

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 5-00-262

WASTE DISCHARGE REQUIREMENTS
FOR
UNITED PARCEL SERVICE, INC.,
DBA UNITED PARCEL SERVICE - CARED
AND
ROY PORTUGAL
SHASTA COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Board) finds that:

1. Waste Discharge Requirements Order No. 94-007, adopted by the Board on 28 January 1994, prescribed requirements for a discharge from United Parcel Service - CARED to a septic tank leachfield system. The property (Assessor's Parcel No. 050-080-29) is owned by Roy Portugal. United Parcel Service, Inc., dba United Parcel Service - CARED, and Roy Portugal are hereafter referred to as Discharger.
2. On 13 July 1994, the Board's Executive Officer issued a Notification of Applicability to discharge groundwater from the Discharger's cleanup of petroleum fuel pollution to surface waters under Waste Discharge Requirements Order No. 92-15018, General NPDES Permit No. CA0082929. On 16 June 2000, the Board rescinded General Order No. 92-150 and replaced it with General Order No. 5-00-119 (NPDES No. CAG915001).
3. Since issuance of Order No. 92-15018, discharges from the groundwater treatment system have not reached surface waters; therefore, the Discharger determined that coverage under General Order No. 5-00-119 is not appropriate. The Discharger submitted a Report of Waste Discharge, dated 13 September 2000, requesting a revision of Order No. 94-007 to include discharges from the groundwater treatment system to a designated disposal area.
4. United Parcel Service-CARED is in a portion of the San Buenaventura Grant projected as Section 6, T30N, R4W, MDB&M, as shown on Attachment A, which is attached hereto and made part of this Order by reference.
5. Approximately 1,000 gallons per day of domestic wastewater discharges to a septic tank leachfield system. A barrier wall and curtain drain system is constructed around the leachfield to direct groundwater away from the area, thereby increasing the soil depth below the bottom of the leaching trenches. The release of petroleum products from former underground storage tanks has resulted in contamination of the shallow groundwater up-gradient of the leachfield. When petroleum products are detected in the curtain drain discharge, the groundwater is pumped through granular activated carbon for

treatment. Approximately 18,000 gallons per day of treated groundwater discharges to a bermed disposal area. The septic tank leachfield and groundwater treatment system disposal area are shown on Attachment B, which is attached hereto and made a part of this Order by reference.

6. Gasoline and diesel are stored underground and dispensed in a non-canopied area adjacent to the operations building. Small quantities of waste oil and other petroleum products are stored in a covered area with secondary containment.

HYDROLOGY, SOILS, AND BENEFICIAL USES

7. United Parcel Service lies within the Redding Hydrologic Unit (No. 508) and Enterprise Flat Hydrologic Area (No. 508.10), as depicted on hydrologic maps prepared by the Department of Water Resources in August 1986. The average annual rainfall is approximately 40 inches.
8. Soils in the leachfield area are sandy silty clay, clayey sand, and gravel followed by hard layer of sandy clayey silt that may limit the downward migration of water. Percolation rates are erratic, ranging from 7 to 120 min/inch; the leachfield design is based on a percolation rate of 60 min/inch.
9. Shallow groundwater flows north to northeast; the hydraulic gradient is 0.011. Permeability test results, from soil samples collected at 11.5 ft and 26.5 ft below ground surface, indicate the average hydraulic conductivity is 7.9×10^{-8} cm/sec and 1.9×10^{-8} cm/sec respectively.
10. Surface drainage is to an unnamed tributary of the Sacramento River. It is conservative to assume that some portion of the water disposed in the leachfield and groundwater disposal area will enter the unnamed tributary as subsurface flow.
11. The beneficial uses of the Sacramento River are municipal, domestic, and agricultural supply; industrial power generation; water contact and non-contact recreation; esthetic enjoyment; navigation; cold freshwater habitat; cold water fish migration; warm and cold water fish spawning; wildlife habitat; and preservation and enhancement of fish, wildlife, and other aquatic resources.
12. The California Department of Water Resources has established standards for the construction and destruction of groundwater wells (hereafter DWR Well Standards). These standards are described in two DWR publications: California Well Standards Bulletin 74-90 (June 1991) and Water Well Standards: State of California Bulletin 94-81 (December 1981).

13. The Discharger's drinking water is supplied from a well up-gradient of the septic tank leachfield and groundwater disposal area. Adjacent properties have individual drinking water wells; one property is downgradient of the Discharger's leachfield, groundwater disposal area, and storm drain outlet. The Discharger conducts water quality monitoring of their supply well for constituents required by the Shasta County Department of Resource Management, Environmental Health Division (SCEHD). Currently, SCEHD has not confirmed constituents in the well exceeding drinking water standards. In 1994, the downgradient private well was sampled for petroleum constituents; contamination was not detected.
14. The beneficial uses of groundwater are municipal supply, industrial, and agricultural supply.

CEQA AND ANTIDegradation FINDINGS

15. The action to revise waste discharge requirements for this existing facility is exempt from the provisions of the California Environmental Quality Act (CEQA), in accordance with Title 14, California Code of Regulations (CCR), Section 15301.
16. The Board adopted a Water Quality Control Plan, Fourth Edition, for the Sacramento River Basin and the San Joaquin River Basin, (hereafter Basin Plan) which designates beneficial uses, establishes water quality objectives, and describes an implementation program and policies to achieve those objectives for all waters of the Basin. This includes plans and policies adopted by the State Water Resources Control Board and incorporated by reference, such as Resolution 68-16, Statement of Policy with respect to Maintaining High Quality of Waters in California (Antidegradation Policy). These requirements implement the Basin Plan.
17. The Board has considered anti-degradation pursuant to Resolution No. 68-16 and finds that not enough data exists to determine if this discharge is consistent with those provisions. Specifically, monitoring wells have not been installed adjacent to the groundwater disposal area and several adjacent properties have individual drinking water wells that are downgradient of the leachfield and disposal area. Therefore, the Monitoring and Reporting Program included within this Order incorporates the installation of additional wells and groundwater monitoring of existing wells to collect data for determining whether the discharge will cause an increase in groundwater constituents above that of background levels. If the discharge is causing such an increase, then the Discharger may be required to cease the discharge, implement source control, change the method of disposal, or take other action to prevent groundwater degradation.

GENERAL FINDINGS

18. The United States Environmental Protection Agency (USEPA), on 16 November 1990, promulgated storm water regulations (40 CFR Parts 122, 123, and 124) which require specific categories of industrial facilities which discharge storm water to obtain NPDES permits and implement Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to reduce or eliminate industrial storm water pollution.
19. The State Water Resources Control Board (SWRCB) adopted Order No. 97-03-DWQ (General Permit No. CAS000001), on 17 April 1997, specifying waste discharge requirements for discharge of storm water associated with industrial activities, excluding construction activities, that requires submittal of a Notice of Intent (NOI) by industries covered under the permit. This facility has submitted an NOI for coverage under the General Permit.
20. The Basin Plan encourages reclamation. The Basin Plan requires that each Report of Waste Discharge for land disposal operation justify why reclamation is not practiced or proposed. The Discharger reviewed opportunities for reclamation and cannot use or increase the use of effluent on irrigation land because of the shallow groundwater beneath the site.
21. This discharge is exempt from the requirements of *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, et seq., (hereafter Title 27). The exemption, pursuant to Section 20090(b), is based on the following:
 - a. The Board is issuing waste discharge requirements,
 - b. The discharge complies with the Basin Plan, and
 - c. The wastewater does not need to be managed according to 22 CCR, Division 4.5, Chapter 11, as a hazardous waste.
22. This Board has considered the information in the attached Information Sheet in developing the Findings of this Order. The attached Information Sheet is part of this Order.
23. The 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 for a public hearing and an opportunity to submit their written views and recommendations.

24. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that Order No. 94-007 is rescinded and United Parcel Service, Inc., dba United Parcel Service - CARED and Roy Portugal, their agents, successors, and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, shall comply with the following:

A. Discharge Prohibitions:

1. The discharge of wastewater to the groundwater treatment system from the investigation and cleanup of petroleum fuel pollution, where other contaminants exist, is prohibited.
2. The discharge of wastewater to surface waters or surface water drainage courses is prohibited.
3. The by-pass or overflow of untreated or partially treated waste is prohibited.
4. The discharge of hazardous or toxic substances including solvents, oil, grease, or other petroleum products, is prohibited.
5. Discharge of waste classified as 'hazardous,' as defined in Section 2521(a) of Title 23, CCR, Section 2510, et seq., (hereafter Chapter 15), or 'designated,' as defined in Section 13173 of the California Water Code, is prohibited.

B. Effluent Limitations (Groundwater Treatment System):

1. The discharge of effluent from the groundwater treatment system in excess of the following limits is prohibited:

Constituents	Units	30-Day Median	Daily Maximum
Methyl t-butyl ether	µg/l	<5.0	5
Benzene	µg/l	<0.5	0.35
Toluene	µg/l	<0.5	42
Ethylbenzene	µg/l	<0.5	29
Xylenes (total)	µg/l	<1.0	17
Total Petroleum Hydrocarbons - Gasoline	µg/l	<50	100

2. The discharge shall not have a pH of less than 6.5 nor greater than 8.5.
3. The discharge shall remain within the designated disposal area at all times.

C. Discharge Specifications:

1. Neither the treatment nor the discharge shall cause a nuisance or condition of pollution as defined by the California Water Code, Section 13050.
2. The 30-day average daily dry weather discharge flow to the septic tank leachfield shall not exceed 1,440 gallons.
3. The discharge shall not cause degradation of any water supply.
4. The discharge shall remain within the designated disposal area at all times.
5. The treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
6. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal areas.
7. Public contact with wastewater shall be precluded through such means as fences, signs, or other acceptable alternatives.

D. Sludge Disposal:

1. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner that is consistent with Title 27 and approved by the Executive Officer.

E. Groundwater Quality Limitations:

1. The discharge, in combination with other sources, shall not cause groundwater underlying the wastewater disposal areas to contain waste constituents statistically greater than background water quality except for the following constituents, which shall not exceed the limits specified:
 - a. Coliform organisms in concentrations exceeding 2.2 MPN/100 ml over any seven-day period.
 - b. Nitrate-nitrogen as N in concentrations exceeding 2.0 mg/l.

F. Provisions:

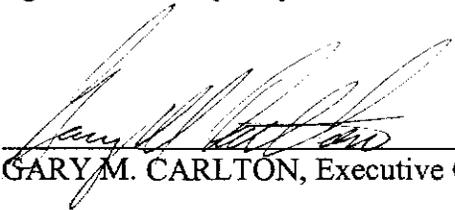
1. The Discharger shall comply with Monitoring and Reporting Program No. 5-00-262, which is a part of this Order, and any revisions thereto as ordered by the Executive Officer.
2. The Discharger shall comply with all the items of the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated 1 March 1991, which are a part of this Order. This attachment and its individual paragraphs are referred to as "Standard Provision(s)."
3. The Discharger must comply with all conditions of this Order, including timely submittal of technical and monitoring reports as directed by the Executive Officer. Violations may result in enforcement action, including Regional Board or court orders requiring corrective action or imposing civil monetary liability, or in revision or rescission of this Order.
4. **By 1 March 2001**, the Discharger shall submit a workplan for the installation of wells to monitor the groundwater treatment system disposal area. The workplan shall be prepared by a California Registered Engineer or Geologist, and shall contain all of the information found in Part 1 "Items to be Included in a Monitoring Well Installation Work Plan and a Monitoring Well Installation Report of Results" of Attachment C. **Within 60 days** of staff approval of the installation workplan, the Discharger shall submit a monitoring well installation report containing (a) all of the information found in Part 2 of Attachment C and (b) the results of the first sampling event.
5. If monitoring data demonstrates that the discharge is causing degradation of adjacent and/or downgradient waters, this Order will be reopened and modified accordingly, along with possible initiation of formal enforcement.
6. The Discharger shall report promptly to the Board any material change or proposed change in the character, location, or volume of the discharge.
7. In the event of any change in control or ownership of land or waste discharge facilities described herein, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The

request must contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Board, and a statement. The statement shall comply with the signatory paragraph of Standard Provision B.3 and state that the proposed owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved by the Executive Officer.

8. Roy Portugal, as owner of the real property at which the discharge will occur, is ultimately responsible for ensuring compliance with these requirements. United Parcel Service, Inc., retains primary responsibility for compliance with these requirements, including day-to-day operations and monitoring. Enforcement actions will be taken against Roy Portugal only in the event that enforcement actions against United Parcel Service, Inc., is ineffective or would be futile, or the enforcement is necessary to protect public health or the environment.
9. A copy of this Order and its attachments shall be maintained at United Parcel Service-CARED for reference by key operating personnel. Key operating personnel shall be familiar with its contents.
10. The Board will review this Order periodically and will revise requirements when necessary.

I, GARY M. CARLTON, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 8 December 2000.



GARY M. CARLTON, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 5-00-262

FOR

UNITED PARCEL SERVICE, INC.

DBA UNITED PARCEL SERVICE - CARED

AND

ROY PORTUGAL

SHASTA COUNTY

This monitoring and reporting program (MRP) incorporates requirements for monitoring of the septic tank, leachfield, groundwater treatment system (curtain drain and effluent), and groundwater (adjacent to the leachfield and groundwater disposal area). This MRP shall not be changed until a revised MRP is issued by the Executive Officer.

SEPTIC TANK MONITORING

Septic tank maintenance inspections (including tank sludge level measurement) shall be performed at least once every three years. Information concerning inspections and maintenance activities (including, but not limited to, pumping, replacement, and repairs) shall be included in the monitoring reports submitted to the Board.

LEACHFIELD MONITORING

The Discharger shall inspect the leachfield and note the presence or absence of saturated soils or standing liquid. The leachfield shall be inspected monthly during the period 1 October to 1 February and weekly during the remainder of the year. Observations shall be included in the monitoring reports.

GROUNDWATER TREATMENT SYSTEM MONITORING

CURTAIN DRAIN

A monitoring program shall be implemented to determine if petroleum hydrocarbons are entering the curtain drain. Influent samples shall be collected of the curtain drain water before it enters the treatment system. The samples shall be representative of the volume and nature of the influent. Time of collection shall be recorded. Groundwater discharges from the curtain drain shall be sampled for at least the following:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	gallons	Cumulative	Daily
Methyl t-butyl ether	µg/l	Grab	Quarterly ¹
Benzene	µg/l	Grab	Quarterly ¹
Toluene	µg/l	Grab	Quarterly ¹
Ethylbenzene	µg/l	Grab	Quarterly ¹
Xylenes (total)	µg/l	Grab	Quarterly ¹
<u>Total Petroleum Hydrocarbons – Gasoline</u>	µg/l	Grab	Quarterly ¹

¹ If any sample shows detectable MTBE, BTEX, or TPHg the Discharger shall immediately close the curtain drain valve and redirect the groundwater into the petroleum hydrocarbon treatment system.

EFFLUENT

Samples shall be collected of the treatment system discharge, downstream from the last connection through which wastes can be admitted into the outfall. Effluent samples shall be representative of the volume and nature of the discharge. Time of collection shall be recorded. Discharges from the groundwater treatment system shall be sampled for at least the following:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Flow	gallons	Cumulative	Daily
Seepage or discharge outside of disposal area	--	Visual	Daily
pH	units	Grab	Quarterly ²
Methyl t-butyl ether	µg/l	Grab	Quarterly ²
Benzene	µg/l	Grab	Quarterly ²
Toluene	µg/l	Grab	Quarterly ²
Ethylbenzene	µg/l	Grab	Quarterly ²
Xylenes (total)	µg/l	Grab	Quarterly ²
<u>Total Petroleum Hydrocarbons – Gasoline</u>	µg/l	Grab	Quarterly ²

² If any sample shows detectable MTBE, BTEX, or TPHg the Discharger shall immediately evaluate the treatment system, resample and reanalyze the effluent for the detected constituent(s), and continue sampling the effluent on a weekly basis until the constituent(s) concentrations are below detection.

GROUNDWATER MONITORING

A detection monitoring program to determine both background and downgradient concentrations of indicator parameters shall be implemented. The monitoring network shall consist of P-3, MW-5, MW-7 and any additional wells installed pursuant to Provision F.4 in this Order.

LEACHFIELD

Piezometer (P-3) shall be monitored quarterly for groundwater depth.

Monitoring wells (MW-5 and MW-7) shall be sampled for at least the following:

Constituent	Unit	Type of Sample	Sampling Frequency
Groundwater Depth	Feet, inches	Visual	Quarterly
pH	units	Grab	Quarterly
Electrical Conductivity	μ mhos/cm	Grab	Quarterly
Total Coliform	MPN/100 ml	Grab	Quarterly
Nitrate as N	mg/l	Grab	Quarterly
Methyl t-butyl ether	μ g/l	Grab	Quarterly
Benzene	μ g/l	Grab	Quarterly
Toluene	μ g/l	Grab	Quarterly
Ethylbenzene	μ g/l	Grab	Quarterly
Xylenes	μ g/l	Grab	Quarterly
Total Petroleum Hydrocarbons – Gasoline	μ g/l	Grab	Quarterly

TREATMENT SYSTEM DISPOSAL AREA

The monitoring wells adjacent to the groundwater treatment system disposal area shall be sampled for at least the following:

Constituent	Unit	Type of Sample	Sampling Frequency
Groundwater Depth	Feet, inches	Visual	Quarterly
pH	units	Grab	Quarterly
Electrical Conductivity	μ mhos/cm	Grab	Quarterly
Methyl t-butyl ether	μ g/l	Grab	Quarterly
Benzene	μ g/l	Grab	Quarterly
Toluene	μ g/l	Grab	Quarterly
Ethylbenzene	μ g/l	Grab	Quarterly
Xylenes	μ g/l	Grab	Quarterly
Total Petroleum Hydrocarbons – Gasoline	μ g/l	Grab	Quarterly

REPORTING

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the sample type (e.g. influent, effluent, etc.), and reported analytical result for each sample are readily discernible. The data shall be summarized in such a manner to illustrate clearly the compliance with waste discharge requirements. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported to the Board.

Quarterly monitoring reports shall be submitted to the Regional Board by the **1st day of the second month in the next quarter** following sample collection. (i.e., the First Quarter Report is due by 1 May).

The Discharger may also be requested to submit an annual report to the Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

All reports submitted in response to this Order shall comply with the signatory requirements of Standard Provision B.3.

The Discharger shall implement the above monitoring program as of the date of this Order.

Ordered by: 
GARY M. CARLTON, Executive Officer

8 December 2000

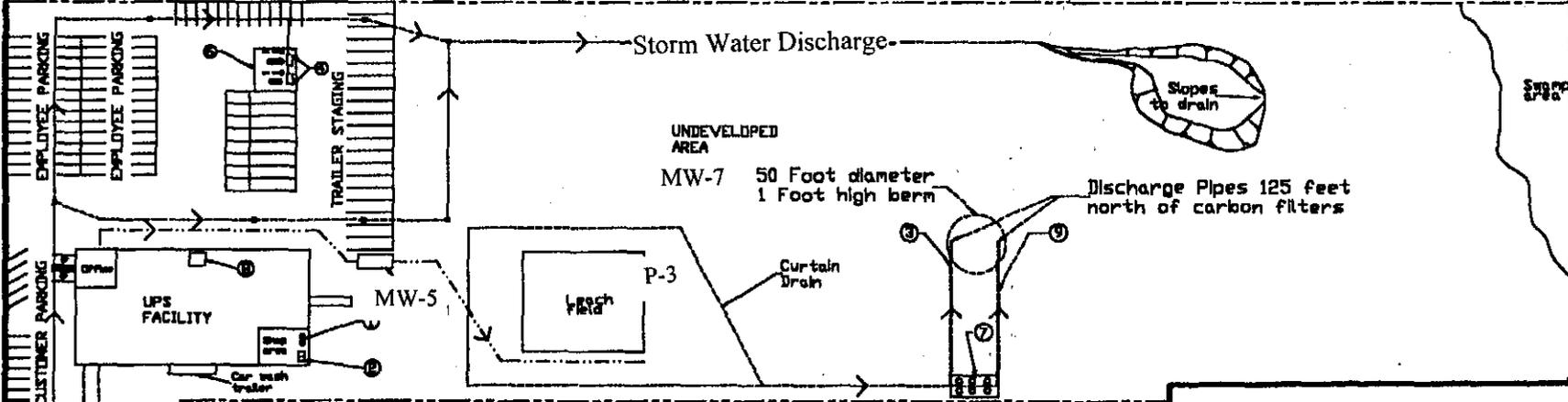
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Private Well

Private Well



Legend

- Property line
- Sanitary sewer line
- Trench drain
- Catch basin

Notes:

- ① Gear & lube grease drums
- ② New & waste oil tanks
- ③ Untreated Ground water discharge
- ④ Oil/Water separator
- ⑤ Septic tank
- ⑥ Fuel Island/10,00 gal unleaded UST
10,00 gal diesel UST
- ⑦ Carbon filter
- ⑧ Haz. Mat. processing
- ⑨ Treated Groundwater discharge

Site Map
Not to Scale

UNITED PARCEL SERVICE, INC.,
 DBA UNITED PARCEL SERVICE - CARED
 AND
 ROY PORTUGAL
 SHASTA COUNTY

ATTACHMENT C

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD CENTRAL VALLEY REGION

STANDARD MONITORING WELL PROVISIONS FOR WASTE DISCHARGE REQUIREMENTS

Prior to installation of groundwater monitoring wells, the Discharger shall submit a workplan containing at least the information specified in this document. Wells may be installed after the executive officer's approval of the workplan. Upon installation of the monitoring wells, the Discharger shall submit a report of results, as described below. A registered geologist, certified engineering geologist, or civil engineer registered or certified by the State of California must sign all workplans and reports.

Monitoring Well Installation Workplan

A. General Information:

- Monitoring well locations and rationale
- Survey details
- Equipment decontamination procedures
- Health and safety plan
- Topographic map showing any existing monitoring wells, proposed wells, waste handling facilities, utilities, and other major physical and man-made features.

B. Drilling Details: describe drilling and logging methods

C. Monitoring Well Design:

- Casing diameter
- Borehole diameter
- Depth of surface seal
- Well construction materials
- Diagram of well construction
- Type of well cap
- Size of perforations and rationale
- Grain size of sand pack and rationale
- Thickness and position of bentonite seal and sand pack
- Depth of well, length and position of perforated interval

D. Well Development:

- Method of development to be used
- Method of determining when development is complete
- Method of development water disposal

E. Surveying Details: discuss how each well will be surveyed to a common reference point

F. Soil Sampling (if applicable):

- Cuttings disposal method

Analyses to be run and methods
Sample collection and preservation method
Intervals at which soil samples are to be collected
Number of soil samples to be analyzed and rationale
Location of soil samples and rationale
QA/QC procedures

G. Well Sampling:

Minimum time after development before sampling (48 hours)
Well purging method and amount of purge water
Sample collection and preservation method
QA/QC procedures

H. Water Level Measurement:

The elevation reference point at each monitoring well shall be within 0.01 foot. Ground surface elevation at each monitoring well shall be within 0.1 foot. Method and time of water level measurement shall be specified.

I. Proposed time schedule for work.

Monitoring Well Installation Report of Results

A. Well Construction:

Number and depth of wells drilled
Date(s) wells drilled
Description of drilling and construction
Approximate locations relative to facility site(s)
A well construction diagram for each well must be included in the report, and should contain the following details:

Total depth drilled
Depth of open hole (same as total depth drilled if no caving occurs)
Footage of hole collapsed
Length of slotted casing installed
Depth of bottom of casing
Depth to top of sand pack
Thickness of sand pack
Depth to top of bentonite seal
Thickness of bentonite seal
Thickness of concrete grout
Boring diameter
Casing diameter
Casing material
Size of perforations
Number of bags of sand

Well elevation at top of casing
Depth to ground water
Date of water level measurement
Monitoring well number
Date drilled
Location

B. Well Development:

Date(s) of development of each well
Method of development
Volume of water purged from well
How well development completion was determined
Method of effluent disposal
Field notes from well development should be included in report.

C. Well Surveying: provide reference elevations for each well and surveyor's notes

D. Water Sampling:

Date(s) of sampling
How well was purged
How many well volumes purged
Levels of temperature, EC, and pH at stabilization
Sample collection, handling, and preservation methods
Sample identification
Analytical methods used
Laboratory analytical data sheets
Water level elevation(s)
Groundwater contour map

E. Soil Sampling (if applicable):

Date(s) of sampling
Sample collection, handling, and preservation method
Sample identification
Analytical methods used
Laboratory analytical data sheets

INFORMATION SHEET

ORDER NO. 5-00-262
UNITED PARCEL SERVICE, INC.,
DBA UNITED PARCEL SERVICE – CARED,
AND ROY PORTUGAL
SHASTA COUNTY

GENERAL INFORMATION

United Parcel Service, Inc., operates their Redding, California parcel delivery operations (CARED) on property owned by Roy Portugal (Assessor's Parcel No. 050-080-029). The facility is at 6845 Eastside Road, in Anderson, on a portion of the San Buenaventura Grant projected as Section 6, T30N, R4W, MDB&M. Only the 2.25 acres adjacent to Eastside Road, of the 10-acre parcel, is developed. Surface drainage is to an unnamed tributary of the Sacramento River.

The facility consists of an operations building, paved parking area, domestic wastewater disposal system, groundwater treatment system, fire pond, domestic water well, petroleum fueling island, and underground petroleum storage tanks. Their Standard Industrial Classification code is 4215 (trucking); their industrial activities include vehicle maintenance, vehicle storage, and material handling.

Approximately 100 individuals work at the facility; however, most are on-site only briefly each day. The number of on-site employees ranges from 10 to 15 individuals. Approximately 1,000 gallons per day of domestic wastewater discharges from sanitary facilities within the operations building into a 3,000-gallon septic tank and 750 linear feet of shallow, mounded leachfield. A barrier wall and curtain drain system is constructed around the leachfield to direct groundwater away from the area, thereby increasing the soil depth below the bottom of the leaching trenches. Since installation of the barrier wall and curtain drain system, the average groundwater depth has been approximately 6 feet. Shallow groundwater, generally detected in the summer months, is reportedly the result of leakage from the Anderson-Cottonwood Irrigation District's canal located about 500 feet southwest of the property.

Gasoline and diesel are stored underground and dispensed in a non-canopied area near the wash rack. Waste oil and small containers of various petroleum products are stored in the operations building, aboveground, in secondary containment. The aboveground storage does not include any tank greater than 660 gallons and the cumulative total does not exceed 1,320 gallons; therefore, regulation under Chapter 6.67 of the California Health and Safety Code, Aboveground Storage of Petroleum is not applicable.

In 1992 and 1993, the gasoline and diesel underground storage tanks were removed and replaced with new tanks. Petroleum constituents (MTBE, BTEX, TPHg and TPHd) were detected in the shallow groundwater immediately up-gradient of the leachfield area. The highest MTBE concentration detected in the groundwater was 140 $\mu\text{g/l}$. Lead and the other oxygenates (TBA, ETBE, DIPE, and TAME) were not found and, after March 1995, TPHd was no longer detected in the groundwater. Since gasoline constituents are still present, the curtain drain's discharge

pipe is designed with a gate valve and tee to either: direct flows to surface soils or, if petroleum is detected, pump the groundwater through a series of granular activated carbon canisters for treatment. When operating, approximately 18,000 gallons per day of treated groundwater discharges to a 50-foot diameter bermed area constructed east of the leachfield.

Storm water flow from the facility is directed through an underdrain into a ditch northeast of the septic tank leachfield and groundwater treatment system's disposal area. Storm water discharges are regulated under the Industrial Activities Storm Water General NPDES Permit. The facility has prepared a Storm Water Pollution Prevention Plan and is participating in their company's group monitoring program.

On 13 July 1994, the Board's Executive Officer issued United Parcel Service a Notification of Applicability to discharge groundwater from their treatment system to surface waters under Waste Discharge Requirements Order No. 92-15018, General NPDES Permit No. CA0082929. On 16 June 2000, the Board rescinded General Order No. 92-150 and replaced it with General Order No. 5-00-119 (NPDES No. CAG915001). Since issuance of Order No. 92-15018, discharges from the groundwater treatment system have not reached surface waters; therefore, United Parcel Service determined that coverage under General Order No. 5-00-119 is not appropriate. The Discharger submitted a Report of Waste Discharge, dated 13 September 2000, requesting a revision of Order No. 94-007 to include discharges from the groundwater treatment system.

SOILS, GEOLOGY, AND HYDROLOGY

United Parcel Service lies within the Redding Hydrologic Unit (No. 508), and Enterprise Flat Hydrologic Area (No. 508.10), as depicted on hydrologic maps prepared by the Department of Water Resources in August 1986. The average annual rainfall is approximately 40 inches.

Soils in the leachfield area are sandy silty clay, clayey sand, and gravel followed by hard layer of sandy clayey silt that may limit the downward migration of water. Percolation rates are erratic, ranging from 7 to 120 minutes/inch; the leachfield design is based on a percolation rate of 60 min/inch. Shallow groundwater flows north to northeast, with a hydraulic gradient of 0.011. Permeability test results, from soil samples collected at 11.5 ft and 26.5 ft below ground surface, indicate the average hydraulic conductivity is 7.9×10^{-8} cm/sec and 1.9×10^{-8} cm/sec respectively.

One piezometer and seven monitoring wells have been installed at the facility, none are adjacent to the groundwater disposal area. The piezometer (P-3) is adjacent to the leachfield; its total depth is 9.54 feet. The monitoring wells (MW) are associated with the petroleum investigation; they are approximately 13 feet deep and perforated for 10 feet. Under Order No. 94-007, MW-1 is used to determine background water quality for the leachfield operations. This Order replaces MW-1 with MW-5, which is immediately upgradient of the leachfield and usually contains

gasoline constituents that may enter the curtain drain system. Downgradient well MW-7 will continue to be used to determine leachfield compliance. This Order requires the Discharger to submit a workplan and install monitoring wells adjacent to the groundwater disposal area.

The Discharger's drinking water is supplied from an on-site well installed along Eastside Road, upgradient of the septic tank leachfield and groundwater disposal area. The Discharger conducts water quality monitoring of their supply well for constituents required by the Shasta County Department of Resource Management, Environmental Health Division (SCEHD). Currently, SCEHD has not confirmed constituents in the well exceeding drinking water standards. Adjacent properties have individual drinking water wells that are downgradient of the leachfield, groundwater disposal area, and storm drain outlet. In 1994, one downgradient private well was sampled for petroleum constituents; contamination was not detected. Currently, private individual water supply wells are not regulated.

EFFLUENT LIMITATIONS

Effluent limits have been established as follows:

- a. Effluent 30-day Median Concentrations for TPHg, BTEX, and MTBE are established as 'non-detectable', that is, less than the detection concentrations for the specified, commonly available analytical technology. Non-detectable is defined as "below the practical quantitation limit (PQL) or below the method reporting limit (MRL)". A 'median' is used rather than 'average' or 'arithmetic mean' to allow for the detection of a constituent in individual samples without automatically causing a violation of the monthly limitation, as would occur with an 'average' or 'mean' limit.

Routine effluent sampling is conducted quarterly. Granular activated carbon treatment used for groundwater cleanup of petroleum constituents is not normally subject to sudden upset or bypass, so rapid changes in effluent quality is not expected. If detectable concentrations of petroleum constituents are found, the monitoring program requires an evaluation of the system and weekly monitoring of the effluent until 'non-detected' conditions are reestablished. The effluent sampling is not a substitute for process control monitoring by the Discharger.

- b. Daily maximum effluent concentrations for TPHg, BTEX, and MTBE are established to allow for some effluent quality variation and for the false positive analytical results inherent in analyses near the limits of detection. The daily maximum concentrations are based on the water quality criteria for the protection of human health (benzene), set at the secondary MCL standard (MTBE), or established at the taste and odor threshold (toluene, ethylbenzene, total xylenes, and total petroleum hydrocarbons-gasoline).
- c. The effluent limit for pH is based on the secondary MCL standard.

ANTIDegradation

The Board has considered anti-degradation pursuant to Resolution No. 68-16 and finds that not enough data exists to determine if this discharge is consistent with those provisions. Specifically, monitoring wells have not been installed adjacent to the groundwater disposal area and several adjacent properties have individual drinking water wells that are downgradient of the leachfield and disposal area. Therefore, the Monitoring and Reporting Program included within this Order incorporates the installation of additional wells and groundwater monitoring of existing wells to collect data for determining whether the discharge will cause an increase in groundwater constituents above that of background levels. If the discharge is causing such an increase, then the Discharger may be required to cease the discharge, implement source control, change the method of disposal, or take other action to prevent groundwater degradation.

For groundwater directly beneath the leachfield, the Order allows groundwater concentrations of coliform and nitrate-nitrogen to exceed background water quality, but not the Maximum Contaminant Limits.

KLC:dcw

12/8/2000