

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

INVESTIGATIVE ORDER NO. R9-2008-0112

**An Order Directing
United States Marine Corps
Marine Corps Air Station (MCAS)
P.O. Box 555151
Camp Pendelton, California 92055-5151**

To submit a technical report pertaining to the discharge of petroleum into the subsurface environment and surface water at the Marine Corps Air Station (MCAS), Camp Pendelton, California

Pursuant to its authority in California Water Code (Water Code) section 13267, the California Regional Water Quality Control Board, San Diego Region (hereinafter Regional Board), finds:

1. Surface Water Discharge: Between April 30, 2008 and May 27, 2008, Marine Corps Air Station, Camp Pendelton (hereinafter MCAS), discharged jet fuel (JP-5 fuel) into the storm drain conveyance system and potentially discharged JP-5 fuel into the subsurface environment in the vicinity of MCAS, Camp Pendelton, California.

2. Party Responsible for the Discharges:

U.S. Marine Corps
MCAS
P.O. Box 555151
Camp Pendelton, California 92055-5151

U.S. Marine Corps (USMC) is identified as the party responsible for the discharge because it is the current property owner and operator of MCAS at Marine Corps Base, Camp Pendelton, California, and it owned the subject property when the discharges occurred.

3. Background: MCAS provides aerial warfare support to the USMC Base Camp Pendleton. The types of petroleum products stored at MCAS include JP-5 fuel, diesel fuel, unleaded gasoline, and hydraulic fluid. The MCAS uses the following means to store and convey petroleum fuel: bulk fuel storage facility (four 50,000-gallon aboveground storage tanks), fuel transfer piping, underground storage tanks, oil water separators, mobile fuel truck loading/unloading racks, air craft refueling areas supplied by pipelines (hot pits), and various airport apron areas of MCAS where aircraft or other equipment could be refueled using mobile fuel trucks.

Two JP-5 fuel releases occurred within the bulk fuel storage facility (tank farm) secondary containment between April 26 and April 29, 2008. JP-5 fuel

was discovered in an underground storm drain vault (vault) located at MCAS on April 30, 2008. The tank farm secondary containment oil water separator discharges to a storm drain that is connected to the vault that contained JP-5 fuel. Additionally, the vault is adjacent to a newly installed JP-5 fuel transfer piping that connects the tank farm to the “hot pits” (an area that is used to refuel aircraft).

The JP-5 fuel was found in a storm drain canal (canal), located south of MCAS, on May 27, 2008. This area of the canal is the discharge point into the storm drain from the tank farm oil water separator, and the vault that contained JP-5 fuel in April 2008. The discharge to the canal created an adverse impact to wildlife (5 dead and 1 injured water fowl) and the environment.

4. **Beneficial Uses:** The MCAS is within the Santa Margarita Hydrologic Subarea (Basin Number 902.12), which has the following beneficial uses (BUs) of water resources designated in the [Water Quality Control Plan for the San Diego Basin \(Basin Plan, Tables 2-2 and 2-5\)](#):

Hydrologic Unit/Watershed	Hydrologic Unit / Area Basin No.	Designated Beneficial Uses ¹	
Groundwater			
Santa Margarita HU	Ysidora HA 902.10	MUN	Municipal and Domestic Supply
		AGR	Agricultural Supply
		IND	Industrial Service Supply
		PROC	Industrial Process Supply
Surface Water			
Santa Margarita River WS	HU 902.12	MUN	Municipal and Domestic Supply
		AGR	Agricultural Supply
		IND	Industrial Service Supply
		PROC	Industrial Process Supply
		REC1	Contact Recreation
		REC2	Non-contact Recreation
		WARM	Warm Freshwater Habitat
		COLD	Cold Freshwater Habitat
		WILD	Wildlife Habitat
		RARE	Rare, Threatened, or Endangered Species

¹ According to the Basin Plan, beneficial uses are the uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals of mankind. See Basin Plan Chapter 2 for a discussion of designated beneficial uses.

- 5. Possible Conditions of Pollution and/or Nuisance:** The discharge of the JP-5 fuel is a discharge of waste that caused and/or threatened to cause conditions of pollution and/or nuisance at MCAS; adversely impacted water quality creating a condition of pollution; adversely impacted to beneficial uses (wildlife impacts included 5 dead and 1 injured water fowl) of water resource; and may have caused groundwater resources to exceed, or threaten to exceed, water quality objectives² (WQOs) that support the beneficial uses listed in Finding 4. Additionally, the discharge was a violation of the waste prohibitions identified in the Regional Board [Basin Plan](#), and the [Porter-Cologne Water Quality Control Act \(Division 7 of the Water Code\)](#), section 13260.
- 6. Legal and Regulatory Authority:** This Order is based on (1) sections 13267 and 13383 of the Water Code; (2) applicable state and federal regulations (3) all applicable provisions of statewide Water Quality Control Plans adopted by the State Board and the [Basin Plan](#) adopted by the Regional Board, including BUs, WQOs, and implementation plans; (4) State Board policies, including State Board Resolution No. 68-16 (Statement of Policy with Respect to Maintaining High Quality of Waters in California) and State Board Resolution No. 88-63 (Sources of Drinking Water); and (5) relevant standards, criteria, and advisories adopted by other state and federal agencies.

Water Code section 13267 provides:

“(b) (1) In conducting an investigation specified in subdivision (a), the regional board may require that any person who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge waste within its region, or any citizen or domiciliary, or political agency or entity of this state who has discharged, discharges, or is suspected of having discharged or discharging, or who proposes to discharge, waste outside of its region that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports. In requiring those reports, the regional board shall provide the person with a written explanation with regard to the need for the reports, and shall identify the evidence that supports requiring that person to provide the reports.”

² According to the Water Code section 13050(h) “Water Quality Objectives” means the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or prevention of nuisance within a specific area.

7. Regulatory and Necessity for Submittal of Technical Reports: Pursuant to Water Code section 13267(a), the Regional Board may investigate the quality of any waters of the state within the Regional Board's boundaries. As part of the water quality investigation, Water Code section 13267(b)(1) authorizes the Regional Board to require the submittal of a technical report(s). A technical report is needed to provide information to the Regional Board about the source of the JP-5 fuel and the effects of the discharge on water quality and the environment. Based on the nature and possible consequences of the discharges (refer to Order Findings No. 1, 3, and 5 above) the burden of providing the required report bears a reasonable relationship to the need for the report and the benefits to be obtained from the report.

8. California Environmental Quality Act (CEQA) Exemption: This Order, which enforces the laws and regulations administered by the Regional Board, meets the CEQA (Public Resources Code section 21000, *et seq.*) Categorical Exemption outlined in section 15321 of CCR Title 14, the CEQA Guidelines.

IT IS HEREBY ORDERED, pursuant to sections [13267](#) and [13383](#) of the Water Code, by 5:00 pm on December 19, 2008, the Discharger is required to submit a scientifically-defensible technical report that presents the results of an investigation of the discharged JP-5 fuel and the effects of the discharges on the environment at MCAS (Investigation), and complies with the following directives:

A. INVESTIGATION OF DISCHARGES

The Discharger shall submit a Technical Report (Investigation Report) that contains a detailed, comprehensive, and thorough discussion of the methods, approach, findings, conclusion(s), and recommendation(s) of the Investigation of the discharge. The Report shall describe and report the findings of a scientifically-defensible technical investigation that:

1. Identifies all areas affected by the discharge of JP-5 fuel at the MCAS.
2. Identifies the concentrations of JP-5 fuel in surface water, ground water, and soil at MCAS as a result of the discharge.
3. Identifies all possible sources of the JP-5 fuel discharged to surface waters at MCAS and what immediate steps were taken to stop the illegal discharge.
4. Identifies the total volume of the JP-5 fuel discharged at the MCAS.
5. Identifies the possible effects of the discharge on the environment and water quality.

B. INVESTIGATION REPORT COMPONENTS

At a minimum, the Investigation Report shall contain the following:

1. **Transmittal Letter:** The transmittal letter shall include the following:
 - a. **Content:** The Transmittal Letter shall include a brief discussion of the findings, conclusion(s), and recommendation(s) presented in the Investigation Report.
 - b. **Certification Statement:** The person signing the Transmittal Letter shall make the following certification:

"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."
 - c. **Signatory Requirements:** The Commanding Officer of MCAS shall sign the transmittal letter. If not feasible, the transmittal letter may be signed by a duly-authorized representative of the commanding officer only if:
 - i.) the authorization is made in writing by the commanding officer,
 - ii.) the authorization specifies either an individual or position having responsibility for the overall operation of the regulated facility or activity, and
 - iii.) the written authorization is submitted to the Regional Board Executive Officer together with the Investigation Report.
2. **Summary of Investigation:** The Investigation Report must contain must contain but is not limited to the following:
 - a. Provide a detailed, comprehensive, and thorough discussion of the methods, approach, findings, conclusion(s), and recommendation(s) of the Investigation so that the nature and the effects or possible effects of the discharges can be understood.
 - b. Identify all wastes and waste constituents associated with the discharge and the horizontal and vertical extent of the wastes/waste constituents both on and off site to background levels in the surface water, ground water, and soil.

- c. Characterize the geology and hydrogeology of the site with respect to transport of the wastes and waste constituents.
 - d. Determine the source(s), and nature of the discharge in the subsurface, and evaluate the impacts of the wastes and waste constituents on all existing and future sensitive receptors that could be affected by the wastes.
- 3. Site Conceptual Model:** The Investigation Report must include a site conceptual model (SCM). The SCM is a written or pictorial representation of the release scenario and the likely distribution of waste at the site, 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.

The SMC also must identify the potential, current and future receptors in the area; link potential sources to potential receptors through transport of wastes in the air, soil and water; 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 initial SCM must include data interpretations, a discussion of the level of uncertainty of conclusions, outline data gaps remaining in the conceptual model, and describe the additional work needed to fill identified data gaps and make recommendations for the next phase of the cleanup.

The SCM must be refined and updated as site characterization data becomes available. Updates to the SCM should be included in all future technical reports submitted.

- 4. Tables:** The Investigation Report must contain a table(s) comparing the following information:
- a. the concentration of each constituent detected;
 - b. the lowest established WQO that is protective of all the designated beneficial uses of waters of the State (refer to Order Finding No. 4 above) for each constituent detected, and
 - c. the lowest established concentration that is protective of all applicable receptors.
- 5. Figures:** The Investigation Report must contain figure(s) that illustrate the findings of the Investigation. The figures must include at a minimum a detailed and comprehensive site plot plan, cross-sections illustrating the lateral and vertical extent of any soil and ground water pollution,

- monitoring well construction details, ground water elevations, lithologies, sample locations and results, and ground water flow direction.
- 6. Documentation:** The Investigation Report must contain or cite reference document(s) that support Investigation findings.
 - 7. Use of Registered/Appropriately Qualified Professionals:** The Discharger shall provide documentation that the report required under this Order is prepared under the direction of appropriately qualified professionals. 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 registered professionals. A statement of qualifications and registration numbers, if applicable, of the responsible lead professional and all professionals making significant and/or substantive contributions shall be included in the report submitted by the Discharger. The lead professional(s) shall sign and affix his/her registration stamp to the report.
 - 8. Laboratory Report:** If the Investigation Report contains laboratory analytical data, the submission of the complete Laboratory Analytical Report(s) is required. The Laboratory Report(s) must be signed by the laboratory director and contain:
 - a. a complete sample analytical report,
 - b. a complete laboratory quality assurance/quality control (QA/QC) report,
 - c. a discussion of the sample and QA/QC data, and
 - d. a transmittal letter indicating 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 Health Services and in accordance with current U.S. Environmental Protection Agency (USEPA) procedures."
 - 9. Storm Water Pollution Prevention Plan (SWPPP) Status Report:** The Investigation Report must include a SWPPP Status Report. The SWPPP Status Report shall include:
 - a. An 8.5" x 11" Site Map clearly indicating all flow lines, storm water inlets and outfalls (designate active or inactive), and direct discharge (if applicable) to a water of the state.
 - b. A statement giving the exact date linear construction began.
 - c. Photocopies of all BMP implementation/maintenance/inspection records for MCAS (to date).

- d. Photocopies of all annual Compliance Certifications (to date).
- e. A photocopy of the SWPPP Signatory Requirement page.
- f. If necessary, a copy of a newly completed Notice of Intent (NOI).
Please note: If any information provided on the current NOI has changed, an NOI change of information, filed with the State Board in Sacramento, is required.
- g. A completed "SWPPP and Monitoring Program Review Sheet" (copy enclosed), with preparer's name, included in the RTR as attachment A.
- h. Photo-documentation of implementation of the SWPPP, including proper installation of BMPs addressing, but not limited to, those specific violations indicated.
- i. A Hydrologic Study Section certified by a licensed Civil Engineer, for each drainage channel to any tributary to Santa Margarita River, including:
 1. Site Map delineating topographic tributary area (scaled) including surface water flow lines.
 2. Constructed channel dimensions and calculated maximum volume.
 3. Outlet and filtration calculations and specifications, where necessary.
 4. All supporting documentation.
- j. A Pollutant Sampling Program Section including the following:
 1. Site Map delineating topographic tributary area (scaled with flow lines) of area(s) to be sampled for pollutants and area(s) to be sampled as background (free of pollutants).
 2. A list of all pollutants to be tested and, at a minimum, test for all broad parameter indicators.
 3. Copies of all qualifications and training certifications for the laboratory or staff who will be sampling.

A copy of all protocol measures to be employed, including, at a minimum, Quality Assurance/Quality Control (QA/QC) and Chain of Custody.

C. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. **Paper Copy of Investigation Report: *By 5:00 pm on December 19, 2008, the Discharger is required to submit a paper copy of the Investigation Report that complies with all the requirements of this Order.***

- 2. Electronic Format Reporting Requirements:** Beginning **January 1, 2005**, all reports submitted to the Regional Board by the Discharger, pursuant to section 13267 of the Water Code, must be submitted in an electronic format. The Discharger shall comply with electronic reporting requirements of Title 23 of the [California Code of Regulations](#), Division 3, section 3893, including the provision that complete copies of all reports be submitted in PDF format, and include the signed transmittal letter and professional certification. **By 5:00 pm on December 19, 2008, the Discharger shall comply with these e-reporting requirements.**

D. REPORTING TO THE REGIONAL BOARD

The required Investigation Report shall be submitted in paper copy to:

Assistant Executive Officer
California Regional Water Quality Control Board, San Diego Region
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4340
Attn: Supervisor North San Diego County Ground Water Unit

E. NOTIFICATIONS

- 1. Enforcement Discretion:** The Regional Board reserves its right to take any enforcement action authorized by law for violations of the terms and conditions of this Order.
- 2. Enforcement Notification:** Water Code section 13268(a)(1) provides that any person failing or refusing to furnish technical or monitoring report information as required by Water Code section 13267(b), or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly for an administratively imposed liability of up to \$1,000 per day for each day compliance is not achieved with an Order issued in accordance with subdivision 13268(b).

Water Code section 13385(c)(1) provides that any person failing to meet the requirements in Water Code section 13383 may be liable civilly for an administratively imposed liability of up to \$10,000 per day for each day in which a violation occurs.

- 3. Requesting Evidentiary Hearing by the Regional Board:** Any person affected by this action of the Regional Board may request an evidentiary hearing before the Regional Board. The Regional Board's Executive Officer may elect to hold an informal hearing or a "paper hearing" in lieu of scheduling a hearing before the Regional Board itself. If you decide to request an evidentiary hearing, send your request to the Regional Board Executive Officer, Attn: Supervisor North San Diego

County Ground Water Unit, at the address provided on the Order transmittal letter. Please consider the following carefully:

- a. The Regional Board must receive your request within 30 days of the date of this Order.
- b. Your request must include all comments, technical analysis, documents, reports, and other evidence that you wish to submit for the evidentiary hearing. However, please note that the administrative record will include all materials the Regional Board has previously received regarding this site. You are not required to submit documents that are already in the record.
- c. The Executive Officer or Regional Board may deny your request for a hearing after reviewing the evidence.
- d. If you do not request an evidentiary hearing, the State Board may prevent you from submitting new evidence in support of a State Board petition.
- e. Your request for an evidentiary hearing, if you submit one, does not stay the effective date of the Order, whether or not a hearing is scheduled.
- f. A request for a hearing does not extend the 30-day period to file a petition with the State Board (see below). However, we suggest that you ask the State Board to hold the petition in abeyance while your request for a hearing is pending. (Refer to CCR Title 23 section 2050.5(d)) Additional information regarding the State Board petition process is provided below.

4. Requesting Administrative Review by the State Board:

Any person affected by this action of the Regional Board may petition the State 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 Board (Office of Chief Counsel, P.O. Box 100, Sacramento, California 95812) within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request.

Ordered By: _____



Michael P. McCann
Assistant Executive Officer
August 29, 2008