

US EPA ARCHIVE DOCUMENT

THE CALIFORNIA RAILROAD INDUSTRY

September 28, 2010

Tom Kelly
U.S. EPA Region IX
Environmental Review Office (CED-2)
75 Hawthorne Street
San Francisco, CA 94105

RE: Draft HIA Scope for a Health Impact Assessment on the Los Angeles and Long Beach Maritime Ports

Dear Mr. Kelly:

The California Railroad Industry, the BNSF Railway, Union Pacific Railroad, and Pacific Harbor Lines (the Railroads), appreciates the opportunity to comment on EPA's *Los Angeles and Long Beach Maritime Port HIA Scope: Working Draft* (the Draft Scope) released by EPA Region IX on August 17th. Region IX's Executive Summary states that a Health Impact Assessment (HIA) is a "public engagement and decision-support tool that can be used to assess how environmental, social, demographic and economic factors, and therefore health, will change as a result of planning and policy proposals" . . . developed with "sound, objective data" which leads to "practical, evidence-driven recommendations."¹ The Railroads support using sound, objective data to improve collaboration with the public and protect the environment; however, Region IX's proposed HIA does not meet this objective.

Region IX should not advocate for another resource intensive, unnecessary and potentially contentious process in addition to the existing complex, comprehensive environmental review processes required under federal and California state law. The EPA's proposed HIA is not required by the law and the procedures outlined do not incorporate sound scientific methods. Neither the National Environmental Policy Act (NEPA), the California Environmental Quality Act (CEQA), the implementing regulations of these Acts, or case law interpreting these Acts require or even advise the use of an HIA to evaluate projects. Further, EPA's efforts to implement an HIA prior to adoption of federal guidance are premature.

Below, the Railroads discuss Region IX's failure to provide adequate legal and scientific support for the proposed HIA. In addition, the Railroads have reviewed and agree with the Ports of Los Angeles and Long Beach joint comment letter to Region IX regarding the Draft Scope. We support the suggestion by both Ports that given the outstanding issues listed in the Ports letter, and reiterated below, EPA should not assert HIAs be conducted on individual projects at the Ports. In addition, the Railroads agree with the enclosed comments of the Center for Toxicology and Environmental Health (CTEH), highlighted below, and a Review of "Summary of Evidence Supporting Pathway" in the Draft Scope by Sierra Research, Attachment C. Finally, the Railroads enclose their comments, previously submitted on April 9th in a joint comment letter

¹ Draft Scope, pg. 4

with other industries serving the Ports through the California Supply Chain Jobs Alliance (CSCJA) outlining questions for Region IX to address in advance of releasing the Draft Scope. Many of the questions remain unanswered and are still relevant. The April 9th letter is enclosed with these comments as Attachment A.

Existing law and policy guidance neither requires nor advises HIAs be part of environmental review. Neither the National Environmental Policy Act nor the California Environmental Quality Act contemplate, let alone require, the performance of an HIA.

HIAs are not required by the Council on Environmental Quality (“CEQ”) NEPA regulations or guidance documents. If CEQ believed that HIAs should be required, it has had several opportunities to revise its regulations and guidance documents to require HIAs. However, CEQ has not done so and even the most recent CEQ updating efforts to modernize and invigorate NEPA do not refer to HIAs.² Furthermore, EPA’s own NEPA implementing regulations do not require HIAs.³

In addition, the Centers for Disease Control and Prevention (the “CDC”) and the California Department of Health Services both clearly provide that HIAs are not mandatory under NEPA. The CDC states that the decision to initiate an HIA is voluntary and is not a required review process.⁴ Similarly, the California Department of Health Services provides that there is no law requiring or specifying that HIA methodology must be used where health impact analysis is required by law.⁵

Federal agencies have approved many environmental impact statements and environmental assessments pursuant to NEPA that included consideration of health effects and yet did not include HIAs. For example, health effects allegations were discussed in *Town of Winthrop v. FAA*, 535 F.3d 1 (1st Cir. 2008), and *Audubon Naturalist Soc’y v. U.S. Dep’t of Transp.*, 524 F. Supp. 2d 642 (D. Md. 2007) and the court in each case based its decision on the agencies’ consideration of health impacts, which did not require an HIA.

CEQA and the CEQA Guidelines do not require, or even refer to, HIAs. The socioeconomic analysis performed in preparing an HIA would be highly unusual under CEQA. The effects analyzed under CEQA must be related to changes in physical conditions in the environment (CEQA Guidelines §15358(b)⁶; CEQA §§ 21100, 21151)⁷. Consequently, socioeconomic impacts are not changes in physical conditions requiring CEQA analysis. The CEQA Guidelines make this clear by stating that economic and social changes resulting from a project shall not be

² For CEQ’s February 18, 2010 steps to modernize and invigorate NEPA, see <http://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa>

³ For EPA’s implementing regulations, see 40 CFR §6.203(a)(5)

⁴ For CDC discussion of HIA, see <http://www.cdc.gov/healthyplaces/hia.htm> and <http://www.cdc.gov/healthyplaces/NEPAfaq.htm#Q4>

⁵ For California Department of Health Services discussion of HIA, see http://www.arb.ca.gov/cc/ab32publichealth/meetings/091409/hia_guidelines_sept_04_09.pdf

⁶ CEQA Guidelines can be found at California Code of Regulations Title 14, Chapter 3.

⁷ The CEQA statute can be found in the California Public Resources Code.

treated as a significant effect on the environment. (CEQA Guidelines §§15064(e), 15382; *see also, Porterville Citizens for Responsible Hillside Dev. v. City of Porterville*, 157 Cal. App. 4th 885, 903 (2007) (claimed impact of new homes on existing home values is an economic impact, such impact not subject to CEQA); *Hecton v. People ex rel. Dep't of Transp.*, 58 Cal. App. 3d 653, 656 (1976) (CEQA not designed to protect against decline in commercial value of property adjacent to public project); *Citizen Action to Serve All Students v. Thornley*, 222 Cal. App.3d 748, 757 (1990) (social effect of school closure on disadvantaged students was not significant effect on environment under CEQA.))

Furthermore, the Draft Scope includes the evaluation of existing mental health issues such as depression⁸, and suggests that depression could result from increased noise.⁹ The Supreme Court has held that NEPA does not require the consideration of potential psychological health damage on individuals from risk of a nuclear power plant accident. (*Metro. Edison Co. v. People Against Nuclear Energy*, 460 U.S. 766 (1983)). The Supreme Court stated that “although NEPA states its goals in sweeping terms of human health and welfare, these goals are *ends* that Congress has chosen to pursue by *means* of protecting the physical environment.” (*Id.*, at 773, (emphasis in original)).

Local HIAs should not proceed without nationwide federal guidance. There is no federally adopted guidance on HIAs to ensure they are conducted appropriately and consistently. Region IX is testing HIAs on the San Pedro Ports without federal guidance on the best approach for conducting health analysis or the role HIAs should play in U.S. environmental policy.

The underlying policies on which an HIA would be based are still under evaluation by other branches of federal government. For example, the National Academy of Sciences is working to develop guidance for conducting HIAs:

...to develop a framework, terminology, and guidance for conducting health impact assessment (HIA) of proposed policies, programs, and projects (for example, transportation, land use, housing, agriculture) at federal, state, tribal, and local levels, including the private sector....Based on these considerations, the committee will develop a systematic, conceptual framework and approach for improving the assessment of health impacts in the United States.¹⁰

Moving ahead with a San Pedro Ports HIA prior to the adoption of nationwide guidance will complicate review processes and could result in controversial and unscientific conclusions concerning localized health community impacts.

⁸ Draft Scope, pgs. 16, 23.

⁹ Draft Scope, pgs. 32, 36.

¹⁰ Project View page from the National Academies, last viewed on 9/9/2010, <http://www8.nationalacademies.org/cp/projectview.aspx?key=49158>.

The potential health impacts from factors independent of the Port or its projects should be evaluated and characterized in an HIA relating to Port operations. The Railroads agree with and reiterate two particularly cogent points made in the Ports' letter¹¹:

- A project-based HIA cannot evaluate and address public health impacts from the broader, more regional perspective needed to provide a meaningful assessment. Such a narrow focus overlooks all of the regional contributors to environmental pollution, including refineries and manufacturing facilities, and does not account for poor planning and land use decisions by agencies outside the ports' control.
- There are no commonly accepted methodologies or science-based standards for assessing some of the proposed health determinants, such as a change in stress levels or blight. Other determinants are too far removed to even imply a causal connection.

Rail crossings should not be included in the Draft Scope. The Traffic and Rail Effects section suggests that increased rail traffic leads to delayed emergency response, although literature cited in the "summary of evidence supporting pathway" does not provide any support for this argument. The connection is instead suggested through the inclusion of research questions regarding rail volume and emergency response time, and the inclusion of grade separations as examples of potential mitigation options. The inclusion of grade separations in the mitigation section implies a premature assumption that increased rail traffic will result in significant health effects. The authors do not evaluate whether this assumption is valid or if impacts may be mitigated by other factors such as reductions in truck traffic.

The Railroads are enclosing and expert study (Attachment B) provided by the Center for Toxicology and Environmental Health, (CTEH). Highlights from the CTEH evaluation of the Draft Scope include:

- The HIA scope makes general statements regarding health effects of various exposures (i.e., diesel exhaust, noise, etc.) with limited discussion of the strength of such associations or their applicability to this situation.
- The executive summary notes that "the well-documented health effects of [air] pollution from these sources include asthma and other respiratory diseases, cardiovascular disease, lung cancer, pre-term and low-birth weight births, and premature deaths." Although there is evidence to support that air pollution can have adverse health effects, the analysis needs to consider additional information such as the air concentrations at which they occur, the potential air concentrations which may result at the source, and the potential air concentration for affected individuals based on their location and distance from the source. The influence of other sources of air contaminants for these individuals would also need to be considered. Similar comments can be made regarding the effects of noise or water pollution as discussed by the authors.

¹¹ Joint letter from the Port of Long Beach and the Port of Los Angeles, September 24, 2010. Pg. 2

- The evidence cited for potential health effects in the HIA scope is exceedingly limited (i.e., 1-2 references in many cases) with no analysis of the relative strengths and weaknesses of the studies or whether they are even applicable to this situation. It is inappropriate to make broad and sweeping generalizations regarding potential health effects based on such limited analysis.
- In short, the scope proposes a framework to analyze potential health impacts of expanding the port based on an incomplete toxicological analysis and understanding of the scientific literature. Such an analysis is likely to result in biased and inaccurate conclusions. Furthermore, statements that health effects are “well-documented” without a systematic review of the evidence provides little insight into health “impacts” while raising potentially unwarranted concerns or fears.¹²

CTEH also makes the following comments regarding HIA processes more generally:¹³

- The limitations of performing an HIA based on an incomplete analysis was reviewed by Parry and Stevens (2001) who noted that HIA’s involving non-systematic reviews of the literature should be avoided. They further noted that: “Substantial concerns remain about the available methods for health impact assessment, and inadequate and inappropriate assessments may be produced in the desire to be seen to be doing health impact assessment. At best, this may merely waste time, effort, and money; at worst, it may result in delayed and flawed decision making and the adoption of policies, programmes, and projects that exacerbate health inequalities.”
- The HIA process as outlined in the proposed scope of work does not follow current established causation methodology used by EPA, the Courts, Textbooks, etc. In order for adverse health effects to be attributed to a specific chemical exposure, a valid scientific causation analysis must be performed. Causation analysis is a two-phased process involving both general and specific causation. The issue addressed in a general causation analysis is: Has the chemical(s) in question been shown to cause the disease(s) in question in humans? Assuming that general causation has been established for a given chemical(s) and disease(s), additional steps are required to establish specific causation for exposed individuals or populations and include: 1) whether the exposure was sufficient to produce the identified medical condition (dose-response); 2) whether the temporal relationship between the exposure and health effect was consistent (temporality); and 3) whether potential alternative causes of identified medical conditions have been adequately ruled-out (confounders).

¹² Attachment C provides additional examples of how the Draft Scope includes overly simplified conclusions from reports and studies. Attachment C is a preliminary review of the "summary of evidence supporting pathway" for air pollution effects. Not all studies could be acquired and reviewed before the comment submission deadline.

¹³ See attachment B for complete text and citations.

The Railroads request EPA Region IX hold a follow up meeting with the Ports and their tenants within 30 days to discuss our concerns with the HIA process and Region IX's approach to pursuing HIAs at the San Pedro Ports.

Conducting HIAs without clear federal guidance and including potential health outcomes without first establishing causality will generate controversy around Port projects, and will create more uncertainty in an already strained economic climate. International trade is a vital economic engine in California and must be allowed to thrive, especially in tough economic times. While we respect the need to carefully evaluate investments in long term infrastructure, we believe the existing methods applied by state and local agencies are sufficiently comprehensive.

Thank you for the opportunity to express our views. If you have any questions or concerns, please call me at 415-421-4213 x 12 or Sarah Weldon at 415-421-4213 x 34.

Sincerely,

A handwritten signature in black ink that reads "Kirk Marckwald". The signature is written in a cursive, slightly slanted style.

Kirk Marckwald
Principal, California Environmental Associates
On behalf of the California Railroad Industry

cc:

Jared Blumenfeld
Deborah Jordan
Steven John
Matthew Lakin
Enrique Manzanilla

The California Supply Chain Jobs Alliance (CSCJA)

April 9, 2010

Jared Blumenfeld, Administrator
U.S. EPA Region 9
75 Hawthorne Street
San Francisco, CA, 94105

RE: Intent to issue a Scoping Proposal for a Health Impact Assessment on the San Pedro Bay Ports

Dear Mr. Blumenfeld:

On February 10, 2010, the U.S. Environmental Protection Agency (EPA) convened the “Port of Los Angeles (POLA) and Port of Long Beach (POLB) Health Impact Assessment (HIA) Scoping Meeting.” Subsequently, on March 1, 2010, a follow-up meeting was held with EPA staff in Los Angeles to discuss EPA’s intended next steps to be taken as part of that process. The Scoping Meeting and the follow-up meeting failed to provide information concerning EPA’s future plans for the HIA scoping process. In fact, the meeting explicitly excluded discussion of the following threshold questions:

- Should an HIA be conducted?
- On what should an HIA be conducted?
- How would significance of impacts be determined?
- Who would pay for an HIA?
- How would the results of an HIA be used?

We believe a proposal of scope should not be released in advance of discussing these items. This letter is intended to reiterate our questions and concerns regarding what are being characterized by proponents as the Health Impact Assessment (HIA).

The California Supply Chain Jobs Alliance (CSCJA), a coalition of Southern California supply chain businesses, appreciates the opportunity to comment on EPA’s intent to issue a “scoping

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- California Rail Industry Association • International Warehouse and Logistics Association •
 - FuturePorts •
 - Pacific Merchant Shipping Association • Western States Petroleum Association •

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proposal” that will “clarify the elements of an HIA” for the Ports of Long Beach and Los Angeles (the “Ports”). While we support efforts to educate the public, we are concerned that EPA is moving with excessive haste and without benefit of all the facts. EPA appears to be moving forward under the assumption that the existing process is deficient. However, no one was able to articulate these deficiencies at either the Scoping Meeting or at the follow-up meeting. It is our opinion that no deficiencies exist, that either a Port-wide, or project specific HIA is inappropriate and unnecessary, and that issuing a scoping proposal at this time could create more confusion than answers. We therefore recommend EPA avoid creating expectations it, the Ports, or the industries operating at the Ports, cannot meet.

EPA actions which increase burdens on the Ports, such as an HIA, may have an impact on the tenant industries and related supply chain. For this reason, we have great interest in EPA’s efforts to explore HIAs.

Ports and businesses have been making significant investments to reduce emissions.

CSCJA requests EPA not issue a scoping proposal until it meets with the Ports and supply chain industry representatives for further discussion. CSCJA would like the opportunity to inform EPA about the activities of essential goods movement sectors at both Ports and in Southern California, in particular efforts to reduce emissions. A few of these industry actions are listed below. These investments in technology and operational changes have resulted in real reductions that are recognized by the California Air Resources Board (ARB), EPA, and illustrated in the Ports’ own inventories. The 2008 POLA emissions inventory showed a 31% decrease in Diesel Particulate Matter (DPM) for all port sources since 2005, and total emissions from all sources on a per-container basis have been reduced by as much as 35% since 2005. The 2008 POLB emissions inventory showed since 2005 a 21% drop in DPM, a 12% decline in NOx and an 18% drop in SOx. Before EPA creates additional information gathering and reporting burdens for the Ports, they should ensure they have all of the latest facts from all of the affected industries.

Sample Business Commitments and actions to reduce impacts at the San Pedro Bay Ports

(More complete information is enclosed in Attachment B):

- Railroads: ARB has estimated that diesel PM levels at major rail yards throughout California are expected to be reduced by 66% between 2005 and 2020, even accounting for possible growth. These reductions have resulted from a combination of enforceable agreements with the railroads and regulations on vehicles and equipment serving rail yards, as summarized in the ARB fact sheet in Attachment B.
- Ocean Going Vessels: Several commitments have been estimated by the Ports to yield emission reductions, including: the vessel speed reduction (VSR) program requiring 12 knots during transiting outside the harbor; the use of alternative maritime power (AMP) at China Shipping’s Berth 100 and by one NYK vessel calling at Yusen Terminals; switching to a lower sulfur fuel near the coast and at berth for ARB regulation and/or Port Incentive Fuel Switching Program, and; newer vessels calling at the Port with cleaner and

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more fuel-efficient engines that meet or exceed standards set by the International Maritime Organization.

- Trucks: ARB's Drayage Truck Regulation and the Ports Clean Truck Program have expedited the turnover of the fleets serving both Ports. Specifically, by 1 October 2008 – all pre-1989 trucks are banned from port services; by January 2010 – All 1989-1993 trucks along with un-retrofitted 1994-2003 trucks are banned from port services. By January, 2012 – All trucks that do not meet 2007 and later on-road heavy duty engine standards are banned from port services.
- Cargo Handling Equipment: ARB's 2005 regulation requires controls on equipment such as yard trucks and forklifts that operate at ports. ARB estimates that this regulation will reduce DPM and NOx emissions by up to 80% by 2020.

Regulatory uncertainty is hurting the business climate. As EPA is aware, it is becoming increasingly difficult to operate in and around the San Pedro Bay Ports. The goods movement industries that serve the Ports have invested billions of dollars over the years in local infrastructure, provided hundreds of thousands of jobs, and have generated income to local and state economies and the federal government. International trade can and should continue to be a crucial economic engine for the U.S., as recognized by the Obama Administration in its recently announced directive to increase U.S. exports. Confusing, questionable, and unnecessary duplicative processes like the proposed HIA jeopardize those directives, particularly since California already imposes vast regulatory burdens on these industries. Since 2006, ARB has imposed \$5 billion in costs related to regulations on port operations.¹ Current operations are continuously scrutinized by regulators and new projects face a contentious, lengthy, expensive, and often litigious, permitting process; various additional fees have been proposed, which, in many cases, would need to be absorbed by the operator; competition is increasing from other domestic and foreign ports of entry (including ports in Mexico and on the East Coast of the U.S. once the Panama Canal expansion is completed in 2014); and container traffic is at a seven-year low given the present recession. In this current difficult business climate, the existing level of environmental review for projects at the Ports already provides sufficient information to analyze conservatively identified impacts, and already includes the imposition of feasible mitigation measures as informed by the results of a given Environmental Impact Report's (EIR) Health Risk Assessment (HRA).

Health impacts are thoroughly analyzed on a conservative basis under existing CEQA and NEPA processes. EPA should not recommend that an HIA be a required element of an EIS/EIR under CEQA or NEPA. NEPA/CEQA analyses, using conservative assumptions and models, already address potential project specific environmental health impacts in the adjacent communities. The HRA included in an EIS/EIR provides extremely conservative descriptions of the potential public health impacts of the proposed project and identifies the baseline and

¹Materials submitted to *State Senate Hearing on Myriad Economic Challenges Facing West Coast Ports Reveals Opportunities to Recapture Cargo and Induce Growth*
http://www.cunninghamreport.com/uploads/backup_docs/707-CARBregulatorycost.pdf

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potential future impacts from a project, covering various aspects in addition to air quality, including for example traffic, noise and lighting. The project EIR includes mitigation measures designed to address these impacts. Where indicated, the project HRA further incorporates the maximum health impacts to sensitive receptors including schools, daycare centers, convalescent homes, and hospitals for each project alternative.

The NEPA/CEQA processes provide a mechanism by which local communities are actively involved in the evaluation of community health impacts and associated mitigation measures. This is evidenced by the Ports' receiving an average of 50-100 comments from members of the public during public comment periods and testimony at public hearings for each of the last five San Pedro Bay Port project EIRs. The Ports provide a robust opportunity for public education, review and input in these processes. There is no need to additionally conduct a separate HIA to achieve this goal.

Other regulatory and voluntary planning processes address issues that would be covered by a port-wide HIA. Plans such as the Ports' Clean Air Action Plan (CAAP), the State Implementation Plan (SIP), the Goods Movement Emission Reduction Plan (GMERP), and the Regional Transportation Plan (RTP) comprehensively address air quality and transportation issues. The GMERP also specifically looks at the health impacts of goods movement, and conservatively estimates expected health risk reductions based on actions taken in their plan. Should EPA choose to proceed with a port-wide HIA, the CSCJA believes that many questions must be answered before a scoping proposal is released, particularly with respect to how an HIA would interface with existing programs. We have provided in Attachment A a list of questions/issues for EPA to consider and answer before issuing any scoping proposal. The primary concerns underlying those questions are summarized below.

What does EPA see as the purpose of the port-wide HIA? EPA needs to provide clear, logical reasoning for what additional information is provided through an HIA, and what it foresees as the outcomes of the HIA. In particular, we want to understand how information drawn from an HIA would:

- inform and influence other port, EPA, ARB, AQMD or other local and regional planning programs;
- be integrated into existing environmental and regulatory planning processes; and
- fill any existing gaps in the current NEPA/CEQA process or the analysis provided by CAAP, SIP, GMERP, or the RTP.

How would the results of an HIA be used? EPA has sponsored initial public meetings, bringing in a potential contractor to brief the stakeholders on a prospective HIA, and by drafting a scoping proposal. However, many of the issues that would be examined through a process that studies the impacts of "housing, transportation, employment and income, noise, air quality,

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access to goods and services, access to parks, and social networks,”² have implications for local decision making. EPA should recognize that the Ports cover a large area and neighbor multiple, unique communities — each with differing needs and social issues. Even if it is not EPA’s intention to step into local jurisdiction, the local implications of the HIA that EPA is driving would ultimately affect and draw judgment upon local decisions. Beyond its desire to “remain a partner in this effort,” it is unclear what role EPA foresees a project-specific HIA playing in new development project review processes. When will the HIA be conducted — prior to, during or after the current CEQA/NEPA process? If a Port-wide HIA is conducted, EPA stated in the invitation letter to the February 10th Scoping Meeting that it expects the Ports and local community members “to lead the subsequent steps in the development of the HIA” and to “identify funding sources to conduct the HIA.” Will the leader of the HIA (such as the Ports) be bound to EPA’s vision as contained in the scoping proposal; or can the leader independently determine the scope of the study?

How does EPA define the parameters of an HIA? Based on information presented at the February Scoping Meeting, we are concerned an HIA may invite a realm of speculation where dubious connections can be drawn between purported health impacts and port operations. The described approach lacks both scientific rigor and adopted, peer reviewed scientific standards. The HIA as described would blur the clear boundaries of an HRA, which are established to ensure nexus to the Project or emissions source(s). The February meeting materials state that “environmental, social, demographic, and economic conditions drive the health and well-being of communities.” Establishing when, where, and how these conditions were created and how Port operations could potentially influence conditions that may or may not otherwise exist for a Port-wide HIA is difficult and would likely only be founded in theories and hypothetical scenarios.” Considerations include 1) determining which metrics will be included, 2) which locations will be examined (e.g. potentially impacted communities?) and 3) if only potentially impacted communities, by what criteria will those communities be identified?

Perhaps the most important consideration would be to further clarify how an HIA would establish causation between the Ports and the various factors under evaluation. When connecting health impacts of a given community to social and economic conditions, it will be challenging to establish a basis for connecting different outcomes to their ultimate cause or causes. When there are multiple factors impacting a given outcome from sources that are potentially vastly different, are the other sources responsible for taking efforts to mitigate a negative outcome? If so, how will mitigation responsibilities be apportioned between agencies and sources?

In cases where EPA is suggesting the HIA be included as part of project review processes, we find it inappropriate and believe it merely serves as a tool to delay projects. Without setting clear rules as to what can and cannot be considered as part of an HIA, the process could be modified and updated endlessly, likely stalling projects and causing ballooning costs without delivering a tangible outcome. Who decides what is in and what is out? Since an HIA could include any

² Materials from EPA’s 2/10/2010 Port of Los Angeles and Port of Long Beach Health Impact Assessment Scoping Meeting, *Frequently Asked Questions about Integrating Health Impact Assessment into Environmental Impact Assessment*, Human Impact Partners.

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number of variables that affect a given community, how is it decided what and how many factors are included?

Request for a follow-up meeting with EPA. Given the potential ramifications of pursuing an HIA on a high-profile economic engine for the U.S. and California, we request that EPA delay issuing a scoping proposal until after it meets with the Ports and industry representatives for further discussion. EPA should make sure it has all of the facts from all of the industries that serve the Ports, and operate in Southern California, before it adds another regulatory hurdle which is duplicative and neither clearly defined by regulation, legislation, or published guidance, nor supported by budget resources or adequate staffing. Our members are available to meet with you (either in Southern California or in San Francisco), and request EPA delay release of the scoping proposal.

Thank you for the opportunity to express our views. If you have any questions or concerns, please call me at (310) 922-6227.

Sincerely,



Elizabeth Warren
CSCJA member, and Executive Director of FuturePorts

cc: Steven John, U.S. EPA
Enrique Manzanilla, U.S. EPA
Paul Amato, U.S. EPA
Tom Kelly, U.S. EPA
Cynthia Gomez, Cal/EPA
Mary Nichols, ARB
Cynthia Marvin, ARB
Sylvia Oey, ARB
Linda Smith, ARB
Nick Sramek, Commissioner, Port of Long Beach
Richard Steinke, Port of Long Beach
Robert Kanter, Port of Long Beach
Cindy Miscikowski, Commissioner, Port of Los Angeles
Geraldine Knatz, Port of Los Angeles
Ralph Appy, Port of Los Angeles

Attachment A: Questions for EPA regarding the HIA Scoping Proposal

1) What does EPA see as the purpose of a port-wide HIA?

- a) Why is it advisable or necessary to issue an HIA scoping proposal now? What new information will be learned from an HIA that is not (or will not be) already assessed?
 - i) If new information can be learned, why is it important to learn this information? Relevance? To what EPA program or programs?
- b) Before issuing a scoping proposal, EPA should issue a table that shows:
 - i) The information already analyzed and disclosed by the Ports in their current environmental assessments,
 - ii) The additional information EPA believes is necessary to acquire,
 - iii) The federal, legislative, or regulatory relevance of this information, and
 - iv) The published federal guidance that exists so the all parties can understand how the new information should be obtained.
- c) Is there a particular issue not currently being addressed that warrants an HIA?
 - i) All projects at the Ports have undergone extensive CEQA/NEPA review.
 - ii) All future Port projects will undergo extensive CEQA/NEPA review.
 - iii) The Ports have adopted extensive processes to communicate with the residents and communities impacted by Port operations. The San Pedro Bay Ports have already decided to set aside state resources to be used by local communities to help offset the impacts of the Ports. What is the federal role in the disbursement of these funds?
- d) Has EPA analyzed the business environment and determined that it is a good time to add additional environmental analysis and review? Please provide EPA's economic analysis.
- e) Given that emissions at the Ports (and throughout California) have decreased significantly in the past few years, is there an environmental necessity to introduce a new environmental analysis and review process on top of the already extensive process that exists now?
- f) EPA should clarify how the information acquired from an HIA will be used in the future.
 - i) Will future CEQA/NEPA analyses need to incorporate the information from the HIA?
 - ii) Will the HIA place a burden/requirement on future projects? How?

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- iii) Will the Ports (or future proponents of projects at the Ports) be required to mitigate impacts that may be determined in the HIA? How?

2) What is EPA's role in an HIA at the Ports?

- a) EPA indicates it will issue a "scoping proposal" for a port-wide HIA in April. EPA also indicates it expects the Ports and local community members to "identify funding sources to conduct the HIA." Furthermore, EPA indicates it "will remain a partner in this effort," but it will "look to the Ports and community to lead the subsequent steps in the development of the HIA." Questions that arise include:
 - i) Who is responsible for developing the HIA? The Ports, the community, EPA? Others? It is unclear.
 - (1) If EPA is not going to pay for the study, does it expect to lead the study? If EPA will not lead the study, who will?
 - ii) Does EPA envision the report will be prepared by a committee?
 - (1) Will EPA be a member of an envisioned steering committee — and merely submit comments and suggestions?
 - (2) Will the leader of the study be obligated to follow EPA's comments or direction?
 - b) Are the Ports and community obligated to perform an HIA?
 - i) Can the Ports (or any interested party) decline to participate?
 - ii) Are the Port tenants, or industries that operate at the ports, obligated to participate in the HIA?
 - (1) Are they obligated to submit data?
 - (2) Will they have a financial obligation?
 - c) Will the leader of the HIA (such as the Ports) be bound to EPA's vision as contained in the scoping proposal; or can the leader independently determine the scope of the study?
 - d) Will EPA influence who will be included as a participant in the study – or will it be up to the funder of the study to make these decisions?
 - i) Will EPA influence the selection of contractors and technical consultants to perform the study?

3) What does EPA consider the scope of an HIA?

- a) If it is a port-wide HIA, how will existing conditions be established?
 - i) Operations at an international port are constantly changing and are driven by factors as variable as weather, energy prices, seasonal trade flows, and economic fluctuations. What will be the baseline year?
 - ii) How will non-port related local decisions impact the communities that are part of the HIA be treated?
- b) What assumptions, quantitative data, and qualitative accounts, go into evaluating what is and is not connected to port operations?
 - i) What is the basis for these assumptions?
- c) What is not eligible to be evaluated as part of the HIA?
- d) How is causation or correlation established? For example, as outlined in the FAQs distributed at the public meeting, "if there is strong evidence of the existence of a hazard but data does not exist to quantify a prediction...the HIA will [consider it]."³ Will it do so even if causation cannot be established?
 - a) What sources at the Ports will be assessed?
 - b) Who determines what impacts will be assessed?
 - c) What impacts will be assessed?
 - i) How will the relationships between different impact factors be established?
 - d) Will future year emissions be calculated?
 - i) How will the growth rate be estimated?
 - ii) How does one incorporate expected emission reduction due to forthcoming regulations and voluntary actions?
 - iii) How does one account for expected future Port projects in the HIA?
 - (1) How should one estimate when these projects will be completed?
 - (2) How should one estimate future levels of operations in new projects?

³ Materials from EPA's 2/10/10 Port of Los Angeles and Port of Long Beach Health Impact Assessment Scoping Meeting, *Frequently Asked Questions about Integrating Health Impact Assessment into Environmental Impact Assessment*, Human Impact Partners.

April 9, 2010

- e) What is the threshold of significance for all elements in the HIA?
 - f) If mitigation will be considered;
 - i) How do you know the level above which to require mitigation?
 - ii) How do you know how much mitigation is enough?
- 2) Who is in charge of developing a final report for an HIA?**
- a) How is the entity picked? What should their qualifications be?
 - b) Who decides the format and content of the final report?
 - c) Who owns the information and data?
 - d) Should complete stakeholder consensus be required?
 - e) Will there be a place for dissenting views? Or when there is not consensus, what process would happen?



September 28, 2010

Kirk Marckwald
California Rail Industry
c/o California Environmental Associates
423 Washington St, 3rd Floor
San Francisco, CA 94111

RE: Proposed Los Angeles and Long Beach Maritime Port HIA Scope

Dear Mr. Marckwald:

At the request of the California Rail Industry, the Center for Toxicology and Environmental Health, L.L.C. (CTEH) is pleased to have the opportunity to comment on the draft Health Impact Assessment (HIA) scope for the Los Angeles and Long Beach Maritime Ports. The proposed scope appears to outline an ambitious plan to examine the potential health effects of expanding the port facilities. We have summarized a number of concerns regarding this plan below.

- 1. The HIA scope makes general statements regarding health effects of various exposures (i.e., diesel exhaust, noise, etc.) with limited discussion of the strength of such associations or their applicability to this situation.**

The executive summary notes that “the well-documented health effects of [air] pollution from these sources include asthma and other respiratory diseases, cardiovascular disease, lung cancer, pre-term and low-birth weight births, and premature deaths.” Although there is evidence to support that air pollution can have adverse health effects, the analysis needs to consider additional information such as the air concentrations at which they occur, the potential air concentrations which may result at the source, and the potential air concentration for affected individuals based on their location and distance from the source. The influence of other sources of air contaminants for these individuals would also need to be considered. Similar comments can be made regarding the effects of noise or water pollution as discussed by the authors.

The evidence cited for potential health effects in the HIA scope is exceedingly limited (i.e., 1-2 references in many cases) with no analysis of the relative strengths and weaknesses of the studies or whether they are even applicable to this situation. It is inappropriate to make broad and sweeping generalizations regarding potential health effects based on such limited analysis. The limitations of performing an HIA based on an incomplete analysis were reviewed by Parry and Stevens (2001) who noted that HIA’s involving non-systematic reviews of the literature should be avoided. They further noted that: “Substantial concerns remain about the available methods for health impact assessment, and inadequate and inappropriate assessments may be produced in the desire to be seen to be doing health

impact assessment. At best, this may merely waste time, effort, and money; at worst, it may result in delayed and flawed decision making and the adoption of policies, programmes, and projects that exacerbate health inequalities.”

In short, the scope proposes a framework to analyze potential health impacts of expanding the port based on an incomplete toxicological analysis and understanding of the scientific literature. Such an analysis is likely to result in biased and inaccurate conclusions. Furthermore, statements that health effects are “well-documented” without a systematic review of the evidence provides little insight into health impacts while raising potentially unwarranted concerns or fears.

2. The HIA scope provides little framework as to how the HIA is performed, how information/data is obtained, and the criteria for using such information.

The HIA scope provides little information regarding methods for obtaining and interpreting data. Criteria for making decisions regarding the data also are not discussed. Many of the health issues identified such as asthma, cardiovascular disease, lung cancer, reproductive health, and others are complex medical issues which are influenced by multiple factors. Rates of these conditions may vary widely based on individual population characteristics which may have little, if any, relationship to environmental factors. The HIA does not discuss the methods of evaluating the various factors affecting these conditions and a method to reliably determine the effect of the port or some other environmental factor in relation to the recognized risk factors for these conditions.

3. The HIA scope provides limited discussion as to whether the HIA process has been validated or is a reliable indicator of potential health impacts.

In the U.S., HIA’s generally have not been recognized by regulatory authorities as a standard method of assessing potential environmental risks. Standardized risk assessment procedures have been developed to assess the potential carcinogenic and noncarcinogenic risks of various environmental exposures. Such risk assessments are based on an understanding of the known health effects of exposure, the dose-response relationship, and the individual characteristics of the affected population. While the risk assessment methodology may be criticized by some, it has at a minimum undergone extensive peer review and refinement. A similar rigorous review of the methodology for the HIA is not evident. Although the HIA asks many questions, it is unlikely to provide legally or technically defensible answers and would be unlikely to provide any additional insight into potential environmental risks which are not addressed by more traditional and standardized risk assessment methods.

Requiring an HIA at this time in our opinion is premature. The National Research Council (NRC) under the National Academy of Sciences (NAS) is in the process of preparing such a framework and guidance for health impact assessment. An HIA should not be performed until such guidance is completed, accepted by science, and peer reviewed.



4. The HIA is unlikely to provide a cost-effective or valid method of identifying potential health impacts.

If fully implemented, the HIA would require considerable time to review and collect data. However, the use of such data for making decisions is not clear. As discussed above, the scientific basis for the HIA has not been validated and as currently written is based on incomplete analyses of the toxicological and scientific literature. Based on the shaky foundations upon which the HIA appears to be based, the time investment required to complete the HIA would be considerable and unlikely to provide a valid or reliable indicator of potential health impacts.

5. HIA methods and data interpretation are highly subjective and unlikely to result in defensible conclusions.

“The general objective of an HIA is to improve knowledge about the potential impact of a policy or program, inform decision-makers and affect people, and facilitate adjustment of the proposed policy in order to mitigate the negative and maximum the positive impacts” (European Centre for Health Policy, 1999). Proponents of HIAs claim they can inform policy and decision makers to maximize benefits and minimize negative impacts on health. However, the available science indicates otherwise. The definitions associated with HIAs and their proposed utility in terms of modifying policy implies an objective, sophisticated, and scientific process. The perception is that the estimation of health impacts has been achieved through the application of robust methods and is of sufficient validity to enhance the decision making process. However, this is not true. Present health impact assessments are highly subjective, subject to political drivers, and insufficiently rigorous to make any robust or objective assessments on the magnitude or even the direction of the health impacts of policy decisions. Prediction of the health impacts of any decision depends on a review of all available evidence to produce an estimate of the likely effect and application to the affected population. This is the stage of an HIA that is most flawed. McIntyre and Petticrew (1999) indicate that “the identification and incorporation of relevant evidence, its appraisal for methodological soundness and relevance, and its incorporation with qualitative evidence is likely to be difficult, but crucial to the validity of HIAs”. The subjectivity of the process and lack of systematic objective review of the evidence results in a flawed, biased, and inaccurate health effect estimates. The HIA in its current form is more of a social-based than science-based scope of work.

It is unclear why EPA would require an HIA using unproven and non-peer reviewed methods open to considerable subjectivity when EPA has well established risk assessment methods outlined in a number of publications. These risk assessment methods have undergone a rigorous peer review process. EPA risk assessments also use IRIS and other peer reviewed toxicity factors to address cancer and non-cancer risk. Without this framework, the risk assessment process would break down because the risk assessor could select whatever assumption or methods they choose. EPA well knows the problems and wide disparity in health risk assessment findings without this framework. For example,

there is a current lack of standardization for vapor intrusion risk assessment guidance. A 1 ppb concentration of tetrachloroethylene (TCE) in a residential home can result in unacceptable risk and remediation in one state in the U.S., whereas in other states, this same 1 ppb TCE level requires no action and the risks are determined to be acceptable. Therefore, our concern is that without the standardization that the NRC/NAS is trying to develop, the HIA results would be subjective and dictated not by science, but significantly biased by the assumptions selected by the individuals preparing the HIA. The HIA proposed scope does not discuss uncertainty or how the HIA will even address uncertainty in the process.

6. The HIA process as outlined does not adhere to currently established causation methodology.

The HIA process as outlined in the proposed scope of work does not follow current established causation methodology as defined in standard toxicology textbooks or used by the EPA. In order for adverse health effects to be attributed to a specific chemical exposure, a valid scientific causation analysis must be performed. Causation analysis is a two-phased process involving both general and specific causation. The issue addressed in a general causation analysis is: Has the chemical(s) in question been shown to cause the disease(s) in question in humans? Assuming that general causation has been established for a given chemical(s) and disease(s), additional steps are required to establish specific causation for exposed individuals or populations and include: 1) whether the exposure was sufficient to produce the identified medical condition (dose-response); 2) whether the temporal relationship between the exposure and health effect was consistent (temporality); and 3) whether potential alternative causes of identified medical conditions have been adequately ruled-out (confounders).

The HIA process typically is not consistent with accepted causation analyses since there has been limited analysis to determine whether the specific exposures of concern have been reliably shown to cause the conditions which have been identified. The HIA scope did not include an analysis or a plan for analysis of other factors important in determining whether a potential environmental exposure resulted or can result in the identified health condition.



SUMMARY

In general, HIA's are an unproven method of identifying potential health impacts. As written, the proposed HIA scope for the Los Angeles and Long Beach Maritime Port has serious deficiencies and would not be a reliable method for identifying potential health effects of the ports.

Sincerely,

CENTER FOR TOXICOLOGY AND ENVIRONMENTAL HEALTH, L.L.C.

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- Parry, J. and Stevens, A. Prospective health impact assessment: pitfalls, problems, and possible ways forward. *BMJ*. 2001 Nov 17; 323(7322):1177-82.



ATTACHMENT C

Sierra Research Review of “Summary of Evidence Supporting Pathway” for Air Pollutant Effects in the Draft Scope.¹

Overall, neither the railroads nor Sierra Research doubt that air pollution has health effects, but we note that the cited evidence supporting the scoping document for a Health Impact Assessment (HIA) at the Ports overstates the ability of current science to quantify the level of health impacts caused by specific levels of identified air pollutants. We provide examples of weaknesses in the evidence below.

Where the scoping document predicts that new or expanded port operations incrementally adds to local air pollution, undue emphasis is placed on the emissions from Diesel-fueled engines at the port. Local air pollution comprises far more constituents than Diesel exhaust, including gasoline vehicle exhaust, marine vessel boiler exhaust, petroleum refinery emittants, dry cleaning solvents, plating shop toxics, and toxic air contaminants from chemical manufacturing operations. The "evidence" statement by EPA singles out Diesel-fueled engines, when it should also note that many of the oceangoing ships use boilers to burn bunker fuels. The citation in support of the evidence, Bailey et al (2004),² is inappropriate. The referenced document is for advocacy, and therefore does not attempt to present an unbiased review of the scientific literature on the potential health effects of port emissions.

Concerning the potential respiratory disease related to living near major roadways, the supporting evidence cited by EPA refers to a study of southern California school children living with 75 meters of a major roadway and statistics on their increased risk of lifetime asthma, prevalent asthma, and wheeze. The citation in support of the evidence, Kim et al (2004),³ is an East Bay study, not a Southern California School Children study. This document, though, does note the following weaknesses of this type of study: 1) the weakness of epidemiological studies that use monitoring data from centralized monitors not located at the schools or other health-impacted receptor locations; and 2) the weakness of studies conducted in Los Angeles or other heavily-polluted areas in which it is difficult to separate out the local traffic air pollution from the general urban air pollution.

Concerning the same relationship of potential respiratory disease and living near major roadways, the scoping document considers that additional supporting evidence is the relationship between vehicle-miles-traveled and emissions. Vehicle miles traveled are only one determinant of vehicle emissions. Vehicle speed (which in turn is a function of roadway type and level of traffic congestion) is an even more important contributor. Lower vehicle speeds and higher

¹ Attachment C provides additional examples of how the Draft Scope includes overly simplified conclusions from reports and studies. Attachment C is a preliminary review of the "summary of evidence supporting pathway" for air pollution effects. Not all studies could be acquired and reviewed before the comment submission deadline.

² Bailey, D., T. Plenys, G.M. Solomon, T.R. Campbell, Gail Rederman-Feuer, J. Masters and B. Tonkonogy. "Harboring Pollution: Strategies to Clean Up U.S. Ports", Report from the Natural Resources Defense Council, August 2004.

³ Kim, J.J., S. Smorodinsky, M. Lipsett, B.C. Singer, A.T. Hodgson, and B. Ostro. "Traffic-Related Air Pollution and Respiratory Health: East Bay Children's Respiratory Health Study", American Journal of Respiratory and Critical Care Medicine 170: 520-526, 2004.

levels of traffic congestion can result in increased vehicle emissions that outweigh changes in vehicle miles travelled. The citation in support of the evidence, Ewing et al (2006),⁴ is “off the mark” of the concern. The report encourages the development of new housing in central urban areas in an attempt to reduce vehicle-miles-traveled by people getting to work. Such new housing locations would also be in more heavily air polluted locations, and therefore, potentially increase public health impacts relative to the same housing being placed in a more distant suburb. To the extent that an HIA addresses health more globally, encouraging new residential development near urban cores places the public closer, not farther, from major roadways that converge in urban cores, and likely places the public in areas with greater impacts in other health aspects (e.g., heat stress related to urban heat islands, higher crime rates).

Concerning the potential health impacts of specific air pollutants, evidence cited by EPA includes the relationships found in epidemiological studies between specified health effects and fine particulate matter (PM_{2.5}), nitrogen oxides (NOx) and sulfur oxides (SOx). The citation in support of the evidence, WHO (2003),⁵ admits that the epidemiological studies have “limited” (i.e., low) statistical strength, a finding that we have also made for recent health studies in California (e.g, Gaudermann et al, 2007).⁶ In that epidemiological study, none of the nine combinations of lung function parameter and modeled pollution level were statistically significant. Similarly, when the lung function measurements were compared with four groups defined by their distance from a nearby non-freeway road (i.e., distances < 75 m, 75-150 m, 150-300 m, and > 300 m), none of the nine combinations of lung function parameter and distance from the non-freeway road was statistically significant. The final comparison was of the lung function measurements and model-generated levels of pollution from the nearby non-freeway road, and again, none of the nine combinations of lung function parameter and modeled pollution level was statistically significant. No statistically significant differences were found in 34 out of 36 comparisons of lung function and distance or modeled pollution levels.

Another specific finding of epidemiological studies is that there is a 1% – 8% increased risk of mortality for every 50 µg/m³ PM₁₀ and a 1% – 3.5% increase in mortality for every 25 µg/m³ PM_{2.5}. The California Air Resources Board held a symposium on such studies on February 26, 2010, at which substantial criticism of such studies was presented by epidemiologists and toxicologists.

On a different note, addressing the potential for HIA to be an expensive, unneeded duplication of existing regulatory requirements, the scoping draft suggests that, as a mitigating factor, pollution from existing industrial stationary and mobile sources should be considered when assessing the impact of incremental air pollution from the expansion of port activities. As reasonable as this sounds, it is already accomplished comprehensively under the cumulative impact requirements of

⁴ Ewing, Reid., Lawrence Frank, and Richard Kreutzer. “Understanding the Relationship Between Public Health and the Built Environment: A Report Prepared for the LEED-ND Core Committee”, May 2006.

⁵ WHO. “Health aspects of air pollution with particulate matter, ozone, and nitrogen dioxide”, Report on a WHO Working Group. Bonn, Germany 13-15 January 2003. Copenhagen: World Health Organization, January 13-15, 2003.

⁶ Gauderman, W. James, Hita Vora, Rob McConnell, Kiros Behane, Frank Gilliland, Duncan Thomas, Fred Lurmann, Edward Avol, Nino Kunzli, Michael Jerrett and John Peters. Effect of exposure to traffic on lung development from 10 to 18 years of age: a cohort study, *The Lancet*, Volume 369, pages 571-577, February 17, 2007.

CEQA. Especially for air quality, cumulative air quality impact analysis is a standard section in Environmental Impact Reports (EIRs) prepared for all projects that involve at least one discretionary action on the part of a land use or regulatory agency.

