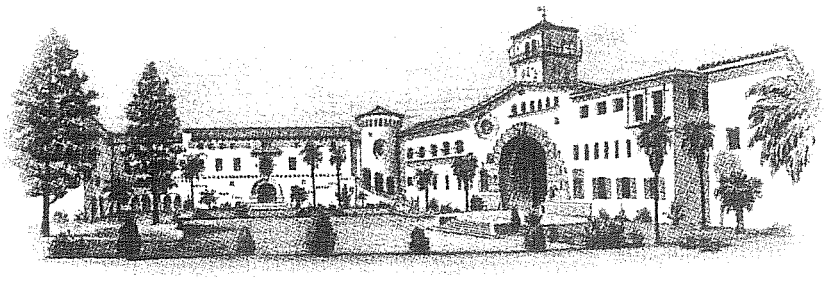

BOARD OF SUPERVISORS
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Telephone: (805) 568-2190
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COUNTY OF SANTA BARBARA

June 16, 2010

Mr. Horst Greczmiel
Associate Director for NEPA Oversight
Council on Environmental Quality
722 Jackson Place N.W.
Washington, D.C. 20503

RE: Review of MMS NEPA Policies, Practices, and Procedures

Dear Mr. Greczmiel:

The Santa Barbara County Board of Supervisors is pleased to offer its thoughts about the implementation of NEPA analysis of oil and gas leasing and development decisions. The majority of Pacific Outer Continental Shelf oil and gas leases are situated offshore Santa Barbara County. This area has been subjected to 10 lease sales between 1963 and 1984, resulting in 369 leases offshore California, 200 of which were situated offshore the tri-county region of San Luis Obispo, Santa Barbara, and Ventura. The County recently commented on the proposed 2010-2015 leasing program and the scope of the Environmental Impact Statement for that program. That letter is attached for your information; both the body of the letter and its Exhibit B addresses ongoing issues with the application of NEPA to five-year leasing program and lease sales.

Additionally, the County offers the following observations regarding deficiencies in oil spill impact analysis and significance determinations. These observations are based on a 2004 analysis conducted by the County's Energy Division of previous Environmental Impact Statements and Environmental Impact Reports for OCS leasing and development.

- Oil spills are an inherent part of any offshore oil development project; yet, while oil spill risk may be predictable statistically, individual spills and their impacts remain uncertain. Many EIRs/EISs have emphasized risk analysis and have described vulnerable resources in detail. However, they have generally failed to establish the connection between oil spill risk and impact significance, considering the location and sensitivity of vulnerable resources.
- The oil spill risk analyses have not adequately evaluated uncertainty of the risk estimates, creating the impression that the estimates are reliable predictors of future incidents, while minimizing or disregarding the potential for rare, catastrophic incidents. The analyses have generally disregarded the potentially significant impacts of small spills, have

ignored the risk of repeated spills, and have not plainly communicated risks to the lay public.

- The criteria for determining if oil spill impacts are significant or not in environmental documents are in many cases unrealistic, requiring detailed foreknowledge of future oil spills and their environmental impacts, such as could only be assessed after a spill. The criteria *appear* objective, but application of them is speculative, because the circumstances of future spills are unknown, and because our understanding of long-term environmental effects of oil spills is limited, as is the impact of spills to the health and safety of spill responders. Some past analyses make untenable assumptions: such as, that impacts of marine oil spills less than 1,000 barrels would be insignificant, or that impacts of onshore spills into ephemeral creeks are insignificant.
- The history of oil spills and analysis of spill statistics show that offshore oil production projects in the County are likely to result in oil spills that cause significant impacts to the marine and coastal environment. Possible future oil development would increase the risk of spills. It is inconceivable that a major offshore oil project could be approved in California without mitigation for oil spill impacts, because oil spills do happen and can have unarguably significant impacts.
- EIRs and EISs have been inconsistent in their evaluation of the significance of the environmental impacts of oil spills. Inconsistencies include differences in assumptions, methodologies, significance criteria, resources considered, and significance findings made. Guidelines are needed to resolve this problem.

Based on these observations, it would appear that any new offshore oil and gas project with potential for a spill of 100 barrels or more should be considered to have potentially significant, unavoidable impacts. Impacts to Water Quality, Biology, Recreation, and Commercial Fishing should automatically be determined significant. Impacts to Mariculture and the Tourist/ Recreational Industry should be determined significant, depending on project location; potential impacts to air quality, including greenhouse gas emissions, due to oil spills and response should be analyzed.

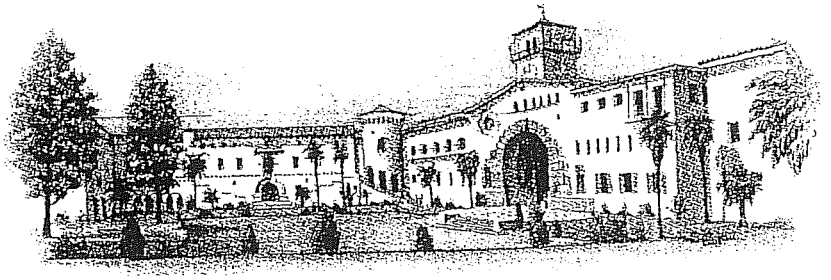
An additional concern lies with the difficulty of performing adequate environmental review of Exploration Plans, given that current regulations require the MMS to take action, approving or denying an application for an Exploration Plan, within 30 days such application is deemed to be complete (30CFR250.235). Such requirement does not provide adequate public input on potential impacts of exploration, yet alone adequate analysis of environmental impact in consultation with other federal agencies.

Again, thank you for the opportunity to provide input to your review. Please contact Mr. Doug Anthony or Dr. John Day of the County's Energy Division at (805) 568-2046 and (805) 568-2045, respectively, if you have questions.

Sincerely,

Janet Wolf, Chair
Board of Supervisors

Attachments: Board of Supervisors letter of September 1, 2009



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COUNTY OF SANTA BARBARA

September 1, 2009

Minerals Management Service
Attention: Leasing Division (LD)
381 Elden Street, MS–4010,
Herndon, Virginia 20170–4817.

RE: 2010-2015 Oil and Gas Leasing in the Outer Continental Shelf

The County of Santa Barbara submits the following comments on the proposed draft program that addresses potential leasing decisions offshore California.

Foremost, the County requests that the U.S. Department of the Interior not issue any new leases off the coast of California as part of the 2010-2015 leasing program (see Board Resolution 09-092, including herein as Exhibit A).

However, should the Department of the Interior ignore this County's wishes and continue to consider new oil and gas leasing off our coast, we submit the following comments. First, the County submits comments on the scope of the Environmental Impact Statement that will be prepared to examine the environmental effects of the proposed leasing program (included herein as Exhibit B). The County remains concerned about the inadequacies of previous environmental documents that did not sufficiently inform leasing decisions. We particularly object to the practice of deferring adequate analyses to future steps in the process after the decision of where and when to lease has been made. As well noted by the U.S. Supreme Court in 1984 (*Secretary of the Interior vs. California,* 104 S. Ct. 656), "*... a lease sale is a crucial step. Large sums of money change hands, and the sale may therefore generate momentum that makes eventual exploration, development, and production inevitable.*" Since the leasing program dictates the size, location, and timing of lease sales, this environmental review needs to be a comprehensive and complete examination of the potential effects of lease development that does not defer critical analyses to future steps in the process.

Second, the County strongly opposes any leasing within the Ecological Preserve offshore the City of Santa Barbara and unincorporated area of Montecito. Such an approach, as stated on page 8 of the draft proposed program, jeopardizes the preserve and removes the last remaining respite from offshore oil and gas development left by mass offshore leasing. Placing new platforms or prolonging the lives of very old platforms in proximity of this preserve provides no buffer

whatsoever to protect its unique ecology. The old platforms situated on the southeastern boundary of the preserve were installed between 1967 and 1979 and are not designed to accommodate newer directional-drilling equipment. Aside from significant impacts to the unique marine ecology, and air and water quality of the Santa Barbara Channel, this area is the hub of coastal recreation and tourism in Santa Barbara County.

Third, the Minerals Management Service poses a question about the use of mandatory unitization as a tool to reduce the number of offshore and onshore facilities required to develop offshore reserves by combining two or more leases into a single unit. The County understands the regulatory intent of unitization as one of conserving natural resources, preventing waste, or protecting correlative rights. Unitization can occasionally reduce the number of platforms and pipelines needed to develop a field, but should be employed conservatively to minimize the number of unitized leases necessary for efficient development of a single field and not unduly circumvent the due diligence requirements of individual leases.

However, the five-year leasing program can best achieve the objective of reducing the number of offshore and onshore facilities in any one area by substantially reducing the number of tracts offered for sale. The current proposal of mass leasing offshore Santa Barbara County far exceeds this region's capacity to accommodate it without commensurate mass industrialization in offshore and onshore areas. Given the extent of historic and current development offshore and onshore Santa Barbara County, no new leases should be offered in the 2010-2015 period.

Please contact Doug Anthony, Deputy Director of the County's Energy Division at (805) 568-2046 if you have questions.

Sincerely,

Janet Wolf
Vice Chair

CC: Governor Arnold Schwarzenegger, State of California
U.S. Senator Diane Feinstein, California
U.S. Senator Barbara Boxer, California
U.S. House of Representatives Member Lois Capps, Santa Barbara
Ellen Aronson, Regional Manager, Minerals Management Service, Pacific OCS Region
Brian Baird, Assistant Secretary, California Resources Agency
Alison Dettmer, Manager - Energy and Ocean Resources, California Coastal Commission

Exhibits: A. Board of Supervisors Resolution 09-092
B. Comment of Scope of EIS

RESOLUTION OF THE BOARD OF SUPERVISORS
OF THE COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA

RESOLUTION BY THE SANTA BARBARA COUNTY
BOARD OF SUPERVISORS IN THE MATTER
OF OPPOSITION TO NEW OFFSHORE OIL LEASING

RESOLUTION NO. 09-092

WHEREAS, protecting the valuable coastal environment from oil and gas development has been a priority in Santa Barbara County since the devastating oil spill of 1969 that led to the birth of the modern environmental movement; and

WHEREAS, the California coastline with its fragile coastal environments and biodiversity, its important fish stocks and its National Marine Sanctuaries, is a national treasure and a valuable state resource, and generates, together with a vibrant tourist industry, nearly five billion dollars in state and local taxes each year, and is the heart of the State's $43 billion ocean economy; and

WHEREAS, the California Coastal Sanctuary Act of 1994 created a comprehensive statewide coastal sanctuary that prohibits, in perpetuity, future oil and gas leasing in State water with very limited exceptions, and adds leases to the sanctuary as they are quitclaimed to the State; and

WHEREAS, in 2008 former President George W. Bush lifted the Presidential moratorium on new federal offshore oil and gas leasing and Congress did not renew the Congressional moratorium on offshore oil and gas leasing; and

WHEREAS, the expiration of these moratoria endangers much of the California coastline, and specifically impacts the coastal areas of Santa Barbara County by potentially allowing new federal offshore oil development in our County; and

WHEREAS, the United States Department of the Interior, acting in President Bush's final days in office, on January 16, 2009, proposed opening up 130 million acres off of California's coast to drilling for oil and natural gas through the Outer Continental Shelf (OCS) Federal Oil and Gas Leasing Program for 2010-2015; and

WHEREAS, additional offshore oil leasing and production would degrade the quality of our air and water and adversely impact our marine resources; and

WHEREAS, the County, in response to AB 32, the Global Warming Solutions Act, is developing a comprehensive Climate Action Strategy with an emphasis on developing renewable and clean-energy sources in order to enhance our air and water quality and reduce global warming; and

WHEREAS, the County has formed a Sustainability and Conservation Team charged with developing a Sustainability Action Plan for County Operations to lead the way in sustainable practices; and

WHEREAS, AB 32, SB 375 and SB 97 requires the County to reduce greenhouse gas emissions countywide and to this end has just approved its first wind energy project and is currently pursuing other opportunities for clean energy production, including solar, within the County; and

WHEREAS, the County understands the importance of transitioning from fossil fuel to clean energy production and use in order to reduce greenhouse gases, halt climate change and move into an energy economy that makes us energy independent; and

WHEREAS, the Department of the Interior is holding a hearing on April 16, 2009 in San Francisco on the OCS Oil and Gas Leasing Program for 2010-2015 and this hearing provides the opportunity for the County of Santa Barbara to comment on the Program.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of the County of Santa Barbara does the following:

1. The Board of Supervisors supports the California Coastal Sanctuary Act, which generally prohibits new oil and gas leasing in State waters, asks that the Department of the Interior not issue any new leases of the coast of California as part of the current OCS Leasing Program, and respectfully requests that the Congress and President of the United States to reinstate the federal offshore oil and gas leasing moratoria as soon as possible.

2. The Board of Supervisors directs the County's Executive Officer to transmit copies of this resolution to the President and Vice President of the United States, to the Secretary of the Interior, to the Governor of California, to the California Resources Secretary, to the Majority and Minority leaders of the United States Senate, to the Speaker and Minority leader of the United States House of Representatives, to the Chairs and Ranking Minority Members of the House Committee on Natural Resources, the House Committee on Energy and Commerce, the Senate Committee on Energy and Natural Resources, and the Senate Committee on Environment and Public Works, to the members of our local federal legislative delegation, to the Speaker and Minority Leader of the California State Assembly, to the California State Senate President Pro Tem and Minority Leader, to the members of our local State legislative delegation, and to the members of the California State Lands Commission.

PASSED, APPROVED AND ADOPTED by the Board of Supervisors of the County of Santa Barbara, State of California this 7th day of April, 2009, by the following vote:

AYES: Supervisor Carbajal, Supervisor Wolf, Supervisor Farr

NOES: Supervisor Gray, Supervisor Centeno

ABSENT: None

ABSTAIN: None

Vice Chair, Board of Supervisors

County of Santa Barbara

ATTEST:

MICHAEL F. BROWN

CLERK OF THE BOARD

By _____

Deputy Clerk

Approved as to Form:

DENNIS A. MARSHALL

COUNTY COUNSEL

By: _____

Deputy County Counsel

Exhibit B

Comments on the Scope of the EIS
2010-2015 Oil/Gas OCS Leasing Program

Scoping Comments on the Environmental Impact Statement –

Outer Continental Shelf (OCS) Oil and Gas Leasing Program 2010-2015

The draft OCS five-year Oil and Gas Leasing Program includes proposed leasing offshore Santa Barbara County. The following comments are submitted by the County of Santa Barbara to pose questions and highlight issues that should be discussed and analyzed in the EIS and considered in formulating the final leasing program, in order to avoid or minimize adverse impacts to the Santa Barbara Channel and Santa Maria Basin.

A. Environmental Impact Analysis – Level of Generalization

The County is concerned that the analysis of impacts in the EIS may be overly generalized, as has been the case with environmental documents for previous leasing programs and lease sales. MMS has historically chosen to defer a thorough analysis of impacts to the later permitting stages, even where information needed for a more informative analysis is available at the time of program development or lease sale. All types of environmental impacts, not only oil spill risk, have been analyzed very generically. If the EIS for this lease program follows suit, it will fail to provide sufficient guidance for a meaningful comparison and final selection of lease areas.

The over-generalization of impacts of OCS development offshore Santa Barbara County is discussed in the California Coastal Commission staff reports for the Consistency Review of the MMS Oil and Gas Lease Suspension Consistency Determinations for 36 OCS leases. The County requests that MMS consult these documents to inform the scope of the EIS on this issue.[1] For example, the oil spill risk analysis prepared by MMS to support the Consistency Determinations was very general and failed to make connections between possible oil spill scenarios and foreseeable environmental consequences. In response to the Coastal Commission's comment on the inadequacy of the analysis, MMS explained that the details regarding oil spill risk, volumes, oil quality, etc. would be provided at a later stage, in the Exploration Plans ("EP") and Development and Production Plans ("DPP").

However, the County holds that the analysis must be done at the outset, in the leasing program EIS, so that the information can be considered in the comparison of alternative leasing areas. The MMS must provide a sufficiently detailed, specific, and thorough analysis of potential impacts to make meaningful comparisons of alternative locations for the final leasing program. If the substantive analysis is deferred until the EPP or DPP stage, the lease areas will already have been established, and impacts to the coastal environment that are related to the near-shore location of potential leases and local risk factors will be unavoidable.[2]

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[1] The staff reports for this California Coastal Commission hearing (August 11, 2005) are posted at http://www.coastal.ca.gov/meetings/mtg-mm5-8.html (agenda items 5a-5j).

[2] This problem is described as an "underlying concern" about the OCS leasing program in the National Research Council report: *The Adequacy of Environmental Information for Outer Continental Oil and Gas Decisions: Florida and California*, National Academy Press, 1989, p. 6. The report cites Supreme Court decisions and other sources that support the claim. For example: "The perception is widespread that leasing implies development and production if commercial quantities of hydrocarbon resources are found. In a 1984 Supreme Court decision (Secretary of the Interior vs. California, 104 S. Ct. 656), the majority wrote: ' ... a lease sale is a crucial step. Large sums of money change hands, and the sale may therefore generate momentum that makes eventual exploration, development, and production inevitable.'"

B. Alternatives / Environmental Sensitivity

The EIS is required to discuss and compare a range of alternatives in the EIS, pursuant to NEPA,[3] using adequate methods to assess environmental sensitivity and potential environmental impacts to different potential leasing areas. The EIS should examine and evaluate alternatives to fixed platforms (e.g., extended reach drilling from onshore, floating platforms), particularly since disposition of fixed platforms after use remains unresolved.

An important shortcoming of the preliminary alternatives comparison in draft proposed program is that the selection of proposed leasing areas is based in part on a flawed method for comparing the environmental sensitivity of alternative leasing locations, as discussed below. The comparison significantly understates the vulnerability of Santa Barbara County coastal resources to oil spill impacts. The likelihood that an oil spill could reach the shoreline should be evaluated in the EIS and fully considered in the selection of leasing areas for the final proposed program.

The comparison of environmental sensitivity in the draft program focuses entirely on the Shoreline Environmental Sensitivity Index (ESI), an indicator developed by the National Oceanic and Atmospheric Administration (NOAA) that describes the sensitivity of different types of shoreline to oil spill impacts. The average ESI for the Gulf of Mexico (GOM) and south-to-mid Atlantic OCS planning areas range from 7.6-9.2 (on a scale of 1 to 10), as compared with 5.0 for the Southern California planning area (Table 8, p. 99). The analysis includes estimates of the percentage of the shoreline within each OCS planning area classified as low, medium, or high ESI. Approximately 70-90% of the shorelines in the Gulf of Mexico (GOM) and Atlantic planning areas are listed as having high sensitivity, while only 30% of the shoreline in the Southern California planning area is of high sensitivity (Table 9, p. 101).

The ESI analysis fails to accomplish its stated purpose of comparing environmental sensitivity of different areas of the OCS,[4] because it fails to consider how far offshore the proposed lease areas are as well as other important factors that affect whether oil spills can reach and impact the shoreline. The ESI is immaterial if spilled oil is unlikely to reach the shore. In relying solely on the ESI and failing to consider the location of proposed leasing in relation to sensitive resources, the analysis presents a false comparison of "the relative environmental sensitivity" and "relevant environmental and predictive information" of the Santa Barbara County coast, as compared to other regions.

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[3] National Environmental Policy Act (NEPA) regulations for Environmental Impact Statements (40CFR1502.14) requires an analysis of alternatives, which "should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public. In this section agencies shall: (a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated. (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits. (c)..."

[4] The stated purpose of the environmental sensitivity analysis (p. 96) is to satisfy Section 18(a)(2)(G) of the Outer Continental Shelf Lands Act, which requires that the that timing and location of exploration, development, and production of oil and gas on the OCS shall be based in part on a consideration of "the relative environmental sensitivity and marine productivity of different areas of the Outer Continental Shelf." A closely related requirement [Section 18(a)(2)(H)] requires consideration of "relevant environmental and predictive information for different areas of the outer Continental Shelf."

The areas proposed for leasing vary widely in their vulnerability to oil spills due to factors other than ESI. For example, compare the Santa Barbara Channel to the Western GOM. The Santa Barbara Channel varies in width from less than 15 miles to approximately 30 miles, for the most part is 20-25 miles wide, bisected by shipping lanes. Leasing is proposed in federal waters, beginning 3 nautical miles offshore. The entire proposed lease area is within 10 to 15 miles of shore, except at the extreme western end where it extends out to approximately 25 miles offshore. The proposed lease area abuts the Channel Islands National Marine Sanctuary and includes the Federal Ecological Preserve and the associated buffer zone. The Channel is a semi-enclosed basin with variable circular current patterns. Under commonly occurring wind and current conditions, spilled oil may be driven either onshore the mainland or the Channel Islands, and a major spill would likely reach the shore, regardless of the oil spill response. The area proposed for leasing in the Santa Maria Basin is also relatively near-shore, most of it within 20 to 25 miles of shore. Depending on wind and current patterns at the time of a spill, the oil could be driven shoreward (either north or south), toward the Channel Islands, or out to sea.

In contrast, proposed leasing in the Western GOM planning areas extends outward from the OCS boundary, which is 9 miles offshore, out to over 200 miles in the open ocean. Existing platforms and pipelines are located as far out as 50 to over 100 miles offshore. In such a setting, spilled oil has far less chance of reaching sensitive shorelines than is the case in Santa Barbara County. A major crude oil spill, such as the Eugene Island pipeline spill that occurred 33 miles offshore Louisiana on July 25, 2009, could be catastrophic in the Santa Barbara Channel or Santa Maria Basin. A week after this pipeline breach was discovered, spillage was estimated to be 58,000 gallons, and the oil slick was reportedly 16 miles long.

Furthermore, many of the lease sale options proposed in the draft program for Alaska, GOM, and Atlantic region include buffer zones that situate leases or oil platforms 15 miles, 25 miles, or (in the case of Florida's west coast) over 100 miles offshore. No such buffer options are proposed for California, possibly owing to the steep fall-off in water depth on the continental shelf.

C. Oil Spill Risk: Probability and Consequence

1. Provide a substantive analysis of oil spill probability and potential consequences in the risk analysis for potential development offshore Santa Barbara County.

The areas proposed for leasing offshore Southern California are relatively near-shore and very limited in extent. (See Comment B.) Therefore, it is entirely feasible to conduct a meaningful analysis of a range of realistic oil spill scenarios, including worst-case spill volumes and circumstances that hamper response, even though the probability of a particular spill scenario and its consequences cannot be accurately predicted. Hypothetical oil spill scenarios are developed on a regular basis for oil spill preparedness and response trainings and drills. The risk analysis should include evaluation and discussion of potential impacts to sensitive coastal areas and a discussion of uncertainty.

A more generalized analysis of oil spill risk and impacts may be appropriate in some areas, such as the Western Gulf of Mexico (GOM), where the proposed lease area encompasses 45,000 square miles and extends over 200 miles out to sea. Given the distances involved and uncertain location of development in far-offshore locations, it may be reasonable to decouple the location of potential new oil and gas development from the location of potentially affected resources.

However, such is not the case in the Santa Barbara Channel and Santa Maria Basin and some other confined, near-shore proposed lease areas.

The draft Plan (p. 83) states: "It has been many years since any substantial environmental impacts have been observed as a result of an oil spill..." One key reason may be that a large fraction of OCS oil is produced far offshore in the GOM, which allows spilled oil to be cleaned up or dispersed before it threatens near-shore waters, where substantial impacts could occur. Expanded production in the Santa Barbara Channel and the relatively near-shore Santa Maria Basin are much more likely to result in oil spills that impact coastal resources, because all development in the Channel would be only 3 to 15 miles offshore and most or all development in the Santa Maria Basin would be 3 to 30 miles offshore.

2. **Include analysis of spills associated with OCS development that take place in state waters, including near-shore pipeline spills.**

Another reason that "It has been many years since any substantial environmental impacts have been observed as a result of an oil spill..." is that MMS spill statistics generally do not include spills of OCS oil that occur in state waters.[5] For example, the environmentally damaging 1997 oil spill from the Platform Irene pipeline does not appear in the MMS spill statistics.[6] The platform is on the OCS and under MMS oversight, but because the spill was from the portion of the pipeline in state waters, was is not counted. Failure to account for spills of oil in state waters may seriously skew the portrayal of oil spill consequences resulting from OCS development, because the incidents that are not counted involve vessels, storage tanks, and pipelines on or near the shore. These are the areas where accidents may be most likely to occur and least likely to be able to control before the shoreline is affected. Information on spills in state waters can be obtained from the Coast Guard and state agencies and should be included in the EIS.

3. **In the oil spill risk analysis, describe different types of OCS structures, infrastructure and practices and compare the potential for accidents and spills associated with them.**

Risks of accidents and oil spills are expected to vary for conventional fixed-leg platforms, floating platforms, storage vessels, barges, tankers, pipelines, service vessels, etc., and may vary according to water depth, age of infrastructure, and other factors. Necessary and appropriate technology and practices may vary with setting. Please summarize available information, including the applicability of different technologies and practices to the various proposed lease areas. See also Comment D, below, concerning oil tankering.

4. **Address the adequacy of information on oceanographic currents offshore Santa Barbara County, for purposes of risk assessment, spill response, and post-incident impact assessment.**

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[5] According to the MMS' spill statistics web page: "MMS tracks spills which occur on Federal leases in OCS waters, the submerged lands, subsoil, and seabed, lying between the seaward extent of the States' jurisdiction and the seaward extent of Federal jurisdiction... The MMS does not maintain comprehensive data on spills which have occurred in the State's jurisdiction. However, in recent years, MMS occasionally has collected information on State pollution incidents."

[6] Although the spill was included in the *Draft Delineation Drilling* EIS (MMS, 2001) and the *Environmental Information Document for Post-Suspension Activities* (MMS, 2005) [see reference in footnote 9, below], it does not appear in MMS statistical database, which is used to analyze spill rates and trends.

In 1989, at the request of President Bush, the National Research Council (NRC) undertook a scientific assessment of information relating to environmental concerns about OCS leasing. NRC concluded, among other things, that the information available about oceanographic currents offshore Southern California was inadequate to support decisions on OCS leasing in this planning area.[7]

The NRC report introduces the Oceanography chapter with an oil spill example, which sets the context for their analysis. The spill took place offshore Point Reyes in 1985 from the *Puerto Rican*, a tanker headed northward from San Francisco carrying 92,000 barrels of refined oil. Oil came onshore at Bodega Bay, because spill trajectory predictions did not account for current shifts brought on by changing wind conditions, and the spill responders did not anticipate the shift. Immediately following the summary of the spill, the report states:

> "This chapter is largely concerned with two questions: (1) Is the current state of understanding of circulation sufficient that the potential impact of development on the OCS is predictable and incidents such as the *Puerto Rican* spill may be optimally managed, and (2) if not, what future studies should be conducted to achieve this goal?"

The informational inadequacies identified in the NRC report led to the cancellation of the OCS Lease Sale 95 offshore Southern California and the 1990 Presidential Moratorium on leasing offshore California.

One critical information gap discussed in the 1989 NRC report concerns the effects on circulation due to rapid changes at small spatial scales, as follows:

> "First, the models resolve only a limited set of scales, often just the mean seasonal circulation. In the absence of most of the temporally and spatially varying part of the spectrum, the predicted trajectories may miss many aspects contributing to drift, especially at the shorter time scales. This problem plagues all modeling efforts to some extent, but is of particular concern for southern California where the variable flows are so strong."[8]

Since 1990, the MMS has sponsored research to study the offshore current patterns in the region. The studies have improved the state of knowledge of the ocean currents at basin-sized spatial scales, identifying several dominant, generalized patterns (and hybrid variants) that are somewhat seasonally related, but which shift or reverse rapidly.[9] Recent studies of drifters (proxies for floating oil) in the Santa Barbara Channel indicate that very fine scale dynamics play a significant role in local circulation, and that near-shore currents generally drive drifters onshore and up-coast, in opposition to the prevailing wind.[10] Small scale circulation features in the Santa

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[7] *The Adequacy of Environmental Information For Outer Continental Oil and Gas Decisions: Florida and California*, National Academy Press, 1989.

[8] Ibid., p. 23.

[9] For a summary, see *Draft Environmental Impact Statement, Delineation Drilling Activities in Federal Waters Offshore Santa Barbara County, California*, June 2001, MMS 2001-046, p. 4-36 et seq., and documents referenced therein. See also: *Environmental Information Document for Post-Suspension Activities on the Nine Federal Undeveloped Units and Lease OCS-P 0409 Offshore Santa Barbara, Ventura, and San Luis Obispo Counties*, January 2005, prepared for the U.S. Department of the Interior, Minerals Management Service, Pacific Outer Continental Shelf Region by Aspen Environmental Group, January 2005, Chapter 4.5.

[10] *Transport over the Inner-Shelf of the Santa Barbara Channel – Final Technical Summary/ Final Study Report*, Principal Investigator: J. Carter Ohlmann , February, 2008, OCS Study MMS 2006-009

Barbara Channel and Santa Maria Basin are still largely unexplored and, to the knowledge of County staff, are not accounted for in any existing oil spill trajectory model.

Because of the complexity, changeability, and influence of fine-scale dynamics on currents in the Santa Barbara Channel and Santa Maria Basin, it is unclear whether or not the present state of knowledge even today, after years of studies, passes the NRC's primary litmus test: "Is the current state of understanding of circulation sufficient that the potential impact of development on the OCS is predictable and incidents such as the *Puerto Rican* spill may be optimally managed?" Furthermore, and equally important: Are the existing infrastructures and procedures in place (and assured to remain in place) so that the existing knowledge about currents will be rapidly and effectively applied, in response to an OCS spill offshore Santa Barbara?[11]

These questions are as important now as they were in 1989, or even more important due to the deteriorating condition of coastal waters and fisheries. It may be appropriate to request an independent reassessment by the NRC, prior to preparation of the EIS or final selection of leasing areas.

5. **Provide a thorough and reader-friendly analysis and discussion of the probability of an oil spill and of multiple spills from development of proposed leasing areas offshore Santa Barbara County.**

MMS oil spill risk analysis typically analyzes and reports the probability of "one or more spills" and offers no information on multiple spills. This is a serious omission, which understates the real risk of spills.

Analysis of MMS data using the Poisson model and standard MMS methodology[12] shows that the risk of multiple spills can be significant. For instance, the analysis summarized in the 2005 Consistency Review[13] showed that although anticipated development would increase the estimated probability of one or more spills in the 50-999 barrel size range only slightly (from 96.8% to 99.9%), it would increase the probability of multiple spills greatly: The estimated probability of 6 or more independent spills would increase from a current 13.6% to 82.5%, and probability of 10 or more independent spills would rise from 0.3% to 30.6%. Similarly, for spills of 1,000 barrels or more, the anticipated development would increase the estimated probability of one or more spills would rise from 46.0% to 76.8% and would increase the probability of two or more spills would rise from 12.8% to 42.9%.

Reporting only the probability of "one or more spills" downplays the risks, because the increased risk of oil spills from new OCS production is most apparent for multiple spills. Furthermore, it is not clear to us whether MMS' analysis of *conditional probability* (i.e., that a spill will occur and that it will reach the shore) assumes that a single oil spill will occur or whether it takes into

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[11] It should be technically feasible to develop and implement a real-time wind and current monitoring system, coupled with an oil spill model, which could accurately track and predict oil spill trajectories offshore Santa Barbara. To the knowledge of County staff, no such system has been developed and validated, nor is such a system operational.

[12] The standard MMS model and methodology are described in: Anderson, Cheryl M., and R.P. LaBelle, *Update of Comparative Occurrence Rates for Offshore Oil Spills*, Spill Science & Technology Bulletin, Vol. 6, No. 5/6, pp. 303-321, 2000, and references contained therein.

[13] See reference in footnote 3.

account that multiple, independent spills are likely.[14] That is, if 4 spills occur, what is the probability that one or more will reach the shore? If multiple spills are not properly considered, the analysis may seriously understate the risks to coastal resources.

The analysis should be summarized in a clear narrative in addition to tables, because the spill probability tables included in some previous MMS documents are very difficult for many readers to interpret correctly. This problem was especially obvious in discussions of County staff with the public and agencies concerning the Draft EIS for Delineation Drilling (2001),[15] in which the tables were very confusing. For example, some readers expressed disbelief that the estimated oil spill probabilities were so high (e.g., 99%). As a result, they thought they were misinterpreting the tables and ignored them.

Only a few relatively small spills have occurred on the Pacific OCS in recent years. The low spill occurrence rate is consistent with the limited extent of OCS development in this area and is in the range predicted by the MMS oil spill occurrence model. Expanded development will result in larger and more frequent spills, increasing in proportion to production volume.[16] Although modern technology (such as blow-out protection devices) helps prevent oil spills, oil spills continue to occur as a result of human error and organizational failures, as documented in recent MMS studies. (See comment C.7, below.)

6. Analyze and compare present-day effectiveness of oil spill response, considering region-specific factors affecting response.

The areas proposed for leasing in different regions differ significantly in a number of respects that affect oil spill response effectiveness. As discussed previously, the close proximity to shore of the proposed lease areas offshore Santa Barbara County can impair ability to respond to a large spill. Even under favorable conditions, oil recovery rarely exceeds only 20 to 25 percent for large spills. For near-shore spills, the unrecovered oil may not have time to disperse naturally, depending on currents and wind, before reaching the shoreline. API weight of the oil, which varies regionally, affects behavior and persistence of oil slicks. Typical or frequent weather and oceanographic conditions vary among the planning areas, and have bearing on spill recovery. The ability to effectively utilize in-situ burning or dispersants in the response strategy depends on oil characteristics, water depth, wind, currents, wave height, proximity to shore, infrastructure and preparedness, and existing oil spill response plans and regulations. Although detailed, quantitative analysis of how such factors affect potential oil recovery would not be feasible without specific information on location of development, an analysis should be done to highlight large differences between planning areas and to flag areas where a major spill would likely result in environmentally damaging shoreline impacts.

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[14] See, for example, *Draft Environmental Impact Statement, Delineation Drilling Activities in Federal Waters Offshore Santa Barbara County, California*, June 2001, MMS 2001-046, Appendix A-5.4.

[15] Ibid, p. 5-17.

[16] MMS analyses conducted since the early 1990s have established that OCS crude oil spills are correlated to the volume of oil handled, so that increases in OCS production and transport lead to proportional increases in oil spill frequency. See reference in footnote 12, above.

7. Analyze oil spill trends and causal factors

The MMS incident tracking database[17] appears to indicate that spill rates have not decreased over the past decade. Please discuss trends in OCS pollution incidents, including analysis of causes and differences in incident causes and rates for exploration- and production-related incidents.

The MMS published an Advance Notice of Proposed Rulemaking and a Proposed Rule, requiring OCS oil and gas operators to develop and implement Safety and Environmental Management Systems (SEMS).[18] The rulemaking follows MMS analyses, which show that in most cases OCS spills, incidents, and citations for non-compliance can be traced to human error and/or organizational failures.

> "The MMS regulations, historically, have focused on the installation, operation, testing, and inspection of safety and pollution prevention equipment, and risk based safety practices related to personnel. Ensuring proper equipment operation, however, does not necessarily ensure clean and safe operations. The research consistently points to the disproportionate contribution of human and organizational errors to accidents and oil spills. The MMS believes that operations are safer when management systematically encourages individuals to be safety conscious, provides adequate resources, fosters safe worksite practices, promotes good housekeeping habits, and assures that workers are properly trained. The MMS believes that if OCS oil and gas operations are better planned and organized, then the likelihood of injury to workers and the risk of environmental pollution will be further reduced."[19]

Please include a summary and discussion of the analysis of incident causes cited in the SEMS rulemaking, and include the detailed analyses as an appendix, or provide the documents online for reference. Also, provide documentation, if it exists, showing that OCS operators who have implemented SEMS programs have fewer or less serious spills than those who have not.

D. Tankering of OCS Crude

Evaluate potential impacts of possible offshore storage and barging or tankering of crude oil from development of proposed Pacific OCS leases. Waterborne transport of oil carries with it an increased risk of large, environmentally damaging oil spills, as well as potentially significant impacts to air quality, recreation, commercial fishing, marine safety, aesthetic/visual impacts, and other impact categories.

The draft program analysis of *Net Social & Environmental Costs* assumes that OCS production will not result in tankering, with the associated risk of environmentally damaging oil spills: This assumption is unsupported and is contradicted by the position formally set forth by the oil industry regarding oil tankering offshore California and Santa Barbara County in particular. The Western States Petroleum Association (WSPA), which represents California's offshore oil and gas operators, has taken the unequivocal position that tankering must remain an option for transporting oil produced on the OCS offshore California. Challenges by WSPA have so far succeeded in blocking revisions to California's Coastal Management Program (CCMP) to

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[17] http://www.mms.gov/incidents/

[18] Federal Register, May 22, 2006, pp. 29277-29280; Federal Register, June 17, 2009, pp. 28639-28654. See also the MMS web page for posted public comments: http://www.mms.gov/federalregister/PublicComments/ANPRComments.htm .

[19] Ibid., p. 28643.

require pipeline transport and prohibit tankering of oil produced in federal waters offshore California.

WSPA and the California Independent Petroleum Association opposed the proposed CCMP revisions in a letter to John King, Office of Coastal Resource Management, NOAA, dated February 18, 2004. The CCMP revisions were proposed to implement California's Assembly Bill AB-16 (2003), which requires new or expanded offshore oil production to be transported by pipelines (with certain exceptions). The following are excerpts from the letter, which is included as Appendix 1 of these comments:

> "AB 16 will adversely impact OCS oil development by eliminating transportation options for moving the crude to refineries. Currently, the majority of crude produced offshore California is transported to refineries by pipeline. However, other modes of transportation are also used, and there is a growing need for transportation flexibility in order to assure that offshore crude can be delivered to the refining locations at which it will be most needed. This need for flexibility has increased over the last several decades as the available refining capacity in California has come under increasing strain..."

> "At the current time, there is not a single crude pipeline that leaves the State of California for other refining destinations. Transporting crude for long distances by truck or train is inefficient and very costly. Therefore, by mandating pipeline transportation, California has effectively mandated that all crude produced offshore California must be refined within the state. AB 16 would allow California to interfere in markets and activities that take place far from its shores, since the prohibition on marine transport would follow the crude all the way to the ultimate refining destination,..."

Similarly, WSPA has delayed the County of Santa Barbara from incorporating a similar provision into its Local Coastal Program.[20]

Historical experience illustrates that offshore producers will seek to transport crude oil via marine tanker when pipeline capacity is insufficient to move the crude oil to the chosen destination. Furthermore, economic conditions could lead to tankering of new OCS crude production to out-of-state refineries or foreign destinations.

Not all California refineries depend heavily on California heavy crude, such as would be produced from new OCS leases. It is uncertain the extent to which increases in offshore heavy crude production would directly replace better quality foreign crude in California refineries, particularly where the refiner owns tankers and foreign oil interests. Producers will sell their oil to the highest bidder. Tankering of new OCS production from Santa Barbara is ultimately driven by market forces, which cannot be foreseen in the current, volatile world economy.

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[20] Letters from Jocelyn Thompson, Attorney, on behalf to WSPA, to Coastal Commission dated January 31 and February 14, 2005, opposed adoption of revisions to Oil Transportation Policies approved by Santa Barbara County Board of Supervisors. The letters challenged the County's authority to require new oil production from new or expanded offshore facilities be transported by pipeline, despite the fact that the current pipeline capacity is adequate to transport any foreseeable OCS production.

E. Offshore Oil and Gas Seeps

The County requests that the EIS discuss the effects of existing and expanded OCS drilling and production on natural petroleum seepage in the Santa Barbara Channel and Santa Maria Basin, as follows:

1. Is there any evidence that historic or present-day drilling and production on the OCS (as opposed to state waters) has resulted in reduction of oil or gas seepage offshore Santa Barbara?
2. How likely is it that expanded oil and gas development on the OCS offshore Santa Barbara County would significantly reduce oil or gas seepage in the region?

   If significant reduction is likely, please discuss the factual basis for that conclusion. Factors to consider include reservoir depth, knowledge of the geologic formations and seep mechanisms, location of potential development in relation to known seeps, and volume of seepage on the OCS relative to state waters. Identify any opportunity to reduce seepage on the OCS. If the effects of expanded development on seepage are unknown, please discuss what information or studies would be needed to evaluate the effects.
3. Discuss how OCS exploration and development could physically impact oil and gas seeps. For example, could drilling alter or create seep conduits? Could reservoir pressure changes due to oil/water extraction or fluid injection affect seepage volume or composition (e.g., oil/gas ratio).
4. Discuss the effects of oil and gas seepage on the physical, ecological, and socioeconomic environment. Include in the discussion how effectively the natural environment absorbs, disperses and degrades the gradual, widely distributed petroleum influx from seepage, in comparison to consequences of large oil spills. Include a summary of biological effects (immediate and long term) of petroleum seepage, as compared to effects of potential large oil spills from current and future OCS exploration and production.
5. Discuss the potential public hazards of the OCS oil and gas reservoirs. Specifically, please address the hypothesis that the OCS reservoirs are under pressure and could burst as a result seismic activity, leading to catastrophic oiling of the region. Would OCS development reduce such risks significantly? How does the risk of large oil spills associated with OCS exploration, production, and transportation (including possible barge or tanker transport) compare to the risk of such a natural catastrophe?

Petroleum seepage from the seafloor offshore Santa Barbara County has been studied for decades, but estimation of seepage volume has proven difficult. The UCSB Hydrocarbon Seeps Group estimates that the Coal Oil Point seep field releases 100 barrels of oil and 100,000 cubic meters of gas per day.[21] Though widely quoted, these estimates are rough, particularly for oil seepage. They could be high or low by a factor of ten.[22, 23] The Coal Oil Point seep field is the

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[21] http://seeps.geol.ucsb.edu/ (See emission estimate tab). Accessed 2/2/09.

[22] Dr. Bruce Luyendyk, UCSB Hydrocarbon Seeps Group, speaking at *Town Hall 2: Oil in the Channel*, a panel discussion at Santa Barbara Museum of Natural History, May 31, 2008.

[23] Fate, Volume and Chemistry of Natural Seeps in the Santa Barbara Channel/Southern Santa Maria Basin, Offshore Environmental Studies Program, Fiscal Year (FY) 2006-2008, Studies Development Plan, MMS (2005) p.17, Pacific OCS Region – "MMS does not have recent or very reliable estimates of the volume of oil emitted

most prolific and best studied seep field in the region. However, over 2,000 individual seeps are believed to exist in the Santa Barbara Channel and Santa Maria Basin,[24] many of them concentrated in seep fields near Government Point, Rincon, and the Channel Islands.

A decrease in gas seepage has been documented in the vicinity of Platform Holly, which is located approximately 2 miles offshore in state waters, at a depth of 211 feet. There is no comparable documentation of possible changes in oil seepage, because oil seepage rates are more difficult to assess. It is likely, but not proven, that the reduction in reservoir pressure brought about by decades of production from Platform Holly is responsible for the decrease in seepage.[25, 26] This likelihood has led some to conclude that, as a general principle, new oil drilling offshore, including on the OCS, would reduce seepage regionally, thus conferring an environmental benefit.

However, the decline in seepage near Platform Holly does not imply that expanded production on the OCS would have a similar effect.[27] According to researchers, Platform Holly is likely the exception rather than the rule. One piece of evidence that seepage conduits and oil and gas reservoirs are not directly interconnected in currently developed OCS fields offshore Santa Barbara is the extensive use of gas and water reinjection to maintain reservoir pressure. If the pressure maintenance activities led to increased seepage, the MMS would not allow the practice to continue. Dr. Bruce Luyendyk,[28] one of the foremost local experts on offshore seeps, disputes the purported benefits of increased offshore oil development. In a letter to the Santa Barbara County Board of Supervisors for a hearing August 26, 2008 to discuss future OCS oil and gas development, Dr. Luyendyk discussed the weaknesses and lack of scientific basis for the idea that increased offshore production would reduce petroleum seepage and adverse environmental impacts. (See Appendix 2 of these comments.)

Furthermore, the argument that oil seeps are more environmentally damaging (due to their greater volume) than potential oil spills is erroneous. Because seepage is gradual, though the volume is large, the environmental impacts are minor compared with those of major oil spills that could result from expanded offshore production. The MMS has provided what the County believes to be a balanced and accurate portrayal, which should be replicated in the EIS:

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daily from natural seeps directly under or near producing OCS platforms. The most reliable estimates are 35 years old, and in light of the recent dramatic increase in seepage since the December 2004 storms, and newly discovered seepage areas, this is clearly not an accurate number. As the public largely attributes this oil to offshore production spills, it is critical for the program to have a scientifically based estimate of the daily natural oil seepage, be able to reliably differentiate produced oil from natural sources of oil."

[24] Fischer, P. J., R.L. Kolpack, W.E. Reed, I.R. Kaplan, J.E. Estes, S.P. Kraus, E.E. Welday, 1976, Summary and Conclusions, in *Gas, oil, and tar seeps of the Santa Barbara Channel Area, California*, California State Lands Commission, Sacramento, California, p. 1.

[25] Hornafius, J.S, D. Quigley, and B.P. Luyendyk, 1999, The world's most spectacular hydrocarbon seeps (Coal Oil Point, Santa Barbara Channel, California): Quantification of emissions, J. Geophys. Res., v. 104, no. c9, p. 20,703-20,711.

[26] Quigley, D.C., J.S. Hornafius, B.P. Luyendyk, R.D. Francis, J. Clark, and L. Washburn, 1999, Decrease in natural marine hydrocarbon seepage near Coal Oil Point, California, associated with offshore oil production, Geology, v. 27, no. 11, p. 1047-1050.

[27] See discussion in the Energy Division white paper *Natural Oil Seeps and Oil Spills*, posted at: http://www.countyofsb.org/energy/information/seepspaper.asp

[28] Dr. Bruce P. Luyendyk is professor of Marine Geophysics at University of California, Santa Barbara. He is a investigator in the UCSB Hydrocarbon Seeps Project. (See http://seeps.geol.ucsb.edu/)

"If you look at the pure numbers, Mother Nature is an unrepentant polluter. In the Santa Barbara Channel alone, she spills an estimated 100 barrels of oil a day. But that is not the whole story. While accidental spills can be very destructive to ecosystems, natural spills from oil seeps are taken in stride by the environment."

"Oil and gas seeps are natural leaks of liquid and gaseous hydrocarbons that escape gradually from underground pockets. The vents that leak are commonly only about one-half centimeter wide, although they can be much larger. The release of oil has been described as "patchy." Rates of seepage can change with the seasons, tides, and earthquake activity. The rates can also change as the oil reservoir from which they draw is depleted. It is the gradual, patchy nature of the leak that enables the environment to cope with the influx of potentially damaging hydrocarbons. By contrast, offshore oil spills from production and transportation are characterized by a release of oil that blankets one place in a short period. The environment can be overwhelmed, especially if a spill contacts a shoreline, and the short-term impact can be severe." [29]

The County requests that MMS fully address the questions listed above, in order to put the record straight and correct misinformation that may influence public comments on the draft EIS for the 5-year leasing program. It is important that the public and decisionmakers be well informed by an authoritative source regarding offshore seepage. MMS is well positioned to address the above questions, based on the agency's continuing involvement and major funding of offshore natural seep studies, with participation of USGS and UCSB investigators.

F. Vessels – Pollutants and GHGs

Analyze potential emission of pollutants and greenhouse gasses from stationary equipment and vessels.

OCS oil and gas extraction activities include use of supply and support boats. In the Santa Barbara Channel/ Santa Maria Basin area, the primary support vessel base is Port Hueneme, in Ventura County. These and other ocean-going vessels emit pollutants including nitrogen oxides and greenhouse gases. The State of California has taken steps to reduce emissions of criteria pollutants from vessels (e.g., Low Carbon Fuel Standard) and is in the process of developing measures to reduce greenhouse gas emissions as well. Please refer to: *Petition for Rulemaking Seeking the Regulation of Greenhouse Gas Emissions from Ocean-Going Vessels*, Petition of the People of the State of California, acting through Attorney General Brown, to Stephen Johnson, US EPA Administrator, October 3, 2007 (included as Appendix 3 of these comments).

Any new leasing proposal should include a detailed assessment of current vessel emissions associated with oil and gas production, future emissions that would be generated to serve new development, and lease stipulations to require that the vessels serving the OCS facilities meet higher emissions standards. Not only should new vessel trips not be allowed to increase emissions in coastal areas, including the Santa Barbara Channel and Santa Maria Basin, but should also not be allowed to counteract progressive measures the State is taking to significantly reduce greenhouse gas emissions below historical levels. Consider in the analysis possible emissions from offshore oil storage vessels and tankers (see Comment E).

G. Analyze processing capacities and use conflicts

[29] MMS Ocean Science, Nov.-Dec., 2004, p.8.

Processing capacities. The analysis should include inventory of existing onshore processing and pipeline capacities, including current and future processing availability. The nature, timing, locations and amount of demand for processing capacities due to new leases should be analyzed in order to understand what is likely to happen after the oil and gas are produced, downstream of the production site. Among questions that should be discussed in detail are:

- Where and how would the oil and gas be processed?
- How could capacity or other processing/refining constraints be addressed?
- Would new processing/refining capacity be needed and, if so, where would it need to be located?
- How would the oil and gas be transported to processing sites and refineries?
- Where and how would the oil and gas be processed?

Use conflicts. The analysis should include other OCS and nearshore activities that occur in or affect coastal environments. Many activities, both natural and anthropogenic, use and depend on the coastal environment, placing a burden on finite resources. These include, but are not limited to:

- wastewater outfalls
- fishing and aquaculture
- commercial and recreational vessel traffic
- sensitive species breeding, nesting and foraging

The degree to which coastal environments are currently stressed should be fully and clearly documented. The type and amount of additional stresses that would occur due to new leasing should be detailed and analyzed with respect to the regional capacities to absorb it.

I. Artificial Lighting Impacts to Seabirds and Other Sensitive Species

Analyze the nature and extent of potential impacts to designated/listed seabird species and other protected marine species, resulting from artificial lighting related to development on the OCS. Possible impacts to the Xantus' murrelet, a California listed seabird, came to light and were discussed in the Final Environmental Impact Report for the proposed Tranquillon Ridge Project (2008).[30] Information is needed to answer the following questions:

- What is known today regarding adverse effects of artificial light on seabirds and other animals potentially affected by OCS development? Information specific to the region should be compiled.
- Where are the sensitive species that would be affected by the artificial lighting? Known breeding, nesting, and foraging habitats in the region should be identified.
- How are sensitive species affected by artificial light? For example, seabirds are known to be attracted to night lighting on OCS platforms and have been observed to circle within the light for hours at a time. Are these birds prevented from foraging because they circle in the light? What are the effects on the individual birds or their young if they are not foraging? Do they suffer increased mortality or reduced breeding success because they are attracted to platform lights?

[30] Posted at: http://www.countyofsb.org/energy/documents/projects/TranqRidgeFinalEIR/index.htm See p. 5.5-31.

- Are sensitive species attracted to the lights of support vessels?

Additional study of this issue would provide the information needed to determine whether buffer zones should be required between nesting/foraging areas and new offshore oil platforms to avoid attracting sensitive species to artificial lighting on the platforms. Existing studies have not focused on artificial lighting associated with offshore platforms or support vessels. This information should be gathered for all new leasing areas. Several sources of artificial lighting currently exist on the OCS in the Santa Barbara Channel and Santa Maria Basin areas, and there is sufficient lead time and expertise available for MMS to conduct the relevant studies that would illuminate this issue.

Appendices

Appendix A: Western States Petroleum Association's Position on the Need to Retain Flexible Options for Transporting Crude Oil Produced Offshore California, Including Marine Tankering

Appendix B: Written Testimony of Dr. Bruce P. Luyendyk, Professor of Marine Geophysics, UC Santa Barbara

Appendix C: Petition for Rulemaking Seeking the Regulation Of Greenhouse Gas Emissions from Ocean-Going Vessels Submitted by California Attorney General Edmund G. Brown, Jr.

Appendix A

Western States Petroleum Association's Position on the Need to Retain Flexible Options for Transporting Crude Oil Produced Offshore California, Including Marine Tankering

WSPA

Western States Petroleum Association
Credible Solutions • Responsive Service • Since 1907

February 18, 2004

VIA FACSIMILE AND U.S. MAIL

John King
Acting Chief, Coastal Programs Division
Office of Ocean and Coastal Resource Management
National Oceanic and Atmospheric Administration
1305 East West Highway, 11th Floor
Silver Springs, MD 20910

Re: Proposed Changes to California Coastal Management Program

Dear Mr. King:

The Western States Petroleum Association (WSPA) and the California Independent Petroleum Association (CIPA) appreciate the opportunity to submit comments on the California Coastal Commission's proposed revisions to the California Coastal Management Plan (CCMP), described in the Commission's public notice dated December 22, 2003. The public notice states that the Commission proposes to modify the CCMP by incorporating legislation recently adopted by the California Legislature. One of the bills proposed for inclusion is AB 16, relating to oil and gas development. As organizations whose members will be uniquely and seriously affected by this change, we object to the Commission's characterization of this legislation as a "routine program change".[1]

As further discussed below, AB 16 does not meet the criteria for a "routine program change", and these legislative amendments are not appropriate for the brief and superficial review allowed for such minor changes. Section 923.84(b)(3) of CFR Part 15 establishes the criteria to be used in determining whether a change is "routine". The addition of AB 16 does not qualify under these criteria. The Commission should be required to follow the process for amendment of an approved coastal management plan. The more thorough and thoughtful review required for program amendments is needed to fully air the implications of including this legislation in the CCMP.

The Legal Standard: Amendment Versus "Routine Program Change"

[1] Thank you very much for extending the time to submit comments on the proposed revisions. The Commission's public notice stated that the deadline for comments was January 14, 2003. However, on January 29, 2004, Ms. Okasaki of your office called our counsel, Jocelyn Thompson, to inform us that the public comment period had been extended until February 18, 2004.

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The criteria and procedures for amending approved coastal programs are set forth in 15 CFR Part 923, Subpart H (commencing with Section 923.80). The Commission proposes to add AB 16 to the CCMP through the procedure for "routine program changes", found in Section 923.84. According to this section, a "routine program change" is simply a further detailing of a state's program as a result of implementing the provisions that have already been approved by the Secretary of Commerce as part of the state's approved coastal management program. (15 CFR Section 923.84(a).) A change does not qualify as "routine" if it would "result in the type of action described in § 923.80(d)".

Section 923.80(d), in turn, defines "amendments". A program change is considered an "amendment" subject to more in-depth review if it meets the following definition:

> [A]mendments are defined as substantial changes in one or more of the following coastal management program areas:
>
> (1) Uses subject to management;
>
> (2) Special management areas;
>
> (3) Boundaries;
>
> (4) Authorities and organization; and
>
> (5) Coordination, public involvement and the national interest.

In 1996, NOAA published guidelines regarding changes to coastal programs. (See *Program Change Guidance - The Coastal Zone Management Act and Changes to State and Territory Coastal Management Programs*, July 1996, Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration.) As explained in the Program Change Guidance, the key in determining whether a program change is an amendment or a routine program change is whether the change in one or more of the five program areas is "substantial". The Program Change Guidance then provides a number of indicators and examples to illustrate the differences:

> Indicators of a substantial change include:

1. New or revised enforceable policies that address coastal uses or resources not previously managed (or major changes in the way a state CMP manages coastal uses or resources) may be substantial. It will often depend on the scope of the change. . . .

2. The extent to which the proposed change impacts the national interest reflected in the CZMA, such as OCS oil and gas development, energy facility siting, water and air quality.

3. The extent to which the proposed change is similar to past program change requests (by any state) that were treated as amendments.

Under the first and fifth criteria enunciated in the regulations, and the first and second indicators provided in the Program Change Guidance, it is clear that AB 16 does not qualify as a "routine program change".

AB 16 Would Substantially Change the CCMP

AB 16 amends the California Coastal Act to require that crude oil produced offshore be moved by pipeline to shore, and then by pipeline to its ultimate refining destination. AB 16 changes the uses subject to management under the CCMP by proscribing, for the first time, whole modes of transportation. It also is contrary to the national interest as stated in the Coastal Zone Management Act. As such, it does not qualify under the regulations and guidance as a "routine program change".

1. Overview of AB 16

AB 16 adds the following provisions to Section 30262(a) of the California Public Resources Code:

(7) (A) All oil produced offshore California shall be transported onshore by pipeline only . . .

(B) Once oil produced offshore California is onshore, it shall be transported to processing and refining facilities by pipeline.

"Oil" is defined as crude oil before it is refined into products. (Public Resources Code § 30262(a)(7)(C)(ii).) The definition is designed to include crude both before and after processing, such that the requirement to transport via pipeline applies all the way to the refinery.[2] AB 16 allows very few exceptions to the pipeline mandate, and oil that does qualify for an exception from pipeline transportation must be moved by truck or train.

2. AB 16 Seeks to Manage New Uses.

AB 16 is not a routine change to the CCMP because it will change "the uses subject to management" in the CCMP. If AB 16 is approved as part of the CCMP, the program will for the first time prohibit whole modes of transportation, specifically, the marine transportation of crude using marine tankers or barges.

The approved CCMP currently does not attempt to prohibit *any* mode of transportation. The CCMP currently does not single out *any* one product, commodity or other material and limit the ways in which it may be transported.

Moreover, the approved CCMP acknowledges the State's need for the precise mix of uses that would be prohibited by AB 16. Section 30001.2 of the California Coastal Act provides:

> The Legislature further finds and declares that, notwithstanding the fact . . . refineries, . . .ports and . . . offshore petroleum and gas development . . . may have significant adverse effects on coastal resources or coastal access, it may be necessary to locate such developments in the coastal zone in order to ensure that inland as well as coastal resources are preserved and that orderly economic development proceeds within the state.

Consistent with this policy statement, Section 30261 of the California Coastal Act allows existing and new tanker facilities. This section also establishes design criteria for tanker facilities. Section 30261 is part of the approved CCMP. Nowhere in this existing section is tanker transportation of crude oil prohibited. To the contrary, the

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[2] The pipeline mandate applies to new extraction operations and to expanded oil extraction. Public Resources Code § 30262(a)(7)(C)(iii).

very reason the design criteria were adopted is because tanker transportation of hydrocarbon materials was expected to continue.

Accordingly, AB 16 does not qualify as a "routine program change" because it would prohibit a use that has never previously been prohibited under the approved CCMP.

3. AB 16 Would Adversely Impact the National Interest.

In addition to regulating a use not previously regulated under the CCMP, AB 16 would be contrary to the national interest. It would constrain offshore oil and gas development, including production from the federal Outer Continental Shelf. In addition, it would impose unreasonable burdens on interstate commerce.

From its inception, the CZMA acknowledged the national interest in oil and gas development. As adopted in 1972, the CZMA declared a "national objective of achieving a greater degree of energy self-sufficiency". (16 USCA § 1451(j).) Amendments in 1980 described energy production on the Outer Continental Shelf as one of the "important and competing uses and values in coastal and ocean waters." (16 USC § 1451(f). In adopting the CZMA, Congress was encouraging states to plan for and manage coastal resources, in order to accomplish the goals of conservation as well as development of coastal-dependent industries, including oil production. In light of this legislative history, the Program Change Guidance expressly identifies OCS oil and gas development as a "national interest reflected in the CZMA".

AB 16 will adversely impact OCS oil development by eliminating transportation options for moving the crude to refineries. Currently, the majority of crude produced offshore California is transported to refineries by pipeline. However, other modes of transportation are also used, and there is a growing need for transportation flexibility in order to assure that offshore crude can be delivered to the refining locations at which it will be most needed. This need for flexibility has increased over the last several decades as the available refining capacity in California has come under increasing strain. Refining capacity in California has become increasingly constrained as regulation of refining emissions have continued to tighten, the manufacture of ever cleaner fuels has required major equipment modifications at California refineries, and the substantial costs of these changes have become too great for some companies to bear, resulting in the shut down of more financially marginal refineries. At the same time, the inability to obtain permits needed to construct new refineries or expand existing ones, due to land use

restrictions and insurmountable regulatory hurdles, has required the remaining refining facilities to operate at ever higher levels of capacity in order to satisfy growing consumer demand. The resulting strains on refining equipment and the absence of significant spare refining capacity are likely to necessitate that offshore crude production be readily transferable to other refineries in order to minimize the potential adverse market impacts of even small or short duration outages.

In contrast, pipeline transportation has limited flexibility. If a producer does not have supply contracts with a refinery that is easily accessible by pipeline, the crude would have to be moved via other modes of transportation. There also may be times when a pipeline is out of operation, for example, due to third party damage, and/or the pipelines do not have sufficient capacity to supply refinery demand. Transportation planning also might be disrupted due to unexpected refinery shutdowns that require producers to find alternative outlets for their crude. In any of these circumstances, a producer might have no option but to suspend production if the crude cannot lawfully be moved to refiners or distribution facilities via marine tanker or barge. Suspension of production would be contrary to the national interest in oil production and energy self-sufficiency. When the suspension involves federal leases in particular, a reduction in production would cause a commensurate reduction in royalty payments to the federal government.

AB 16's restrictions on transportation flexibility would have several corollary consequences impacting national interest. Concerns regarding the lack of transportation options may deter further development of existing oil leases, even where such development was envisioned in the original permits and approvals. Such unreasonable restrictions on transportation could even be considered a material breach of contract, with attendant governmental liabilities, to the extent that these restrictions impede the development of oil and gas leases entered into at a time when no such restrictions existed.

Moreover, AB 16 will impede interstate commerce. At the current time, there is not a single crude pipeline that leaves the State of California for other refining destinations. Transporting crude for long distances via truck or train is inefficient and very costly. Therefore, by mandating pipeline transportation, California has effectively mandated that all crude produced offshore California must be refined within the state. AB 16 would allow California to interfere in markets and activities which take place far from its shores, since the prohibition on marine transport would follow the crude all the way to the ultimate refining destination, whether that be in California or in another state.

Finally, AB 16 makes irrational distinctions. The bill does not prohibit all marine transportation of crude oil within the coastal zone -- it only prohibits marine transportation of crude produced offshore California. Crude oil regularly is imported into the State via marine tanker, in much higher volumes than is produced offshore California. AB 16 will not regulate this importation of crude via marine tanker. In an even more puzzling twist, the author of the bill acknowledged that crude produced onshore in California would be unaffected by AB 16: an onshore producer would be free to transport his crude via ships. These distinctions are more than curious – they are harmful to coastal dependent uses that the CZMA declares in the national interest. They impose an unreasonable burden on interstate commerce that is contrary to the national interest. Accordingly, AB 16 should not be considered a "routine program change".

Thank you again for the opportunity to comment on the proposed inclusion of AB 16 into the approved CCMP. We look forward to participating in the future in commenting on AB 16 as a proposed amendment to the program. If you should have questions regarding comments, please contact Suzanne Noble at (661) 321-0884, John Martini at (916) 447-1177, or Jocelyn Thompson at (213) 576-1104.

Sincerely,

Suzanne Noble
Senior Coordinator
WSPA

John Martini
Chief Executive Officer
CIPA

cc: Rebecca K. Roth, California Coastal Commission

Appendix B

Written Testimony of Dr. Bruce P. Luyendyk,
Professor of Marine Geophysics, UC Santa Barbara

#1

August 18, 2008

TO: Board of Supervisors, Santa Barbara County
RE: Statement on oil seeps and drilling for August 26 meeting, "State and National Energy Crisis – Discussion"

The local group Stop Oil Seeps (SOS) has gained a lot of traction lately as alarmed southern Californians react to sharply increasing gasoline prices. Part of the SOS agenda is to promote offshore drilling and oil production as a means of reducing natural oil and gas seepage and their effects in the Santa Barbara Channel. Their premise is based on interpretation of two 1999 UCSB studies[1,2] on oil seeps offshore Coal Oil Point in Goleta, the location of Venoco's platform Holly. As a member of that UCSB research team I want to point to several qualifications in this SOS argument.

The relationship between ongoing production and decreasing seepage remains a hypothesis that is not fully tested. The relationship is well established for the Coal Oil Point field under current production methods but not tested by scientific studies elsewhere in the Channel. Many oil reservoirs offshore in fact are not seeping so drilling them would have no effect. Those reservoirs that are seeping, to my knowledge, are discharging far less that the Coal Oil Point field, minimizing any effect of drilling on seepage. Even if drilling were to go forward as a means of decreasing seepage, some seeps are located where oil drilling would not occur either because of non-economic deposits or legal restrictions. Further, any relationship between ongoing production and decreasing seepage could only apply in the early history of an oil field during a phase known as primary production where natural subsurface conditions allow easy extraction of hydrocarbons. As oil fields age more elaborate Enhanced Oil Recovery measures are required, and these could have the opposite result of *increasing seepage*.

The argument is also made by SOS that most of the oil floating on the surface of the ocean today is of natural origin, not industrial, and that therefore our enemy is really natural seepage. It is true that natural oil seepage may be the major source of oil in the ocean: to what degree is uncertain. However, labeling this natural floating oil to be pollution is not so simple. Ecosystems have adapted to ongoing hydrocarbon seepage as they have done at Coal Oil Point. On the other hand, a sudden accidental spill of even a small magnitude is something that natural systems experience as acute stress and could have far greater impact than continual natural sources.

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[1] Quigley, D. C., J. S. Hornafius, B. P. Luyendyk, R. D. Francis, J. F. Clark, and L. Washburn (1999), Decrease in Natural Marine Hydrocarbon Seepage near Coal Oil Point, California Associated with Offshore Oil Production, Geology, 27 (11), 1047-1050.

[2] Hornafius, J. S., D. C. Quigley, and B. P. Luyendyk (1999), The world's most spectacular marine hydrocarbons seeps (Coal Oil Point, Santa Barbara Channel, California): quantification of emissions, Journal Geophysical Research - Oceans, 104 (C9), 20703-20711.

Appendix C

Petition for Rulemaking Seeking the Regulation Of Greenhouse Gas Emissions from Ocean-Going Vessels Submitted by California Attorney General Edmund G. Brown, Jr.

BEFORE THE ADMINISTRATOR OF THE UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY

PEOPLE OF THE STATE OF CALIFORNIA, ACTING BY AND THROUGH ATTORNEY GENERAL EDMUND G. BROWN JR., Petitioner, v. HONORABLE STEPHEN JOHNSON, In his official capacity as Administrator, United States Environmental Protection Agency Defendant.	Docket No. _____

PETITION FOR RULE MAKING SEEKING THE REGULATION OF GREENHOUSE GAS EMISSIONS FROM OCEAN-GOING VESSELS

The People of the State of California, acting by and through Edmund G. Brown Jr., California Attorney General, and pursuant to the Administrative Procedure Act, 5 U.S.C. 551 and the Clean Air Act, 42 U.S.C. § 7400, et seq. hereby petition the Administrator of the Environmental Protection Agency to undertake a rule making procedure under the Clean Air Act. Specifically, California petitions the Administrator to propose and adopt regulations setting emissions standards, expressed either as an emissions limitation or as work practices or other requirements, to control and limit the emissions of greenhouse gases[1/] from Category III ocean-going vessels, and to begin the process immediately. The Attorney General believes that EPA has authority to adopt such standards pursuant to Section 213, subdivision (a)(4) of the Clean Air Act, 42 U.S.C. 7547, subdivision (a)(4).

Petitioner, People of the State of California, brings this petition by and through California's chief law officer, Attorney General Edmund G. Brown Jr. The Attorney General is

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1. Greenhouse gases include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexaflouride.

specially charged by the California Government Code with protection of the state's environment and its natural resources. (Cal. Govt. Code § 12600, et seq.) As set forth below, California's environment and its residents are already suffering from the effects of global warming, and are projected to suffer much more acute effects as climate change becomes more severe. Attorney General Brown brings this petition to fulfill his responsibility to protect California's environment and natural resources. He asks EPA to adopt regulations to control greenhouse gas emissions from new vessels on the shortest possible time line, in order to reduce the contribution of this large and uncontrolled source category of greenhouse gas emissions to global warming and climate change.

I. CLIMATE CHANGE IS NOW OCCURRING, CAUSED IN SIGNIFICANT PART BY EMISSIONS OF GREENHOUSE GASES

A. Climate Change is Now Occurring

Climate change as a result of global warming may be the most important environmental issue now facing not only the United States, but the world. Greenhouse gases (primarily, carbon dioxide("CO_2"), methane and nitrous oxide) persist and mix in the atmosphere, so that emissions anywhere in the world impact the climate everywhere. The impacts on climate change from greenhouse gas emissions have been extensively studied and documented. (*See* Oreskes, Naomi, *The Scientific Consensus on Climate Change*, 306 Science 1686 (Dec. 3, 2004) [review of 928 peer- reviewed scientific papers concerning climate change published between 1993 and 2003, noting the scientific consensus on the reality of anthropogenic climate change]; J. Hansen, *et al.*, *Earth's Energy Imbalance: Confirmation and Implications*, Sciencexpress (April 28, 2004) (available at http://pubs.giss.nasa.gov/abstracts/2005/HansenNazarenkoR.html) [NASA and Department of Energy scientists state that emission of CO_2 and other heat-trapping gases have warmed the oceans and are leading to an energy imbalance that is causing, and will continue to cause, significant warming, increasing the urgency of reducing CO_2 emissions].)

The National Academy of Sciences (NAS) has expressed its expert opinion that the concentrations of carbon dioxide, the principal greenhouse gas, in the atmosphere have increased and continue to increase, due to human activity. (NAS, Climate Change Science (2001), Exec Summary p.2) The NAS cites the burning of fossil fuels as the "primary source" of anthropogenic carbon dioxide emissions. (*Id.*) The International Panel on Climate Change (IPCC) has expressed its expert opinion that the observed increase in global average temperatures since the mid-20th century "is very likely due to the observed increase in anthropogenic greenhouse gas concentrations." (IPCC Working Group II Fourth Assessment Report, Summary for Policymakers (2007), pp. 2-3.) It is the opinion of both the NAS and the IPCC that a

scientific consensus has formed that humans, largely through the ever-increasing burning of fossil fuels, are changing the world's climate.[2]

B. The Environmental Effects of Climate Change Will Be Severe

The consequences of this climate change are predicted to be severe. The IPCC predicts with high or very high confidence that ice and frozen ground, lakes and rivers, the oceans, and the biological systems both in the earth's waters and on its land are already being affected. (IPCC, *op. cit.*, pp. 2-4.) Glaciers are melting at accelerated rates, plants are flowering earlier, the oceans are becoming more acidic, and animals are shifting their ranges, all in response to worldwide changes in the climate. As anthropogenic gases force greater climate change, drought-affected areas will likely increase in their extent, ice-bound water supplies will decrease or run off early, flooding will increase, the oceans will continue to acidify (harming coral-forming organisms), and an increasing number of plant and animal species will be at risk of extinction. (IPCC, *op. cit.*, pp. 7-8.) The greatest burdens of climate change and the floods, heat waves, droughts, shortages in food and water, and increased ranges for disease vectors that it will cause[3] will likely fall on those nations and populations least able to adapt or cope. Great human suffering will result.

C. Effects on California and Actions by California to Reduce Greenhouse Gas Emissions

In California, the state government has acknowledged the environmental impacts of greenhouse gas emissions on climate change. Governor Schwarzenegger, in his Executive Order S-3-05 issued on June 1, 2005, recognized the significance of the impacts of climate change on the State of California, noting that "California is particularly vulnerable to the impacts of climate change." The Order goes on to itemize a litany of the direct impacts that climate change and the

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2. See, also, the Brief of *Amici Curiae* Scientists filed in support of petitioners in *Massachusetts v. EPA*, USSC No. 05-1120, wherein a group of prominent and highly respected climate scientists expressed their expert opinion that the general causal link between anthropogenic greenhouse gas emissions and climate change is "*virtually certain*." (Brief at p. A-8, emphasis in original.)

3. Insurers, who survive in business by predicting harms and risks, are increasingly predicting, and modifying their business practices to compensate for the costs of, global warming. See e.g., www.abi.org.uk/climate change; Peter H. Stone, Feeling Storm-Tossed, National Journal July 7, 2007.

increased temperatures resulting from the increased presence of greenhouse gases in the atmosphere, will have on the state:

- "[I]ncreased temperatures threaten to greatly reduce the Sierra snowpack, one of the State's primary sources of water;"

- "[I]ncreased temperatures also threaten to further exacerbate California's air quality problems and adversely impact human health by increasing heat stress and related deaths;"

- "[R]ising sea levels threaten California's 1,100 miles of valuable coastal real estate and natural habitats;" and

- "[T]he combined effects of an increase in temperatures and diminished water supply and quality threaten to alter micro-climates within the state, affect the abundance and distribution of pests and pathogens, and result in variations in crop quality and yield."

Executive Order S-3-05, June 1, 2005.

The California legislature also recognized all of these severe impacts resulting from climate change, as well as a "projected doubling of catastrophic wildfires due to faster and more intense burning associated with drying vegetation." (Stats. 2002, ch, 200, Section 1, subd. (c)(4), enacting Health & Saf. Code § 43018.5.) The state is already suffering from increasing rates of wildfires and indications of drought. Further, we experience trends toward warmer winter and spring temperatures, less snow because warmer temperatures cause more precipitation to fall as rain instead, earlier spring snowmelt, and earlier spring flower blooms. (CalEPA, Climate Action Team Report to Governor Schwarzenegger and the Legislature (2006), pp. 19-20.) A decrease in vital water supplies[4], an increase in wildfires, threats to agricultural output in a state that leads the nation in production of fresh vegetables and specialty crops, a decrease in the tourism that depends on snowpack and healthy forests, more frequent and more intense heat waves and the ozone whose amount and effects they exacerbate – all these are serious threats to public health and welfare that have already begun to be felt in California and are expected to grow more and more serious throughout this century. California faces an immediate and growing

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4. This effect is not limited to California, but will extend over much of the Western United States. (National Academy of Sciences, Climate Change Sciences (2001), Exec. Sum. at 4.)

threat from global warming, and has an immediate and vital interest in the expeditious and effective control of all sources of greenhouse gases.

Most important, California has adopted the ground-breaking statute, California Global Warming Solutions Act of 2006, commonly known as AB 32. Carrying out AB 32 will reduce California's greenhouse gas emissions back to 1990 levels by AB 32 requires reduction of the state's GHG emissions to 1990 levels by 2020,[5] a time well within the 2030 planning horizon of the Regional Plan. This emissions cap is equal to a 25% reduction from current levels.[6] The bill directs that by June 30, 2007, the California Air Resources Board ("CARB") shall publish a list of discrete early action greenhouse gas emission reduction measures that will be implemented by 2010.[7] CARB must then adopt comprehensive regulations that will go into effect in 2012 to require the actions necessary to achieve the greenhouse gas emissions cap by 2020.[8] The legislation also encourages entities to voluntarily reduce greenhouse gas emissions prior to 2012 by offering credits for early voluntary reductions.[9]

As a coastal state, California is also concerned that the increased concentrations of nitrogen oxides are causing a rise in the acidification of the ocean, since the oceans are the "sink" into which about one-third of all NOx emissions are eventually deposited. Research indicates that the impacts of NOx emissions on ocean acidification can vary by area, and by the amount of NOx emissions in a given area.[10] Since nearly70% of all vessel emissions occur within 400 kilometers of land[11], the acidification effects of high vessel NOx emissions are likely to be most keenly felt off coastal states like California.

In response to the threat, California is taking ground-breaking steps to reduce its own contribution to global warming through very aggressive regulations to reduce greenhouse gas emissions. The Governor recently issued Executive Order S-01-07, establishing a

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5. Health & Safety Code § 38550.

6. 9/27/2006 Press Release from the Office of the Governor, available at http://gov.ca.gov/index.php?/print-version/press-release/4111.

7. Health & Safety Code § 38560.5.

8. Health & Safety Code § 38562.

9. Health & Safety Code §§ 38562(b)(3), 38563.

10. Doney, Scott C. et al. (2007), Couplings Between Changes in the Climate System and Biogeochemistry at 544. In Climate Change 2007: The Physical Science Basis, Working Group I to the Fourth Assessment Report of the IPCC.

11. Henningsen, Study of Greenhouse Gas Emissions From Ships, Final Report to the International Maritime Organization (2000), p. 49, citing Corbett (1999).

groundbreaking Low Carbon Fuel Standard (LCFS) for transportation fuels sold in California. By 2020 the standard will reduce the carbon intensity of California's passenger vehicle fuels by at least 10 percent. The California Air Resources Board (CARB) is currently considering or actively working on such additional "early action" greenhouse gas reduction measures as reduction of refrigerant losses from motor vehicle air conditioning systems, increased methane capture from landfills, cooler auto paints, and tire inflation requirements for motorists. (CARB, Proposed Early Actions to Mitigate Climate Change in California (2007).) California is taking responsibility for reducing its own contribution to greenhouse gas emissions, and is continuing its historic role as a leader in air pollution control in the U.S.

California is taking action to reduce emissions of greenhouse gas emissions from sources for which it is responsible. It now petitions the Administrator to take action nationally to regulate greenhouse gas emissions from ocean-going vessels, believing that national controls will be most effective and within EPA's authority to control. Accordingly, California submits this petition to the EPA Administrator to enact controls on greenhouse gas emissions from ocean-going vessels.

II. GREENHOUSE GAS EMISSIONS FROM OCEAN-GOING VESSELS

Ocean-going vessels of over 100 tons are estimated to emit up to 3% of the total world inventory of greenhouse gas emissions. (International Council on Clean Transportation (ICCT), Air Pollution and Greenhouse Gas Emissions from Ocean-going Ships: Impacts, Mitigation Options and Opportunities for Managing Growth (2007), p.26.[12]) This is more than the emissions attributable to almost any individual nation in the world; only the U.S., Russia, China, Japan, India and Germany emit more than the world's ocean-going vessel fleet.[13] We note that the Supreme Court, in *Massachusetts v. EPA*, __ U.S. __; 127 S. Ct. 1438, 1458 (2007), found that the contribution of the U.S. transportation sector to worldwide greenhouse gas emissions, which is about 6% of the world's greenhouse gas inventory, was by itself "enormous" and "a meaningful contribution to greenhouse gas concentrations." Judged by the standards of *Massachusetts v. EPA*, a source category that is, by itself, equal to the emissions of all but a handful of nations (and greater than all emissions from California), and that emits about 3% of

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12. The actual emissions may be even higher, since many estimates are derived from sales figures for marine bunker fuel worldwide, and a recent study indicates that such sales are underreported. (ICCT, *op.cit.*, p. 27-28.)

13. United Nations, Department of Economic and Social Affairs, Statistics Division, *Carbon Dioxide Emissions, Thousands of Metric Tons, available at* http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=749 (August 1, 2007); based on 2004 data from Carbon Dioxide Information Analysis Center, *available at* http://cdiac.ornl.gov/trends/emis/tre_tp20.htm.""

the world's greenhouse gas inventory (equal to about half the U.S. transportation sector's "enormous" emissions), is a source that it is vital to regulate.

Further, vessels emit greenhouse gases in an amount totally disproportionate to their numbers. Marine sources emit between 12 and 21% of the total greenhouse gases emitted by the worldwide transportation sector. (ICCT, *op. cit.*, p.29.) There are only about 90,000 vessels[14] in the world's cargo fleet, compared with the hundreds of millions of other vehicles and engines that make up the worldwide transportation sector.[15] Vessels form one of the world's most polluting source categories, per unit of fuel consumed. (*Id.*[16]) They are subject to only the most rudimentary emissions controls for a limited set of conventional pollutants[17], and no controls whatever for greenhouse gas emissions.

The contribution to global warming attributable to ship emissions is not limited to carbon dioxide emissions. Vessels also emit nitrogen oxides (NOx), and NOx by itself contributes to global warming; vessel NOx emissions may, overall, have as strong a climate-forcing effect as vessel CO2 emissions. (ICCT, *op. cit.*, p. 34.) Vessels are a large source of NOx, emitting about 5-6 times more NOx than aircraft annually worldwide. (Marintek, Study of Greenhouse Gas Emissions from Ships, Final Report to the IMO (2000), p. 59.) In addition, those NOx emissions contribute to the formation of ozone, which is also a powerful climate-change forcing gas. Vessels also emit black carbon, which may have a climate-change potential up to twice that of CO2. (ICCT, *op. cit.* at 34, citing Hansen and Nazarenko (2004).)

Further, because of the growth of growth in global shipping, vessel emissions will continue to increase their contribution to global warming unless measures are taken. Action should be taken with all possible speed, given the increase in immediately to reduce those emissions. (ICCT, *op. cit.*, p. 36.) National action by EPA, applicable to all vessels calling at U.S. ports has great potential for greenhouse gas emissions reduction.

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14. Source: ICCT, *op. cit.*, p. 20, citing Corbet, et al. (1999).

15. For example, there were about 450 million cars on the road worldwide as of 2001. ("Automobile." World Book Encyclopedia, 2001.)

16. The shipping industry bases its claim that it is environmentally friendly on a per-ton of cargo carried analysis, which tends to minimize the proportionally out-sized contribution of ocean-going vessels to global greenhouse gas emissions.

17. See 68 *Fed. Reg.* 9746, *et seq.* (February 28, 2003.)

III. LEGAL BASIS FOR ACTION BY EPA

A. EPA Has Previously, and Repeatedly, Found That Vessel Emissions Contribute Significantly to Air Pollution Which May Reasonably Be Anticipated to Endanger Public Health or Welfare. It Has Authority to Regulate Vessel Greenhouse Gas Emissions.

In Section 213, subdivision (a)(1) of the Clean Air Act, 42 U.S.C. section 7547, subdivision (a)(1), Congress ordered EPA to undertake a study of the pollutant emissions of nonroad vehicles and engines "to determine if such emissions cause, or significantly contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." Under Section 213, subdivision (a)(3), if EPA makes a finding that emissions of carbon monoxide, oxides of nitrogen, or volatile organic compounds from nonroad sources make a significant contribution to ozone *or* carbon monoxide in more than one area that has failed to attain the NAAQS, it must to adopt emissions standards for such nonroad sources for those pollutants by twelve months after completion of the study.

EPA did do such a study in 1991[18], and made the finding that emissions of NOx, volatile organic compounds, and carbon monoxide from nonroad engines and vehicles do contribute significantly to ozone and carbon monoxide concentrations in more than one nonattainment area. (59 Fed. Reg. 31306 (June 17, 1994.) EPA has also made a determination "that commercial and recreational marine diesel engines rated over 37 kW cause or contribute to such pollution." (64 Fed. Reg. at 73301 (December 29, 1999); see, also, 63 Fed. Reg. 68508 (December 11, 1998).) Based on those findings, EPA has adopted a series of regulations of various nonroad sources, including marine vessels and engines. (E.g., 64 Fed. Reg. 73300 (December 29, 1999), 66 Fed. Reg. 51098 (October 5, 2001).)

Importantly, EPA also made a finding that emissions from nonroad vehicles and engines "significantly contribute to regional haze and visibility impairment in federal Class I areas and where people live, work, and recreate." (67 Fed. Reg. 68244 (November 8, 2002).) It then proposed regulations to reduce that contribution. (*Id.*) Section 213, subdivision (a) mandates control of nonroad sources found by EPA to contribute significantly to pollution that may endanger public health *or welfare*. (Emphasis added.) In 42 U.S.C. 7602, subdivision (h), Congress defined "welfare" broadly, to include "effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate," among other things. EPA's finding that nonroad emissions contribute to regional haze, and its subsequent (correct) conclusion that Section 213 authorizes EPA to regulate nonroad source emissions to reduce that contribution shows that EPA interprets Section 213 (again, correctly) as authorizing regulation of nonroad emissions for purposes other than attainment of the NAAQS; presumably, federal Class

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18. "Nonroad Engine and Vehicle Emission Study", EPA, EPA No. 460/3-91-02 (Nov. 1991).

l areas are in attainment for some or all of the pollutants that were regulated in the November 8, 2002, rule making.

Petitioner California believes that Section 213, subdivision (a)(4)'s grant of authority for EPA to regulate nonroad emissions extends to control of greenhouse gases, since they contribute significantly to changes in climate, one of the factors Congress included in the definition of "welfare." In addition, as discussed earlier in this petition, global warming will contribute to serious, lasting, and very adverse effects on climate in many parts of the U.S., including California. These reasonably foreseeable adverse effects on climate place emissions of greenhouse gases squarely within the ambit of Section 213, subdivision (a)(4), and authorize regulation. In addition, global warming will cause adverse effects on water supplies, vegetation, wildlife, and many other factors Congress included in the definition of "welfare." Given the range and severity of effects on "welfare" to which greenhouse gas emissions from vessels can be reasonably anticipated to contribute, regulatory control of greenhouse gas emissions from vessels is fully within EPA's authority.

B. Section 213 (a)(4)'s Language is Remarkably Similar to the Language Construed by the Supreme Court in *Massachusetts v. EPA*, and Should be Interpreted by EPA as Applying to Greenhouse Gas Emissions.

It is useful here to compare the language in Section 202 that the Supreme Court construed earlier this year in *Massachusetts v. EPA*, __ U.S. __; 127 S.Ct. 1438 (2007), with the language of Section 213. Section 202 provides, in pertinent part:

> The [EPA] Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes or new motor vehicles or new motor vehicle engines, which in his [*sic*] judgment cause, or contribute to, *air pollution which may reasonably be anticipated to endanger public health or welfare.*

(Emphasis added.) In this case, the Supreme Court read the term "any pollutant" in Section 202 as "sweeping" in its definition by Congress, and fully broad enough to encompass not only the traditional, criteria pollutants[19] such as ozone and particulate matter, but "all airborne compounds of whatever stripe," and certainly broad enough to cover greenhouse gases as well, if they endanger public health or welfare. (127 S.Ct. at 1460.)

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19. "Criteria" pollutants are so named because a document setting out the criteria for setting ambient standards for these pollutants must be prepared for EPA before EPA sets such standards. (CAA, section 108(a)(2); 42 U.S. section 7408(a)(2).)

Section 213 of the CAA contains substantially similar language to Section 202 (emphasis added:

> If the Administrator determines that any emissions not referred to in paragraph (2) from new nonroad engines or vehicles significantly contribute to *air pollution which may reasonably be anticipated to endanger public health or welfare*, the Administrator may promulgate (and from time to time revise) such regulations as the Administrator deems appropriate containing standards applicable to emissions from those classes or categories of new nonroad engines and new nonroad vehicles (other than locomotives or engines used in locomotives) which in the Administrator's judgment cause, or contribute to, such air pollution
> . . . .

These sections' primary substantive difference is that Section 202 is mandatory and Section 213 is permissive. As in Section 202, Section 213 authorizes EPA to adopt emissions control regulations for emissions from nonroad engines and vehicles if those emissions are reasonably anticipated to endanger public health or welfare. As this petition has shown, they are. The broad interpretation of what is a "pollutant" employed by the Supreme Court in *Massachusetts v. EPA* should also apply with equal force here. Greenhouse gases, while not criteria pollutants (except for ozone and some forms of NOx)[20], are nonetheless "pollutants" under the Clean Air Act's "sweeping" definition, and the Administrator has authority to regulate them under Section 213 as much as under Section 202.

EPA has not yet made a finding that greenhouse gas emissions from vessels "cause, or significantly contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." However, California believes that EPA can and should make that finding on an expedited basis. We presume that EPA is already carrying out research to comply with the Supreme Court's interpretation of EPA's duties under Section 202, as set out in *Massachusetts v. EPA*. That research will inevitably show that greenhouse gas emissions from motor vehicles pose a danger to public health and welfare; on that basis, EPA could and should make a finding that the same types of emissions from ocean-going vessels pose a similar danger, as it has done in the past with criteria pollutant emissions.

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20. Greenhouse gases do contribute indirectly – and potentially substantially -- to nonattainment of the ozone NAAQS, since the hotter weather to which they contribute helps to form more ozone.

C. The Administrator's Discretion to Regulate Vessel Emissions Must Be Exercised in Light of the Structure and Purposes of the Clean Air Act

We recognize that Section 231, subdivision (a)(4) gives the Administrator the authority to regulate nonroad engines, but does not give him an unqualified mandate to do so. However, the discretion granted to the Administrator can and must be exercised only in light of the overall structure and purposes of the Clean Air Act, as the Supreme Court made clear in *Massachusetts v. EPA*.

In *Bluewater Network v. EPA*, 372 F.3d 404, 406 (D.C. Cir. 2004), a case dealing with emissions from vessels, the District of Columbia Circuit recognized those purposes:

> In 1970, the Congress enacted the Clean Air Act "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population."

That case occurred in the context of emissions standards aimed at achieving the NAAQS, but those purposes of the Act have long been recognized and held to be fundamental to the Act in other contexts. (See, e.g., *Sierra Club v. Ruckelshaus*, 344 F.Supp. 253, 255 (D.D.C. 1972), *aff'd by an equally divided court*, 412 U.S. 541 (1973).) In *Lead Industries Assn., Inc. v. EPA*, 647 F.2d 1130, 1153 (D.C. Cir. 1980), the court cited the legislative history of the Act, noting:

> This goal [to protect and enhance air quality in order to promote public health, welfare, and productive capacity] was reaffirmed in the 1977 Amendments. For example, the House Report accompanying the Amendments states that one of its purposes is "[t]o emphasize the preventive or precautionary nature of the act, i.e., to assure that regulatory action can effectively prevent harm before it occurs; to emphasize the predominant value of protection of public health[.]" H.R. Rep. No. 95-294, 95th Cong., 1st Sess. 49 (1977).

Preventing harm to public health and welfare, and protecting the air resources of the nation and the world are the purposes California seeks to forward by this petition, and we believe that they must inform and constrain the Administrator's exercise of discretion here. As the court further held in *Lead Industries*,

> Congress provided that the Administrator is to use his judgment in setting air quality standards precisely to permit him to act in the face of uncertainty. And as we read the statutory provisions and the legislative history, Congress *directed* the Administrator to err on the side of caution in making the necessary decisions.

(647 F.2d at 1155, emphasis added.) We believe that this same standard applies to the Administrator's exercise of discretion in adopting emissions standards for greenhouse gases from vessels and vessel engines. As the Supreme Court observed in *Massachusetts v. EPA*, "EPA does not dispute the existence of a causal connection between man-made greenhouse gas emissions and global warming." (127 S.Ct.1458.) As this petition has shown, vessels and vessel engines are a more significant source of greenhouse gas emissions than most sovereign nations in the world, contributing about 3% of the world's greenhouse gases. It is therefore incumbent on EPA to exercise its discretion in a way consistent with the Clean Air Act. It must regulate, or produce well supported reasons, reasons that are consistent with the statute and its precautionary and health-protective purposes, as to why it refuses to regulate this large, almost completely uncontrolled source of greenhouse gas emissions. We believe that the reasoning of the *Massachusetts v. EPA* decision has set clear and narrow limits on the kinds of reasons EPA may advance for declining to regulate significant sources of greenhouse gases. Reasons such as the existence of voluntary greenhouse gas reduction programs, or foreign policy considerations, are not grounded in the Clean Air Act's purposes, and are therefore not acceptable reasons for declining to regulate.

Based on the scientific consensus of opinion as to the causal connection between greenhouse gas emissions and global warming, and the magnitude of the danger to public health and welfare posed by global warming – which is potentially catastrophic – we believe that EPA is constrained to exercise its discretion under Section 213, subdivision (a)(4) to adopt stringent emissions standards for greenhouse gas emissions from vessels and vessel engines, and to do so with all possible speed. EPA has the authority, and it is imperative that it use that authority as quickly as possible to carry out the Clean Air Act's purposes of protecting health and welfare.

IV. INTERNATIONAL LAW IS NOT A BAR TO REGULATION OF GREENHOUSE GASES BY EPA

It is clear that EPA has authority to adopt the regulations petitioner seeks as to U.S.-flagged vessels.[21] As to foreign-flagged vessels, in its 2003 rule making regarding vessel emissions of criteria pollutants, EPA explicitly declined to decide, or to give any opinion, as to whether the Clean Air Act gives it the authority to impose emissions standards on foreign-flagged vessels. (68 Fed. Reg. at 9750.) EPA has expressed the hope that the International Maritime Organization would adopt "more stringent consensus international [emissions] standards," making it unnecessary for the U.S. to adopt its own, more stringent standards. However, as discussed above, the *Massachusetts v. EPA* opinion explicitly disallows those types of foreign policy as legal grounds for not carrying out EPA's mandatory duties under Section 202 of the Clean Air Act. (*Id.*, 127 S.Ct. at 1462 "[W]hile the President has broad authority in foreign affairs, the authority does not extend to the refusal to execute domestic laws.") We believe that the Court's reasoning also applies to EPA's discretionary duties under Section 213.

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21. Many vessels that fly foreign flags may be owned by U.S. companies.

Under the United Nations Convention of Law of the Sea (UNCLOS), each nation retains full control over its internal waters, and over waters up to three nautical miles offshore.[22] Within its own ports, the U.S. can insist on vessels meeting emissions standards for greenhouse gases, and it can also require such compliance as a condition for entry into territorial waters. The U.S. has always reserved jurisdiction to the fullest extent authorized by UNCLOS. Presidential Proclamation 7219,[23] affirmed that the territorial seas of the U.S. extend out to twelve miles from the coast, as allowed by UNCLOS. (UNCLOS 1982, Arts. 8-11.)

Although foreign-flagged ships are allowed the right of "innocent passage" through territorial waters, passage that causes pollution is not considered to be innocent. That the U.S. can and does enforce pollution standards in its territorial waters can be seen by the fact that the National Park Service has imposed air pollutant emissions controls on cruise ships, including foreign-flagged cruise ships (the vast majority of such ships are foreign-flagged), that sail off the coast from Glacier Bay National Park, in Alaska. It adopted and enforces these pollution control standards to protect and preserve the natural resources of the Park.[24] Similarly, EPA can impose and enforce greenhouse gas emissions standards to protect the nation's natural resources, and the health of its people, from the effects of global warming, just as it already imposes some minimal controls on NOx emissions on ocean-going vessels.

It is clear that EPA has authority to regulate vessel emissions in U.S. waters, and EPA currently exercises that authority. However, even if emissions standards for greenhouse gas emissions from vessels were somehow regarded as operating outside U.S. territory, well established law holds that U.S. laws can operate beyond the U.S.'s borders, called extra-territorial operation of laws, when the conduct being regulated affects the U.S., and where Congress intended such extra-territorial application. (*EEOC v. Arabian American Oil Co.*, 499 U.S. 244 (1991) (*"Aramco").)* We believe that such extra-territorial application of the Clean Air Act is both permissible and essential in this case. Standards for control of emissions of greenhouse gases from vessels, to be effective, must apply to all vessels that sail in U.S. waters or dock in U.S. ports. Since about 95% of those vessels are foreign-flagged vessels, it is imperative that the regulations EPA adopt apply both to U.S.-flagged and foreign-flagged vessels. California believes that the Clean Air Act gives EPA this authority. The standards we ask EPA to adopt present a situation analogous to the one analyzed by the Supreme Court in *Spector, et al. v. Norwegian Cruiseline, Ltd.*, 545 U.S. 119 (2005). In that case, the Supreme Court held that the Americans with Disabilities Act (ADA) could be applied to foreign-flagged cruise ships that sailed from U.S. ports and actively advertised to U.S. citizens, so long as the

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22. See Daniel Bodansky, Protecting the Marine Environment from Vessel-Source Pollution: UNCLOS III and Beyond, 18 Ecology Law Quarterly 719, 745 (1991).

23. 64 Fed. Reg. 48701 (August 2, 1999), reprinted at 43 U.S.C. 1331 (1995).

24. Regulations found at 36 C.F.R. § 13.65(b)(4). See also, 61 Fed. Reg. 27008, at 27011, containing recognition that cruise ships were overwhelmingly foreign-flagged.

ADA-required accommodations for the disabled passengers did not require major, permanent modification to the ships involved. The Court had little difficulty in finding that Congress intended the ADA to apply to foreign-flagged vessels:

> It is reasonable to presume Congress intends no interference with matters that are primarily of concern only to the ship and the foreign state [*132] in which it is registered. It is also reasonable, however, to presume Congress does intend its statutes to apply to entities in United States territory that serve, employ, or otherwise affect American citizens, or that affect the peace and tranquility of the United States, even if those entities happen to be foreign-flag ships.

(545 U.S. at 132.) As in the *Norwegian Cruiselines* case, there can be little argument that the EPA has numerous options which could decrease these significant greenhouse gas emissions from vessels without requiring major, permanent modification to the ships involved. This petition lists many potential options at page 13.

Clearly, global warming does affect the health, well-being, and tranquility of American citizens, through its impact on their climate, weather, air quality, water supplies, agriculture, coastlines, and many other areas. The Clean Air Act's mandates for protection of harm to the public health and welfare from air pollution are certainly as broad as, if not broader than, the goals of the ADA cited in *Norwegian Cruiselines*, and we believe that Congress' intent was also that the Clean Air Act have extra-territorial application where necessary to achieve the Act's health-protective purposes. Here, where limitation of greenhouse gas emissions standards to U.S.-flagged ships would exclude about 95% of the vessels that call at U.S. ports from regulation, the purposes of the Act can only be served by application of these standards to foreign-flagged ships, even if that application is considered extra-territorial.

In short, California believes that EPA has sufficient authority under the Clean Air Act, and the U.S. has sufficient authority under international law, to impose greenhouse gas emissions standards within the twelve-mile limit, and on both U.S.- flagged and foreign-flagged vessels.

V. TECHNOLOGY IS AVAILABLE TO REDUCE GREENHOUSE GAS EMISSIONS FROM VESSELS

A wide range of technology is available to reduce greenhouse gas emissions from vessels. In "Study of Greenhouse Gas Emissions From Ships: Final Report to the IMO," the authors lay out a variety of physical controls and operational protocols that can reduce greenhouse gas emissions, some through NOx reduction ((NO2 is a greenhouse gas), others through reducing fuel consumption[25]. Among these are:

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25. All references here are to Chapter 5 of that report.

- Use of marine diesel fuel oil instead of bunker fuel: NOx reductions of 4-5%

- Other NOx reduction techniques, such as selective catalytic reduction and exhaust gas recirculation: NOx reduction up to 95%

- Optimal machinery operation: 2-12% fuel savings, depending on engine speed

- Speed reduction: variable fuel savings, depending on reduction[26/]

- Optimal operating parameters, such as optimal trim, minimum ballast, propeller pitch, and optimal rudder: 1-5% fuel savings

- Improved fleet deployment planning: 5-15%

- Connection to shore-side power (cold-ironing): substantial fuel savings, depending on size of engine and time in port.

Other greenhouse gas emissions reduction techniques are available. In addition, Congress intended the Clean Air Act to be a technology-forcing statute – as held in *Train* v. *Natural Resources Defense Council*, 421 U.S. 60 (1975) – and EPA can and should consider control measures that force the development of new technology. Here, because vessels and vessel engines are almost completely uncontrolled, the opportunities for emissions reduction are wide-open and very substantial.

RELIEF REQUESTED

Petitioner People of the State of California, respectfully request that the Administrator:

(1) Make a finding that carbon dioxide emissions from new marine engines and vessels significantly contribute to air pollution which may reasonably be anticipated to endanger public health and welfare;

(2) Propose and adopt regulations specifying emissions standards for carbon dioxide emissions from marine engines and vessels pursuant to Section 213, subdivision (a)(4) of the Clean Air Act, 42 U.S.C. § 7547, subdivision (a)(4), such standards to take the form either of emissions limitations or of work or operational practices; and

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26. The Ports of Los Angeles and Long Beach are now carrying out a voluntary speed reduction plan, and their experience will be useful to EPA in designing regulations for this measure. The plan limits vessels to 12-knots from a point 20 miles off-shore to the harbor. Information available at http://www.polb.com/environment/air_quality/emissions.asp.

(3) Propose and adopt such regulations, e.g., regulations specifying fuel content or type, as are necessary to carry out the emissions limitations adopted pursuant to the requests above.

We request that the Administrator take initial action within six months of receipt of this petition.

Dated: October 3, 2007

Respectfully submitted,

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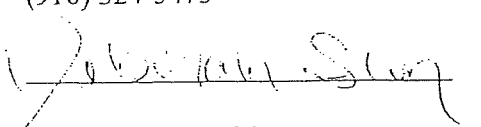
By 

Attorneys for Petitioner
People of the State of California

DECLARATION OF SERVICE BY CERTIFIED MAIL

Case Name: People of the State of California, Acting By and Through Attorney General Edmund G. Brown Jr., v. Honorable Stephen Johnson, In His Official Capacity As Administrator, United States Environmental Protection Agency

No.:

I declare:

I am employed in the Office of the Attorney General, which is the office of a member of the California State Bar at which member's direction this service is made. I am 18 years of age or older and not a party to this matter. I am familiar with the business practice at the Office of the Attorney General for collection and processing of correspondence for mailing with the United States Postal Service. In accordance with that practice, correspondence placed in the internal mail collection system at the Office of the Attorney General is deposited with the United States Postal Service that same day in the ordinary course of business.

On October32, 2007, I served the attached **PETITION FOR RULE MAKING SEEKING THE REGULATION OF GREENHOUSE GAS EMISSIONS FROM OCEAN-GOING VESSELS** by placing a true copy thereof enclosed in a sealed envelope as certified mail with postage thereon fully prepaid and return receipt requested, in the internal mail collection system at the Office of the Attorney General at 1300 I Street, Suite 125, P.O. Box 944255, Sacramento, CA 94244-2550, addressed as follows:

Hon. Stephen L. Johnson, Administrator
United States Environmental Protection Agency
Ariel Rios Building
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Margo T. Oge
U.S. Environmental Protection Agency
Office of Transportation and Air Quality
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I declare under penalty of perjury under the law of the State of California the foregoing is true and correct and that this declaration was executed on October 3, 2007, at Sacramento, California.

Bessie Wong
Declarant

Bessie Wong
Signature

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