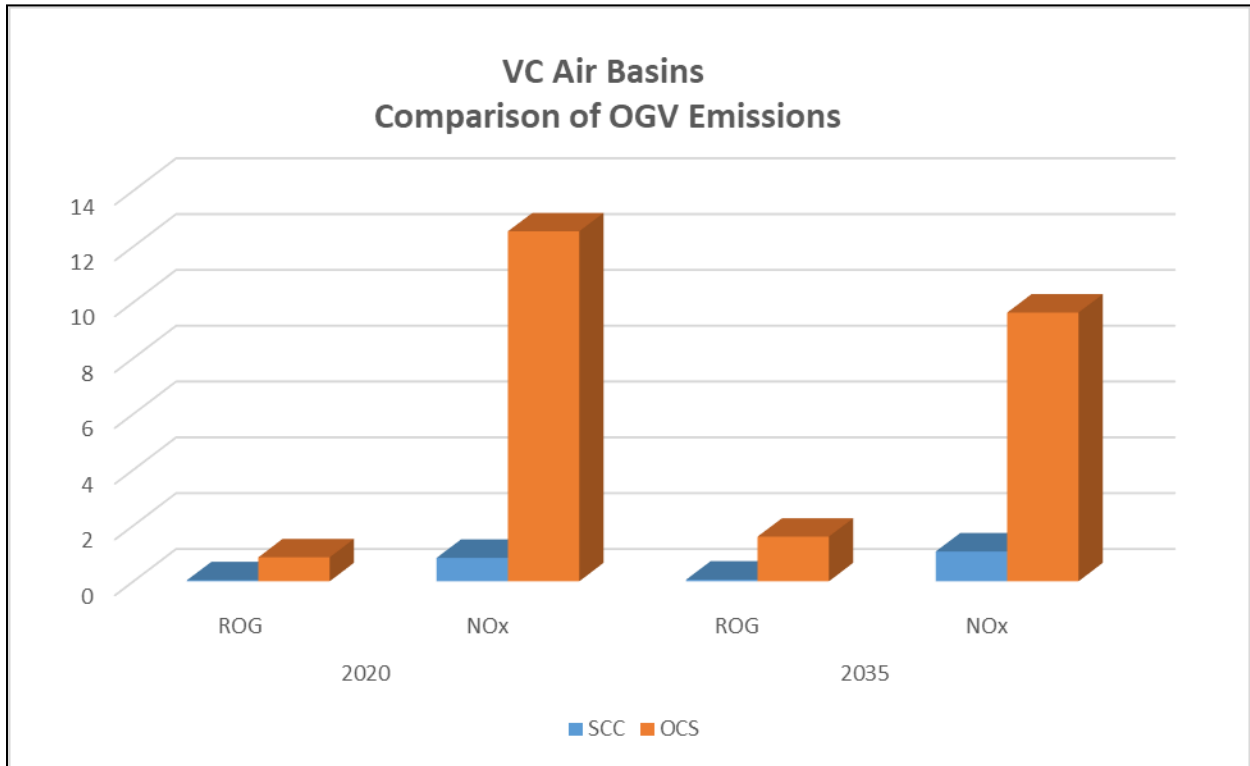


Figure 3. Emissions from Ocean Going Vessels within Ventura County SCC and OCS Basins

These numbers make it clear that Ventura County is coming from a very different place with regards to ambient air pollution levels. Essentially, the Ventura County basin’s status quo is so much lower than LA/LB that it does not make sense to apply the same assumptions about emission related impacts for the Port. This point is extremely important to the proposed regulation amendments.

CARB’s ongoing emission inventory analysis makes assumptions about growth rates of OGV business at California ports. CARB is applying estimated growth in OGV traffic in various vessel classes to calculate growth in emissions, rationalized by the assumption that more OGV activity means more engine use, which equates to proportional increases in emissions. During this process, the ports were lumped into regions for simplified assessments. The Port was thus included in the same region as LA/LB. Consequently, the growth rate of a significantly larger port complex with extremely different growth estimates was used in the emissions calculations as a surrogate for the Port. Due to a number of reasons, including the size constraints of the Port’s berths and shore-side area, the growth rates of LA/LB are in no way accurate for the Port, and would grossly overestimate the anticipated growth of the Port and its future emissions. This would in turn overestimate the potential for impact on local air quality and potential for human health effects. The inaccurate growth numbers CARB used for the Port were: an increase in refrigerated carriers by almost 44% and roll-on roll-off vessels of over 80% by 2025. The Port has calculated as part of its own business planning a more modest growth rate of approximately 30% over 30 years. The emissions associated with this growth forecast should be applied to any policy impacting the Port.



Criteria Pollutant Emissions

Within the air basin of Ventura County, the Port is a fairly small contributor of pollutants as evidenced in Table 3. The Port's emissions of all of the assessed criteria pollutants, except NO_x, contribute less than one percent of the Ventura County SCC air basin's totals! The Port has worked in the last decade to implement operational changes and new technologies to reduce emissions, such as the addition of shore power, and through investments in efficiencies to reduce delays in cargo movement. In comparison to the Port's 2008 emissions, and despite an increase in vessel calls and goods throughput, the Port has seen a reduction in nearly all of assessed criteria pollutants including carbon dioxide, VOCs, particulate matter and SO_x.

Port of Hueneme Compared to Port of LA, VCAPCD, SCAQMD Emissions						
Criteria Pollutants	VOC tons/day	CO tons/day	NO_x tons/day	PM 10 tons/ day	PM 2.5 tons/day	SO_x tons/day
Port of Hueneme Total	0.05	0.2	1.6	0.02	0.01	0.01
Total VCAPCD Emissions	45	169.5	60	29.1	10.5	17.0
Port of Los Angeles	1.1	5.2	22	0.4	0.4	0.4
SCAQMD Total Emissions	640	2,735	673	346	127	70
Port of Hueneme % of VCAPCD	0.1%	0.1%	2.7%	0.06%	0.1%	0.1%
Port of LA % of SCAQMD	0.2%	0.2%	3.2%	0.12%	0.3%	0.5%

Table 3. Port Hueneme Emissions Contribution to VCAPCD Totals³

³ VCAPCD emissions data obtained from California Air Resources Board. 2015. https://www.arb.ca.gov/app/emsinv/emssumcat_query.php?F_YR=2015&F_DIV=-4&F_SEASON=A&SP=2009&F_AREA=DIS&F_DIS=VEN. (accessed September 2017).

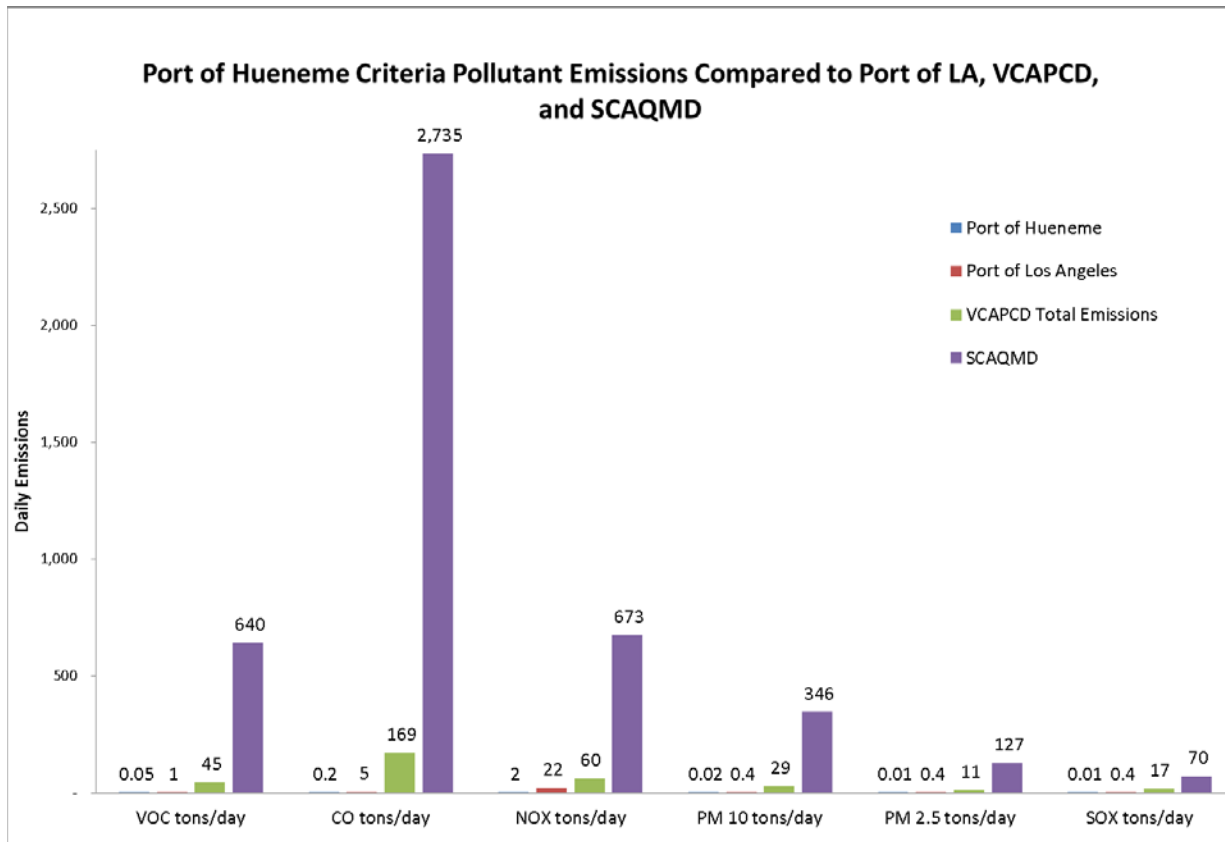


Figure 4. Emissions Comparison of Port of Hueneme to VCAPCD, Port of LA, and SCAQMD⁴

IV. Economic Profile

RECOMMENDATION: Perform a robust cost-benefit analysis to understand the impacts of the proposed Amendments to the At-Berth Regulations to both the economy and the environment for the various business segments proposed to be regulated.

State of the Local Economy and the Importance of the Port

The Port is one of the most productive and efficient commercial trade gateways for niche cargo on the West Coast. The Port is governed by five locally elected Port Commissioners from the communities of Oxnard and Port Hueneme. The Port moves \$9 billion in goods each year and consistently ranks among the top ten U.S. ports for automobiles and fresh produce. Port operations support the community by bringing \$1.5 billion in economic activity and creating 13,633 trade-related jobs. Trade through the Port

⁴ California Environmental Protection Agency Air Resources Board. 2015 Estimated Annual Average Emissions: South Coast AQMD https://www.arb.ca.gov/app/emsinv/emseic1_query.php (accessed September 2017). South Coast Air Quality Management District. Final 2016 Air Quality Management Plan 2017 <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15> (accessed September 2017).



generates more than \$93 million in direct and related state and local taxes, which fund vital community services.

As shown in Table 4, the median household income in Oxnard is \$54,524 and \$49,627 in Port Hueneme. Both Oxnard and Port Hueneme median household incomes are lower than Ventura County’s \$71,451. Oxnard median household income is lower than the state of California and Port Hueneme median household income is also lower than California’s level of \$58,916. Port Hueneme’s per capita income is 33 percent less than Ventura County and Oxnard’s per capita income is even less than the county per capita income, measuring at 42 percent less.

	California	Ventura County	Oxnard	Port Hueneme
Income: 2014B				
Average Household Income	\$87,744	\$99,452	\$74,377	\$64,251
Median Household Income	\$58,916	\$71,451	\$54,524	\$49,627
Per Capita Income	\$30,268	\$32,724	\$18,921	\$21,889
Avg Income Growth 2000-2010	33.0%	31.1%	26.6%	30.9%
Avg Income Growth 2014B-2019	15.3%	14.0%	14.9%	13.8%

Table 4. Median Household Income & Per Capita Income (2014)⁵

Poverty and Misery Index

The measure is an index known as the “Misery Index,” which is made up of eight socioeconomic indicators, applied to 11 areas (called Neighborhood for Learning or NfLs) in Ventura County. The eight indicators are: the poverty rate among children age 5 and under; the percentage of women-led households with children 5 and younger who are below the poverty line; the percentage of adults 25 and older without a high school diploma; the percentage of people who speak English “less than very well”; the portion of schoolchildren eligible for subsidized lunches; the portion of students classified as English learners; and the percentage of students who tested at “below proficient” for math and language arts. The percentages are added together and weighted equally for the index.

As seen in Table 5, this index illustrates the deep socioeconomic divides in Ventura County. At one end of the spectrum is Oak Park, where more than 98 percent of the adult population has a high school diploma, and not a single child under the age of 6 lived below the poverty line in 2011. Oak Park’s score on the index the sum of the percentages on eight different risk measures — was 37.2, less than one-third the score of the next area, the Conejo Valley. In Oxnard, El Rio and Port Hueneme the total index was more than 10 times as high as Oak Park. In El Rio, for example, 45.9 percent of households led by a woman, with children 5 or younger, were living in poverty.

⁵ 2015, Easy Analytic Software, Inc.(EASI®) All Rights Reserved, Alteryx, Inc.

**“Misery Index” for Ventura County
Neighborhoods for Learning (NFL) (2011)**

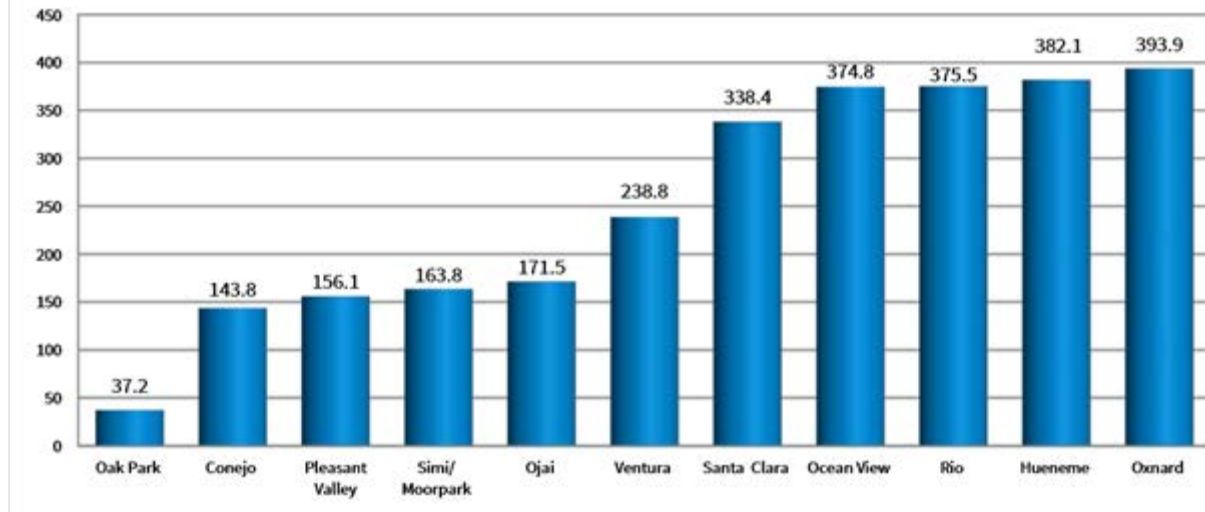


Table 5. Misery Index for Ventura County (2011)⁶

Business Environment and Challenges of At Berth Regulations

Automotive Category

Cargo throughput at the Port is dominated by two product lines, fresh fruit and automobiles. While demand and business for fresh fruit is fairly constant, the demand for automobiles is much more elastic and subject to broader global economic influences. The American public will likely purchase a banana in good economic times and bad, yet that is not the case with automobiles. In general, automobile transportation is a competitive business in which margins are small and competition is significant between carriers and amongst ports seeking to attract new business. In addition, many global carrier companies have large fleets of roll on roll off (RORO) vessels which travel on global routes that frequently change following the demand for specific product. For example, a global shipping company that has a significant presence in the Port and globally operates a fleet of approximately 120 RORO vessels, may only have half of their fleet call at the Port on an average year. Often, one vessel will call on the Port once a year, or once every two to five years. Due to the high costs to retrofit even a single vessel, this company would be very unlikely to retrofit all sixty vessels in order to comply with the proposed amendments. Thus, two choices would remain: the Port could purchase an emissions capture system for use by this company, or they could choose to move some portion of their automobile business to ports outside of California. The emission capture system would likely have to be a shore-side system as the Port does not have the space to be able to operate a barge mounted system and continue normal vessel operations. Yet, no shore-side systems are available as of yet, nor are any approved for use by CARB. This is an uncertain option to base compliance plans upon.

⁶ VCCA 2015 State of the Region Ventura County Report



If shipping lines chose to pursue the retrofit of a few vessels, they would become the only ones capable of calling at California ports. However, this places the company at a disadvantage globally by having the entire state of California only serviceable by a specific set of vessels and not others. This is problematic for air quality as well, as the shipping lines will have to operate inefficiently. When vessels are not being used efficiently it results in greater emissions and high costs to the consumer. Logistically, many shipping lines will begin to look to the Pacific Northwest and Gulf ports to import their automobiles. Once imported, they will simply place them on trucks or rail and send them to California. The demand is in California, and they will find the cheapest way to get the automobiles here. Furthermore, this option leads to much more air pollution, the very consequence CARB is working so diligently to reduce.

John Martin, a nationally recognized maritime economist, conducted a study on the economic impact of the Port of Hueneme. He concluded that the Port is responsible for over 13,633 jobs, and \$1.5 billion in economic activity for the region. The study also highlighted the Port's \$93 million annual contribution to state and local taxes. If our customers decide to ship to other states, these jobs, economic activity, and tax revenues will be lost. Being located in a disadvantaged community where the city of Oxnard has a 24% poverty rate, higher than the state's average, makes the economic opportunity of the Port paramount to the citizens of this region. The Port not only provides jobs, but family sustaining jobs.

The Port's customers are not exempt from property taxes because they purchase property off Port. This means that all those imports and exports are generating the \$93 million that is then reinvested in the schools, fire, police, healthcare, social services, and even our local AQMD. The Port services three automobile shipping lines. For just one of those to relocate means a loss of one third of the jobs, economic impact, and tax revenues over night. The Martin study found that the At Berth amendments as analyzed could have the potential impact on the local economy of the loss of:

- More than 2,700 jobs; and
- \$300 million in economic activity annually; and
- More than \$200 million in salaries and local consumption; and
- \$25 million in of State and local taxes

In addition, to these socioeconomic impacts, business leakage from the Port to the Pacific Northwest ports, would have a substantial environmental costs as well. Emissions from the automobiles being delivered to distant markets like Los Angeles and Phoenix are accounted for with a U.S. Department of Transportation emission ton monetization rate. The emissions and subsequent costs resulting from vehicles being driven the increased distances to vehicle markets which are beyond that of delivery from the Port would be a cost of the proposed amendments and are shown in Table 6.



	Truck Miles		Ton Miles Penalty		Emissions Cost
	Portland to:	Huneme to:	Mileage Penalty	Ton Miles	Annual
San Francisco	645	364	281	21,053,236	\$1,462,071
Los Angeles	975	70	905	225,140,993	\$15,635,232
Seattle	171	1147	-976	-10,791,163	-\$749,407
Portland	0	975	-975	-10,852,054	-\$753,636
Denver	1252	1079	173	1,906,395	\$132,392
Phoenix	1345	444	901	36,290,883	\$2,520,271
Salt Lake City	775	752	23	258,967	\$17,984
Las Vegas, NV	982	325	657	14,125,214	\$980,945
Total Emissions Cost					\$19,245,853

Table 6. Total Emissions Costs for Vehicle Deliveries Resulting from Business Leakage from Port of Hueneme

The Martin Study identifies the worst-case scenario, but the true global nature of the Ro-Ro fleets would make the carriers very reluctant to retrofit their vessels when alternatives just up the coast and in Mexico and Canada exist. The competitive threat is very real. The extent to which the regulations could cause such leakage merits further evaluation and study for both the economic and environmental impacts before regulations are promulgated.

Break Bulk Project Cargo Category

Another important business segment to the Port is break bulk project cargo which contributes about 4% of the Port’s revenue. This business line is extremely important to the Port’s overall competitiveness and the thousands of jobs it supports. 100% requirement to reach zero emission for this vessel type call, would cause the industry to virtually disappear. These vessels make one time calls to ports to load and unload special cargoes, and may never return for another call at the Port. By way of example the largest crane in the world from Arizona, came to Hueneme for a one time move to China. These types of pieces frequently move through the Port on a different vessel on each occasion. A retrofit would not be justified in the eyes of an ocean carrier for a single voyage, thus potentially eliminating this business segment at the Port.

To best understand the implications of the proposed amendments, all business types at the Port need to be evaluated and the opportunity costs understood, again calling the need for a cost-benefit analysis to inform the draft regulations.

Tanker Business Category

The Port operates a distribution hub for liquid fertilizer product which is an essential tool for the massive agricultural industry of Ventura County. This \$2 billion industry relies of timely delivery of fertilizer which is delivered to the Port by tanker vessel currently service by the Champion Tankers line. Champion operates about 20 tankers globally approximately six of which may visit the Port annually. This vessel category is subject to many of the same global economic challenges as any other ocean carrier and thus would reflect the same business challenges in justifying an expensive vessel retrofit or the risks of developing a fleet of captured California-only tankers.

V. Proposed Elements for Inclusion in At Berth Amendments



The Port is providing these comments not out of any effort to avoid regulation or doing its part to improve air quality in the region. The Port is fully committed to making progress to reduce emissions at the Port in a manner that is effective in addressing the pollutants which are most problematic in the surrounding areas and cost effective in reducing those emissions. It is clear to the Port that a one size fits all compliance pathway will not be effective in fairly applying emission reductions across the ports of California. Furthermore, smaller ports like Hueneme and its surrounding communities which rely on the Port for employment, will carry a much greater burden and are more at risk of serious negative economic consequences if the proposed amendments move forward without specific accommodations for smaller ports including Hueneme.

For these reasons, the Port would like to propose the following solutions to integrating a more equitable and realistic approach into the proposed amendments.

Alternative 1: Fix Current At-Berth Regulations

Under this alternative the Port recommends that the proposed amendments be shelved until the problems effecting the current regulations are solved. Presently under the existing At Berth regulations, several problems impact compliance attainment for vessels and fleet owners, and the Port believes that air quality would best be served by fixing these challenges before adding significant increases in the breadth of these regulations and thus compounding the level of regulatory complexity and compliance challenges by orders of magnitude. The current three hour plug in rule for shore power seems to be an arbitrary number which is difficult under even the best circumstances for a vessel to comply with. In numerous instances small delays or unforeseen events result in connections taking more than three hours, and missing the mark eliminates any incentive for continuing the attempted connection and thus negates potential emissions reductions. A sliding scale of compliance could be contemplated in which the duration at berth under shore power would be applied to a compliance total. A second confounding factor is the limited availability of technology vendors capable of providing support, system service and spare parts for shore power systems. Currently one company services all of the shore power systems in the State with one electrical engineer, this scenario leads to significant delays in servicing shore power equipment which results in vessel calls operating off of ship power and resulting emissions. It is challenging to not envision a situation in which these same types of problems will plague the emission reduction technologies which are currently being touted as significant solutions to reducing emissions from vessels including bonnet capture systems or similar technologies with the proposed amendments.

Alternative 2: Delayed Application of Requirements and Development of Local Air Plans

Under this scenario, smaller ports would fall subject to the proposed amendments after a set period of time such as ten years. During this intervening period, smaller ports would continue to be subject to the current At-Berth regulations. During this time, larger ports would be working with industry to develop and refine emissions control technologies including bonnet capture equipment and on-board scrubbers to such a degree that initial problems typical of any new technology could be worked out before they are required in all ports. Presently there are already problems with getting the resources needed from technology vendors to support ports with shore-side power systems in need of repair, and it is easy to envision a similar situation occurring with bonnet capture systems in the future. By implementing a delay for small ports, owners of vessel fleets visiting smaller ports would have time to assess new technologies and make informed decisions about retrofitting their fleets with new emission control technologies. In addition, smaller ports would have time to pursue the additional funds needed to invest in emission control technologies such as bonnet capture systems.



In addition, CARB had requested from the Port and its customers estimates of a specific cost point, a “tipping point” at which the burden on complying with the proposed amendments would drive business to leave the Port and move to a less expensive port such as Portland, Tacoma or the Gulf Coast. In discussion with customers of the Port, it has become clear that they are uncomfortable disclosing or even discussing such a cost due to the sensitive nature of disclosing strategic business planning with such detailed proprietary financial information, particularly in the highly competitive business segment of global vehicle shipping. However, one benefit of delaying the application of the proposed amendments to the smaller ports would be that in the interim time market forces would reach equilibrium between vendors of new control technologies and vessel owners and port authorities and make more clear how the increased regulatory costs of the At Berth amendments translate into increased operational costs and a resulting loss of business to other regions with lower compliance costs. This approach creates the opportunity to quantifiably measure leakage without impacting the most vulnerable ports. Delayed implementation would also enable ports time during which to begin coordination with local air pollution control agencies on developing local solutions.

Alternative 3 - Regional Targets and Solutions

Under this scenario, ports would be allowed to achieve compliance with the proposed amendments through the implementation of a locally developed plan which would achieve reductions in air pollutants equivalent to those of the proposed At-Berth amendments but through other efforts. A large percentage of the emission reductions, such as 75%, would have to take place at the port or adjacent port owned properties so that the benefits of these plans would be felt in the immediate communities around the ports which are most impacted by their emissions. These plans would be tailored specifically to a port’s surrounding air basin, including NAAQS attainment dates, and its community needs and problem pollutants. These plans would be developed in partnership with their local Air Pollution Control District or Air Quality Management District with final approval from CARB.

The Port has begun the collaborative development process of a more comprehensive air quality plan that the Port is calling its Port of Hueneme Reducing Emissions and Supporting Health Plan (PHRESH Plan). The PHRESH Plan will be focused on developing Port specific strategies for reducing air pollutant emissions within the Port’s direct operations or financial control. The PHRESH Plan will be tailored to the Port’s features, equipment and operations and will assess a range of feasible reduction methodologies and source control technologies which could be implemented. The focus will be on achieving the most cost-effective solutions that provide the greatest amount of feasible reductions.



Additional Specific Comments on Proposed Amendments to the At Berth Regulations

Comment #1:

The Port strongly encourage CARB to conduct a socioeconomic assessment of the proposed amendments incorporating a full cost-benefit analysis due to the potential impacts of the concepts currently being discussed. As outlined above, the Port cannot emphasize enough the potential of economic harm which could result from the loss of small numbers of customers at the State's smaller ports.

Comment #2:

The Port frequently receives military cargo for the U.S. military which arrives on civilian vessels. The Port requests that CARB clarify if this situation would result in the vessel being exempt from the regulations due to the nature of its cargo.

Comments #3:

Some vessel lines are already developing and launching new vessels which call at the Port which incorporate onboard emissions controls technologies. The Port requests that CARB clarify whether this type of vessel will be exempted from the regulations or be grandfathered in.

Comments #4:

The Port requests clarification on the size of tanker vessels which will be subject to the regulations.

Comment #5:

There was discussion during the workshop of requiring ports to report vessel data to CARB under a new, streamlined reporting regimen. The Port requests clarification of this change and notes that altering the nature of the relationship between the Port and its clients could negatively influence it especially when regulatory compliance documentation is involved.

Comment #6:

The Port's customers encourage CARB making available grant funding or other incentive to offset the significant labor costs associated with shore power connections, which can total over \$5,000 per call and at times exceed the cost of electricity used during the call.

We greatly appreciate the opportunity to provide these comments, and we look forward to working with CARB further on this important regulatory action. Please contact us if you have any questions or comments regarding this letter or its contents.

Sincerely,

Christina Birdsey,
Chief Operating Officer,
Port of Hueneme