

Air Pollution Control Board

Greg Cox Dianne Jacob Pam Slater-Price Ron Roberts Bill Horn

District 1 District 2 District 3 District 4 District 5

April 11, 2008

### ENVIRONMENTAL COORDINATOR PACIFIC SHIP REPAIR & FABRICATION 1625 RIGEL ST SAN DIEGO CA 92113

ID: 87178A

### APPROVAL OF REVISED AB2588 "HOT SPOTS" HEALTH RISK ASSESSMENT AND NOTIFICATION REQUIREMENTS FOR PUBLIC NOTIFICATION

The District and the California Office of Environmental Health Hazard Assessment (OEHHA) have reviewed the revised health risk assessment (HRA) for Pacific Ship Repair & Fabrication Inc., located at 1625 Rigel Street in San Diego. Taking into consideration the comments of OEHHA, the District hereby approves the HRA with the following results.

Maximum Individual Excess Lifetime Cancer Risk	101 in a million
Maximum Residential Excess Lifetime Cancer Risk	3.48 in a million
Maximum Occupational Excess Lifetime Cancer Risk	41 in a million
Maximum Chronic Non-Cancer Health Hazard Index	0.015
Maximum Residential Chronic Non-Cancer Health Hazard Index	0.000517
Maximum Occupational Chronic Non-Cancer Health Hazard Index	0.0401
Maximum Acute Health Hazard Index	0.238
Maximum Residential Acute Health Hazard Index	0.0243
Maximum Occupational Acute Health Hazard Index	0.238

Population Excess Cancer Burden <1.0

These comments should be considered by the facility in future risk management decisions, and any future HRA or updates that may be required by the District. The approved HRA results are used to determine public health risk notification and risk reduction requirements under District Rule 1210. The approved HRA results indicate that potential public health risks exceed the public notification levels specified in Rule 1216 Section (d)(1).

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Therefore, within 45 days of receipt of this notice, your facility must submit a public notification plan that specifies the procedures you intend to use to notify the public of the results of the HRA. The required elements of the plan are described in District Rule 1210, Subsections (d)(5)(i) through (d)(5)(viii). In order to provide you with more information, a copy of District Rule 1210 and "Model Notification Letters and Attachments" are attached to this letter.

The District understands that these requirements are new to you and is available to meet with you at your request. If you have any questions regarding this matter, you may contact John Semerau at (858) 586-2749.

Sincerely,

Senior Air Pollution Control Engineer

AD:mp

Enclosure: District Rule 1210 Model Notification Letters and Attachments

#### SAMPLE NOTIFICATION LETTER PROVIDED TO PACIFIC SHIP REPAIR

April 2008

Dear Business Owner or Facility Manager:

This notice is being sent to inform you of possible exposures to toxic air pollutants.

State law requires that businesses and other sources of air pollution study possible public health effects from their emissions. A facility in your area has done such a study (called a health risk assessment). The results indicate that you may be exposed to toxic air pollutants from that facility.

Pacific Ship Repair and Fabrication conducts ship repair activities at its facility located in San Diego, California. Major activities include ship repair, welding, painting, fabrication and administration. The site releases chemicals (air pollutants) to the atmosphere that are considered toxic by the State of California.

The health risk assessment for Pacific Ship Repair and Fabrication estimates that people in the area could face some increased risk of developing cancer due to the Pacific Ship Repair and Fabrication emissions. The estimated increased risk could range from 10 to 41 in a million. The higher risk estimate is for a hypothetical person exposed while at work over an assumed 46 year duration. (*per HRA –no residential receptors*)

The risk assessment study is intended to overestimate risks for the public so that decisions will be more likely to protect children and individuals more sensitive to toxic air pollutants. However, the study does not include the combined health effects from other nearby air pollution sources. These sources can include motor vehicles, paints, solvents, other industries, and household products.

The Air Pollution Control District has determined that the estimated health risks from these emissions are not above significant risk levels and Pacific Ship Repair and Fabrication will not be required to reduce its emissions under this program. However, the District will encourage voluntary steps to reduce emissions, and will re-study Pacific Ship Repair and Fabrication emissions every four years.

Enclosed is more detailed information about the Pacific Ship Repair and Fabrication study and the Air Toxics "Hot Spots" program. If you would like more information, please complete and return the enclosed survey form. If you would like to attend a public meeting about this notification, please indicate this on the form.

For answers to your questions, please call the District's Public Information Office at (858) 586-2707 or (*insert here the appropriate Pacific Ship Repair and Fabrication site contact*)

(to be signed by) Director Air Pollution Control District

Enclosures

## **Office of Environmental Health Hazard Assessment**



Joan E. Denton, Ph.D., Director Headquarters • 1001 I Street • Sacramento, California 95814 Mailing Address: P.O. Box 4010 • Sacramento, California 95812-4010 Oakland Office • Mailing Address: 1515 Clay Street, 16<sup>th</sup> Floor • Oakland, California 94612

May 31, 2007



Linda S. Adams Secretary for Environmental Protection Arnold Schwarzenegger Governor

Archi dela Cruz San Diego County Air Pollution Control District 9150 Chesapeake Drive San Diego, California 92123-1096

Subject: Review of risk assessment for Pacific Ship Repair (SD-87178A)

Dear Mr. dela Cruz:

Staff of the Office of Environmental Health Hazard Assessment (OEHHA) have reviewed the August 19, 2005 risk assessment for airborne emissions from **Pacific Ship Repair and Fabrication** in San Diego (SD-87178A), as required by Health and Safety Code Section 44361. The facility repairs and makes metal parts for ships. The report uses ISCST3 and HARP computer programs and models at 649 receptors the risks due to eight Hot Spotschemicals (all of which are metals) emitted from four volume sources carrying out welding.<sup>+</sup> The facility based the report on estimated air emissions in 2003 which included 0:39 lbs: of hexavalent chromium, 0.428 lbs. of nickel, and 1.86 lbs of manganese. Staff also received the District's review.

The risk assessment reports that the total cancer risk at the off-site PMI (Point of Maximum Impact) is  $7.86 \times 10^{-6}$ . Hexavalent chromium is the responsible toxic air contaminant and is a known human carcinogen. The report states that the PMI is on the boundary of the facility. The report did not state at which numbered HARP receptor point the PMI is. In the HARP output files for cancer risk accompanying the report, OEHHA staff did not find a specific receptor with the risk of  $7.86 \times 10^{-6}$ . However, staff did note four receptors (0531, 0532, 0543, 0544) with total cancer risks greater than  $1.0 \times 10^{-4}$ . Based on its review of the report the District has recalculated the risk at the PMI to be  $5.96 \times 10^{-5}$ .

The highest chronic hazard index (HI) is predicted to be 0.00757 at the PMI for the respiratory system due to emissions of nickel. Based on its review the District has recalculated the chronic HI to be 0.043.

The highest acute hazard index (HI) is predicted to be 0.101 at the PMI. Based on its review the District has recalculated the acute HI to be 0.664 for the respiratory system due to  $\mu = \mu$  emissions of nickel and copper.

Based on Table ES-2 the correct health values were used in the report. However, the chronic Reference Exposure Levels for copper and zinc are holdovers from the earlier CAPCOAS guidelines and have not been adopted by the Director of OEHHA. OEHHA staff defer to the first of the

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Mr. Archi dela Cruz May 31, 2007 Page 2

District on the use of these values. Staff agree that it would be helpful if the HARP printouts of cancer, chronic and acute risk also listed which specific health values were used in the calculations.

OEHHA is currently updating its risk assessment guidelines as mandated by the Children's Environmental Health Protection Act of 1999. The most current health values should be used in any updates of the risk assessment.

Our analysis of the risks depends on the accuracy of the emissions estimates and the appropriateness of the air dispersion modeling. OEHHA staff defer to the District in the resolution of the discrepancies in source allocation and emission rates. The intent of this letter is to confirm or reevaluate the results of the risk assessment; it should not be construed to imply that OEHHA agrees with any editorial comments or statements contained in the text of the risk assessment that do not impact the results. We hope that our comments are useful to the District and will help in any risk management decisions. If you would like to discuss the review, please call me at (510) 622-3146.

Sincerely,

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James F. Collins, Ph.D. Staff Toxicologist Air Toxicology and Epidemiology Branch

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### Public Notification of Public Health Risks under the Air Toxics "Hot Spots" Program

# Note: Businesses should distribute this notice to employees or post it in an area where it can be viewed.

#### Why this notice?

Homes, businesses, and schools in your community are receiving this notice because Pacific Ship Repair and Fabrication located at 1625 Rigel Street, San Diego releases chemicals (air pollutants) to the atmosphere that are considered toxic by the State of California. Under a state law called the Air Toxics "Hot Spots" Information and Assessment Act of 1987, facilities that emit toxic air pollutants are required to study possible health effects from their emissions.

Pacific Ship Repair and Fabrication has prepared a report evaluating possible health effects resulting from estimated public exposures to the toxic air pollutants emitted from its facility. This report is called a public health risk assessment and is available at the Air Pollution Control District for review.

This health risk assessment is based on estimated levels of these pollutants in the community, not on actual measurements of pollutant concentrations. Emissions from Pacific Ship Repair and Fabrication were estimated for 2003. Computer models approved by the state were then used to estimate the concentrations of these pollutants in the air. The procedures used are designed to overstate potential pollutant levels to prevent public health risks from being underestimated. Therefore, your actual exposure to these contaminants may be less than the health risk assessment predicts.

#### What chemicals are emitted by Pacific Ship Repair and Fabrication?

The chemicals that the facility emits include:

Hexavalen	t Chromium	
Nickel		

0.39 lbs/year 0.428 lbs/year

These emissions typically occur (describe the typical schedule for the emissions – e.g. Monday through Friday, 8:00 AM to 4:00 PM, throughout the year).

#### What are the potential health effects?

The health risk assessment estimates that people in the area may face some increased risk of developing cancer due to Pacific Ship Repair and Fabrication emissions. The estimated increased risk could range from 10 to 41 in a million. The higher risk estimate is for a hypothetical person exposed while at work over an assumed 46 year duration.

The risk assessment study is intended to overestimate risks for the public so that decisions will be more likely to protect children and individuals more sensitive to toxic air pollutants. However, the study does not include *exposures to toxic air pollutants for which there are no established health effects values, nor*, the combined health effects from other nearby air pollution sources. These sources can include motor vehicles, paints, solvents, other industries, and household products.

#### How serious is this risk?

To help put these estimated health risks into perspective, consider that about four out of ten people get cancer for one reason or another during their lifetime. In other words, the odds of getting cancer in your lifetime are about 400,000 in one million. The average risk of contracting cancer from breathing toxic air contaminants in the ambient air in San Diego County is about 143 to 169 chances in one million. The majority of this risk is due to motor vehicle emissions.

Diesel particulates also contribute significantly to ambient risk levels. Although a method does not exist to directly monitor diesel particulate concentrations, ARB has suggested methods that can be used to estimate diesel concentrations. Based on ARB estimates, diesel particulate emissions could add an additional 420 in one million to the ambient risk levels, in San Diego County. ARB estimates that risk from diesel particulate has decreased by about 50% from 870 in one million since 1990.

Based on the health risk assessment estimate, this background risk could be increased by from zero to between 10 and 41 chances in a million as a result of exposure to emissions from Pacific Ship Repair and Fabrication.

#### What are Pacific Ship Repair and Fabrication and the District doing about this risk?

The Air Pollution Control District considers these estimated potential increased health risks to be significant and to warrant mandatory emission reductions. Pacific Ship Repair and Fabrication will be required to develop a plan to reduce their emissions as soon as possible, but generally within five years. That plan must be submitted to the District within the next 6 months and will be made available for public review and comment before it is approved by the District.

You will continue to receive this notice every year until the estimated health risks are below prescribed levels. The District will re-study Pacific Ship Repair and Fabrication emissions at least every four years, and each time any new or modified equipment that emits toxic air pollutants is proposed.

#### What can I do about these health risks?

You can also contact Pacific Ship Repair and Fabrication to discuss how and when it will reduce its emissions of toxic air pollutants and you can comment on their emissions reduction plan when it has been submitted. Many facilities have already taken voluntary steps to reduce their emissions of toxic air pollutants as a result of this program.

Besides the emissions from Pacific Ship Repair and Fabrication, there are many other sources of toxic air pollutants, including motor vehicles, paints, solvents, household products and other industries. Federal, state and local programs are reducing emissions from these sources, but you can help by carpooling, combining errands, keeping your car tuned and maintained, and by reducing use of paints and products containing solvents.

There are many other causes of cancer (smoking, diet, over exposure to the sun, etc.). The San Diego Chapter of the American Cancer Society can provide you with information on how to reduce your overall risk of cancer. They can be reached at (800) 227-2345.

#### Where can I review the health risk assessment for the Pacific Ship Repair and Fabrication?

Health risk assessments are available for public review at the District's offices located at 10124 Old Grove Road, San Diego. Please call (858) 586-2600 to make an appointment.