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*Mike McCann*

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September 15, 2005

John H. Robertus  
Executive Officer  
California Regional Water Quality Control Board  
San Diego Region  
9174 Sky Park Court, Suite 100  
San Diego, California 92123-4340

**PRE-HEARING CONFERENCE  
SEPTEMBER 26, 2005**

**RE: Tentative Cleanup & Abatement Order No. R9-2005-0126 Issued by the San Diego Regional Water Quality Control Board (“RWQCB”), (“Tentative Order”)**

Dear Mr. Robertus:

Reference is made herein to the Notice of Pre-Hearing Conference for the above-captioned Tentative Order, set for September 26, 2005 (the “Notice”), at the RWQCB Meeting Room in San Diego.

On page 3 of the Notice, it is stated that due to “incomplete service and the nature and timing of the previous Regional Water Board agenda items related to this matter, all previously-submitted comments and objections must be resubmitted, or they will be deemed to have been waived.”

On behalf of San Diego Gas & Electric Company (“SDG&E”) and pursuant to the Notice, I am resubmitting the attached SDG&E comments with respect to the Tentative Order. In addition, copies of these comments are also being distributed to the parties in the attached service list.

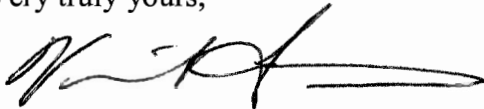
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SAN DIEGO REGIONAL WATER QUALITY CONTROL BOARD

John H. Robertus  
September 15, 2005  
Page 2

SDG&E reserves its right to supplement or modify this letter and the information contained therein, to the extent it deems necessary. Thank you.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Vincent M. Gonzales', with a long horizontal flourish extending to the right.

Vincent M. Gonzales

Enclosures

Service List Attached.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
PRE-HEARING CONFERENCE  
TENTATIVE CLEANUP & ABATEMENT ORDER NO. R9-2005-0126  
SEPTEMBER 26, 2005  
SERVICE LIST

Mr. Michael Chee  
National Steel and Shipbuilding Company  
P.O. Box 85278  
San Diego, CA 92186-5278

Mr. David Merk  
Director of Environmental Services  
Port of San Diego  
P.O. Box 120488  
San Diego, CA 92112

Mr. Scott Tulloch  
City of San Diego  
Metropolitan Wastewater Department  
9192 Topaz Way  
San Diego, CA 92123

Mr. Christopher J. McNevin  
Attorney for Chevron USA Inc.  
Pillsbury Winthrop Shaw Pittman, LLC  
10250 Constellation Blvd., 21<sup>st</sup> Floor  
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Mr. Sandor Halvas  
BAE Systems San Diego Ship Repair Inc  
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San Diego, CA 92170-3308

Mr. Brian Gordon  
Department of the Navy  
Environmental Department N45  
Commander Navy Region Southwest  
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San Diego, CA 92147-511

Mr. H. Allen Fernstrom  
Marine Construction and Design Co.  
2300 West Commodore Way  
Seattle, Washington 98199

Mr. Roy Thun  
BP West Coast Products LLC  
6 Centerpointe Drive  
La Palma, CA 90623-1066

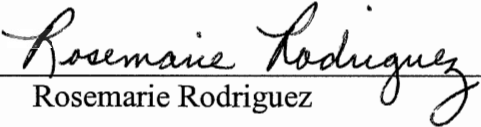
Ms. Laura Hunter  
San Diego Bay Council  
c/o Environmental Health Coalition  
1717 Kettner Blvd. #100  
San Diego, CA 92101

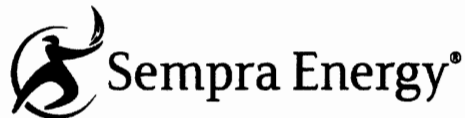
Mr. David Barker  
Shipyard Sediment Site Cleanup Team  
San Diego Regional Water Quality  
Control Board  
9174 Sky Park Court, Suite 100  
San Diego, CA 92123-4340

## CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the foregoing resubmittal of SDG&E comments with respect to Tentative Cleanup and Abatement Order No. R9-2005-0126 ("Order") on all known designated parties of record with respect to the Order via first-class mail to those listed on the official service list.

Dated at Los Angeles, California, this 15th day of September 2005.

  
\_\_\_\_\_  
Rosemarie Rodriguez



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August 2, 2005

**VIA OVERNIGHT MAIL**

John H. Robertus  
Executive Officer  
California Regional Water Quality Control Board  
San Diego Region  
9174 Sky Park Court, Suite 100  
San Diego, California 92123-4340

|  |
|--|
| <p><b>AUGUST 10 BOARD MEETING<br/>AGENDA ITEM 12</b></p> |
|--|

**RE: Cleanup & Abatement Order No. R9-2005-0126 Issued by the San Diego Regional Water Quality Control Board ("RWQCB"), on April 29, 2005 ("Order"); Statement on Proposed Procedures for Issuance of Order**

Dear Mr. Robertus:

Reference is made herein to (1) the above-captioned Order; and (2) the RWQCB's July 14, 2005 communication proposing procedures for the issuance of the Order (the "Proposed Procedures"). This letter constitutes San Diego Gas & Electric Company's ("SDG&E") written comments on the Proposed Procedures.

SDG&E appreciates the opportunity to review and comment on the Proposed Procedure prior to their consideration by the Regional Board on August 10, 2005. In general, SDG&E believes that the Proposed Procedures represent a significant step by the RWQCB towards ensuring that the process of deliberating and issuing the Order is conducted in as fair and open a manner as possible. Nonetheless, SDG&E believes that these Proposed Procedures can be improved, so that fairness and openness are more effectively ensured.

To begin with, SDG&E believes that the amount of time (45 days) proposed in the Proposed Procedures for both the review of Technical Report and for rebuttal to comments received with respect to the Technical Report, is insufficient. See page 6 of the Proposed Procedures. The 45-day time period is insufficient primarily because it does not allow enough time for SDG&E to fully analyze, understand, and evaluate the RWQCB's arguments and data contained in the Technical Report which, incidentally, has not yet been issued. Furthermore, it does not allow SDG&E enough time to finalize and submit its report on the additional sediment sampling and

John H. Robertus  
August 2, 2005  
Page 2

analysis that SDG&E performed last month at the location in the Bay alleged to have been contaminated by SDG&E's operations. This analysis and report will present significant, new and updated information about the sediments in this location. Therefore, SDG&E proposes that instead of 45 days, the Proposed Procedures should set aside at least 90 days for each of these two public review and comment periods. By setting aside 90 days for public review of the Technical Report and another 90 days for public rebuttal on the comments received with respect to the Technical Report, the Regional Board will be assured that the sufficient time and opportunity has been given for the review and evaluation of what will be the key document that forms the basis for this projected \$100 million cleanup.

Secondly, SDG&E hereby incorporates by reference the comments and suggestions made by the attorneys representing the National Steel and Shipbuilding Company ("NASSCO"), in their Statement of Objections to the Proposed Procedures, submitted to the Regional Board contemporaneously with this letter. SDG&E agrees with and endorses all of the changes and improvements recommended by NASSCO to the Proposed Procedures, which are designed to afford full statutory and due process rights to all of the parties named in the Order. SDG&E strongly believes that the changes proposed by NASSCO will also serve the greater good of ensuring that fairness and openness are preserved in this process.

Finally, SDG&E wishes to clarify that its comments regarding the Proposed Procedures do not constitute an acceptance of or an agreement with the findings in the CAO, especially the designation therein of SDG&E as a discharger. SDG&E's objections to the CAO which are set forth in its June 15, 2005 submittal to the RWQCB and the Regional Board still stand and are not being withdrawn in light of its comments herein.

SDG&E reserves its right to supplement or modify this letter and the information contained therein, to the extent it deems necessary. Thank you very much for your consideration.

Very truly yours,



Vincent M. Gonzales



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June 15, 2005

**VIA FAX, E-MAIL &  
FIRST CLASS MAIL**

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Executive Officer  
California Regional Water Quality Control Board  
San Diego Region  
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**ATTN: AGENDA FOR SEDIMENT CLEANUP**

**RE: Tentative Cleanup & Abatement Order No. R9-2005-0126 Issued by the San Diego Regional Water Quality Control Board ("RWQCB"), on April 29, 2005 ("Order")**

Dear Mr. Robertus:

Reference is made herein to (1) the above-captioned Order; and (2) that certain Notice of Public Workshop Rescheduled, Notice of Public Hearing Postponed, dated May 20, 2005, and issued by the RWQCB with respect to the Order (the "Notice").

**Please be advised that neither this letter nor the information contained therein constitute nor shall be construed as constituting either an admission of any wrongdoing or violation, or an acknowledgment of or agreement with any or all of the findings, statements, conclusions or other allegations set forth either in the Order or the Notice.**

This letter constitutes San Diego Gas & Electric Company's ("SDG&E") written response to the Order. It is being submitted in accordance with the instructions set forth in the Notice.

The Order alleges that elevated levels of certain metal and organic pollutants above San Diego Bay background conditions exist in the San Diego Bay (the "Bay") bottom marine sediment adjacent to a number of shipyards (the "Shipyard Sediment Site"). The Order further alleges that these elevated pollutant levels adversely affect aquatic life, aquatic-dependent wildlife and human health at the Shipyard Sediment Site. Finally, the Order directs the dischargers' to take all corrective actions necessary to cleanup the contaminated sediment to certain quality levels.

SDG&E hereby objects to the Order on the basis of the following:

**The Order fails to identify SDG&E as a discharger that contributed to the contamination, in accordance with the requirements in California Water Code ("CWC") Section 13304.**

In Section 8 (pages 5-6 of the Order), the Order identifies SDG&E as a discharger of pollutants, because SDG&E owned and operated a power plant which took in and discharged cooling water into the Bay, as well as operated wastewater holding ponds. The Order, however, fails to take the second step, in accordance with CWC Section 13304, of showing or stating that these SDG&E discharges caused or contributed to the sediment contamination at the Shipyard Sediment Site. Unlike the other dischargers named in the Order, SDG&E was not identified by the RWQCB as a discharger whose discharges "*contributed to the accumulation of pollutants in the marine sediments at the Shipyard Sediment Site to levels which cause, and threaten to cause, conditions of pollution, contamination, and nuisance . . .*" See Section 8 on pages 5 and 6 of the Order, and compare it with Sections 2, 3, 4, 5, 6, 7, and 9.

Furthermore, the RWQCB has not provided any evidence or factual proof on the basis of which it identified SDG&E and the other dischargers in the Order. The RWQCB has failed to issue any kind of staff report containing the necessary analyses, assessment and other evaluative data on the basis of which it could identify the dischargers it named in the Order. The Order itself provides very little meaningful technical information with respect to at least some of the dischargers and exactly how they may have contributed to the contamination at the Shipyard Sediment Site. In fact, the RWQCB states in Section 11 on page 7 of the Order, that its findings and conclusion are based solely on "the data and other technical information contained in the report prepared by NASSCO's and Southwest Marine's consultant, Exponent entitled *NASSCO and Southwest Marine Detailed Sediment Investigation, September 2003.*"

The Exponent report, however, arrived at conclusions that were vastly different than what the RWQCB states in the Order. In particular, the Exponent report documented a large area of metal and organic contamination of surface sediments with concentration gradients indicating a source other than SDG&E. Moreover, the Exponent report also noted that most of the metals found in the sediments close to where SDG&E's former facility were in the form of slag which is used as an abrasive blasting material -- a process as well as a waste product that are not consistent with the operations at SDG&E's former power plant facility.

Finally, it appears that when identifying dischargers for the order, the RWQCB may have followed the less stringent standard set forth in CWC Section 13267 which provides that the RWQCB may identify any person suspected of having discharged waste which could affect the quality of waters in the state. This is confirmed in Section 35 (Legal and Regulatory Authority) on page 26 of the Order, wherein the RWQCB cites precisely Section 13267 as providing the legal basis for the Order, while failing to cite at

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<sup>1</sup> The dischargers named in the Order are: NASSCO; Southwest Marine, Inc.; City of San Diego; Marine Construction & Design Company, and Campbell Industries, Inc.; Chevron; BP; SDG&E; and the US Navy.



all CWC Section 13304. While the standard in Section 13267 is appropriate for identifying dischargers when issuing an investigative order, it is not appropriate for identifying dischargers when issuing a cleanup and abatement order.

Therefore, the RWQCB failed to satisfy the requirements of CWC Section 13304 when it failed to show that SDG&E contributed to the sediment contamination at the Shipyard Sediment Site.

**The Order is issued on the basis of incorrect and faulty factual assumptions.**

To begin with, in Section 8 of the Order, the RWQCB alleges that SDG&E owned and operated its Silvergate [sic] Power Plant from 1943 to the 1990s. This is incorrect. SDG&E once owned and operated the Silver Gate Power Plant on Sampson Street (700 feet inland from the bay), from 1943 up to 1984 when it was decommissioned (the "Plant"). The Plant is on land that SDG&E owns in fee. The Plant has not been operated for 20 years. SDG&E had earlier pointed this factual error to the RWQCB in its March 3, 2004, written response to the RWQCB's Investigation Order No. R9-2004-0026, issued on February 19, 2004, but this factual correction was ignored by the RWQCB when it issued the Order.

Second, in Section 11 on page 7 of the Order, it is stated that the RWQCB's findings and conclusion are based solely on the data and other technical information contained in the Exponent report. This statement is also not true. The Order refers to data and other technical information that are not contained in the Exponent report. For instance, the Order presents a "Summary of Economic Feasibility Evaluation" in Section 33 (page 23) that appears to be based on engineering calculations by NOAA, presented in the following documents.

1. Memorandum from NOAA to Regional Board, dated February 23, 2005. Re: Calculation of Dredging Volumes at the NASSCO and Southwest Marine Shipyards for Alternative Remedial Scenarios.
2. Memorandum from NOAA to Regional Board, dated March 14, 2005. Addendum to Memorandum dated February 23, 2005, Re: Calculation of Dredging Volumes at the NASSCO and Southwest Marine Shipyards for Alternative Remedial Scenarios.
3. Memorandum from NOAA to Regional Board, dated April 12, 2005. Re: Calculation of post-dredging area weighted averages at the NASSCO and Southwest Marine Shipyards for Alternative Remedial Scenarios.
4. Memorandum from NOAA to Regional Board, dated May 12, 2005. Re: Calculations of Dredging Volumes at the NASSCO and Southwest Marine Shipyards for Five Times Baseline Remedial Scenario Using TBT, PCB and Benzo(a)pyrene (BAP).

Third, while the Order correctly states that PCBs had been detected in SDG&E's wastewater holding ponds, the RWQCB, however, incorrectly states that, therefore, SDG&E is the source of PCBs in the Shipyard Sediments Site. There is no evidence given to show that these ponds had leaked and released PCBs into the Bay. On the contrary, there is significant evidence and data in the Exponent report and others, showing that the PCBs detected in the Shipyard Sediment Site originated elsewhere other than SDG&E's power plant facility. In fact, there are historic records (including photographs) showing that shipyard operations were being conducted on and around SDG&E's open ponds – operations which included ship repair. It is also generally accepted that PCBs are ubiquitous in the shipbuilding industry, particularly in older vessels where PCBs can be found in "... rubber products such as hoses, plastic foam insulation, cables, silver paint, habitability paint, felt under septum plates, plates on top of the hull bottom, and primary paint on hull steel." (OSHA Fact Sheet "Shipbreaking," 2001.) More likely than not, PCBs from the ship building and repair operations were deposited in SDG&E's ponds as well as in the Bay. The RWQCB's contention that the PCBs in the ponds were the source of the PCBs in the Bay is,

therefore, is as anomalous and faulty a proposition as arguing that a child gave its parent a cold, or vice versa, when both individuals were exposed to the same cold virus at the same time.

**The Order violates the requirements and policies set forth in the CWC and in State Water Resources Control Board's Resolution No. 92-49 ("92-49").**

CWC Section 13360 prohibits the RWQCB from specifying the method the dischargers may use to comply with the Order, as well as requires the RWQCB to allow the dischargers to propose lawful methods for achieving compliance. The Order, however, violates CWC Section 13360 when it arbitrarily presents the dischargers with only one method for achieving compliance, namely, dredging. See Section 32 on page 23 of the Order.

The Order, furthermore, fails to comply with the RWQCB's own policies set forth in 92-49 which requires, among other things, that the RWQCB make a "reasonable effort" to identify the dischargers that contributed to the contamination. As discussed above, the RWQCB failed to show that SDG&E's discharges had contributed to the sediment contamination at the Shipyard Sediment Site. The RWQCB also utilized the less stringent standard of CWC Section 13267 which allows identifying discharges solely on the basis of suspicion, instead of proof. Therefore, with respect to naming SDG&E a discharger, the RWQCB failed to comply with 92-49. Furthermore, with respect to naming the other dischargers, the RWQCB also shows its failure at making a "reasonable effort" at doing this when it issues the Order without concurrently issuing the staff report containing the evidentiary bases upon which each of the dischargers are identified. Consequently, without the staff report, the RWQCB is unable to show that it complied with the first requirement of 92-49, which is to use "evidence" when naming dischargers in a cleanup and abatement order pursuant to CWC section 13304.

Finally, 92-49 requires the RWQCB to allow the dischargers to propose and select possible corrective actions, from the perspective of feasibility and cost-effectiveness. The Order, however, violates this requirement, because the Order immediately directs the dischargers, 90 days after adoption of the Order, to submit a remedial action plan (not a feasibility study or remedial investigation report), and to implement that remedial action plan 60 days after submittal. See *Order Directives A, B, C and D*, on pages 27 to 30 of the Order. Indeed, the first paragraph of the *Order Directives* section states that these directives are being ordered pursuant to both CWC Sections 13304 and 13267, the latter pertaining to the investigation and assessment of the contamination, which is not even listed in this Section.

In conclusion, SDG&E hereby submits that the RWQCB should remove SDG&E from the list of dischargers before it issues the Order in final form:

1. The findings and conclusions set forth in the Order are not legally sufficient to support or justify the RWQCB's decision to name SDG&E a discharger contributing to the contamination at the Shipyard Sediment Site.
2. Not only does the RWQCB fail to provide evidence proving that SDG&E contributed to the contamination at the Shipyard Sediment Site, but the Order itself also avoids stating conclusively that SDG&E's discharges contributed to the Shipyard Sediment Site.
3. The Order itself contains a number of factual inaccuracies and errors, which are not only easy to prove as errors, but also may prove to be the "Achilles Heel" of the Order if and when it is finalized and subsequently challenged in court.

John H. Robertus

June 15, 2005

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4. Moreover, the RWQCB itself failed to comply with its own internal policies when it issued the Order without exercising "reasonable effort" or providing "evidence" in identifying the dischargers, as required by its very own Resolution 92-49.
5. Finally, the RWQCB not only violated Resolution 92-49, but it also violated CWC Section 13360, both of which prohibit the RWQCB from specifying the corrective methods for dischargers to use to comply with the Order, when the RWQCB presented only one method for achieving compliance with the Order, namely, dredging.

Fortunately, removing SDG&E from the list of dischargers will not have the collateral effect of not having enough dischargers with the resources sufficient to address and conduct the corrective actions set forth in the Order. In fact, the two shipyards named in the Order possess sufficient resources to address and remediate the contamination in the Shipyard Sediment Site.

SDG&E reserves its right to supplement or modify this letter and the information contained therein, to the extent it deems necessary. Thank you very much for your consideration.

Very truly yours,

A handwritten signature in black ink, appearing to read 'V. M. Gonzales', with a long horizontal flourish extending to the right.

Vincent M. Gonzales



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**RECEIVED**

**JUN 17 2005**

**VINCENT GONZALES**

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Regional Water Quality Control Board  
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rb9agenda@waterboards.ca.gov

June 15, 2005

**Attn: Agenda for Sediment Cleanup**

**Re: Comments on Tentative CAO R9-2005-0126 dated April 29, 2005**

Dear Mr. Robertus:

We provide the following comments for consideration by the Regional Water Quality Control Board (RWQCB) members and staff. Please note that the following technical comments on the Tentative CAO are summary in nature, due to the RWQCB only releasing summary-level findings without supporting data and calculations, references or citations, or Staff Report. These comments were prepared by ENV America, consultant to SDG&E.

**Comments on "PERSONS RESPONSIBLE," Finding 8 "SDG&E"**

We disagree with the RWQCB finding that there are data or other technical information that support naming SDG&E as a discharger in the Tentative CAO. In Finding 8 the RWQCB makes statements about SDG&E's former operations at Silver Gate power plant, and concludes that these statements are the basis for naming SDG&E as a discharger. (While the RWQCB does not cite a reference for the statements made about SDG&E's operations, it appears that the RWQCB has taken these observations from SDG&E's Investigation Order (IO) reports prepared by ENV America Incorporated (2004a<sup>1</sup> and 2004b<sup>2</sup>)).

The available data presents a compelling argument that SDG&E was not and is not a discharger to marine sediments. We draw your attention to the primary conclusion from

<sup>1</sup> ENV America, 2004a, Site Assessment Report, Landside Tidelands Lease Area, Silver Gate Power Plant, San Diego, California. July 14. Prepared for SDG&E. Provided to RWQCB in July 2004.

<sup>2</sup> ENV America, 2004b, Technical Report for RWQCB Investigation Order No. R9-2004-0026, Silver Gate Power Plant, San Diego, California. July 14. Prepared for SDG&E. Provided to RWQCB in July 2004.

the IO report, and SDG&E's pending site assessment work. The primary conclusion and recommendation from SDG&E's IO report was:

*"The Exponent (2003) sediment sampling stations in the SDG&E wharf leasehold and the north portion of SWM's wharf leasehold were spaced over 100 feet apart [very sparse], and there were only three sediment sampling stations in SDG&E's leasehold. The [available] data indicate that SDG&E discharges were not a cause of sediment contamination. Additional data are recommended to conclude with certainty that SDG&E discharges were not a cause of sediment contamination."*  
(ENV America 2004b, page 34)

Recognizing that there is uncertainty, SDG&E is planning to conduct its own sampling of bay sediments. On May 16, 2005, the RWQCB was provided with SDG&E's workplan to independently sample and analyze sediments to determine if SDG&E operations contributed to sediment contamination (ENV America 2005<sup>3</sup>). SDG&E plans to conduct sampling in July of 2005, and to publish the results by November 2005.

Given that there is little evidence that SDG&E was or is a discharger, the RWQCB should refrain from considering SDG&E to be a discharger until SDG&E has completed its own sediment sampling, analysis and data evaluation, and there are sufficient data to conclude with certainty whether SDG&E was or was not a contributor to contamination in bay sediments.

The following explains why specific statements in Finding 8 of the Tentative CAO are erroneous or misleading.

The RWQCB erroneously concludes that operational history and site assessment data from former wastewater ponds indicates that the ponds discharged or threaten to discharge PCBs or other contaminants to San Diego Bay. The RWQCB correctly states that SDG&E operations included discharging of wastes to holding ponds, but the RWQCB errs when it states that the detection of PCBs in one of two former ponds is evidence that SDG&E was a source of PCBs detected in the bay sediments. Substantial data and information refute the RWQCB's linking of PCBs in bay sediments to SDG&E operations, and the data strongly indicate that PCBs and PCTs detected in sediment originated from releases in the vicinity of the shipyard marine railways and the landward end of Pier 1.

- The concentration trends in the sediment data strongly indicate that the primary source of PCBs and PCTs in the northern end of Exponent Sediment Investigation study area was in the vicinity of the shipyard marine railways at the landward end of Pier 1 (ENV America 2004b, 2005) (in particular, see Figure 5 in ENV America [2005], which presents and illustrates a more complete record of PCB data than was presented in Exponent's Sediment Investigation).

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<sup>3</sup> ENV America, 2005, Sediment Sampling Workplan, Silver Gate Power Plant, San Diego, California. March 29. Prepared for SDG&E. Provided to RWQCB on May 16, 2005.

- PCBs were detected in only two samples from one of SDG&E's former wastewater ponds, at a maximum concentration of 2.8 ppm Aroclor 1260 (ENV America, 2004a), which is a concentration far lower than was detected in bay sediments. The maximum concentration of total PCBs detected in bay sediments in the north end of the Exponent Sediment Investigation study area was 34 ppm (location SW08, which also had the highest concentration of PCTs) (ENV America 2005). If the former wastewater ponds were a source of PCBs detected in bay sediments, then one would expect to see the highest PCB concentrations in the former wastewater ponds. The concentration trends do not indicate that the former wastewater ponds were a source of PCBs – on the contrary, the concentration trends indicate that the shipyard was the primary source of PCBs. The concentration trends indicating that the shipyard is the primary source of PCBs is consistent with literature about PCBs and ships.
  - PCBs are a known problem in the shipbreaking industry, and in older vessels PCBs are encountered in a variety of materials, including “...rubber products such as hoses, plastic foam insulation, cables, silver paint, habitability paint, felt under septum plates, plates on top of the hull bottom, and primary paint on hull steel.” (OSHA Fact Sheet, “*Shipbreaking*,” 2001)
  - “PCBs are found throughout older vessels and it is likely your ship scrapping facility will be faced with managing large quantities of PCBs.” (“*Guide for Ship Scrappers*,” USEPA 315-B0-00-001)
- The affected soil beneath the former wastewater ponds does not threaten to discharge to the bay. ENV America (2004a) demonstrated that (1) the affected soil of the former wastewater ponds is buried beneath several feet of clean soil and pavement, which means the affected soil is not a current or potential future source of contaminated surface runoff, if left undisturbed; and (2) the groundwater samples collected from beneath the former wastewater ponds did not have detectable PCBs (PCBs generally do not migrate in groundwater). ENV America (2004a) demonstrated that the groundwater concentrations beneath the former wastewater ponds are below applicable regulatory criteria and there is no threat to the bay via the groundwater migration pathway.
- The plant records indicate that former wastewater ponds were used for treatment or disposal of the power plant bilge trench water; and given that no PCBs were detected in the power plant's bilge trenches, it is unlikely that the source of PCBs detected in the former wastewater pond was the power plant operations. The power plant's bilge trenches were the receiver or collector of many of the low volume liquid waste discharges from the power house. If PCBs had been released in the power house, then it is likely that PCBs would have been detected in the bilge trenches.

- A number of records (photographs, an engineering drawing and lease records) document that the shipyard subleased the land parcel containing the wastewater ponds, and in the late 1960s or early 1970s the shipyard operations appear to have encompassed the open wastewater pond. Records also indicate that the shipyard constructed decking above the wastewater pond to enable shipbuilding or ship repair activities to be performed over the pond area.
- PCBs were not used in appreciable quantities in the power plant and substation. The only known uses of PCBs in the powerhouse were in small closed systems such as in capacitors and fluorescent light ballasts (similar to the use of PCBs in many older commercial or residential buildings). The transformers in SDG&E's Silver Gate substations and switchyard did not contain PCB dielectric fluids, and contained only trace PCBs.

SDG&E is continuing to research records on PCB uses and occurrences at Silver Gate power plant, and will provide additional supporting documentation to the RWQCB in a future transmittal.

There is no conclusive evidence linking SDG&E discharges to contamination in found in marine sediments. The IO report (ENV America 2004b) addressed the RWQCB's earlier allegations<sup>4</sup> that SDG&E's operations contributed to elevated concentrations of cadmium, chromium, mercury, nickel and PCTs in marine sediment. We note that the RWQCB through issuing the new Tentative CAO, without maintaining earlier allegations, concurs with ENV America's (2004b) conclusion that data indicate that SDG&E did not contribute to elevated concentrations of cadmium, mercury, nickel and PCTs in marine sediment.

The following comments address the RWQCB's new allegations in the Tentative CAO that SDG&E's non-contact cooling water discharges contributed pollutants to marine sediments, including chromium, iron, copper, total suspended solids (TSS) and petroleum hydrocarbon (on the basis of waste discharge monitoring records).

- The patterns of contaminant distribution in sediment do not indicate that the cooling water discharges were a source of contaminants in sediment – on the contrary, the concentration trends indicate that the shipyard and City storm water discharges were the source of contaminants in sediment. (see Exponent Sediment Investigation; and ENV America, 2004b and 2005.)
- SDG&E's historical chromium exceedances in cooling water were minor, and the form of chromium found in bay sediments at the shipyard is unlikely to have come from SDG&E's discharges, but is likely to have come from shipyard discharges. ENV America (2004b) documented that the only known use of

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<sup>4</sup> Finding 10 of Investigation Order No. R0-2004-0026.

chromium at Silver Gate power plant was sodium dichromate, which was used as a corrosion inhibitor in the service water system. Exponent's Sediment Investigation and Technical Memorandum of April 6, 2004, documented that in sediments more than 80 percent of the relative mass of chromium was present as iron-chromium oxide, and 60 percent of the relative mass of chromium was present as chalcopyrite, copper-zinc oxide, and slag. The major source of the primary chromium forms found in sediment was most likely shipyard wastes, such as sand blasting grit (blasting grit is commonly ore slag, a source of the mineral chalcopyrite and other forms of chromium), alloy steels and other metal debris (most alloy steels contain chromium, and stainless steel contains over 10 percent chromium), and paint debris (chromium is used in many pigments). Major waste streams in current and historical shipyard operations are sand blast grit, steel debris and paint debris.

- SDG&E's historical iron and TSS exceedances in cooling water were minor, and are not relevant, because iron and TSS are not rare constituents, nor are they identified as chemicals of concern in the shipyard cleanup.

#### **Comment on "FACTUAL BACKGROUND"**

Finding 11 in the Tentative CAO in its entirety states:

**"SEDIMENT QUALITY INVESTIGATION.** Unless otherwise explicitly stated, the RWQCB's finding and conclusions in this Cleanup and Abatement Order are based on the data and other technical information contained in the report prepared by NASSCO's and Southwest Marine's consultant, Exponent entitled *NASSCO and Southwest Marine Detailed Sediment Investigation, September 2003.*"

Finding 11 is incorrect. We find that the RWQCB, in drafting the Tentative CAO, presents data and much other technical information that was not contained in the Exponent Sediment Investigation. For instance, the Tentative CAO presents a "Summary of Economic Feasibility Evaluation" (Finding 33) that appears to be based on engineering calculations by NOAA, presented in the following documents.

Memorandum from NOAA to RWQCB, dated February 23, 2005. Re: Calculation of Dredging Volumes at the NASSCO and Southwest Marine Shipyards for Alternative Remedial Scenarios.

Memorandum from NOAA to RWQCB, dated March 14, 2005. Addendum to Memorandum dated February 23, 2005, Re: Calculation of Dredging Volumes at the NASSCO and Southwest Marine Shipyards for Alternative Remedial Scenarios.

Memorandum from NOAA to RWQCB, dated April 12, 2005. Re: Calculation of post-dredging area weighted averages at the NASSCO and Southwest Marine Shipyards for Alternative Remedial Scenarios.



Memorandum from NOAA to RWQCB, dated May 12, 2005. Re: Calculations of Dredging Volumes at the NASSCO and Southwest Marine Shipyards for Five Times Baseline Remedial Scenario Using TBT, PCB and Benzo(a)pyrene (BAP).

We observed that the Sediment Investigation report available to us (via posting on the RWQCB's website) is dated October 2003, and is not dated September 2003 as cited in the Tentative CAO. We request that the RWQCB provide us a copy of the September 2003 report, if the citation was correct.

**Comment on Finding 15, "BASELINE SEDIMENT QUALITY CONDITIONS," and Finding 31, "BACKGROUND SEDIMENT QUALITY"**

We note that the RWQCB has published background sediment chemistry levels that are different than those published in Exponent's Sediment Investigation. Please explain why and how the RWQCB calculated new background concentrations, particularly in light of the extensive plans, correspondence and discussion that preceded Exponent's development of background concentrations.

**Comments on evaluation of baseline risk in**

**Aquatic life beneficial use impairment (Findings 12 to 21)**

**Aquatic-dependent wildlife beneficial use impairment (Findings 22 to 25)**

**Human health beneficial use impairment (Findings 26 to 29)**

We note that the RWQCB and Exponent in evaluating baseline risk used substantially different assumptions and input values, and arrived at substantially different conclusions about impairment of beneficial uses. We found it difficult to review or understand the RWQCB's risk assessments, because the RWQCB did not provide explanations in the Tentative CAO to explain why and how the RWQCB deviated from project guidance, project plans, and Exponent's Sediment Investigation results. Please explain why and how the RWQCB chose to use different assumptions and input values for evaluating risk.

We noted a large number of apparent inadequacies in the risk evaluations, and to minimize the length of these comments we directed our comments to only the human health risk assessment (Findings 26-29). These same comments or similar comments also apply to the risk assessments the RWQCB performed for aquatic-dependent wildlife (Findings 22-25).

The RWQCB incorrectly used a fractional intake (FI) of 1 for the screening (Tier I) and baseline (Tier II) human health risk assessments. Given that the shipyard area is now and will continue to be an operating shipyard with strict, enforced prohibitions on public fishing access, it is inappropriate to use a fractional intake of 1 to conduct risk assessments using tissue concentrations from fish and shellfish with high site fidelity. The approach used to perform baseline risk assessments in California when there is no foreseeable change in site use is to conduct risk assessments using reasonable assumptions and inputs based on the current site use or planned future site use. The RWQCB should recalculate the baseline human health risk assessment using an appropriate exposure scenario and inputs based on the current and planned site use.

The RWQCB presents generalized conclusions that do not adequately portray baseline risks, and possibly incorrectly portray baseline risks. For instance, the RWQCB in Finding 29 states that they quantified (calculated) the baseline carcinogenic risks and hazard quotients for four assessment areas and one reference (background) area, but the RWQCB presented only one assumption (the FI) of the dozen or more the assumptions necessary to establish a baseline risk assessment and the RWQCB did not present the quantified results (the numerical results), except to say that the undisclosed numbers were above or below a particular risk index number. For instance, in just one example, the RWQCB in Finding 29 indicates that the concentrations from whole body Sand Bass caught inside the SWM leasehold had an undisclosed carcinogenic risk number above  $1 \times 10^{-6}$ , the same fish species from the background area had an undisclosed carcinogenic risk number above  $1 \times 10^{-6}$ , PCBs presented 96 percent of the cumulative cancer risk, and the RWQCB concluded that the area inside the SWM leasehold poses a theoretical increased cancer risk. Because the RWQCB did not presented the numerical results from the risk assessment, the RWQCB has not demonstrated whether there is a significant difference between background risk and site risk, the RWQCB has not revealed the amount of increase in the theoretical cancer risk, and the RWQCB has presented insufficient data to contribute to and initiate a meaningful and detailed discussion about baseline risk. We request that the RWQCB publish the full results of the risk assessment.

**Comment on Finding 33, 'ECONOMIC FEASIBILITY CONSIDERATIONS'**

The Tentative CAO does not present quantified risk levels associated with the cleanup levels of 5x, 10x, 15x and 20x background for TBT, BaP and PCBs. In the table in Finding 33, the RWQCB indicates that they determined what the "long-term effects" may be for cleanup to 5x, 10x, 15x and 20x background for TBT, BaP and PCBs. The "long-term effects" are ranked on a scale of 10 (+5 to -5), and the assigned scores appear to be qualitative scores. On a project of this magnitude having an abundance of scientific data, the RWQCB should evaluate effects on beneficial uses using scientific relationships between chemistry and risk (i.e. quantified risk assessments).

**Comment on Finding 34, "ALTERNATIVE SEDIMENT CLEANUP LEVELS"**


The cleanup levels proposed by the RWQCB are not consistent with Section II.a.9 of SWRCB Resolution No. 92-49, (*Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304*), which states that the RWQCB shall... "Prescribe cleanup levels which are consistent with appropriate levels set by the RWQCB for analogous discharges that involve similar wastes, site characteristics, and water quality considerations..." The RWQCB is currently proposing cleanup levels that are based on baseline risk assessment exposure scenarios and assumptions that are inconsistent with the current practice in California, and the RWQCB is proposing cleanup levels that are far lower than previously set for analogous projects at Campbell Shipyard, Shelter Island Boat Yard, America's Cup Harbor, Paco Terminals and Teledyne Ryan. The RWQCB should revise its risk assessment models to use appropriate site-specific exposure scenarios and input values consistent with the standard practices used in California, and the RWQCB should prescribe cleanup levels consistent with the prior cleanups in San Diego Bay.

The cleanup levels that the RWQCB is proposing for metals are without precedence, and are probably not practical to achieve in the field. We note that the RWQCB is proposing cleanup levels that are approximately equal to background (see table below), and appear to have no foundation in risk assessment. The proposed cleanup levels for metals appear to have been chosen by selecting the predicted residual concentrations that would exist after cleanup of TBT, BaP and PCB. We recommend the RWQCB consider using risk-based cleanup levels for metals, and establish cleanup levels only for those metals that significantly contribute to risk.

| Chemical             | Units | RWQCB proposed CU level | RWQCB CU level as multiples of background | RWQCB background 95% UPL | Exponent background 95% UPL |
|----------------------|-------|-------------------------|---|--------------------------|-----------------------------|
| Arsenic              | mg/kg | 10                      | 1.33                                      | 7.5                      | 9                           |
| Cadmium              | mg/kg | 1                       | 3.03                                      | 0.33                     | 0.29                        |
| Chromium             | mg/kg | 81                      | 1.42                                      | 57                       | 57                          |
| Copper               | mg/kg | 200                     | 1.65                                      | 121                      | 120                         |
| Lead                 | mg/kg | 90                      | 1.70                                      | 53                       | 48                          |
| Mercury              | mg/kg | 0.7                     | 1.23                                      | 0.57                     | 0.56                        |
| Nickel               | mg/kg | 20                      | 1.33                                      | 15                       | 17                          |
| Silver               | mg/kg | 1.5                     | 1.36                                      | 1.1                      | 1                           |
| Zinc                 | mg/kg | 300                     | 1.56                                      | 192                      | 210                         |
| Tributyltin          | ug/kg | 110                     | 5   | 22                       | 5.1                         |
| Benzo(a)pyrene       | ug/kg | 1010                    | 5   | 202                      | --                          |
| PCB, total congeners | ug/kg | 420                     | 5   | 84                       | 36                          |

Thank you for the opportunity to submit these comments. We look forward to your response.

Sincerely,  
**ENV America Incorporated**



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