

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. 5-00-080
NPDES NO. CA0080161

WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF TAFT
TAFT HEIGHTS SANITATION DISTRICT
FORD CITY SANITATION DISTRICT
AND UNITED STATES DEPARTMENT OF ENERGY
TAFT WASTEWATER TREATMENT FACILITY
KERN COUNTY

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

1. The City of Taft, on behalf of the City, Taft Heights Sanitation District, and Ford City Sanitation District (hereafter jointly referred to as Discharger), submitted a Report of Waste Discharge (RWD), dated 20 April 1998, for National Pollutant Discharge Elimination System (NPDES) permit renewal and expansion of the Taft Wastewater Treatment Facility (WWTF). Supplemental information to complete filing of the application was submitted on 24 March 1999. The WWTF is on property owned by the City of Taft and Kern County in Section 17, T32S, R24E, MDB&M, as shown on Attachment A, a part of this Order.
2. The WWTF was constructed in 1974 and is owned by the City of Taft and Kern County. The WWTF treats wastewater from the City of Taft, Taft Heights, and Ford City. The latter two are under the jurisdiction of Kern County. The total population (i.e., City of Taft, Taft Heights, and Ford City) was about 13,170 in 1998 and will reportedly increase to about 13,320 in 2000 and to 14,700 in 2010. The City of Taft operates and maintains the treatment, collection and disposal facilities. Wastewater flows are primarily domestic/commercial in nature.
3. The WWTF is currently regulated by Waste Discharge Requirements (WDRs) Order No. 93-111 (NPDES Permit No. CA0080161), adopted by the Board on 30 August 1993, for the City of Taft, Taft Heights Sanitation District and Ford City Sanitation District. The NPDES permit expired on 1 August 1998, but was administratively continued by Board letter of 16 November 1998. The WWTF includes: four aerated facultative ponds, chlorine contact basin, effluent storage reservoir and effluent pumping station, and solar sludge drying beds. The WDRs limit the monthly average dry weather discharge to 1.2 million gallons per day (mgd). The WWTF is permitted to discharge its effluent to 135 acres of fallow land (hereafter designated disposal area) or to Sandy Creek, an ephemeral stream that flows south of the WWTF.
4. The discharge to Sandy Creek is referred to as Discharge 001 and discharge to land is referred to as Discharge 002. A 12.8-acre-foot effluent reservoir provides storage prior to discharge to the

designated disposal area or to Sandy Creek. From January 1987 to February 1996, effluent discharge to Sandy Creek occurred on 72 occasions. However, no discharge to Sandy Creek has occurred since February 1996. The WDRs contain two sets of effluent limitations that are tabulated below:

Discharge 001 (to Sandy Creek)

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Monthly Median</u>	<u>Daily Maximum</u>
BOD ₅ ¹	mg/l	30	45	---	80
	lbs/day	300	450	---	800
CBOD ²	mg/l	25	40	---	70
	lbs/day	250	400	---	700
Total Suspended Solids	mg/l	45	65	---	90
	lbs/day	450	650	---	900
Settleable Solids	ml/L	0.2	---	---	1.0
Total Coliform Organisms	MPN ¹ /100 ml	---	---	23	500

Discharge 002 (to Designated Disposal Area)

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Monthly Median</u>	<u>Daily Maximum</u>
BOD ₅ ²	mg/l	40	---	---	80
CBOD ³	mg/l	35	---	---	70
Settleable Solids	ml/L	0.2	---	---	1.0

¹ Most Probable Number

² Five-day, biochemical oxygen demand at 20°C; applicable when reported without corresponding CBOD results.

³ Five-day, carbonaceous biochemical oxygen demand at 20°C; applicable when reported.

Because nitrogenous interference with the BOD₅ test caused the effluent to exceed the BOD₅ effluent limitation, the current WDRs allow the Discharger to monitor effluent for carbonaceous biochemical oxygen demand (CBOD) in lieu of the standard BOD₅ test.

5. Estimated percolation rates for the designated disposal area range from 0.057 to 0.16 ft/day, and may be higher. Effluent discharged to the designated disposal area does not travel far from the pipe outlets before infiltrating into the ground, and there is not much ponding. The water level is just a few inches deep. Once discharge to the designated disposal area ceases, it reportedly takes only one day or less for the effluent to seep into the soil.
6. The Discharger has experienced problems meeting its effluent discharge requirements due to short-circuiting in the ponds. Since 1993, the Discharger frequently violated effluent limitations in Order No. 93-111 for CBOD and total coliform organisms and for low dissolved oxygen concentrations in WWTF ponds. The Board has issued several notices of violations, but the Discharger has yet to implement corrective measures. A recent engineering evaluation of the WWTF de-rated its treatment capacity to 0.75 mgd. In August 1998, the Discharger submitted a draft report on a proposed WWTF expansion project to bring the discharge back into compliance with its WDRs and to provide for additional treatment capacity.
7. The WWTF expansion project, which may be partly financed by the State Revolving Fund, will reportedly include: upgrading and expanding the headworks with new influent bar screen and flow meter; new grit chamber and a 1.2 mgd Biolac system; 0.3 mgd facultative pond; new final clarifier; return activated sludge/waste activated sludge pump station; new solar sludge drying beds; effluent holding pond with upgraded piping and effluent pumps. The design capacity of the expanded WWTF will be 1.5 mgd. The Discharger expects to complete construction of the expanded WWTF by July 2002. The Discharger has not yet satisfied for the WWTF expansion project the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq.).
8. The Discharger's consultant (Carollo Engineers) submitted a technical report, dated 24 March 1999, that includes a water balance of WWTF effluent storage and disposal capacity at the expanded flow rate of 1.5 mgd. The water balance considers annual storm water that would occur once every 100 years, distributed monthly in accordance with historic rainfall patterns. The report indicates that the current designated disposal area and storage capacity are adequate to handle the expanded flows.
9. The United States Department of Energy (USDOE) owns the 135-acres designated disposal area. The City of Taft has a short-term lease of this land and reports that it will secure the property either by purchase or long-term lease. The City of Taft, Taft Heights Sanitation District, Ford City Sanitation District, and the USDOE are hereafter jointly referred to as Discharger.
10. Soils in the WWTF vicinity and designated disposal area consist of silty clayey sands. Taft is in Seismic Risk Zone 4, according to the Uniform Building Code. The WWTF is near two fault lines: The San Andreas fault and the Shaker fault are approximately 8.5 and 2 miles, respectively, southwest of Taft.

11. Area groundwater is at an approximate depth of 400 to 800 feet below ground surface, and is of poor mineral quality with EC (conductivity at 25°C) of 4000 to 6000 µmhos/cm and Total Dissolved Solids greater than 4,000 mg/l, which rapidly diminishes in quality with depth.
12. Source water for residential and commercial use is groundwater supplied by West Kern County Water District and is pumped from wells near the Kern River and Elk Hills. Recent water supply reports from West Kern County Water District indicate the source water has an EC of about 370 µmhos/cm, total dissolved solids concentration of about 290 mg/l, and nitrate-nitrogen concentration of about 1.0 mg/l.
13. Due to the poor quality of area groundwater and to the need to import potable water to the area, there is little if any agricultural land use in the general vicinity. Years ago, the Discharger reclaimed effluent on the designated disposal area. But, due to reported difficulties of securing farm services, the designated disposal area now only supports the growth of native grasses, which the Discharger removes by periodic burning.
14. Discharger monitoring reports for 1998 and 1999 show that winter flows are not higher than summer flows, indicating there is no significant inflow and infiltration to the collection system during winter months.
15. In its RWD, the Discharger has indicated the presence of boron, zinc, and chlorinated organic compounds in the discharge.
16. The WWTF is outside the 500-year flood plain, according to a National Flood Insurance Program map published in January 1992. The southwest corner of the treatment plant property extends across a portion of Sandy Creek. The creek bed is within the 100-year flood plain, not suitable for construction of any future treatment units.
17. The WWTF and Discharges 001 and 002 are within the South Valley Floor Hydrologic Unit and Kern Delta Hydrologic Area (No. 557.20), as depicted on interagency hydrologic maps prepared by the California Department of Water Resources (DWR) in August 1986.
18. The *Water Quality Control Plan for the Tulare Lake Basin, Second Edition*, (hereafter Basin Plan), designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies, for Basin waters. These requirements implement the Basin Plan.
19. Sandy Creek is an ephemeral stream that flows through a very remote area surrounded by oil fields and private farmland and terminates on agricultural land on the San Joaquin Valley floor about five miles downstream of the discharge point. As such, Sandy Creek is a West Side Stream that is tributary to Valley Floor Waters. The designated beneficial uses of West Side Streams and Valley Floor Waters, as identified in the Basin Plan, include industrial and agricultural supply, industrial process supply, water contact and noncontact water recreation, warm fresh water habitat, wildlife habitat, preservation of rare and endangered species, and groundwater recharge. In actuality,

however, the ephemeral nature of Sandy Creek precludes the attainment of many, if not all, of these potential beneficial uses.

20. The Basin Plan identifies the beneficial uses of area groundwater as municipal and industrial supply. As described in Finding No. 11, the EC of area groundwater ranges from 4000 to 6000 $\mu\text{mhos/cm}$. According to State Water Resources Control Board Resolution No. 88-63, *Adoption of Policy Entitled "Source of Drinking Water,"* groundwater with EC concentrations exceeding 5000 $\mu\text{mhos/cm}$ may be considered by a regional board as unsuitable for municipal or domestic water supply. Area groundwater does not currently supply a public water system, nor is it reasonably expected to do so in the future. As described in Finding No. 12, all source water for municipal uses is imported.
21. According to the Basin Plan, discharges to surface waters and evaporation of reclaimable wastewater will not be acceptable permanent disposal methods where opportunity exists to replace an existing use or proposed use of fresh water with reclaimed water. As described in Finding No. 13, the area's land use does not include agricultural operations that could readily offer opportunities for wastewater reclamation. However, the Basin Plan's reclamation policies require that project reports for new or expanded wastewater facilities include plans for wastewater reclamation or the reasons why this is not possible. Since WWTF effluent had been reclaimed in the past, it is not inconceivable that it could not be reclaimed in the future.
22. The California Department of Health Services (DHS) has established statewide criteria in Title 22, California Code of Regulations (CCR), Section 60301 et seq., (hereafter Title 22) for the use of recycled (or reclaimed) water and has developed guidelines for specific uses. The 1988 Memorandum of Agreement (MOA) between DHS and State Water Resources Control Board on use of reclaimed water establishes basic principles relative to the agencies hereto and the Regional Boards. In addition, the MOA allocates primary areas of responsibility and authority between these agencies, and provides for methods and mechanisms necessary to assure ongoing, continuous future coordination of activities relative to the use of reclaimed water in California.
23. DHS has no codified regulations directly applicable to levels of disinfection necessary to protect public health where wastewater is discharged to rivers and streams. However, in its 1992 *Uniform Guidelines for the Disinfection of Wastewater*, DHS recommends that the discharge to ephemeral streams should have a median coliform concentration not exceeding 23 MPN/100 ml in situations where there is no nearby habitation and limited use of the discharge area.
24. The U.S. Environmental Protection Agency (EPA) and the Board have classified this discharge as a minor discharge.
25. There are no significant industrial users or categorical industries discharging to the WWTF.

26. Effluent limitations, toxic and pretreatment effluent standards established pursuant to Sections 208(b), 301, 302, 303(b), 304, and 307 of the Clean Water Act (CWA) and amendments thereto that are applicable to the discharge are specified herein.
27. The conditional discharge as permitted herein is consistent with the antidegradation provisions of State Water Resources Control Board Resolution No. 68-16. The discharge will not unreasonably affect present and anticipated beneficial use of underlying groundwater as a source of industrial supply.
28. The action to renew an NPDES permit is exempt from the provisions of CEQA in accordance with Section 13389 of the California Water Code. The action to adopt waste discharge requirements for discharge to land at this facility for 1.2 mgd is exempt from the provisions of CEQA in accordance with Title 14, California Code of Regulations (CCR), Section 15301.
29. Federal Regulations for storm water discharges were promulgated by the United States Environmental Protection Agency (EPA) on 16 November 1990 (Title 40 Code of Federal Regulations Parts 122, 123, and 124). The regulations require specific categories of facilities, which discharge storm water associated with industrial activity to obtain NPDES permits and to implement Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate industrial storm water pollution. The State Water Resources Control Board adopted Order No. 91-13-DQ (General Permit No. CAS000001), amended 17 September 1992, specifying waste discharge requirements for discharges of storm water associated industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by industries to be covered under the permit. The Discharger applied and obtained coverage under the State of California General Industrial Activities Storm Water Permit (Permit No. 5C15S005611) to discharge untreated storm water from the facility to Sandy Creek.
30. The Board has notified the Discharger, interested agencies and persons of its intent to prescribe waste discharge requirements of this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
31. This Order shall serve as an NPDES permit pursuant to Section 402 of the Clean Water Act, and amendments thereto, and shall take effect upon the date of adoption, provided EPA has no objections.

IT IS HEREBY ORDERED that Waste Discharge Requirements Order No. 93-111 is rescinded and the City of Taft, Taft Heights Sanitation District, Ford City Sanitation District, and the United States Department of Energy, as well as their agents, successors and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted there under, and the provisions of the Clean Water Act and regulations and guidelines adopted there under, shall comply with the following:

A. Discharge Prohibitions

1. Discharge of waste at a location or in a manner different from that described in Finding No. 3 is prohibited.
2. Bypass or overflow of untreated or partially treated waste is prohibited except as allowed in Provision F. 2 of Standard Provisions and Reporting Requirements.
3. Discharge of waste classified as “hazardous” as defined in Section 2521 (a) of Title 23, CCR, Section 2510, et seq., or “designated,” as defined in Section 13173 of the California Water Code, is prohibited.

B. Discharge Specifications

1. The monthly average discharge flow shall not exceed 1.2 mgd.
2. Discharge to Sandy Creek (Discharge 001) shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Monthly Median</u>	<u>Daily Maximum</u>
BOD ₅ ¹	mg/l	30	45	—	80
	lbs/day ²	300	450	—	800
Total Suspended Solids	mg/l	45	65	—	90
	lbs/day ²	450	650	—	900
Settleable Solids	ml/l	0.1	—	—	0.5
Total Coliform Organisms	MPN/100 ml	—	—	23 ³	500

¹ Five day, 20°C biochemical oxygen demand (BOD₅)

² Based upon a design treatment capacity of 1.2 mgd

³ Based on last seven samples

3. Discharge to the designated disposal area (Discharge 002) shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
BOD ₅	mg/l	40	80
Total Suspended Solids	mg/l	40	80

<u>Constituents</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Daily Maximum</u>
Settleable Solids	ml/l	0.2	1.0

4. For discharge to Sandy Creek (Discharge 001), the arithmetic mean of BOD₅ and total suspended solids in effluent samples collected over a monthly period shall not exceed 15 % of the arithmetic mean of the values for influent samples, collected at approximately the same time during the same period (85 % removal).
5. The EC of Discharge 001 and of Discharge 002 shall not exceed the source water EC plus 500 µmhos/cm, or for Discharge 001, a total of 1000 µmhos/cm, whichever is more restrictive.
6. Objectionable odors originating at this facility shall not be perceivable beyond the limits of the wastewater treatment and disposal area.
7. As a means of discerning compliance with Discharge Specification B.6, the dissolved oxygen content in the upper zone (1 foot) of wastewater in ponds shall not be less than 1.0 mg/l.
8. The discharge to land (Discharge 002) shall remain within the designated disposal area at all times.
9. The pH of Discharge 001 and of Discharge 002 shall not be less than 6.0 or greater than 9.0 pH units.
10. Freeboard in WWTF ponds shall never be less than two feet (measured vertically to the lowest point of potential overflow).
11. Storage reservoirs and treatment ponds shall be managed to prevent breeding of mosquitoes. In particular:
 - a. An erosion control program should assure that small coves and irregularities are not created around the perimeter of the water surface.
 - b. Weeds shall be minimized through control of water depth, harvesting, or herbicides.
 - c. Dead algae, vegetation, and debris shall not accumulate on the water surface.
12. Public contact with wastewater shall be precluded through such means as fences and signs, or other acceptable alternatives.

13. There shall be no standing water in the designated disposal area 48 hours after each wastewater application.
14. Wastewater discharged to the designated disposal area shall be managed to prevent runoff onto adjacent properties not owned or controlled by the Discharger.
15. Low-pressure and unpressurized pipelines and ditches accessible to mosquitoes shall not be used to store effluent
16. While discharging effluent to the designated disposal area, the following setback distances shall be observed:

<u>Setback Distance (feet)</u>	<u>To</u>
25	Property line
30	Public Roads
100	Irrigation wells/drainage courses
150	Domestic wells

17. The designated disposal area shall be posted in areas accessible to the public with conspicuous signs that present the following wording (or its equivalent) in size that can be clearly read by the public: “NO TRESPASSING – WASTEWATER – DO NOT DRINK.” The signs will have the universal “Do not drink” cross out underneath the wording (see Attachment B).

C. Solids Disposal Specifications

1. Collected screenings, sludges, and other solids removed from liquid wastes and the ponds shall be disposed of in a manner approved by the Executive Officer and consistent with *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.
2. Any proposed change in previously approved sludge use or disposal practice shall be reported to the Executive Officer at least **90 days** in advance of the change.
3. Use and disposal of sewage sludge shall comply with existing federal and state laws and regulations and should comply with federal permitting requirements and technical standards included in 40 CFR Part 503. If the State Water Resources Control Board and the regional

water quality control boards assume primacy to implement regulations contained in 40 CFR 503, this Order may be reopened to incorporate appropriate time schedules and technical

standards contained in 40 CFR 503.

D. Receiving Water Limitations (Surface Water)

Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this permit. The Discharge to Sandy Creek (Discharge 001) shall not cause the following in the receiving water:

1. Concentrations of dissolved oxygen (DO) to fall below 5 mg/l.
2. Oils, greases, waxes or other materials to form a visible film or coating on the water surface or on objects in the water.
3. Oils, greases, waxes, floating material (liquids, solids, foams, and scum) or suspended material in amounts that create a nuisance or adversely affect beneficial uses.
4. Chlorine to be detected in concentrations equal to or greater than 0.1 mg/l.
5. Pesticides or combination of pesticides to be detected in concentrations that adversely affect beneficial uses.
6. Discoloration that causes nuisance or adversely affects beneficial uses.
7. Turbidity to increase more than one Nephelometric Turbidity Unit (NTU) when background levels are between 0 and 5 NTUs; to increase 20 percent when background levels are between 5 and 50 NTUs; to increase 10 NTUs when background levels are between 50 and 100 NTUs; and to increase 10 percent when background levels exceed 100 NTUs.
8. Fungi, slimes, or other objectionable growths.
9. Deposition of material that causes nuisance or adversely affects beneficial uses.
10. The normal ambient pH to fall below 6.5, exceed 8.3, or change by more than 0.3 pH units.
11. The normal ambient temperature to increase more than 5°F.
12. Radionuclides to be present in concentrations that exceed maximum contaminant levels specified in Title 22, CCR, Section 64443; that harm human, plant, animal or aquatic life; or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life.

13. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.
14. Toxic pollutants to be present in the water column, sediments or biota in concentrations that adversely affect beneficial uses or that produce detrimental physiological responses in human, plant, animal or aquatic life.
15. Taste- or odor-producing substances to impart undesirable tastes or odors to sources of drinking water, fish flesh or other edible products of aquatic origin, or to create nuisance or adversely affect beneficial uses.
16. The fecal coliform concentration in any 30-day period to exceed a geometric mean of 200 MPN/100 ml or cause more than 10 percent of total samples in any 30-day period to exceed 400 MPN/100 ml.
17. Chemical constituents to be present in concentrations that adversely affect beneficial uses.
18. Biostimulatory substances to be present in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses.
19. Instream chronic toxicity.

E. Groundwater Limitations

The discharge, in combination with other sources, shall not cause underlying groundwater to contain waste constituents in concentrations statistically greater than background water quality, except for EC. For EC, the incremental increase over the most recent five-year period shall not exceed 25 μ mhos/cm.

F. Provisions

1. The Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated 1 March 1991, which are attached hereto and by reference a part of this Order. This attachment and its individual paragraphs are commonly referenced as "Standard Provision(s)."
2. The Discharger shall comply with Monitoring and Reporting Program No. 5-00-080, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.

When requested by USEPA, the Discharger shall complete and submit Discharge Monitoring Reports. The submittal date shall be no later than the submittal date specified in the

Monitoring and Reporting Program for Discharger Self Monitoring Reports.

3. The WWTF and designated disposal area shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
4. The Discharger shall not allow pollutant-free wastewater to be discharged into the collection, treatment, and disposal system in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.
5. The Discharger shall implement, as more completely set forth in 40 CFR 403.5, the necessary legal authorities, programs, and controls to ensure that the following incompatible wastes are not introduced to the treatment system, where incompatible wastes are:
 - a. Wastes that create a fire or explosion hazard in the treatment works;
 - b. Wastes that will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5.0, unless the works is specially designed to accommodate such wastes;
 - c. Solid or viscous wastes in amounts that cause obstruction to flow in sewers, or which cause other interference with proper operation or treatment works;
 - d. Any waste, including oxygen demanding pollutants (BOD, etc.), released in such volume or strength as to cause inhibition or disruption in the treatment works, and subsequent treatment process upset and loss of treatment efficiency;
 - e. Heat in amounts that inhibit or disrupt biological activity in the treatment works, or that raise influent temperatures above 40°C (104°F), unless the Board approves alternate temperature limits;
 - f. Petroleum oil, nonbiodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
 - g. Waste constituents that result in the presence of toxic gases, vapors, or fumes within the treatment works in a quantity that may cause acute worker health and safety problems; and
 - h. Any trucked or hauled pollutants, except at points predesignated by the Discharger.
6. The Discharger shall implement, as more completely set forth in 40 CFR 403.5, the legal authorities, programs, and controls necessary to ensure that indirect discharges do not

introduce waste constituents into the sewerage system that, either alone or in conjunction with a discharge or discharges from other sources:

- a. Flow through the system to the receiving water in quantities or concentrations that cause a violation of this Order, or
 - b. Inhibit or disrupt treatment processes, treatment system operations, or sludge processes, use, or disposal and either cause a violation of this Order or prevent sludge use or disposal in accordance with this Order.
7. Prior to making any change in the discharge point, place of use, or purpose of use of the wastewater, the Discharger shall obtain approval of, or clearance from the State Water Resources Control Board (Division of Water Rights).
 8. The Discharger shall use the best practicable treatment and control to comply with this Order.
 9. By **15 September 2000**, the Discharger shall submit a Sludge Management Plan. The plan shall include (1) how the Discharger will measure the quantity of sludge it produces, (2) how it will properly characterize the sludge for disposal, (3) how sludge will be stored prior to disposal and (4) how sludge will be ultimately disposed of (e.g., as a soil amendment). A California registered civil engineer experienced in sludge disposal must prepare the Sludge Management Plan.
 10. This Order expires on **28 April 2005** and the Discharger must file a Report of Waste Discharge in accordance with Title 23, CCR, not later than **180 days** in advance of such date in application for renewal of waste discharge requirements if it wishes to continue the discharge.
 11. If the Board determines that the specific waste constituents in the discharge have reasonable potential to cause or contribute to an exceedance of a water quality objective, this Order will be reopened for consideration of additional or revision of appropriate numerical effluent or receiving water limitations for the problem constituents.
 12. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, 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, 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 D.6 and state that the new 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 in writing by the Executive Officer.

13. A copy of this Order, and its attachments, shall be kept at the WWTF for reference by wastewater treatment plant operating personnel. Key operating personnel shall be familiar with its contents.

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-00-080
TAFT, TAFT HEIGHTS, FORD CITY, AND USDOE
TAFT WWTF
KERN COUNTY

-15-

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 28 April 2000.

GARY M. CARLTON, Executive Officer

JSK:fmc:4/28/00 AMENDED

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. 5-00-080
FOR

CITY OF TAFT
TAFT HEIGHTS SANITATION DISTRICT
FORD CITY SANITATION DISTRICT
AND UNITED STATES DEPARTMENT OF ENERGY
TAFT WASTEWATER TREATMENT FACILITY
KERN COUNTY

INFLUENT MONITORING

Influent samples shall be collected at the inlet of the headworks and approximately at the same time as effluent samples. Monitoring shall include at least the following:

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Frequency</u>
Flow	mgd	Metered	Continuous ¹
BOD ₅ ²	mg/l	24-hr Composite	2/Month ³
Total Suspended Solids (TSS)	mg/l	24-hr Composite	2/Month ³
Settleable Solids (SS)	ml/l	Grab	2/Month ³
pH	pH Units	Grab	2/Month ³

¹ Flow shall be measured continuously and recorded daily.

² Five-day 20° Celsius biochemical oxygen demand.

³ Nonconsecutive weeks

DISCHARGE 001 MONITORING

Effluent samples shall be collected prior to discharge to Sandy Creek. Samples should be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. If the discharge is intermittent rather than continuous, the Discharger shall monitor and record data for all of the constituents listed below on the first day of each intermittent discharge and thereafter the frequencies in the schedule shall apply. Discharge 001 monitoring shall include:

<u>Constituent¹</u>	<u>Units</u>	<u>Sample Type</u>	<u>Frequency²</u>
Flow	mgd	Metered	Continuous
BOD ₅	mg/l and lbs/day	24-hr Composite	Weekly ³
TSS	mg/l and lbs/day	24-hr Composite	Weekly ³

MONITORING AND REPORTING PROGRAM NO. 5-00-080
 TAFT, TAFT HEIGHTS, FORD CITY, AND USDOE
 TAFT WWTF, KERN COUNTY

<u>Constituent</u> ¹	<u>Units</u>	<u>Sample Type</u>	<u>Frequency</u> ²
SS	ml/l	Grab	Weekly ³
pH	pH Units	Grab	Weekly ³
EC ⁴	µmhos/cm	Grab	Weekly ³
Temperature	°F	Grab	Weekly ³
Total Residual Chlorine	mg/l	Grab	Weekly ³
Total Coliform Organisms	MPN ⁵ /100ml	Grab	Weekly ³
Dissolved Oxygen (DO)	mg/l	Grab	Weekly ³
Turbidity	NTU ⁶	Grab	Weekly ³
Standard Minerals ⁷	mg/l	Grab	Annually ³
Metals ⁸	µg/l	Grab	Annually ³
Volatile Organic Compounds (VOCs)	µg/l	Grab	Annually ^{3,9}

¹ All samples shall be analyzed by the methods and procedures described in 40 CFR Part 136. The Discharger shall use a laboratory certified by the California Department of Health Services that is capable of providing method detection limits and practicable quantitation limits essential to determine compliance with effluent limitations.

² When discharge occurs to Sandy Creek. If results appear to violate effluent limitations, but sampling frequency is not sufficient to validate violation, or indicates a violation and potential upset of the treatment process, the frequency shall be increased to confirm the magnitude and duration of violation, if any, and aid in identification and resolution of the problem.

³ Concurrent with receiving water monitoring.

⁴ Conductivity at 25°C

⁵ Most Probable Number

⁶ Nephelometric Turbidity Unit

⁷ Standard minerals as referred to in this program shall include at least total dissolved solids, chloride, sulfate, bicarbonate alkalinity, carbonate alkalinity, calcium, magnesium, potassium, sodium, boron, iron, phosphate, manganese, and all major anions and cations. Analyses should be accompanied by an anion-cation balance demonstrating that analyses are complete.

⁸ Metals as referred to in this program shall include at least aluminum, antimony, arsenic, barium, beryllium, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, thallium, tin, titanium, and zinc.

⁹ Once the Discharger demonstrates that no VOCs are present in amounts higher than the allowable State and federal standards, this monitoring may be terminated upon written approval by the Executive Officer.

DISCHARGE 002 MONITORING

Effluent samples shall be collected **prior** to discharge to the effluent storage reservoir or to designated disposal area. Samples should be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. Discharge 002 monitoring shall include the following:

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Frequency</u>
Flow	mgd	Metered	Continuous
BOD ₅	mg/l	24-hr Composite	Weekly
TSS	mg/l	24-hr Composite	Weekly
SS	ml/l	Grab	Weekly
pH	pH Units	Grab	Weekly
EC	µmhos/cm	Grab	Weekly
Ammonia-Nitrogen	mg/l	Grab	Annually ¹
Nitrate-Nitrogen	mg/l	Grab	Annually ¹
Total Nitrogen	mg/l	Calculated	Annually ¹
Standard Minerals	mg/l	Grab	Annually ¹
Metals	µg/l	Grab	Annually ¹
VOCs	µg/l	Grab	Annually ^{1,2}

¹ October

² Once the Discharger demonstrates that no VOCs are present in amounts higher than the allowable State and federal standards, this monitoring may be terminated upon written approval by the Executive Officer.

RECEIVING WATER MONITORING

Receiving water samples shall be collected **only when effluent is discharged to Sandy Creek**. If the discharge is intermittent rather than continuous, the Discharger shall monitor and record data for all of the constituents listed below, immediately after each intermittent discharge occurs. Once the intermittent discharge to the receiving water stops, the Discharger shall continue to monitor and record data **daily** for at least two weeks (provided there is water in the creek). Receiving water sampling shall consist of grab samples and shall be performed for the following constituents at the designated locations listed below:

Station	Description
R-1	100 feet upstream from the point of discharge
R-2	100 feet downstream from the point of discharge

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Station</u>	<u>Frequency</u>
DO	mg/l	Grab	R-1 and R-2	Weekly
Fecal Coliform Organisms	MPN/100 ml	Grab	R-1 and R-2	Weekly
EC	µmhos/cm	Grab	R-1 and R-2	Weekly
pH	pH Units	Grab	R-1 and R-2	Weekly
Turbidity	NTU	Grab	R-1 and R-2	Weekly
Temperature	°F	Grab	R-1 and R-2	Weekly
Total Residual Chlorine	mg/l	Grab	R-1 and R-2	Weekly

In conducting receiving water sampling, the Discharger shall keep a log of the receiving water conditions throughout the reach bounded by Stations R-1 and R-2, and summarize the notes on monthly monitoring reports. At a minimum, the Discharger shall note the presence or absence of:

- a. Floating or suspended matter
- b. Fungi, slimes or objectionable growth
- c. Potential nuisance conditions
- d. Aquatic life
- e. Discoloration
- f. Visible films, sheens or coatings
- g. Bottom deposits

EFFLUENT STORAGE RESERVOIR AND TREATMENT POND MONITORING

Permanent markers shall be placed in the effluent storage reservoir and treatment ponds with calibration indicating the water level at design capacity and available operational freeboard. In addition, the Discharger shall inspect the conditions of the ponds once per week and write visual observations of potential problems in a bound log book. Notations shall include observations of whether weeds are developing in the water or along the bank, and their locations; whether dead algae, vegetation, scum or debris are accumulating on the pond surface, and their location; whether burrowing animals or insects are present; and the color of the pond. Where the operation and maintenance (O&M) manual requires remedial action, the Discharger shall briefly explain the action taken or to be taken to correct the discrepancy. Storage reservoir and treatment ponds monitoring shall include the following:

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Frequency</u> ¹
Freeboard	Feet ²	Observation	Weekly
Dissolved Oxygen ³	mg/l	Grab	Weekly

¹ Effluent sampling indicate a violation or threatened violation of the terms of this Order or should the WWTF effluent storage reservoir produce objectionable odors, the monitoring frequency for the subject pond shall be increased to daily until violations, threatened violations, and/or odor-producing conditions are resolved.

² To the nearest tenth foot.

³ Samples shall be collected from a depth of one foot, opposite the inlet, between 0800 and 0900 hours.

WATER SUPPLY MONITORING

Water supply monitoring shall include at least the following:

<u>Constituent</u>	<u>Units</u>	<u>Sample Type</u>	<u>Frequency</u>
EC	µmhos/cm	Grab	Quarterly ¹
Nitrate-Nitrogen ²	mg/l	Grab	Annually
Total Dissolved Solids ²	mg/l	Grab	Annually

¹ January, April, July, and October

² The Discharger may submit monitoring data for these constituents from West Kern Water District's annual water supply report.

DESIGNATED DISPOSAL AREA SOIL MONITORING

The percolation rate of disposal area soils shall be determined in **December 2004**. The determination shall be made by a qualified specialist, such as a certified soil scientist or California registered civil engineer. Soil infiltration rate shall be reported in terms of feet per day.

SLUDGE MONITORING

A composite sample of sludge shall be collected whenever sludge is removed from the storage reservoirs or clarifiers and, in accordance with EPA's *POTW Sludge Sampling and Analysis Guidance Document*, August 1989, tested for the following metals:

Arsenic	Cadmium	Chromium	Copper	Lead
Mercury	Nickel	Selenium	Zinc	

Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities generated and of handling and disposal activities.

Annually by **1 February**, the Discharger shall submit:

1. Annual sludge production in dry tons and percent solids.
2. A schematic diagram showing sludge handling facilities and a solids flow diagram.
3. Depth of application and drying time for sludge drying beds.
4. A description of disposal methods, including the following information related to the disposal methods used at the facility. If more than one method is used, include the percentage of annual sludge production disposed by each method.
 - a. For **landfill disposal**, include (a) the Order numbers of WDRs that regulate the landfill(s) used, (b) the present classifications of the landfill(s) used, and (c) the names and locations of the facilities receiving sludge.
 - b. For **land application**, include (a) the location of the site(s), (b) the Board's Order number that regulates the site(s), (c) the application rate in lbs/acre/year.

REPORTING

Daily, weekly, and monthly monitoring data shall be reported in monthly monitoring reports. Monthly, quarterly and annual monitoring data shall be submitted to the Board by the **1st day of the second month following sample collection**. Annual monitoring reports shall be submitted by **1 February of each year**. All reports submitted in response to this Order shall comply with the signatory requirements in Standard Provision D.6.

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in a manner to illustrate clearly whether the discharge complies with waste discharge requirements. The highest daily maximum for the month, monthly and weekly averages, and medians, and removal efficiencies (%) for BOD and Suspended Solids, should be determined and recorded.

If the Discharger monitors any pollutants at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

By **1 February of each year**, the Discharger shall submit a written report to the Executive Officer containing the following:

- a. The names, certificate grades, and general responsibilities of all persons in charge of wastewater treatment and disposal.
- b. The names and telephone numbers of persons to contact regarding wastewater disposal for emergency and routine situations.

- c. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration (Standard Provision C.6).
- d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the WWTF as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.
- e. The results of an annual evaluation conducted pursuant to Standard Provision B.5.

The Discharger shall implement the above monitoring program on the first day of the month following adoption of this Order.

Ordered by: _____
GARY M. CARLTON, Executive Officer

28 April 2000

(Date)

JSK:fmc:4/28/00 AMENDED

INFORMATION SHEET

WASTE DISCHARGE REQUIREMENTS ORDER NO. 5-00-080
CITY OF TAFT, TAFT HEIGHTS SANITATION DISTRICT,
FORD CITY SANITATION DISTRICT, AND
U.S. DEPARTMENT OF ENERGY
TAFT WASTEWATER TREATMENT FACILITY
KERN COUNTY

The City of Taft operates a Wastewater Treatment Facility (WWTF) just outside the City limits. The City of Taft, Taft Heights Sanitation District, and Ford City Sanitation District are jointly referred to as Discharger. The WWTF treats wastewater from the City of Taft, Taft Heights, and Ford City. Wastewater flows are primarily domestic and commercial in nature. The waste discharge from the WWTF is presently governed by Waste Discharge Requirements (WDRs) Order No. 93-111 (NPDES Permit No. CA0080161).

The existing WWTF consists of: four aerated facultative ponds; chlorine contact basin; irrigation holding pond and effluent pumping station; solar sludge drying beds; and approximately 135 acres of effluent disposal area. The WWTF is currently permitted to discharge a monthly average dry weather (May through October) flow of 1.2 million gallons per day (mgd). A 12.8 acre-foot capacity reservoir provides effluent storage prior to discharge to the effluent disposal area and/or to Sandy Creek, an ephemeral stream located south of the facility and a water of the United States. The effluent discharge to Sandy Creek is referred to as Discharge 001, and discharge to land is referred to as Discharge 002. No discharge to Sandy Creek has occurred since February 1996.

Sandy Creek is an intermittent natural drainage channel that terminates on agricultural land about five miles downstream of the discharge point. Sandy Creek flows through a very remote area surrounded by oil fields and private farmland and terminates on agricultural land about five miles downstream of the discharge point.

The Discharger has experienced problems complying with Order No. 93-111 due to short-circuiting in the treatment ponds. Past monthly monitoring records reveal that between January 1993 and June 1999, the Discharger violated Discharge Specification B.2 on 28 days for exceeding CBOD effluent limitations (28 days) and Discharge Specification B.3 for exceeding total coliform organisms effluent limitations (41 days). On 516 occasions between January 1993 and June 1999, the Discharger violated Discharge Specification B.6 for not maintaining a dissolved oxygen level of 1.0 mg/l in the ponds.

The total population (i.e., City of Taft, Taft Heights, and Ford City) was about 13,170 in 1998 and is projected to increase about 13,320 this year and to 14,700 in 2010, according to a 20 January 2000 final report on the WWTF expansion project submitted by the Discharger's consultant (Carollo Engineers).

Taft WWTF Expansion Project

The Discharger submitted a Report of Waste Discharge (RWD), dated 20 April 1998, for NPDES permit renewal and a proposed increase in the discharge from an expanded WWTF. Supplemental information to complete filing of the application was submitted on 24 March 1999. The WWTF expansion project, which is partly financed by the State Revolving Fund, will reportedly include: upgrading and expanding the headworks with new influent bar screen and flow meter; new grit chamber and a 1.2 mgd Biolac system; 0.3 mgd facultative pond; new final clarifier; return activated sludge/waste activated sludge

pump station; new solar sludge drying beds; effluent holding pond with upgraded piping and effluent pumps. The design capacity of the WWTF will be 1.5 mgd, according to a January 2000 report by Carollo Engineers. The Discharger expects to complete the WWTF expansion project by July 2002. The City has yet to satisfy for the WWTF expansion project the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq.).

Discharge Limitations

Regulations promulgated at 40 Code of Federal Regulations (CFR) Section 122.44 (a) require technology-based effluent limitations to be placed in NPDES permits, based on national effluent limitation guidelines and standards, best professional judgment (BPJ), or a combination of the two. This Order prescribes technology-based effluent limits for BOD₅ (five-day biochemical oxygen demand), TSS (total suspended solids) and pH for Discharge 001. The effluent limitations are based on 40 CFR Part 133 Section 133.102, and are stringent enough to protect the designated beneficial uses of Sandy Creek, downstream of the discharge point. Effluent limitations for Discharge 002 are based on the Basin Plan, and reflect performance consistent with similar permitted municipal operations. There is no reasonable potential that pollutants discharged will cause, have reasonable potential to cause, or contribute to an excursion of water quality objectives in the water body (Sandy Creek), above that of the applicable state water quality goals listed in the *Water Quality Control Plan for the Tulare Lake Basin, Second Edition* (hereafter Basin Plan). As CEQA compliance has yet to be satisfied, the permit reflects a 1.2 mgd limit.

Current flows occasionally exceed 1.2 mgd, especially during the summer months. Because of the recent de-rating of WWTF treatment capacity to 0.75 mgd and of influent flows exceeding the permitted value of 1.2 mgd, the Discharger will likely continue to violate the discharge specifications of the proposed Order. A proposed Cease and Desist Order (C&D) for the Discharger accompanies this proposed Order. The C&D includes a schedule of tasks to be completed by the Discharger that will ensure it achieves and maintains compliance with waste discharge requirements.

Discharge Monitoring Requirements

This Order prescribes monitoring of BOD₅, TSS, settleable solids, pH, dissolved oxygen, EC, and total coliform organisms for Discharges 001 and 002. The monitoring of these constituents is necessary to check compliance with discharge specifications. To ensure compliance with the receiving water limitations of this Order, monitoring of total residual chlorine, temperature, turbidity, dissolved oxygen, EC, and fecal coliform organisms are also prescribed for Discharge 001. This Order also prescribes monitoring of ammonia-nitrogen, nitrate-nitrogen, and total nitrogen for Discharges 001 and 002. In addition, this Order prescribes annual monitoring of minerals, metals, and volatile organic compounds (VOCs) for Discharges 001 and 002, and quarterly and annual monitoring of source water quality. The

RWD indicates presence of boron, zinc, and VOCs (specifically, chlorinated organic compounds) in its effluent discharge. This Order does not prescribe effluent limitations for these constituents because of lack of sufficient analytical data, which could warrant effluent limits at this time.

However, the proposed Order includes monitoring requirements for boron, zinc and volatile organic compounds (VOCs) for Discharge 001 (discharge to Sandy Creek) and Discharge 002 (discharge to land). The proposed monitoring of these constituents would determine the magnitude and frequency of occurrence in the discharge. If these constituents are found to pose a threat to water quality, this Order will be reopened and appropriate effluent limitations will be proposed for Board adoption to protect water quality. Alternatively, once the Discharger demonstrates that no VOCs are present in amounts higher than the allowable State and federal standards, VOC monitoring may be terminated upon written approval by the Executive Officer.

Antidegradation and CEQA Considerations

The permitted discharge is consistent with the antidegradation provisions of State Water Resources Control Board Resolution No. 68-16. Area groundwater, which occurs about 350 feet below ground surface, has high salinity and is not used for agricultural or municipal purposes. Assimilative capacity is available in the underlying groundwater to allow for some degradation and will not unreasonably affect present and anticipated beneficial use of such water for industrial purposes.

The action to renew an NPDES permit is exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21100 et seq.), in accordance with Section 13389 of the California Water Code. The action to adopt waste discharge requirements for discharge to land at this facility is exempt from the provisions of CEQA in accordance with Title 14, California Code of Regulations (CCR), Section 15301, for flow up to 1.2 mgd. The Discharger has not yet satisfied the provisions of CEQA for the WWTF expansion project. The proposed Cease and Desist Order (C&D), which accompanies this Order, includes a schedule of tasks to be completed by the Discharger that will ensure it achieves and maintains compliance with waste discharge requirements. Task 2.b of the proposed C&D requires the Discharger to satisfy CEQA by 1 May 2000 and Task 2.e. requires the Discharger to complete construction of the expanded WWTF by July 2002.

JSK:fmc:4/28/00 AMENDED