



California Regional Water Quality Control Board San Diego Region

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Linda S. Adams
Acting Secretary for
Environmental Protection

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Edmund G. Brown Jr.
Governor

CERTIFIED MAIL – RETURN RECEIPT REQUESTED
7010 1060 0000 4952 8249

June 3, 2011

In reply refer to:
T10000002642:bpulver

Mr. Brian T. Thorne
Lockheed Martin Corporation
Enterprise Business Services – EESH
2950 N. Hollywood Way, Suite 125
Burbank, California 91505-1072

Dear Mr. Thorne:

SUBJECT: INVESTIGATIVE ORDER NO. R9-2011-0026
LOCKHEED MARINE TERMINAL AND RAILWAY
1160 HARBOR ISLAND DRIVE, SAN DIEGO, CALIFORNIA

Enclosed is Investigative Order No. R9-2011-0026 (Order) issued by the California Regional Water Quality Control Board, San Diego Region (San Diego Water Board) to the Lockheed Martin Corporation (Lockheed). The Order directs Lockheed to conduct an investigation of soil, groundwater, and bay sediments at the Lockheed Marine Terminal and Railway.

The Order is issued under authority of California Water Code section 13267. The report of the investigation is due to the San Diego Water Board no later than **5:00 pm on March 30, 2012**. Other reporting deadlines are presented in Directive D of the Order. The San Diego Unified Port District (Port) will be conducting an investigation of the bay sediments at the adjacent Sunroad Marina. I highly recommended that Lockheed work with the Port to concurrently conduct the bay sediment investigations so that the data from both investigations can be used to assess the sediment quality in the East Basin.

On May 10, 2011, you were provided a draft copy of the Order for your review and comment. You provided your comments in an e-mail dated May 13, 2011. Your comments were reviewed and the Order was amended as follows:

1. The due date for submission of the Site Assessment Workplan (Directive A) was changed from July 30, 2011 to August 30, 2011.
2. The name of the facility was changed from the Former Lockheed Marine Terminal and Railway to the Lockheed Marine Terminal and Railway.

California Environmental Protection Agency

As stated in our May 13, 2011 e-mail there is sufficient documentation to determine that an unauthorized discharge of mercury has occurred and to name Lockheed as the discharger. The factual basis for this is presented in Findings 2 and 3 of the Order.

Please review the requirements contained within the Investigative Order and note that the technical report submitted to the San Diego Water Board must be accompanied by the certification, under penalty of law, that the information is true, accurate, and complete.

The procedures for appeal of this enforcement action to the State Water Resources Control Board (State Water Board) can be found in Directive K of the Order. Please note that the process of requesting an evidentiary hearing and/or appeal to the State Water Board does not automatically suspend or postpone the need to comply with requirements and due dates in the Order attached to this letter.

For questions pertaining to the subject matter, please contact Mr. John Anderson at (858) 467-2975 or via email at janderson@waterboards.ca.gov.

In the subject line of any response, please include the requested "in reply refer to" information located in the heading of this letter.

Sincerely,



JULIE CHAN
Chief, Cleanup and Land Discharge Branch

jc:jpa:bsp

Enclosure: Investigative Order No. R9-2011-0026

cc with enclosure via e-mail:

Ms. Kara Edewaard, Lockheed Martin, kara.l.edewaard@lmco.com

Mr. Gene S. Matsushita, Lockheed Martin, gene.s.matsushita@lmco.com

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

INVESTIGATIVE ORDER NO. R9-2011-0026

AN ORDER DIRECTING THE LOCKHEED MARTIN CORPORATION TO
SUBMIT TECHNICAL REPORTS PERTAINING TO AN INVESTIGATION OF
SOIL, GROUNDWATER, AND BAY SEDIMENTS AT:

THE LOCKHEED MARINE TERMINAL AND RAILWAY
1160 HARBOR ISLAND DRIVE, SAN DIEGO, CALIFORNIA

The California Regional Water Quality Control Board, San Diego Region
(San Diego Water Board) finds that:

1. **Legal and Regulatory Authority:** This Order conforms to and implements policies and requirements of the Porter-Cologne Water Quality Control Act (Division 7, commencing with Water Code section 13000) including (1) sections 13267 and 13304; (2) applicable State and federal regulations; (3) all applicable provisions of statewide Water Quality Control Plans adopted by the State Water Resources Control Board (State Water Board) and the *Water Quality Control Plan for the San Diego Basin* (Basin Plan) adopted by the San Diego Water Board including beneficial uses, water quality objectives, and implementation plans; (4) State Water Board policies and regulations, including State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California*, Resolution No. 88-63, *Sources of Drinking Water*, Resolution No. 92-49, *Policies and Procedures for Investigation, and Cleanup and Abatement of Discharges under Water Code Section 13304*; the *Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality*¹; California Code of Regulations (CCR) Title 23, Chapter 16, Article 11; CCR Title 23, section 3890 et. seq., and (5) relevant standards, criteria, and advisories adopted by other State and federal agencies.
2. **Unauthorized Discharge of Wastes:** The presence of mercury in the bay sediments adjacent to the Lockheed Marine Terminal and Railway (Facility) indicate that an unauthorized discharge of mercury has occurred.
 - a. **Historic Chemical Use at the Facility:** Various chemicals such as mercury, solvents, and paints were observed in containers in an outside drum storage area during a June 1, 1988 facility inspection conducted by the San Diego County Department of Health Services.

¹ http://www.waterboards.ca.gov/water_issues/programs/bptcp/docs/sediment/sed_qlty_part1.pdf

Inspection reports by the San Diego Department of Environmental Health state that the Facility was used for the maintenance and repair of submarines, which used mercury for ballast, and that mercury was used and stored at the Facility. This information supports the conclusion that the mercury detected in the bay sediments adjacent to the Facility is the result on an unauthorized discharge from the Facility

- b. **Presence of Chemicals Used at the Facility in Bay Sediments:** As part of a sediment quality investigation conducted for the Former Tow Basin, sediment samples were collected from the Tow Basin Study Area of the East Basin Water Quality Segment (East Basin).² Sediment sample location S18 is adjacent to the terminus of the marine railway. Samples collected at location S18 were reported to have mercury concentrations ranging from 0.005 milligrams per kilogram (mg/kg) to 1.07 mg/kg.³
- c. **Evidence that an Unauthorized Release has Occurred:** The concentration of mercury in the bay sediments are greater than would be expected to be naturally occurring and therefore are likely the result of an unauthorized discharge. Mercury is a naturally occurring metal and has been found in the rocks and soil in San Diego County which is the source of the bay sediments found in the East Basin. Studies⁴ have shown that the average concentration of mercury in San Diego County soils is 0.26 milligrams per kilogram (mg/kg). A mercury concentration in excess of the "background" concentration suggests that the source of the mercury is from anthropogenic sources such as an unauthorized discharge.

As shown on the following table, four of the six samples collected at sample location S18 exceeded the mean concentration of mercury in background soils, with three samples exceeding the mean concentration in excess of 200 percent. This data indicates that the source of the mercury detected in the sediments at sample location S18 are not naturally occurring mercury. Therefore, the source of the mercury in these sediment samples is from an unauthorized discharge of mercury from the Facility.

² The East Basin Water Quality Segment encompasses the entire area of the East Basin of Harbor Island. Currently there are three bay sediment investigations being conducted within the East Basin Water Quality Segment; the Tow Basin Study Area, the Sunroad Marina Study Area, and the Lockheed Marine Terminal Study Area (which is the subject of this Order).

³ *Technical Memorandum, East Basin Evaluation of Data Distribution and Identification of Former Tow Basin COPCs, San Diego, California*, prepared by Haley & Aldrich, dated July 2009.

⁴ Bradford et al, 1996, *Background Concentrations of Trace and Major Elements in California Soil, Kearny Foundation Special Report*.

Sample Depth (ft.)	Mercury Concentration (mg/kg)	Percent Greater than Background Mean Concentration
0 to 0.5	0.932	258%
0.5 to 1.5	1.07	311%
1.5 to 2.5	0.846	225%
2.5 to 3.5	0.319	22%
3.5 to 4.5	0.043	--
4.5 to 5.5	0.005	--

The distribution of mercury in the bay sediments and the historic Facility use also provide evidence that the mercury in the bay sediments was the result of an unauthorized discharge from the Facility. The results of bay sediment sampling conducted in the northwestern portion of the East Basin identified a "localized hot spot" of mercury immediately adjacent to the terminus of the marine railway. If the mercury was naturally occurring the high mercury concentrations would have been detected throughout the study area.

- 3. Persons Responsible for the Discharge of Waste:** As the owner and operator of the Marine Terminal and Railway, the Lockheed Martin Corporation (Lockheed) is responsible for the discharge of mercury into Bay sediments. Lockheed operates the Marine Terminal and Railway located adjacent to the west end of the East Basin. This Facility was used to service and maintain research submarines. Various chemicals such as mercury, solvents, and paints were observed to be stored at the Facility and documented during a June 1, 1988 inspection conducted by the San Diego County Department of Health Services. Lockheed has been identified as the discharger of mercury into the bay sediments in the East Basin because it used, stored, or disposed of mercury as part of its industrial activities.
- 4. Water Quality Standards:** The Facility is located within the San Diego Mesa Hydrologic Area (HA) (Basin Number 908.20) of the Pueblo San Diego Hydrologic Unit (HU) (Basin Number 908.00). Groundwater in the San Diego Mesa HA has no designated beneficial uses and is also

designated in the Basin Plan as being exempted from having existing municipal (MUN)⁵ beneficial uses.

San Diego Bay, however, has the following beneficial uses that apply to the East Basin:⁶

a. **Human Health**

- i. Contact Water Recreation
- ii. Non-Contact Water Recreation
- iii. Commercial and Sport Fishing
- iv. Shellfish Harvesting

b. **Benthic Community**

- i. Estuarine Habitat
- ii. Marine Habitat
- iii. Migration of Aquatic Organisms

c. **Aquatic Dependant Wildlife**

- i. Preservation of Biological Habitats of Special Significance
- ii. Wildlife Habitat
- iii. Rare, Threatened, or Endangered Species

d. **Other**

- i. Industrial Service Supply
- ii. Navigation

The Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality (Bays and Estuaries Plan) established Sediment Quality Objectives (SQOs) for Aquatic Life and Human Health as follows:

- a. **Aquatic Life – Benthic Community Protection:** Pollutants in sediments must not be present in quantities that, alone or in combination, are toxic to benthic communities in bays and estuaries of California.

⁵ Basin Plan, footnote 3, supra. Table 2-5.

⁶ Basin Plan, Table 2-3.

- b. **Human Health:** Pollutants must not be present in sediments at levels that will bioaccumulate in aquatic life to levels that are harmful to human health.

Mercury in the bay sediments from the unauthorized discharge are at concentrations that have the potential for an adverse effect on the benthic community. Effects Range–Medium (ERM) and Effects Range–Low (ERL) are guidelines that have been used to evaluate the potential for an adverse effect on the benthic community by a given chemical.⁷ At concentrations below the ERL an adverse effect on the benthic community would be rarely observed. At concentrations greater than the ERL but below the ERM it is possible that adverse effects would occur. At concentrations in excess of the ERM adverse effects would frequently be observed.

The following table compares the mercury concentrations to the ERM and ERL as defined by the National Oceanic and Atmospheric Administration (NOAA)⁸ of 0.71 mg/kg and 0.15 mg/kg, respectively. Three samples exceed the ERM which suggests that it is likely that an adverse effect on the benthic community exists due to the presence of mercury in the bay sediments.

Sample Depth (ft.)	Mercury Concentration (mg/kg)	Exceeds ERM (0.71 mg/kg)	Less than ERL (0.15 mg/kg)
0 to 0.5	0.932	Yes	No
0.5 to 1.5	1.07	Yes	No
1.5 to 2.5	0.846	Yes	No
2.5 to 3.5	0.319	No	No
3.5 to 4.5	0.043	No	Yes
4.5 to 5.5	0.005	No	Yes

The concentrations of mercury in the sediment are at levels that will likely have an impact on the benthic community and thus is unlikely to meet the SQO for Aquatic Life – Benthic Community Protection creating a condition of pollution and nuisance in waters of the State.

⁷ Long, E.R., MacDonald, D.D., Smith, S.L., 1995, *Incidence of Adverse Biological Effects Within Ranges of Chemical Concentration in Marine and Estuarine Sediments*, Environmental Management Vol. 19, No. 1, pp. 81-97.

⁸ Beckvar, N., Field, J, Salazar, S. and Hoff, R., 1996, *Contaminants in Aquatic Habitats at Hazardous Waste Sites: Mercury*, NOAA Technical Memorandum NOS ORCA 100.

An evaluation of the East Basin for benthic community health is being conducted by various parties. The report described in the Directives section of this CAO is one element of this investigation. Coordination of the work with the various parties is expected to provide a more comprehensive evaluation and be cost-effective for all parties. A future Order will be issued to all parties to prepare a human health and ecological risk assessment for the East Basin.

5. **Basis for Requiring Technical and Monitoring Reports:** Water Code section 13267 provides that the San Diego Water Board may require dischargers, past dischargers, or suspected dischargers to furnish those technical or monitoring reports as the San Diego Water Board may specify, provided that the burden, including costs, of these reports, must bear a reasonable relationship to the need for the reports and the benefits to be obtained from the reports. In requiring the reports, the San Diego Water Board must provide the person with a written explanation with regard to the need for the reports, and identify the evidence that supports requiring that person to provide the reports.
6. **Need for and Benefit of Technical and Monitoring Reports:** Technical reports and Monitoring reports are needed to provide information to the San Diego Water Board regarding (a) the nature and extent of the discharge, (b) the nature and extent of pollution conditions in State waters created by the discharge, (c) the threat to the benthic community receptors posed by the discharge, and (d) appropriate cleanup and abatement measures, if required. The reports will enable the San Diego Water Board to determine the vertical and lateral extent of the discharge, ascertain if the condition of pollution poses a threat to the benthic community in the vicinity of the Facility, and provide technical information to determine what cleanup and abatement measures are necessary to bring the Facility into compliance with applicable water quality standards including the Bays and Estuaries Plan. Based on the nature and possible consequences of the discharges (as described in Findings No. 2, above) the burden of providing the required reports, including the costs, bears a reasonable relationship to the need for the reports, and the benefits to be obtained from the reports.
7. **Cost Recovery:** Pursuant to Water Code section 13304(c), and consistent with other statutory and regulatory requirements, including but not limited to Water Code section 13365, the San Diego Water Board is entitled to, and will seek reimbursement for, all reasonable costs actually incurred by the San Diego Water Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. A Cost Recovery Agreement is currently in place.

8. **California Environmental Quality Act Compliance:** This action is exempt from the provisions of the California Environmental Quality Act (CEQA) in accordance with section 15061(b)(3) of Chapter 3, Title 14 of the California Code of Regulations because it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment.
9. **Qualified Professionals:** Lockheed's reliance on qualified professionals promotes proper planning, implementation, and long-term cost-effectiveness of investigation, and cleanup and abatement activities. Professionals should be qualified, licensed where applicable, and competent and proficient in the fields pertinent to the required activities. California Business and Professions Code sections 6735, 7835, and 7835.1 require that engineering and geologic evaluations and judgments be performed by or under the direction of licensed professionals.

IT IS HEREBY ORDERED, pursuant to Water Code sections 13267 and 13304, Lockheed must comply with the following directives:

- A. **SITE⁹ ASSESSMENT WORKPLAN:** Lockheed must prepare a site assessment workplan (Workplan) as described below. The Workplan must be received by the San Diego Water Board **no later than 5:00 p.m. on August 30, 2011**. The Workplan must contain the following information:
 1. **Summary of Previously Conducted Site Investigations:** The Workplan must include a summary of all previously conducted investigations conducted at the Site.
 2. **Historic Chemical Use at the Site:** The Workplan must provide a list of all chemicals used at the Site and a map showing the location of chemical use, storage, and disposal.
 3. **Storm Water Conveyance Map:** The Workplan must include a map showing the location of all current and historic storm water conveyance features including inlets and discharge points. This map should also include utilities and floor drain locations.
 4. **Sampling and Analysis Plan:** The Workplan must include a Sampling and Analysis Plan that describes the proposed sampling methodologies, chemical analyses methods, and sampling locations. Contingencies for collection of additional samples should be proposed in the Workplan.

⁹ For the purposes of this Order "Site" refers to the entire facility, both on shore and off shore, and includes all areas within and outside of the facility footprint affected by unauthorized dischargers of mercury or any other chemical from the facility.

- a. **Land Side Investigation:** The land side investigation should include sampling soil and groundwater to determine the nature and extent of wastes discharged to soil and groundwater, sources of pollutants, pathways for pollutants to be discharged to the East Basin, and if the wastes are an actual or potential threat to human health and/or the environment.
- b. **Bay Side Investigation:** The bay side investigation must include all areas potentially impacted by discharges of wastes from the Facility and must follow methods presented in the Bays and Estuaries Plan. The bay side investigation must be adequate to determine if bay sediments meet the SQOs for Aquatic Life – Benthic Community Protection.

The Bay Side investigation must also include the determination of all wastes discharged to the East Basin from the storm water conveyance system at the Facility. This will require the collection of samples near each discharge point.

B. SEDIMENT SAMPLING TIME FRAME: Bay sediment sampling conducted in accordance with methods presented in the Bays and Estuaries Plan must be conducted between **July 1, 2011 and September 30, 2011.**

C. SITE ASSESSMENT REPORT: Lockheed must prepare a Site Assessment Report (Report) describing the results of the of the Land Side and Bay Side investigations. The Report must be received by the San Diego Water Board **no later than 5:00 p.m. on June 30, 2012** and must contain the following information:

1. **Delineation of Contamination:** Adequately characterize the extent (both laterally and vertically) of any wastes discharged to soil, groundwater, and bay sediments.¹⁰
2. **Geologic Characterization:** Accurately characterize the subsurface geology, the hydrogeologic characteristics, and all preferential pathways that may affect groundwater flow and pollutant migration.
3. **Groundwater Monitoring Wells:** Describe the location of existing monitoring wells (if any), and the proposed location of additional monitoring wells needed to characterize the types of waste constituents present, the concentrations of waste constituents, and their lateral and vertical extent in groundwater.

¹⁰ This will require the collection of samples from deeper depths than required by needed to comply with the methods presented in the Bays and Estuaries Plan.

4. **Field Methodologies:** Describe the field methodologies used for drilling, soil and sediment sampling, groundwater sampling, bay sediment sampling, and other activities.
5. **Chemical Analyses:** Describe the laboratory analytical methods and protocols used for each environmental medium including soil, water, and bay sediments. The suite of chemical analyses, methods and protocols must be adequate to quantitatively identify and characterize the full range of site-specific waste constituents.
6. **Sample Locations and Number:** Contain the locations, type, and number of samples identified and shown on site maps and cross sections. The number of samples and suite of chemical analyses must be sufficient to identify the nature of waste constituent(s) and their sources, to define the distribution of waste constituents in the subsurface, to provide data for evaluation of fate and transport of pollutants, risk assessment, remedy selection, and remedial design. In addition, samples must be collected to evaluate physical properties of soils and aquifer materials. All monitoring data must be presented in tabular format including the sample result, sample medium, location, depth, sampling method, analyses, and rationale for the method.
7. **Site Conceptual Model:** The Report shall contain a Site Conceptual Model (SCM) that provides a written or pictorial representation of the release scenario and the likely distribution of waste at the Facility, off-Facility, and within the East Basin, as well as potential pathways and receptors. The SCM must identify and describe the types of wastes present including their distribution in space and time, and how the wastes are changing in space and time. In addition the SCM must identify the potential, current, and future receptors in the area; link potential sources to potential receptors through the transport of wastes in the air, soil, water, and bay sediments; and identify the fate and transport characteristics of the site. It should describe or show the physical characteristics and properties of the subsurface and identify the environmental issues that need to be investigated (and those issues that do not need to be addressed). The SCM must include data interpretations, a discussion of the level of uncertainty of conclusions, outline data gaps remaining in the conceptual model, and make recommendations for the next phase of investigation and/or cleanup.
8. **Compliance with Sediment Quality Objectives:** The Report must include:

- a. The analysis, interpretation, and station assessment category of the collected bay sediment samples pursuant to the Multiple Lines of Evidence approach in the Bays and Estuaries Plan.
- b. A determination of whether or not the sediment meets the Sediment Quality Objective for Aquatic Life – Benthic Community Protection.

9. **Conclusions and Recommendations:** The Report must include conclusions based on the results of the site assessment and recommendations for additional work, including stressor identification, if needed.

D. **COMPLIANCE DATES:** The following is a list of the compliance dates for activities presented in the preceding Directives.

<i>Directive</i>	<i>Activity</i>	<i>Compliance Date</i>
A	Site Assessment Workplan	August 30, 2011
B	Sediment Sampling	July 1 – September 30, 2011
C	Site Assessment Report	June 30, 2012

E. **PENALTY OF PERJURY STATEMENT:** All reports must be signed by Lockheed's responsible corporate officer or its duly authorized representative, and must include the following statement by the official, under penalty of perjury, that the report is true and correct to the best of the official's knowledge.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

- F. **DOCUMENT SUBMITTALS:** Submit both one paper and one electronic, searchable PDF copy of all documents required under this Order to:

Executive Officer
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, California 92123-4353
Attn: John Anderson, PG

All correspondence and documents submitted to the San Diego Water Board must include the following Geotracker Site ID in the header or subject line:

T0605902379

- G. **ELECTRONIC DATA SUBMITTALS:** The Electronic Reporting Regulations (Chapter 30, Division 3 of Title 23 & and Division 3 of Title 27, CCR) require electronic submission of any report or data required by a regulatory agency from a cleanup site after July 1, 2005. All information submitted to the San Diego Water Board in compliance with this Order is required to be submitted electronically via the Internet into the Geotracker database <http://geotracker.waterboards.ca.gov/> (Geotracker Site ID. **T0605902379**). The electronic data must be uploaded on or prior to the regulatory due dates set forth in the Order or addenda thereto. To comply with these requirements, Lockheed must upload to the Geotracker database the following minimum information.

1. **Laboratory Analytical Data:** Analytical data (including geochemical data) for all soil, vapor, and water samples in Electronic Data File (EDF) format. Water, soil, and vapor data include analytical results of samples collected from: monitoring wells, boreholes, gas and vapor wells or other collection devices, surface water, groundwater, piezometers, stockpiles, and drinking water wells.
2. **Location Data:** The latitude and longitude of any permanent monitoring well for which data is reported in EDF format, accurate to within 1 meter and referenced to a minimum of two reference points from the California Spatial Reference System (CSRS-H), if available.
3. **Monitoring Well Elevation Data:** The surveyed elevation relative to a geodetic datum of any permanent monitoring well. Elevation measurements to the top of groundwater well casings for all groundwater monitoring wells.
4. **Depth-to-Water Data:** Monitoring wells need to have the depth-to-water information reported whenever water data is collected, even if water samples are not actually collected during the sampling event.

5. **Monitoring Well Screen Intervals:** The depth to the top of the screened interval and the length of screened interval for any permanent monitoring well.
 6. **Site Map:** Site map or maps which display discharge locations,¹¹ streets bordering the Facility, and sampling locations for all soil, water, and vapor samples. The site map is a stand-alone document that may be submitted in various electronic formats.¹² A site map must also be uploaded to show the maximum extent of any groundwater pollution. An updated site map may be submitted at any time.
 7. **Boring logs:** Boring logs (in searchable PDF format) prepared by an appropriately licensed professional.
 8. **Electronic Report:** A complete copy (in searchable PDF format) of all work plans, assessment, cleanup, and monitoring reports including the signed transmittal letters, professional certifications, and all data presented in the reports.
- H. **VIOLATION REPORTS:** If Lockheed violates any requirement of this Order, then Lockheed must notify the San Diego Water Board office by telephone as soon as practicable once Lockheed has knowledge of the violation. The San Diego Water Board may, depending on violation severity, require Lockheed to submit a separate technical report on the violation within five working days of telephone notification.
- I. **OTHER REPORTS:** Notify the San Diego Water Board in writing prior to any site activities that have the potential to cause further migration of pollutants.
- J. **PROVISIONS**
1. **No Pollution, Contamination or Nuisance:** The storage, handling, treatment, or disposal of soil containing waste or polluted groundwater must not create conditions of nuisance as defined in Water Code section 13050(m). Lockheed must properly manage, treat and dispose of wastes and polluted groundwater in accordance with applicable federal, State and local regulations.
 2. **Good Operation and Maintenance:** Lockheed must maintain in good working order and operate as efficiently as possible any monitoring system, Site or control system installed to achieve compliance with the requirements of this Order.

¹¹ Areas related to discharge from the dry cleaners operation.

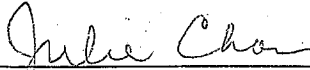
¹² Formats include .gif, .jpeg, .jpg, .tiff, .tif, .pdf

3. **Contractor/Consultant Qualifications:** All reports, plans and documents required under this Order must be prepared under the direction of appropriately qualified professionals. A statement of qualifications and license numbers, if applicable, of the responsible lead professional and all professionals making significant and/or substantive contributions must be included in the report submitted by Lockheed. The lead professional performing engineering and geologic evaluations and judgments must sign and affix their professional geologist or civil engineering registration stamp to all technical reports, plans or documents submitted the San Diego Water Board.
4. **Laboratory Qualifications:** All samples must be analyzed by California State-certified laboratories using methods approved by the USEPA for the type of analysis to be performed. All laboratories must maintain QA/QC records for San Diego Water Board review.
5. **Laboratory Analytical Reports:** Any report presenting new analytical data is required to include the complete Laboratory Analytical Report(s). The Laboratory Analytical Report(s) must be signed by the laboratory director and contain:
 - a. Complete sample analytical reports.
 - b. Complete laboratory QA/QC reports.
 - c. A discussion of the sample and QA/QC data.
 - d. A transmittal letter that must indicate whether or not all the analytical work was supervised by the director of the laboratory, and contain the following statement, "All analyses were conducted at a laboratory certified for such analyses by the California Department of Public Health in accordance with current USEPA procedures."
6. **Reporting of Changed Owner or Operator:** Notify the San Diego Water Board of any changes in Site occupancy or ownership associated with the property described in this Order.
7. **Regulations:** All corrective actions must be in accordance with the provisions of CCR Title 23, Chapter 15, the Cleanup and Abatement Policy in the Water Quality Control Plan for the San Diego Basin (9) State Water Board Resolution No. 92-49, *Policies and Procedures for Investigation, and Cleanup and Abatement of Discharges under California Water Code Section 13304*, and State Water Board

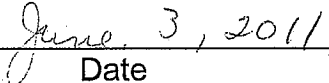
Resolution No. 2008-0070, *Adoption of a Water Quality Control Plan for Enclosed Bays and Estuaries – Part 1 Sediment Quality.*

K. NOTIFICATIONS

1. **Cost Recovery:** The existing cost recovery agreement remains in place and costs associated with this Order will be recovered through the existing agreement.
2. **All Applicable Permits:** This Order does not relieve Lockheed of the responsibility of obtaining permits or other entitlements to perform necessary assessment activities. This includes, but is not limited to, actions that are subject to local, state, and/or federal discretionary review and permitting.
3. **Enforcement Notification:** Failure to comply with requirements of this Order may subject Lockheed to enforcement action, including but not limited to administrative enforcement orders requiring Lockheed to cease and desist from violations, imposition of administrative civil liability, pursuant to Water Code sections 13268 in an amount not to exceed \$1,000 for each day in which the violation occurs, referral to the State Attorney General for injunctive relief, and referral to the District Attorney for criminal prosecution.
4. **Requesting Administrative Review by the State Water Board:** Any person affected by this action of the San Diego Water Board may petition the State Water Board to review the action in accordance with section 13320 of the Water Code and CCR Title 23 section 2050. The petition must be received by the State Water Board (Office of Chief Counsel, P.O. Box 100, Sacramento, California 95812) within **30 calendar days** of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.



JULIE CHAN
Chief, Groundwater Basins Branch



Date