

STATE OF CALIFORNIA
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

RESOLUTION NO. R04-2010-XXXX

APPROVING THE ENVIRONMENTAL CHECKLIST AND
ADOPTING A MITIGATED NEGATIVE DECLARATION FOR
BIOAUGMENTATION OF VOLATILE ORGANIC COMPOUNDS IN GROUNDWATER
INTERNATIONAL RISK ASSUMPTION DOWNEY LLC, FORMER NASA INDUSTRIAL
PLANT, DOWNEY, CALIFORNIA
(FILE NO. 97-197)

WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region finds that:

1. California Water Code (CWC) section 13260(a)(1) requires that any person discharging wastes, or proposing to discharge wastes other than into a community wastewater collection system, which could affect the quality of the waters of the State, shall file a report of waste discharge (ROWD) with the Regional Water Quality Control Board (Regional Board) exercising jurisdiction in the area, and that Regional Board shall then prescribe requirements for the discharge or proposed discharge of wastes.
2. The International Risk Assumption Downey LLC (Discharger), is the responsible party for the former NASA Industrial Plant located at 12214 Lakewood Boulevard in Downey, Los Angeles County, California (Facility). The Facility is 155 acres and was used between approximately 1929 and 1998 for aeronautical and aerospace manufacturing operations and was acquired by National Aeronautics and Space Administration (NASA) in the 1960's. During the fourth quarter of 2003, the property was transferred from NASA to the City of Downey, California. Following transfer from NASA to the City of Downey, the property was redeveloped, and International Risk Assumption Downey LLC has assumed the role of responsible party as part of the redevelopment arrangements.
3. Soil and groundwater beneath the Facility is contaminated with volatile organic compounds (VOCs), including mainly perchloroethene (PCE), trichloroethene (TCE), and cis-1,2-dichloroethene (cis-1,2,-DCE).
4. The Discharger proposed to conduct a pilot test at the Facility to evaluate the remediation of chlorinated VOCs in shallow groundwater by enhanced in-situ bioremediation with bioaugmentation to remediate selected source areas. In-situ bioremediation involves the addition of carbon source amendments (i.e. molasses, etc.) to the shallow groundwater. Bioaugmentation involves the addition of selected non-pathogenic (naturally derived, not genetically engineered) chlorinated ethene-degrading *Dehalococcoides ethenogenes* cultures, referred to as SDC-9 or KB-1, in selected areas to facilitate reductive dechlorination. Details of the remediation and methods are included in the pilot test work plan, "Bioaugmentation Work Plan" dated July 11, 2008, prepared by Arcadis G&M, Inc. and approved on February 22, 2010.
5. The California Water Code (CWC), section 13260, subdivision (a)(1) requires that any person discharging wastes, or proposing to discharge wastes other than into a community waste water collection system, which could affect the quality of the waters of the State,

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shall file a Report of Waste Discharge with the Regional Board. The Regional Board shall then prescribe requirements for the discharge or proposed discharge of wastes.

6. The use of carbohydrate solutions to induce in-situ bioremediation is covered in General waste discharge requirements (WDR), Order No. R4-2002-0030 adopted by this Regional Board on January 24, 2002, for the groundwater remediation at petroleum hydrocarbon fuel and/or volatile organic compound impacted sites. Subsequently, this General WDR was amended on March 1, 2007 to cover more applications and become Order No. R4-2007-0019.
7. On March 22, 2004, the Regional Board, through its Executive Officer, granted the Discharger coverage under the General WDR No. R4-2002-0030, and issued a Monitoring and Reporting Program No. CI-8724 for the injection of carbohydrate solution at this Facility.
8. The General WDR allows the injection of carbohydrate solution, but does not specifically provide for the addition of SDC-9 or KB-1. The Discharger has filed a Report of Waste Discharge and applied for Site-Specific Waste Discharge Requirements (WDR) to add SDC-9 or KB-1 to the shallow groundwater. Site-Specific WDR have been developed for the addition of SDC-9 or KB-1 in conjunction with the existing injection of carbohydrate solution at this Facility. Therefore, the existing General WDR for injection of the carbohydrate solution at the Facility will no longer be required and will be rescinded once the Site-Specific WDR has been adopted.
9. Groundwater beneath the Facility is unconfined and the direction of flow is generally toward the south. The Discharger shall monitor presence and concentration of injection solution and contaminants and evaluate flow conditions and any potential for migration of contaminants outside the remediation areas. As specified in the Waste Discharge Requirements and Notice of Preparation of Mitigated Negative Declaration, the Discharger will provide hydraulic control, if necessary, to prevent offsite migration. Monitoring of groundwater quality and flow conditions across the entire Facility is required by a comprehensive separate Facility-wide groundwater monitoring program.
10. The injection of the carbohydrate solution with SDC-9 or KB-1 to the groundwater is a discharge of waste pursuant to section 13260 of the California Water Code. However, the discharge of the carbohydrate solution with SDC-9 or KB-1 is intended to provide more efficient remediation of VOC-contaminated groundwater and is anticipated to reduce cleanup time and costs.
11. The Water Quality Control Plan (Basin Plan) for the Los Angeles Region designates the beneficial uses of groundwater in the Central Basin for municipal and domestic supply, industrial process supply, industrial service supply, and agricultural supply.
12. The permitted discharge is consistent with the anti-degradation provisions of State Water Resources Control Board Resolution No. 68-16 (Anti-degradation Policy). The discharge may result in some localized exceedance of background concentrations of constituents such as total organic carbon, VOCs, and total dissolved solids (TDS), but this is not anticipated to result in any long-term groundwater degradation.

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13. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations. The Regional Board, in a public meeting on June 3, 2010 heard and considered all comments pertaining to the discharge and to the tentative requirements.
14. This Regional Board has assumed lead agency role for this project under the California Environmental Quality Act (Public Resources Code section 21000 et seq.) and has conducted an Initial Study (in the format of an expanded Environmental Checklist) in accordance with title 14, California Code of Regulations, section 15063, titled Guidelines for Implementation of the California Environmental Quality Act. Based on the Initial Study, Regional Board prepared a Mitigated Negative Declaration that the project will not have a significant adverse effect on the environment.
15. Copies of the Environmental Checklist and proposed Mitigated Negative Declaration were transmitted to the State Clearing House, all agencies and interested parties. All comments received have been addressed by Regional Board staff. The Regional Board considered all testimony and evidence at a public hearing held on May 6, 2010, at the Metropolitan Water District of Southern California, Board Room, 700 North Alameda, Los Angeles, California, and good cause was found to approve the Environmental Checklist and adopt a Mitigated Negative Declaration.
16. The Regional Board has reviewed the Initial Study and Mitigated Negative Declaration concerning this Resolution prepared by staff in compliance with the California Environmental Quality Act (Public Resources Code section 21000 et seq.). The Regional Board concurs with the staff findings that a Mitigated Negative Declaration should be adopted. The Initial Study and Mitigated Negative Declaration were circulated for public review and comment.

THEREFORE, BE IT RESOLVED that the Regional Board:

1. Adopts the Environmental Checklist, Initial Study and Mitigated Negative Declaration and directs the Executive Officer to file a Notice of Determination with the State Clearinghouse within 30 days as required by the California Code of Regulations.
2. Directs that a copy of this Resolution shall be forwarded to the State Water Resources Control Board and all interested parties.
3. Directs that the discharge of amendments and microorganisms into the soil and groundwater shall conform with all the requirements, conditions, and provisions set forth in A. "*Discharge Limits*" and B. "*Discharge Specifications*" of the ORDER NO. R4-2010-XXXX.

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CERTIFICATION

I, Tracy Egoscue, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, Los Angeles Region on June 3, 2010.

Tracy Egoscue
Executive Officer

Date

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