

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—  
LOS ANGELES REGION**

101 CENTRE PLAZA DRIVE  
MONTREY PARK, CA 91754-2156  
(213) 266-7500



April 8, 1993

Ms. M.E. Jensen  
Manager, Water and Waste Programs  
Rockwell International Corporation  
Rocketdyne Division  
6633 Canoga Avenue  
Canoga Park, CA 91303

7264

WASTE DISCHARGE REQUIREMENTS  
ROCKWELL INTERNATIONAL CORPORATION, ROCKETDYNE DIVISION, CANOGA  
PARK (NPDES PERMIT NO. CA0063100)

On February 11, 1993, Regional Water Quality Control Board (Board) staff sent you tentative revised requirements for the discharge of treated groundwater from the subject facility. Pursuant to Division 7 of the California Water Code, this Board held a public hearing on April 5, 1993. At that hearing, the Board adopted Order No. 93-015, (copy enclosed) relative to your waste discharge. This Order serves as a permit under the National Pollutant Discharge Elimination System. The Order expires on March 20, 1998. Please note that you must file an application for renewal of the permit at least 180 days prior to that date.

Your attention is directed to Section E.5 of the enclosed Standard Provisions and General Monitoring and Reporting Requirements. This section requires you to submit a technical report to this Board no later than 30 days after receipt of this permit relative to the operation and maintenance of the groundwater treatment facility.

You are also required to implement the enclosed Monitoring and Reporting Program within 30 days of the effective date of this Order. The first monitoring report under this program is due by July 31, 1993. All monitoring reports shall be referenced to compliance file number 7264 and should be sent to the Regional Board, Attention: Technical Support Unit. All other reports should continue to be sent to me.

Please notify us at least seven (7) days prior to initiating the approved pilot test program, so we can schedule our staff to be present onsite.

Subsequent to completing the pilot test program and prior to commencing full scale groundwater recovery operations for cleanup onsite, you must notify this Regional Board.

M.E. Jensen  
Rockwell International Corporation  
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Please do not combine the monitoring reports with other reports such as progress or technical reports. Each type of report should be submitted as a separate document.

If you have any questions, please contact Mr. David Bacharowski at (213) 266-7546 or Dr. James Tang at (213) 266-7589.



ROY R. SAKAIDA  
Supervising Water Resource  
Control Engineer

RRS:DAB:JT

Enclosures:

cc: See attached mailing list

M.E. Jensen, Manager  
Rockwell International Corporation  
Mailing List

Environmental Protection Agency, Region 9, Administrative Service  
Division (W-5-1)  
U.S. Army Corps of Engineers  
NOAA, National Marine Fisheries Service  
Department of Interior, U.S. Fish and Wildlife Service  
Archie Matthews, SWRCB, Division of Water Quality  
Jorge Leon, SWRCB, Office of Chief Counsel  
Department of Fish and Game, Marine Resources Region  
Department of Fish and Game, Region 5  
Department of Water Resources  
Department of Health Services, Sanitary Engineering Section  
Department of Health Services, Toxic Substance Control Division,  
Burbank  
Los Angeles County, DPW, Hydraulic/Water Conservation Division  
Los Angeles County, Department of Health Services  
City of Los Angeles, Storm Water Management Division, Bureau of  
Engineering  
City of Los Angeles, DPW, Bureau of Sanitation  
City of Los Angeles, Wastewater Systems Engineering Division  
Central and West Basin Water Replenishment District  
Chuck Dickens, Groundwater Resources Consultants, Inc.  
Mel Blevins, ULARA Watermaster  
Bob Arneson, J.C. Penny Company, Inc.  
Edward Koberstein, Montgomery Wards  
Carl Tripp, City of Los Angeles, Bureau of Sanitation  
Colleen Doyle, McCutchen, Doyle, Brown & Enersen

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

ORDER NO. 93-015

NPDES NO. CA0063100

WASTE DISCHARGE REQUIREMENTS  
FOR  
ROCKWELL INTERNATIONAL CORPORATION  
(Rocketdyne Division)

The California Regional Water Quality Control Board, Los Angeles Region finds:

1. Rockwell International Corporation - Rocketdyne Division, hereafter Rockwell, operates facilities used for research, development, and manufacture of propulsion units used in the aerospace industry at 6633 Canoga Avenue, Canoga Park, California.
2. Rockwell has conducted groundwater cleanup operations onsite since April 22, 1991, under Waste Discharge Requirements contained in Order No. 91-037 (NPDES No. CA0060194). Under these requirements, Rockwell discharged up to 576,000 gallons per day (gpd) of treated groundwater, well development and purge waters produced through the clean up of organic solvent and petroleum hydrocarbon (gasoline) pollution.
3. Rockwell has discontinued use of the existing groundwater treatment system, Ultraviolet/Hydrogen Peroxide (UV/H<sub>2</sub>O<sub>2</sub>), due to problems associated with the treatment of high concentrations of contaminants including 1,1,1-Trichloroethane and Freon that were not anticipated during system design and pilot testing.
4. Rockwell has filed a report of waste discharge and has applied for a new permit to discharge wastes under the National Pollutant Discharge Elimination System (NPDES).
5. Rockwell has designed and installed an extraction well network along the northeast property line to intercept and recover polluted ground water within the impacted area. Rockwell proposes to treat up to 504,000 gpd of polluted groundwater

Revised February 8, 1993  
January 21, 1993

recovered from extraction wells E-1 through E-9 by an air stripper with vapor phase carbon emission control system. Any free gasoline product withdrawn will be skimmed off in a pre-process tank and stored in an underground tank for disposal. The air stripping treatment system will have a capacity to treat up to 350 gallons per minute of polluted ground water. Prior to installation of the air stripping treatment system (October 1993), groundwater will be treated onsite by a Granulated Activated Carbon (GAC) system as an interim treatment system.

6. Treated ground water will be discharged into a storm drain located in Canoga Avenue at outfall No. 001 (latitude 34° 11' 35", longitude 118° 35' 48"), thence to the Los Angeles River, a water of the United States, above the tidal prism. (See Figure 1)
7. Rockwell will submit a plan for future beneficial reuse of treated ground water. This plan will be included in the first Annual Summary Report, as specified in the Monitoring and Reporting Program, once groundwater cleanup operations are continued.
8. Federal law stipulates that NPDES permits require the implementation of best available technology economically achievable. Rockwell proposes the use of GAC and/or air stripping systems to treat ground water contaminants. These treatment methods are both considered to be best available technology economically achievable.
9. Maximum discharge limitations specified in this permit are based upon the State Department of Health Services Maximum Contaminant Levels, primary drinking water standards, the Environmental Protection Agency Water Quality Criteria, the California Ocean Plan Limiting Concentrations and/or best available technology economically feasible.
10. The Board adopted a Revised Water Quality Control plan for the Los Angeles River Basin (4B) on June 3, 1991. The plan contains water quality objectives for the Los Angeles River. The requirements contained in this Order, as they are met, will be in conformance with the goals of the Water Quality Control Plan.

11. The beneficial uses of Los Angeles River are: (above the tidal prism) ground water recharge, water contact recreation, non-contact water recreation, warm fresh water habitat and wildlife habitat; (within the tidal prism) industrial service supply, ocean commercial and sport fishing, preservation of rare and endangered species, marine habitat, and saline water habitat.
12. Effluent limitations standards established pursuant to Section 301 of the Federal Clean Water Act and amendments thereto are applicable to this discharge.
13. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code in accordance with Water Code Section 13389. The discharge is not a "new source" as defined in 33 U.S.C., Section 306 and 40 C.F.R., Part 122.2. Moreover, the issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3, Division 13, Section 21100 et seq. as an activity for protection of the environment in accordance with Title 14, Code of California Regulation, Section 15308.

The Board has notified the discharger, interested agencies and persons of its intent to adopt waste discharge requirements for this discharge. The Board has provided these persons with an opportunity to submit their written views and recommendations.

The Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.

This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Federal Clean Water Act, or amendments thereto, and shall take effect at the end of ten days from adoption, provided the Regional Administrator, EPA, has no objections.

IT IS HEREBY ORDERED, that Rockwell International Corporation-Rocketdyne Division, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. Wastes discharged shall be limited to treated ground water including well development, purge and pump test waters, as proposed.
2. The discharge of an effluent in excess of the following limits from Discharge Outfall No. 001 is prohibited.

<u>CONSTITUENT</u>	<u>UNITS</u>	<u>DISCHARGE LIMITATIONS</u>	
		<u>30-DAY AVERAGE</u>	<u>MAXIMUM</u>
Oil and grease	mg/l	10	15.0
	lbs/day*	43.02	63.1
Total dissolved solids	mg/l	-----	1200.0
	lbs/day*	-----	5044.0
Sulfate	mg/l	-----	300.0
	lbs/day*	-----	1261.0
Chloride	mg/l	-----	150.0
	lbs/day*	-----	630.5
Acetone	µg/l	-----	50.0
Benzene	µg/l	-----	1.0
Chloroform	µg/l	-----	10.0
Carbon Tetrachloride	µg/l	-----	0.5
1,1-Dichloroethane	µg/l	-----	10.0
1,2-Dichloroethane	µg/l	-----	0.5
1,1-Dichloroethylene	µg/l	-----	6.0
t-1,2-Dichloroethylene	µg/l	-----	10.0
Dichlorotrifluoroethane	µg/l	-----	50.0
Di-N-Butyl Phthalate	µg/l	-----	3.0
Di-N-Octyl Phthalate	µg/l	-----	3.0
Ethylbenzene	µg/l	-----	10.0
Methyl Ethyl Ketone	µg/l	-----	50.0
4-Methyl-2-Pentanone	µg/l	-----	50.0
Lead	µg/l	-----	25.0

Naphthalene	µg/l	-----	50.0
Petroleum-Based			
Hydrocarbons (C5-C14)	µg/l	-----	100.0
Tetrachloroethylene	µg/l	-----	5.0
Trichloroethylene	µg/l	-----	5.0
1,1,1-Trichloroethane	µg/l	-----	10.0
1,1,2-Trichloroethane	µg/l	-----	10.0
Trichlorotrifluoroethane	µg/l	-----	200.0
Toluene	µg/l	-----	10.0
Vinyl Chloride	µg/l	-----	0.5
Xylenes (total)	µg/l	-----	10.0
Phenolic Compounds (non-chlorinated)	µg/l	-----	50.0
Phenolic Compounds (chlorinated)	µg/l	-----	1.0

\*Based upon a maximum flow of 504,000 gpd.

3. The effluent toxicity shall be such that the average survival in undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test less than 70% survival.

B. Requirements and Provisions

1. This Order includes the attached "Standard Provisions and General Monitoring and Reporting Requirements".
2. These records and reports are public documents, and shall be made available for inspection during normal business hours at the office of the California Regional Water Quality Control Board, Los Angeles Region. Records or reports which might disclose trade secrets, etc., may be excluded from this provision as provided in Section 13267(b) of the Porter-Cologne Water Quality Control Act, if requested.
3. Prior to "on-line" discharge from the facility, laboratory analysis of "Trial run" treated effluent confirming waste water quality within the limits specified by this permit will be performed for the discharge. Effluent containing contaminants in excess of the limits adopted in this permit will not be discharged to the Los Angeles River. Should contaminant concentrations in treated wastewater exceed permit

specifications, alternative disposal, storage, or additional treatment followed by substantiating laboratory analysis of wastewater will be accomplished. Rockwell will conduct separate pilot test programs for start-up of the GAC (interim) and air stripping (final) treatment system(s) prior to any discharge to the storm drain, to demonstrate system(s) efficiency and effectiveness in treating pollutants.

4. Prior to "on line" discharge from the facility, the discharger shall obtain a drain connection permit from the local agency as warranted.

C. Expiration Date

1. Order No. 91-037 adopted by this Regional Board on April 22, 1991 is hereby rescinded.
2. This Order expires on March 20, 1998.

The discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, no later than 180 days in advance of such date as application for issuance of new waste discharge requirements.

I, Robert P. Ghirelli, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on April 5, 1993.

  
ROBERT P. GHIRELLI, D.Env.  
Executive Officer

RPG:DAB:JT

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
LOS ANGELES REGION

MONITORING AND REPORTING PROGRAM NO. 7264

FOR

ROCKWELL INTERNATIONAL CORPORATION  
(Rocketdyne Division)  
(NPDES NO. 0063100)

The discharger shall implement this monitoring program on the effective date of this Order. The first monitoring report under this program is due by July 31, 1993.

Monitoring reports shall be submitted by the dates in the following schedule:

<u>Reporting Period</u>	<u>Report Due</u>
January - March	April 30
April - June	July 31
July - September	October 31
October - December	January 31

A sampling station shall be established for the discharge and shall be located where representative samples of the effluent can be obtained. The following shall constitute the effluent monitoring program:

<u>CONSTITUENT</u>	<u>UNITS</u>	<u>EPA METHOD NUMBER</u>	<u>SAMPLE</u>	<u>ANALYSIS</u>
pH	pH Units	150.1	grab	weekly
Temperature	°F	-----	grab	weekly
Total waste flow	gal/day	-----	----	weekly
Oil and grease	mg/l	413.2	grab	weekly
Total dissolved solids	mg/l	160.1	grab	weekly
Nitrate Nitrogen	mg/l	353.3	grab	weekly
Sulfate	mg/l	375.4	grab	weekly
Chloride	mg/l	325.3	grab	weekly
Acetone	µg/l	8015/524.2/624	grab	weekly <sup>3</sup>
Benzene	µg/l	624/524.2/602	grab	weekly <sup>3</sup>
Chloroform	µg/l	624/524.2/601	grab	weekly <sup>3</sup>
Carbon Tetrachloride	µg/l	624/524.2/601	grab	weekly <sup>3</sup>
1,1-Dichloroethane	µg/l	624/524.2/601	grab	weekly <sup>3</sup>
1,2-Dichloroethane	µg/l	624/524.2/601	grab	weekly <sup>3</sup>
1,1-Dichloroethylene	µg/l	624/524.2/601	grab	weekly <sup>3</sup>
t-1,2-Dichloroethylene	µg/l	624/524.2/601	grab	weekly <sup>3</sup>
Dichlorotrifluoroethane	µg/l	624/524.2	grab	weekly <sup>3</sup>
Di-N-Butyl Phthalate	µg/l	625	grab	monthly <sup>3</sup>

ROCKWELL INTERNATIONAL CORPORATION  
 (Rocketdyne Division)  
 Monitoring & Reporting  
 Program No. 7264

CA0063100

Di-N-Octyl Phthalate	µg/l	625	grab	monthly <sup>3</sup>
Ethylbenzene	µg/l	624/524.2/602	grab	weekly <sup>3</sup>
Methyl Ethyl Ketone	µg/l	8015/524.2/624	grab	weekly <sup>3</sup>
4-Methyl-2-Pentanone	µg/l	8015/524.2/624	grab	weekly <sup>3</sup>
Lead	µg/l	7421	grab	monthly <sup>3</sup>
Naphthalene	µg/l	625	grab	monthly <sup>3</sup>
Petroleum-Based				
Hydrocarbons (C5-C14)	µg/l	8015(M)	grab	weekly <sup>3</sup>
Tetrachloroethylene	µg/l	624/524.2/601	grab	weekly <sup>3</sup>
Trichloroethylene	µg/l	624/524.2/601	grab	weekly <sup>3</sup>
1,1,1-Trichloroethane	µg/l	624/524.2/601	grab	weekly <sup>3</sup>
1,1,2-Trichloroethane	µg/l	624/524.2/601	grab	weekly <sup>3</sup>
Trichlorotrifluoroethane	µg/l	624/524.2	grab	weekly <sup>3</sup>
Toluene	µg/l	624/524.2/602	grab	weekly <sup>3</sup>
Vinyl Chloride	µg/l	624/524.2/601	grab	weekly <sup>3</sup>
Xylenes (total)	µg/l	624/524.2/602	grab	weekly <sup>3</sup>
Phenols	µg/l	625	grab	monthly <sup>3</sup>
Toxicity <sup>1</sup>	%Survival	----	grab	semi-annual <sup>2</sup>
Gross Alpha particle	pCi/l	9310	grab	quarterly
Activity				
Gross Beta particle	pCi/l	9310	grab	quarterly
Activity				

- By the method specified in "Guidelines for Performing Static Acute Toxicity Bioassays in Municipal and Industrial Wastewaters" - July 1976 (California State Water Resources Control Board and Department of Fish and Game). Submission of bioassay results should include the information noted on page 31 and 32 of the "Guidelines". The fathead minnow (*Pimephales promelas*) may be used as the test species instead of the golden shiner (*Notemigonus crysoleucas*).
- If the results of the semi-annual toxicity test yield a survival of less than 90%, then the frequency of analysis shall increase to bi-monthly until at least three consecutive test results has been obtained, and full compliance with Effluent Limitation A-3 has been demonstrated, after which the frequency of analysis shall revert to semi annually. Results of toxicity tests shall be included in the first monitoring report following sampling.

3. Following the complete system installation and subsequent startup, weekly and/or monthly sampling as specified shall continue for at least six months, or until such time that the Executive Officer approves a change in the frequency of sampling. At the end of six months, following an evaluation of an overall cleanup system report provided to Board staff, the sampling frequency may be reduced by a written request.

Influent Monitoring

Sampling stations shall be established where representative samples of influent can be obtained. The following shall constitute the influent monitoring program.

<u>CONSTITUENT</u>	<u>UNITS</u>	<u>EPA METHOD NUMBER</u>	<u>TYPE SAMPLE</u>	<u>MINIMUM FREQUENCY OF ANALYSIS</u>
Volatile organics*	µg/l	624	grab	monthly
Base/neutral extractibles*	µg/l	625	grab	quarterly
Acid extractibles*	µg/l	625	grab	quarterly
Trichlorotrifluoroethane (Freon 113)	µg/l	624	grab	monthly
<u>Radioactivity</u>				
Gross Alpha particle activity	pCi/l	9310	grab	quarterly
Gross Beta particle activity	pCi/l	9310	grab	quarterly

\*Priority pollutants listed on page T-7

### Receiving Water Monitoring

Three sampling stations shall be established for receiving water quality monitoring. Representative samples of the receiving water (Los Angeles River) shall be collected at the storm drain discharge point to the river, 100 feet upstream, 100 feet downstream from the discharge point and analyzed as specified in the effluent monitoring requirements. A minimum monthly sampling frequency for receiving water monitoring program is required. The approved receiving water monitoring and sampling locations may be revised by the Executive Officer in the future, as necessary based upon monitoring results.

### Ground Water Recovery Scheme

Ground water will be recovered for clean up purposes through a series of nine (9) extraction wells placed along the north and northeastern property line. These wells are all screened above 49 feet below land surface, and will recover polluted ground water containing solvents and gasoline hydrocarbons from the designated shallow and upper saturated zones within this aquifer unit, underlying the area. The ground water extraction system will be operated in a manner so as to control and contain polluted ground water flow to the site. Drawdown across the site from recovery operations shall be monitored on a monthly or more frequent basis, according to the approved ground water sampling and testing program. Ground water elevations shall be maintained at a level to ensure that drawdown at onsite upgradient wells B-58 and B-59 do not fall below 774 feet mean sea level, and at monitoring well B-68 does not fall below 778 feet mean sea level. An evaluation of the affects of ground water recovery operations across the site is to be made on a quarterly basis. Any modifications needed to ensure optimum recovery system operation, such as changes to pumping rate(s), intermittent pumping operations, and additional extraction points, etc., must be evaluated and included with your report. Changes to the ground water drawdown elevations at key wells specified above can be made based upon current hydrologic conditions and clean up operations in the area. Modifications to the drawdown levels do not require new waste discharge requirements, however, written approval from the Executive Officer of this Regional Board is required.

Annual Reports

Annual Summary Report shall be submitted by March 1st of each year. The report shall include the results of all analyses and a complete system evaluation. The system evaluation shall contain an analysis covering the cleanup effectiveness. The system effectiveness shall evaluate, but not limited to, the present ground water conditions, rate of cleanup, system operating conditions, projected completion (if possible), and any system modification. Proposed plan and/or implementation of the plan to beneficially reuse the treated ground water shall also be provided in your October 31, 1993 quarterly report.

By August 31, of each year a ground water sampling and analysis protocol must be developed and submitted for the next year of monitoring. The monitoring year will coincide with the Federal Fiscal Year, and start October 1 through September 31. Analytical results obtained from ground water monitoring completed for the existing program, must be critically evaluated to aid in determining the objectives for the proposed monitoring and testing program. The plan must include all onsite and offsite monitoring wells, and incorporate the items listed below at a minimum.

- A. The rationale used to determine sampling locations, the frequency of analysis, and the analytical test methods to be used.
- B. Your plan must specify the methods and procedures to be utilized for sample collection, equipment decontamination, sample containers, preservation, shipment and appropriate documentation.
- C. A Quality Assurance/Quality Control Plan must be developed for the sampling and testing program.
- D. A wastewater management plan must be developed for handling, storage, testing and legal disposal of all purge and decontamination waters generated from ground water sampling program.
- E. A regularly scheduled program for gauging all ground water monitoring wells.

OPERATING AND MAINTENANCE REPORT

The discharger shall file a technical report with this Board not later than 30 days after receipt of this Order, relative to the operation and maintenance program for the groundwater treatment system. The information to be contained in that report shall include, at a minimum, the following:

- A. The name and address of the person or company responsible for operation and maintenance of the facility.
- B. Type of maintenance (preventive or corrective).
- C. Frequency of maintenance, if preventive.

Monitoring reports shall be signed by:

- A. In the case of corporation, by a principal Executive Officer at least of the level of vice-president, or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates.
- B. In the case of a partnership, by a general partner.
- C. In the case of a sole proprietorship, by the proprietor.
- D. In the case of municipal, state or other public facility, by either a principal Executive Officer, ranking elected official, or other duly authorized employee.



ROBERT P. GHIRELLI, D.Env.  
Executive Officer

Date: April 5, 1993

RPG:DAB:JT