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LAHONTAN REGION

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Arnold Schwarzenegger
Governor

ORDER NO. R6V-2008-004
NPDES NO. CA0102822
WDID No. 6B360109001

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT RENEWAL

**VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY,
REGIONAL WASTEWATER TREATMENT PLANT, SAN BERNARDINO COUNTY**

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger	Victor Valley Wastewater Reclamation Authority
Name of Facility	Victor Valley Regional Wastewater Treatment Plant
Facility Address	20111 Shay Road
	Victorville, CA 92394
	San Bernardino County
Mailing Address	Victor Valley Wastewater Reclamation Authority
	15776 Main St, Ste 3
	Hesperia CA 92345

The discharge by the **Victor Valley Wastewater Reclamation Authority** from the discharge point identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Tertiary Treated Effluent (Disinfected)	34 °, 37', 1" N	117 °, 21', 12" W	Mojave River

Coordinates collected with a Garmin in WGS 84 NAD 83

Discharge specifications for the discharge of secondary treated effluent to percolation ponds and use of recycled water onsite and offsite are regulated under separate Orders.

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	February 14, 2008
This Order shall become effective on:	April 4, 2008
This Order shall expire on:	April 4, 2013
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a major discharge.	
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, not later than 180 days in advance of the Order expiration date as application for issuance of new waste discharge requirements.	

IT IS HEREBY ORDERED, that in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

The Water Board intends this Order to update and replace the NPDES portions of Order 6-99-58 and that the land discharge portions of Order 6-99-58 remain in effect. Therefore,

IT IS HEREBY FURTHER ORDERED, that the following sections of Order No. 6-99-58 are rescinded, or modified as indicated, upon the effective date of this Order, except for enforcement purposes.

1. The title of Order No. 6-99-58 is modified as follows:

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. 6-99-58
NPDES NO. CA 0102822 - WDID NO. 6B360109001

~~REVISED WASTE DISCHARGE REQUIREMENTS AND NATIONAL POLLUTANT DISCHARGE
ELIMINATION SYSTEM PERMIT RENEWAL
FOR~~

**VICTOR VALLEY WASTEWATER RECLAMATION AUTHORITY
REGIONAL WASTEWATER TREATMENT PLANT**

2. The page header of Order No. 6-99-58 is modified as follows:

VICTOR VALLEY WASTEWATER
RECLAMATION AUTHORITY
San Bernardino County

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BOARD ORDER NO 6-99-58
NPDES NO. CA 0102822
WDID NO. 6B360109001

3. Finding No. 9 of Order No. 6-99-58 is modified as follows.

9. Authorized Disposal Sites

Limitations and Discharge Requirements

~~Discharge 001 (discharge to the Mojave River),~~ The percolation ponds, landscape areas which are a part of the treatment Facility, and maintenance and plant washdown areas at the Facility are the only authorized disposal sites. The Facility, which includes the percolation ponds, is located on land owned by the Discharger. Upon Regional Board adoption of water recycling requirements for discharge to golf course irrigation, and adoption of WDRs for the composting facility as described in Finding No. 8., those future potential facilities will become respective authorized water recycling and biosolids composting sites.

4. Finding No. 19 of Order 6-99-58 is deleted.
5. Delete Discharge Specifications for Effluent Limitations I.A. 1, 2, 4, 5, 9, 10, 11, 12, 14, and 16.
6. Delete the phrase "either the Mojave River or" in Discharge Specifications for Effluent Limitations I.A.7 and 15.
7. Delete Discharge Specifications for Receiving Water Limitations I.B.2.
8. Delete the phrase "surface waters of the Mojave Hydrologic Unit and" in Discharge Specification for Receiving Waters I.B.3.
9. Delete Provision II.A for National Pollutant Discharge Elimination System.
10. Provision II.C for Standard Provisions is deleted and replaced with the following:
"Standard Provisions for Waste Discharge Requirements" – (Attachment Z).
11. Delete Explanatory Provision II.D.1.
12. Delete Pretreatment Program Specifications II.F.1 and 2.
13. Delete Administrative Provision II.G.2
14. Delete Attachments D and E (of Order No. 6-99-58).

IT IS HEREBY FURTHER ORDERED, that the following sections of Monitoring and Reporting Program No. 6-99-58 are rescinded, or modified as indicated, upon the effective date of this Order, except for enforcement purposes.

1. Delete Flow Monitoring Sections I.A. 1, 2, 3, 4, 9, and 11.
2. Delete Facility Influent Monitoring Section I.B.
3. Delete the phrase "and Mojave River" in Flow Monitoring Sections I.A. 5, 6 and 7.
4. Delete Effluent Monitoring Section I.C. (Facility Effluent Monitoring – River Discharge), I.F. (Surface Water Monitoring), I.G. (Chronic toxicity), I.H. (Acute Toxicity), I.I. (Pretreatment Reporting), and I.J. (Biosolids Disposal).

Limitations and Discharge Requirements

5. Delete Data Reporting Section I.M. 1, 2, 3, and 6 (retaining introductory paragraph and sections 4 and 5).

I, Harold J. Singer, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on **February 14, 2008.**



Harold J. Singer, Executive Officer

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Limitations and Discharge Requirements

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I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger	Victor Valley Wastewater Reclamation Authority
Name of Facility	Victor Valley Regional Wastewater Treatment Plant
Facility Address	20111 Shay Road
	Victorville, CA 92394
	San Bernardino County
Facility Contact, Title, and Phone	Logan Olds, General Manager, 760-246-8638
Mailing Address	15776 Main Street, Hesperia CA 92345
Type of Facility	Regional :Publicly-Owned Treatment Works (POTW)
Facility Design Flow	12.5 mgd; up to 14.5 mgd (planned) and 18.0 mgd (planned) and 22.0 mgd (planned) following upgrades and expansions; 14.0 mgd (planned) discharged to surface water and regulated under this Order. The remainder discharger to percolation ponds regulated separately

II. FINDINGS

The California Regional Water Quality Control Board, Lahontan Region (hereinafter Water Board), finds:

A. Background. Victor Valley Wastewater Reclamation Authority (hereinafter Discharger) is currently discharging pursuant to Order No. 6-99-58 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA0102822; Order No. R6V-2003-28, which regulates recycled water, used offsite; and Order No. 6-99-58, which regulates land discharges and recycled water used onsite. The Discharger submitted a Report of Waste Discharge, dated May 19, 2004, and applied for a NPDES permit renewal to discharge up to 12.5 mgd of tertiary treated and secondary treated wastewater from Victor Valley Wastewater Treatment Plant, hereinafter Facility. The Discharger is upgrading and expanding its capacity to 14.5 mgd (Phase I), 18.0 mgd (Phase II) and 22.0 mgd (Phase III). The Discharger submitted an *Antidegradation Analysis for Expansion of the Regional Wastewater Treatment Plant* on March 16, 2007, and a Report of Waste Discharge, dated June 28, 2006, for the first two phases of expansion. The Discharger also submitted an *Antidegradation Analysis for Expansion of the Regional Wastewater Treatment Plant: River Discharge* on August 28, 2007 and a revised Report of Waste Discharge, dated August 13, 2007, discussing its planned expansion to a 22.0 mgd discharge. The August 13, 2007, Report of Waste Discharge specifically requested expansion of the effluent discharge to surface water (Discharge Point 001) from 8.3 mgd to 14.0 mgd. VVWRA submitted an NPDES permit application for the increased flow on January 7, 2008 (amended on January 15, 2007). This surface water discharge is the discharge regulated in this Order.

Limitations and Discharge Requirements

In support of the requests to expand its discharge capacity to all waters, as well as specifically to surface waters, in the Reports of Waste Discharge submitted on June 28, 2006, and August 13, 2007, the Discharger has provided the Water Board with Basis of Design Reports, Construction Drawings, and Mitigation Monitoring Reports.

The existing Order for VVWRA (Order No. 6-99-58), Provision II.A provides for permit continuance beyond the November 2004 expiration date if the discharger: (1) submitted a renewal application at least 180 days prior to the expiration date and (2) maintained adequate compliance. In May 2004, VVWRA submitted a permit renewal application. The Fact sheet, Section II.D, describes instances of noncompliance since the permit expired in November 2004. Separate Water Board enforcement actions are planned for those issues. The Water Board is considering a separate Cease and Desist Order to address violations of receiving water quality objectives for nitrate (both ground and surface waters).

The trunk line sewer collection system owned and operated by VVWRA is regulated under State Water Board general Order 2006-2003-DWQ as well as lateral collection systems owned and operated by the VVWRA member entities: City of Hesperia, City of Victorville, Town of Apple Valley, and San Bernardino County Service Areas 42 (Oro Grande) and 64 (Spring Valley Lake). Storm water discharges from the plant are regulated under State Water Board General Industrial Order 97-03DWQ and General Construction Order 99-08DWQ.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. Facility Description. The Discharger owns and operates a regional wastewater treatment plant. The treatment system consists of headworks, primary clarifiers, flow equalization, aeration basins, secondary clarifiers, coagulation/flocculation, filtration, and chlorination/dechlorination, and sludge handling. Wastewater requiring tertiary treatment is discharged from Discharge Point 001 (see table on cover page) to the Mojave River, a water of the United States within the Upper Mojave River Hydrologic Area. Wastewater requiring secondary treatment is discharged to North and South Percolation Ponds, collectively Discharge Point 002, and, ultimately, to the Upper Mojave River Valley Groundwater Basin. Recycled water (tertiary treated effluent) from the facility also is reused on-site and for landscaping and turf irrigation at the City of Victorville Westwinds Golf Course, Discharge Point 003. Only the discharge from Discharge Point 001 is regulated in this Order. Attachment B provides maps of the area around the facility. Attachment C provides a flow schematic of the facility.

The additional flow from the Phase I and Phase II expansions will be discharged after secondary treatment to newly constructed percolation ponds, from where it will percolate into the groundwater. The Discharger also is undertaking additional denitrification, replacing sludge drying beds with belt filter presses, and lining sludge lagoons as additional control measures.

In the 22 MGD Phase III Expansion Project, the Discharger will add biological nitrogen removal capability and replace tertiary filtration capability using membrane biological reactor technology (see Facility Flow Sheet, Attachment C). Because this technology functions as both secondary clarification and tertiary filtration, the Discharger will convert existing air bays to pre-anoxic reactor tanks and post-anoxic reactor tanks. The Discharger also proposes to replace chlorination disinfection and dechlorination technologies with UV filtration.

- C. Legal Authorities.** This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as a NPDES permit for point source discharges from this facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the Water Code (commencing with section 13260).
- D. Background and Rationale for Requirements.** The Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through I also are incorporated into this Order.
- E. California Environmental Quality Act (CEQA).** Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code sections 21100-21177.
- F. Technology-based Effluent Limitations.** Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations¹, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at Part 133. A detailed discussion of the development of technology-based effluent limitations is included in the Fact Sheet.
- G. Water Quality-based Effluent Limitations.** Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements, expressed as a technology equivalence requirement, more stringent than secondary treatment requirements. These requirements are necessary to meet applicable water quality standards. These requirements include tertiary treatment and are discussed in Section IV.B.2 of the Fact Sheet.

¹ All further regulatory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using one or more of the following options: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

H. Water Quality Control Plans. The Water Board adopted a Water Quality Control Plan for the Lahontan Region (hereinafter Basin Plan) which became effective on March 31, 1995. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established state policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Beneficial uses applicable to the Mojave River and the upper Mojave River Valley Ground Waters are as follows:

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Use(s)
001	Mojave River; Surface Water (Dept. of Water Resources No. 628.00 – Mojave Hydrologic Unit)	<u>Existing:</u> Municipal and domestic water supply (MUN), Agricultural Supply (AGR), Groundwater Recharge (GWR), Contact (REC-1) and Non-Contact (REC-2) water recreation, Commercial and Sport fishing (COMM), Cold Freshwater Habitat (COLD), Warm freshwater habitat (WARM), wildlife habitat (WILD)

Requirements of this Order implement the Basin Plan.

VWVRA is currently collecting data to characterize the water quality, biological resources, and beneficial uses of the Mojave River upstream and downstream of the VWVRA discharge. This information may be used to assist in updating the Basin Plan water quality standards, if appropriate, for certain constituents such as ammonia. Upon completion of the study (June 30, 2010), the Water Board may use this information, or other additional data, to amend the Basin Plan accordingly.

I. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in

addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

- J. State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.
- K. Compliance Schedules and Interim Requirements.** Section 2.1 of the SIP provides that, based on a Discharger's request and demonstration that it is infeasible for an existing Discharger to achieve immediate compliance with an effluent limitation derived from a CTR criterion, compliance schedules may be allowed in an NPDES permit. Unless an exception has been granted under section 5.3 of the SIP, a compliance schedule may not exceed 5 years from the date that the permit is issued or reissued, nor may it extend beyond 10 years from the effective date of the SIP (or May 18, 2010) to establish and comply with CTR criterion-based effluent limitations. Where a compliance schedule for a final effluent limitation exceeds 1 year, the Order must include interim numeric limitations for that constituent or parameter. This Order includes compliance schedules and interim effluent limitations and discharge specifications for effluent limitations derived from CTR criteria. A detailed discussion of the basis for the compliance schedules and interim effluent limitation(s) and discharge specifications is included in the Fact Sheet. This Order is newly implementing CTR criterion.
- L. Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 C.F.R. § 131.21; 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.
- M. Stringency of Requirements for Individual Pollutants.** Individual pollutant restrictions in this Order consist of technology-based and water quality-based effluent limitations. This Order contains some restrictions on individual pollutants that are more stringent than the minimum technology-based limitations required by the federal CWA. Specifically, technology-based effluent limitations for two constituents, 5-day biochemical oxygen demand (BOD₅) and total suspended solids (TSS), are more

stringent than required by the secondary treatment standards under the CWA. As explained in Section IV.B.2 of the Fact Sheet (Attachment F), these effluent limitations are based on the performance of the Discharger's tertiary treatment system. This tertiary treatment system is necessary to protect the beneficial uses of the receiving water and meet requirements for recycled water, consistent with Water Code section 13241 (specifically (a) and (f)).

In addition, these limitations were included in and carried over from Order No. 6-99-58. Water quality-based effluent limitations in this Order have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. Most beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). The remaining water quality objectives and beneficial uses in the Basin Plan were approved by USEPA in 2004 and are applicable water quality standards pursuant to section 131.21(c)(2).

N. Antidegradation Policy. 40 CFR Section 131.12 requires that the State water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies.

The discharger plans to construct new facilities that will result in a higher effluent quality discharged to the Mojave River. Some additional nitrate-nitrogen and ammonia-nitrogen mass loading will result until new facilities are completed, because of increased flow. However, after completion of planned plant upgrades in 2011-2012 decreased nitrogen mass will be discharged.

As discussed in detail in the Fact Sheet, the permitted discharge is consistent with the antidegradation provision of 40 CFR section 131.12 and State Water Board Resolution No. 68-16 because VVWRA demonstrated that changes in water quality from the discharge:

- *Are consistent with maximum benefit to people of the state* in that following planned treatment plant upgrades, effluent quality is improved using best practicable treatment or control technology;

- *Will not unreasonably affect present and anticipated beneficial use of such water in that the final effluent limitations are protective of receiving water quality objectives for nitrate-nitrogen and ammonia nitrogen;*
- *Will not result in water quality less than prescribed in policies in that the final effluent limitation will not unreasonably affect present and anticipated beneficial uses and not result in a water quality less than prescribed in the Basin Plan; and*
- *Best practicable treatment or control of the discharge is used to assure that (1) a pollution or nuisance will not occur and (2) the highest water quality consistent with maximum benefit to people of the state will be maintained. This condition is met because: (1) the discharger's planned upgrades consist of Membrane Biological Reactor treatment for filtration and nitrification-denitrification and ultraviolet (UV) disinfection which produces effluent quality better than water quality objectives and (2) is cost effective as compared to using reverse osmosis technology while continuing to allow the community economic growth.*

The Water Board concludes that the proposed project results in the highest water quality consistent with maximum benefit to the people of the state and State Board Resolution 68-16 conditions are satisfied.

- O. Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Order.
- P. Endangered Species Act.** This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The discharger is responsible for meeting all requirements of the applicable Endangered Species Act.
- Q. Monitoring and Reporting.** Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorize the Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

- R. Standard and Special Provisions.** Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. The Water Board has also included in this Order special provisions applicable to the Discharger. A rationale for the special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).
- T. Notification of Interested Parties.** The Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.
- U. Consideration of Public Comment.** The Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

III. DISCHARGE PROHIBITIONS

- A.** In accordance with the Region-wide Prohibitions in Section 4.1 of the Basin Plan:
1. The discharge of waste² that causes violation of any narrative water quality objective contained in the Basin Plan, including the Nondegradation Objective, is prohibited.
 2. The discharge of waste that causes violation of any numeric water quality objective contained in the Basin Plan is prohibited.
 3. Where any numeric or narrative water quality objective contained in the Basin Plan is already being violated, the discharge of waste that causes further degradation or pollution is prohibited.
 4. The discharge of untreated sewage, garbage, or other solid wastes, or industrial wastes into surface waters of the Region is prohibited.
 5. The discharge of wastewater to the Mojave River, except to authorized discharge points, is prohibited. Discharge from Discharge Point 001 to the Mojave River is authorized under this order. Land discharges from additional discharge points are regulated under separate Order(s). Stormwater discharges from the facility are also regulated under separate Order(s).
- B.** There shall be no discharge, bypass, or diversion of raw or partially treated wastewater, wastewater biosolids, grease, or oils from the collection, transport, treatment, emergency storage, or disposal facilities to adjacent land areas, or surface waters except as in compliance with Standard Provisions for bypass (Attachment D).
- C.** The discharge shall not cause pollution as defined in Section 13050 of the California Water Code, or a threatened pollution.
- D.** The collection, transport, treatment, storage, or discharge of waste shall not cause a nuisance as defined by Section 13050(m) of the California Water Code.

² "Waste" is defined to include any waste or deleterious material including, but not limited to, waste earthen materials (such as soil, silt, sand, clay, rock, or other organic or mineral material) and any other waste as defined in the California Water Code § 13050(d).

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations – Discharge Point 001

1. Final Effluent Limitations – Discharge Point 001

a. The Discharger shall maintain compliance with the following effluent limitations at Discharge Point 001, with compliance measured at Monitoring Location **EFF-001** as described in the attached MRP:

Table 6. Final Effluent Limitations – Discharge Point 001

Parameter	Units	Final Effluent Limitations							Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Six-Month Median	Average Annual	
Conventional Pollutants									
Biochemical Oxygen Demand (BOD) (5-day @ 20°C)	mg/L	10	15	30	--	--	--	--	E
	lbs/day	1,170	1,750	3,500	--	--	--	--	E
pH	standard units	--	--	--	6.5	8.5	--	--	WQO
Total Suspended Solids	mg/L	10	15	30	--	--	--	--	E
	lbs/day	1,170	1,750	3,500	--	--	--	--	E
Priority Pollutants									
Copper, Total Recoverable	µg/L	13	--	20	--	--	--	--	CTR
	lbs/day	1.5	--	2.3	--	--	--	--	CTR
Zinc, Total Recoverable	µg/L	77	--	190	--	--	--	--	CTR
	lbs/day	9.0	--	22	--	--	--	--	CTR
Cyanide, Total (as CN)	µg/L	3.6	--	9.6	--	--	--	--	CTR
	lbs/day	0.42	--	1.1	--	--	--	--	CTR
Chlorodibromomethane (Dibromochlormethane)	µg/L	0.41	--	1.3	--	--	--	--	CTR
	lbs/day	0.048	--	0.15	--	--	--	--	CTR

Parameter	Units	Final Effluent Limitations							Basis
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum	Six-Month Median	Average Annual	
Dichlorobromomethane (Bromodichloromethane)	µg/L	0.56	--	1.4	--	--	--	--	CTR
	lbs/day	0.065	--	0.16	--	--	--	--	CTR
Bis(2-ethylhexyl)phthalate	µg/L	1.8	--	3.6	--	--	--	--	CTR
	lbs/day	0.21	--	0.42	--	--	--	--	CTR
Dibenzo(a,h)anthracene	µg/L	0.0044	--	0.0088	--	--	--	--	CTR
	lbs/day	0.00051	--	0.0010	--	--	--	--	CTR
Non-Conventional Pollutants									
Ammonia Nitrogen, Total (as N)	mg/L	0.80	--	1.5	--	--	--	--	WQO
	lbs/day	93.4	--	175	--	--	--	--	WQO
Chlorine, Total Residual ²	mg/L	--	--	0.003	--	--	0.002	--	WQO
	lbs/day	--	--	0.350	--	--	0.234	--	WQO
Dissolved Oxygen	mg/L	--	--	--	4.0	--	--	--	WQO
Methylene Blue Active Substances (MBAS)	mg/L	0.50	--	0.90	--	--	--	--	WQO
	lbs/day	58.4	--	105	--	--	--	--	WQO
Nitrate Nitrogen, Total (as N)	mg/L	8.2	--	11.3	--	--	--	--	WQO/A
	lbs/day	957	--	1320	--	--	--	--	WQO/A
Total Dissolved Solids (TDS)	mg/L	--	--	580	--	--	--	460	E
	lbs/day	--	--	67,700	--	--	--	53,700	E

"--" = not applicable

¹ E = Existing Permit (Order No. 6-99-58); CTR = California Toxic Rule; and WQOs = Basin Plan Water Quality Objectives; A = Antidegradation Policy

² Concentration-based effluent limitations for Total Residual Chlorine are below the expected minimum level (ML) for this constituent. Non-compliance with a Total Residual Chlorine limitation is defined by exceeding both the limitation and the Reporting Level (RL) used by the Discharger. The Discharger must achieve the lowest possible RL for Total Residual Chlorine but, in no case, may the RL be greater than 0.1 mg/L.

- b. **Flow:** The average annual flow of effluent discharged to the Mojave River shall not exceed 14.0 million gallons per day (mgd) in any calendar year.
- c. **BOD and TSS Percent Removal:** The average monthly percent removal for Biochemical Oxygen Demand (5-day @ 20° C) and Total Suspended Solids shall be at least 85 percent.
- d. **Fecal Coliform:** Effluent at all times shall be an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater. The number of fecal coliform bacteria shall not exceed either of the following:
- A log mean of 20 per 100 mL for any 30-day period
 - 40 per 100 mL in more than 10 percent of all of the samples collected in any 30-day period.
- e. **Total Coliform:** Effluent at all times shall be an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater. The number of total coliform bacteria shall not exceed any of the following:
- A median Most Probable Number (MPN) of 2.2 per 100 mL based on the results of the last seven days for which analyses have been completed
 - An MPN of 23 per 100 mL in more than one sample in any 30-day period
 - An MPN of 240 per 100 mL at any time (instantaneous maximum).
- f. **Turbidity:** Effluent shall be a filtered wastewater that does not exceed any of the following:
- An average of 2 NTU within a 24-hour period
 - 5 NTU more than 5 percent of the time in a 24-hour period
 - 10 NTU at any time (instantaneous maximum).
- g. **Acute Toxicity:** The effluent shall not exhibit acute toxicity, defined as:
- Less than 90 percent survival of *Pimephales promelas* in undiluted effluent in \geq 50 percent of the samples in a calendar year; or
 - Less than 70 percent survival of *Pimephales promelas* in undiluted effluent in \geq 10 percent of the samples in a calendar year.

Acute whole effluent toxicity (WET) testing shall be conducted in accordance with the requirements specified in the Monitoring and Reporting Program (Attachment E).

2. Interim Effluent Limitations – Discharge Point 001

During the period, beginning **April 4, 2008** and continuing through **May 17, 2010**, the, discharge of tertiary-treated effluent shall maintain compliance with the following interim effluent limitations for priority pollutants at Discharge Point 001, with compliance measured at Monitoring Location EFF-001, the sample box before the Parshall Flume, as described in the attached Monitoring and Reporting Program (Attachment E). These interim effluent limitations for priority pollutants shall apply in lieu of the corresponding Final Effluent Limitations specified for the same parameters during the time period indicated in this provision, and are as follows:

Table 7. Interim Effluent Limitations for Priority Pollutants – Discharge Point 001

Parameter	Units	Interim Effluent Limitations	
		Average Monthly	Maximum Daily
Priority Pollutants			
Zinc, Total Recoverable	µg/L	--	240
	lbs/day	--	28
Cyanide, Total (as CN)	µg/L	--	23
	lbs/day	--	2.7
Chlorodibromomethane (Dibromochloromethane)	µg/L	--	30
	lbs/day	--	3.5
Dichlorobromomethane (Bromodichloromethane)	µg/L	--	18
	lbs/day	--	2.1
Bis(2-ethylhexyl)phthalate	µg/L	--	47
	lbs/day	--	5.5
Dibenzo(a,h)anthracene	µg/L	--	0.19
	lbs/day	--	0.022

B. Land Discharge Specifications – NOT APPLICABLE (See Order No. 6-99-58.)

C. Reclamation Specifications – NOT APPLICABLE (See Order No. 6-99-58 and Order No. R6V-2003-028)

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

Receiving water limitations are based on water quality objectives contained in the Basin Plan and are a required part of this Order. The discharge shall not cause the following in the Mojave River:

1. This discharge shall not cause a violation of any applicable water quality standard for receiving water adopted by the Water Board or the SWRCB as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Clean Water Act or amendments thereto, the Water

Board may revise and modify this Order in accordance with such more stringent standards.

2. **Ammonia:** The neutral, unionized ammonia species (NH_3°) is highly toxic to freshwater fish. The fraction of toxic NH_3° to total ammonia species ($\text{NH}_4^+ + \text{NH}_3^\circ$) is a function of temperature and pH. Tables 3-1 to 3-4 from the Basin Plan, contained in Attachment G of this Order, were derived from USEPA ammonia criteria for freshwater. Ammonia concentrations shall not exceed the values listed for the corresponding conditions in these tables. For temperature and pH values not explicitly in these tables, the most conservative value neighboring the actual value may be used or criteria can be calculated from numerical formulas available on page 3-4 of the Basin Plan.
3. **Bacteria, Coliform:** Waters shall not contain concentrations of coliform organisms attributable to anthropogenic sources, including human and livestock wastes. The fecal coliform concentration during any 30-day period shall not exceed a log mean of 20/100 mL, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40/100 mL. The US EPA recommends that the log mean should ideally be based on a minimum of not less than five samples collected as evenly spaced as practicable during any 30-day period. [Reference: Ambient water Quality Criteria for Bacteria – 1986, EPA 440/5-84-002, page 2] However, a log mean concentration exceeding 20/100 mL for any 30-day period shall indicate violation of this objective even if fewer than five samples were collected.
4. **Biostimulatory Substances:** Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect the water for beneficial uses.
5. **Chemical Constituents:** Waters designated as MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions of Title 22 of the California Code of Regulations. Waters designated as AGR shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes). Waters shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses.
6. **Chlorine, Total Residual:** For the protection of aquatic life, total chlorine residual shall not exceed either a median value of 0.002 mg/L or a maximum value of 0.003 mg/L. Median values shall be based on daily measurements taken within any six-month period.
7. **Color:** Waters shall be free of coloration that causes nuisance or adversely affects the water for beneficial uses.
8. **Dissolved Oxygen:** The dissolved oxygen concentration, as percent saturation, shall not be depressed by more than 10 percent, nor shall the minimum dissolved oxygen concentration be less than 80 percent of saturation. The minimum

dissolved oxygen concentration shall not be less than that specified in Table 3-6 in Attachment H of this Order.

9. **Floating Materials:** Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect the water for beneficial uses. For natural high quality waters, the concentrations of floating material shall not be altered to the extent that such alterations are discernable at the 10 percent significance level.
10. **Oil and Grease:** Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect the water for beneficial uses. For natural high quality waters, the concentration of oils, greases, or other film or coat generating substances shall not be altered.
11. **Nondegradation of Aquatic Communities and Populations:** All waters shall be free from substances attributable to wastewater or other discharges that produce adverse physiological responses in humans, animals, or plants; or which lead to the presence of undesirable or nuisance aquatic life. All waters shall be free from activities that would substantially impair the biological community as it naturally occurs due to physical, chemical and hydrologic processes.
12. **Pesticides:** According to the Basin Plan, pesticides are defined to include insecticides, herbicides, rodenticides, fungicides, pesticides and all other economic poisons. An economic poison is any substance intended to prevent, repel, destroy, or mitigate the damage from insects, rodents, predatory animals, bacteria, fungi or weeds capable of infesting or harming vegetation, humans, or animals (CA Agriculture Code § 12753). Pesticide concentrations, individually or collectively, shall not exceed the lowest detectable levels, using the most recent detection procedures available. There shall not be an increase in pesticide concentrations found in bottom sediments. There shall be no detectable increase in bioaccumulation of pesticides in aquatic life. Waters designated as MUN shall not contain concentrations of pesticides or herbicides in excess of the limiting concentrations specified in Title 22 of the California Code of Regulations.
13. **pH:** Changes in normal ambient pH levels shall not exceed 0.5 pH units. The pH shall not be depressed below 6.5 nor raised above 8.5. Compliance with the pH objective for these waters will be determined on a case-by-case basis.
14. **Radioactivity:** Radionuclides shall not be present in concentrations which are deleterious to human, plant, animal, or aquatic life nor which result in the accumulation of radionuclides in the food web to an extent which presents a hazard to human, plant, animal, or aquatic life. Waters designated as MUN shall not contain concentrations of radionuclides in excess of the limits specified in Title 22 of the California Code of Regulations.

15. **Sediment:** The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect the water for beneficial uses.
16. **Settleable Materials:** Waters shall not contain substances in concentrations that result in deposition of material that causes nuisance or that adversely affects the water for beneficial uses. For natural high quality waters, the concentration of settleable materials shall not be raised by more than 0.1 milliliter per liter.
17. **Suspended Materials:** Waters shall not contain suspended materials in concentrations that cause nuisance or that adversely affect the water for beneficial uses. For natural high quality waters, the concentration of total suspended materials shall not be altered to the extent that such alterations are discernible at the 10 percent significance level.
18. **Taste and Odor:** Waters shall not contain taste or odor-producing substances in concentrations that impart undesirable tastes or odors to fish or other edible products of aquatic origin, that cause nuisance, or that adversely affect the water for beneficial uses. For naturally high quality waters, the taste and odor shall not be altered.
19. **Temperature:** The natural receiving water temperature of all waters shall not be altered unless it can be demonstrated to the satisfaction of the Water Board that such an alteration in temperature does not adversely affect the water for beneficial uses. For waters designated WARM, water temperature shall not be altered by more than five degrees Fahrenheit (5°F) above or below the natural temperature. For waters designated COLD, the temperature shall not be altered [Note: The Basin Plan does not specify which reaches of the Mojave River have a COLD and which have a WARM beneficial use. Therefore, the most restrictive standard (e.g. no alteration of temperature for the COLD use) applies. However, for purposes of compliance and enforcement, the Water Board will consider historical data and the impact of temperature alternations upon the beneficial uses of the Mojave River below the Discharge Point 001.]
20. **Toxicity:** All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration and/or other appropriate methods as specified by the Water Board [or the Executive Officer or his/her designee]. The survival of aquatic life in surface waters subjected to a waste discharge, or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge, or when necessary, for other control water that is consistent with the requirements for "experimental water" as defined in Standard Methods for the Examination of Water and Wastewater (American Public Health Association, et al. 1992).

21. Turbidity: Waters shall be free of changes in turbidity that cause nuisance or adversely affect the water for beneficial uses. Increases in turbidity shall not exceed natural levels by more than 10 percent.

B. Groundwater Limitations

The discharge shall not cause the ground waters of the Upper Mojave River Valley Ground Water Basin to exceed the following objectives:

1. Coliform, Total: In ground waters designated as MUN, the median concentration of coliform organisms over any seven-day period shall be less than an MPN of 1.1 per 100 mL.
2. Chemical Constituents: Ground waters designated as MUN shall not contain concentrations of chemical constituents in excess of the maximum contaminant level (MCL) or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions of Title 22 of the California Code of Regulations. Ground waters designated as AGR shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes). Ground waters shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses.
3. Radioactivity: Ground waters designated as MUN shall not contain concentrations of radionuclides in excess of the limits specified in Title 22 of the California Code of Regulations.
4. Taste and Odor: Ground waters shall not contain taste or odor-producing substances in concentrations that cause nuisance or that adversely affect beneficial uses. For ground water designated as MUN, at a minimum, concentrations shall not exceed adopted SMCLs specified in Title 22 of the California Code of Regulations.
5. General: The discharge shall not cause the groundwater to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.
2. Water Board Standard Provisions – Attachment Z applies only to Board Order No. 6-99-58, not this Order, until that permit is modified or rescinded.

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order.

C. Special Provisions

1. Reopener Provisions

- a. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Water Board may revise and modify this Order in accordance with such more stringent standards.
- b. The Board may reopen this order to establish new conditions or effluent limitations should monitoring data, toxicity-testing data, or other new information indicate that a constituent is discharged at a level that will do any of the following. 1) Cause, have reasonable potential to cause, or contribute to an in-stream excursion above any water quality criteria or objective, 2) Cause, have reasonable potential to cause, or contribute to a violation of any narrative water quality objective from the Basin Plan.
- c. This Order includes final effluent limitations at Discharge Point 001 (discharge to the Mojave River). VVWRA is currently collecting effluent and receiving water (Mojave River) monitoring data for many constituents. After review and analysis of new or additional data, the Board may choose to reopen this Order to modify the final effluent limitations at Discharge Point 001 to ensure that the discharge is in compliance with the Basin Plan. New effluent limitations may be established to attain all beneficial uses, water quality objectives, and nondegradation of water quality, as specified in the Basin Plan.
- d. This Order includes a Provision in Section VI.C.2.c permitting the Discharger to complete and submit optional studies for consideration by the Water Board. One optional study is development of a proposed metals translator for copper and zinc. A second optional study involves collection of additional, reliable effluent and receiving water monitoring data for cyanide, bis (2-ethylhexyl)phthalate, and dibenzo (a,h,) anthracene. A third optional study is development of a water effects ratio (WER) for ammonia. Upon submission of a metals translator or

additional effluent and receiving water data for selected priority pollutants, the Water Board may review the final effluent limitations at Discharge Point 001 for copper and zinc and the reasonable potential determinations and final effluent limitations for cyanide, bis (2-ethylhexyl)phthalate, and dibenzo (a,h,) anthracene. Based on the results of this review, the Water Board may reopen this Order and modify the final effluent limitations for copper and zinc or remove or modify, if appropriate, the final effluent limitations for cyanide, bis (2-ethylhexyl)phthalate, and dibenzo (a,h,) anthracene established in this Order. If the Water Board amends the Basin Plan to reflect the results of the ammonia WER study and USEPA approves the amendment, the Water Board may subsequently reopen this Order and modify the effluent limitations for ammonia.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

- a. **Chronic Toxicity.** The Discharger shall conduct routine chronic toxicity monitoring as specified in Section V.B of the Monitoring and Reporting Program (MRP) (Attachment E). The presence of chronic toxicity is defined as chronic toxicity test results that show a statistically significant difference between a control sample and a sample consisting of 100% effluent. $\alpha = 0.05$

If chronic toxicity is detected during routine sampling, the Discharger shall immediately implement accelerated chronic toxicity testing as specified in Section V.B. of the MRP.

If any of the accelerated tests demonstrate chronic toxicity, the Discharger shall initiate a Toxicity Reduction Evaluation (TRE) in accordance with the requirements of Section VI.C.2.b of this Order. In accelerated testing, chronic toxicity is defined as a chronic WET test result $> 1.0 TU_c$ where

$$TU_c = 100 / NOEC$$

The NOEC is the No Observed Effect Concentration, which is the highest concentration of effluent to which organisms are exposed in a chronic test that causes no observable adverse effect on the test organisms (e.g., the highest concentration of effluent for which the values for the observed response show no statistically significant difference from a control). The NOEC shall be determined by short-term tests for *Ceriodaphnia dubia* survival and reproduction and *Pimephales promelas* larval survival and growth as described in the Monitoring and Reporting Program (Attachment E).

- b. **Toxicity Identification Evaluations or Toxicity Reduction Evaluations.** By **July 4, 2008**, the Discharger shall submit to the Water Board an initial investigation Toxicity Reduction Evaluation (TRE) work plan. This plan shall generally describe the steps the Discharger intends to follow if acute or chronic toxicity is detected during accelerated acute WET testing or chronic WET testing as specified in the Monitoring and Reporting Program (Attachment E). The plan should include at least a description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency and, if a Toxicity Identification Evaluation (TIE) is necessary, an indication of the person who would conduct the TIE.

If acute or chronic toxicity is detected during accelerated acute WET testing or chronic WET testing as specified in the Monitoring and Reporting Program (Attachment E), the Discharger shall, in accordance with its initial investigation TRE work plan, initiate a TRE within 15 days of receipt of the final acute or chronic toxicity test results in order to reduce the cause(s) of toxicity. At a minimum, the Discharger shall use the USEPA manual EPA/833B-99/002 as guidance. The Discharger shall expeditiously develop and implement a more detailed TRE work plan that includes:

- 1) Further actions to investigate and identify the cause(s) of toxicity;
- 2) Actions the Discharger will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and
- 3) A schedule for these actions.

The Discharger may initiate a TIE as part of the TRE process to identify the cause(s) of toxicity. The Discharger shall use the USEPA acute and chronic manuals EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III) as guidance.

Results of a TRE/TIE shall be submitted to the Water Board **within two months of study completion** when such a study is required based on the conditions stated above.

The Water Board recognizes that chronic toxicity may be episodic and identification of causes of and reduction of sources of chronic toxicity may not be successful in all cases. Consideration of enforcement action by the Water Board will be based in part on the Discharger's actions and efforts to identify and control or reduce sources of consistent toxicity.

- c. **Optional Studies.** The Discharger may develop and submit to the Water Board for its consideration a translator study for copper or zinc or for both metals. Any such study shall be conducted in accordance with the requirements of the SIP and USEPA's *The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion* (EPA-823-B-96-007). The Discharger shall submit the study plan for any such study to the Water Board Executive Officer or his/her designee to review and accept, which is required prior to initiation of the study. Upon completion of the study and submission of the study results, the Water Board may, based on the results, reopen this Order to modify the final effluent limitations for copper and zinc in accordance with the Provisions in Section VI.C.1.d of this Order.

In addition, the Discharger may conduct and submit to the Water Board for its consideration a study involving collection of additional, reliable ambient and effluent monitoring data for cyanide, bis(2-ethylhexyl)phthalate, and dibenzo(a,h)anthracene. The Discharger also may conduct and submit a study involving development of a water effects ratio (WER) for ammonia. The Discharger shall submit the study plan for any such study to the Water Board Executive Officer or his/her designee to review and accept, which is required prior to initiation of the study. Upon completion of the study and submission of the study results, the Water Board may, based on the results and in accordance with the Provisions in Section VI.C.1.d of this Order, reconsider the reasonable potential determinations or modify the final effluent limitations for cyanide, bis(2-ethylhexyl)phthalate, and/or dibenzo (a,h,)anthracene or, subsequent to any Basin Plan amendment adopted by the Water Board and approved by USEPA, modify the final effluent limitations for ammonia,

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) when there is evidence that a priority pollutant is present in the effluent in concentrations above an effluent limitation and at least one of the conditions listed below apply.

- i. A sample result is reported as "detected, but not quantified" (DNQ) and the effluent limitation is less than the Reporting Limit (RL); or
- ii. A sample result is reported as "not detected" (ND) and the effluent limitation is less than the Method Detection Limit (MDL), using definitions described in Attachment A and reporting protocols described in MRP section X.B.4.

Examples of evidence that suggest the presence of a priority pollutant include, but are not limited to:

- i. sample results reported as DNQ when the effluent limitation is less than the MDL,

- ii. sample results from analytical methods more sensitive than those methods required by this Order,
- iii. presence of whole effluent toxicity,
- iv. health advisories for fish consumption, and
- v. results of benthic organism sampling or aquatic organism tissue sampling show evidence of toxicity

The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Water Board:

- i. An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;
 - ii. Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;
 - iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;
 - iv. Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and
 - v. An annual status report that shall be sent to the Water Board including:
 1. All PMP monitoring results for the previous year;
 2. A list of potential sources of the reportable priority pollutant(s);
 3. A summary of all actions undertaken pursuant to the control strategy; and
 4. A description of actions to be taken in the following year.
- b. Best Management Practices (BMPs) for the control of industrial storm water from the site must be identified, implemented and monitored in accordance with a site specific Storm Water Pollution Prevention Plan (SWPPP) as required under the General Industrial Storm Water Permit. The Discharger has applied for coverage under this permit and is regulated under Waste Discharge Identification Number 6B36I005756.

4. Construction, Operation and Maintenance Specifications

- a. The Discharger's wastewater treatment facility shall be supervised by people who possess a wastewater treatment plant operator certificate of appropriate grade pursuant to Chapter 26, Title 23, of the California Code of Regulations.
- b. Infiltration/inflow into sewerage facilities from stormwater or nuisance water shall be minimized to the maximum extent practicable.
- c. All facilities used for collection, transportation, treatment, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.
- d. Waste biosolids shall be discharged only at a legal point of disposal in accordance with the provisions of Title 27, California Code of Regulations and in accordance with 40 CFR Part 503.
- e. The California Water Code (Sections 13350 and 13385) provides that any person who violates a waste discharge requirement or a provision of the California Water Code, is subject to civil penalties stated therein.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Pretreatment

- 1) The Discharger's Industrial Wastewater Pretreatment Program Plan dated January 1, 1995, including any subsequent modifications approved by the Water Board (at which time there are currently none), is hereby incorporated as a part of the proposed Order. The Discharger shall perform ongoing industrial inspections and monitoring, as necessary, to ensure compliance with pretreatment regulations contained in 40 CFR Part 403.
- 2) The Discharger shall submit an Annual Report to the Water Board describing its pretreatment activities over the previous 12 months. In the event that the Discharger is not in compliance with any pretreatment conditions or requirements of this Order, the Discharger shall also include the reasons for noncompliance, and state how and when the Discharger shall comply with such conditions and requirements. This Annual Report is due on **March 1** of each year and shall contain, but is not limited to, the elements identified in the Monitoring and Reporting Program (Attachment E), Section X.D.1.

b. Biosolids Disposal

- 1) Waste organic biosolids shall be discharged only at a legal point of disposal in accordance with the provisions of Title 27 of the California Code of Regulations and in accordance with 40 CFR Part 503.
- 2) By **October 4, 2008**, the Discharger shall provide a plan describing the disposal location, method, treatment, handling and disposal of biosolids that the Discharger will use. The biosolids disposal plan will be consistent with all State and Federal laws and regulations.
- 3) The Discharger shall maintain a permanent log of all solids and biosolids hauled away from the treatment facility for use or disposal elsewhere. The log shall include a summary of the volume, type (screenings, grit, raw sludge, digested sludge), use (agricultural, composting, etc.), and destination in accordance with the Monitoring and Reporting Program of this Order. Biosolids that are stockpiled at the treatment facility shall be sampled and analyzed for those constituents listed in the biosolids monitoring section of the Monitoring and Reporting Program of this Board Order and as required by Title 40, Code of Federal Regulations, Part 503. The results of the analyses should be submitted to the Water Board as part of the Monitoring and Reporting Program.
- 4) All biosolids generated at the wastewater treatment plant will be disposed, treated, or applied to land in accordance with 40 CFR 503.
- 5) Collected screenings, biosolids, and other solids removed from liquid wastes shall be disposed of in a manner that complies with California Code of Regulations, title 27 and approved by the Water Board's Executive Officer.
- 6) The Discharger shall submit to the Water Board a copy of the annual biosolids report submitted to U.S. EPA.

c. Collection System

The Discharger's collection system is part of the system that is subject to this Order. As such, the Discharger must properly operate and maintain its collection system (40 C.F.R. § 122.41(e)). The Discharger must report any non-compliance (40 C.F.R. § 122.41(l)(6) and (7)) and mitigate any discharge from the collection system in violation of this Order (40 C.F.R. § 122.41(d)). See Attachment D, subsections I.D, V.E, V.H, and I.C. In addition, the Discharger is required to comply with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, WQO No. 2006-0003 (or current version), adopted by the State Board on May 2, 2006.

6. Other Special Provisions

- a. Order Continuation After Expiration Date - If this Order is not revised and renewed prior to expiration, then the Order shall be continued until revised and renewed, provided that compliance with the requirements contained herein is maintained and that the Discharger has applied for renewal of the Order at least 180 prior to the expiration date.
- b. Land Ownership Change or Control - 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 the Regional Water Board.
- c. Succeeding Owner or Operator - 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 Regional Board and a statement. The statement shall comply with the signatory and certification requirements in the Federal Standard Provisions (Attachment D, Section V.B) 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 and a violation of the California Water Code. Transfer shall be approved in writing by the Executive Officer.

7. Compliance Schedules

- a. **Compliance Dates.** This Order includes both Interim and Final Effluent Limitations for the discharge of zinc, cyanide, chlorodibromomethane (dibromochloromethane), dichlorobromomethane (bromodichloromethane), bis(2-ethylhexyl)phthalate, and dibenzo(a,h)anthracene to the Mojave River from Discharge Point 001. Compliance with the Final Effluent Limitations for these constituents is required no later than **May 18, 2010**.
- b. **Compliance Plan.** By **October 4, 2008**, the Discharger shall develop and begin implementing a Compliance Plan that identifies the measures that will be taken to reduce the concentrations of zinc, cyanide, chlorodibromomethane (dibromochloromethane), dichlorobromomethane (bromodichloromethane), bis(2-ethylhexyl)phthalate, and dibenzo(a,h)anthracene from Discharge Point 001. This plan must evaluate options to achieve compliance with the Final Effluent Limitations specified in Section IV.A.1.a.
- c. **Compliance Plan Annual Report.** By **March 1** of each year, the Discharger shall submit Compliance Plan Annual Reports to describe the progress of studies and or actions undertaken to reduce zinc, cyanide, chlorodibromomethane (dibromochloromethane), dichlorobromomethane (bromodichloromethane), bis(2-ethylhexyl)phthalate, and dibenzo(a,h)anthracene concentrations in the effluent

and achieve compliance with the Final Effluent Limitations in this Order for these constituents at Discharge Point 001 by **May 18, 2010**;

- d. **Receiving Water Monitoring.** By **June 4, 2008**, the Discharger shall propose for the Executive Officer's concurrence, an additional receiving water monitoring location RSW-003 generally as shown on Attachment B-5.

By **December 4, 2008**, the Discharger shall complete construction of any appurtenances or necessary access points and begin receiving water monitoring at this location.

By **December 4, 2009**, following one year of data collection at location RSW-003, the Discharger shall propose for the Executive Officer's concurrence, an additional receiving water monitoring location RSW-004 generally as shown on Attachment B-5.

By **June 4, 2010**, the Discharger shall complete construction of any appurtenances or necessary access points and begin receiving water monitoring at this location.

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. General.

1. Compliance with Priority Pollutant Limitations

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

2. Compliance with Total Residual Chlorine (TRC) Limitations

As noted above in Section IV.A.1.a, concentration-based effluent limitations for TRC are below the expected minimum level (ML) for this constituent. Non-compliance with a Total Residual Chlorine limitation is defined by exceeding both the limitation and the Reporting Level (RL). The Discharger must achieve the lowest possible RL for Total Residual Chlorine but, in no case, may the RL be greater than 0.1 mg/L.

B. Multiple Sample Data.

When determining compliance with an AAEL, AMEL, AWEL, or MDEL and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of "Detected, but Not Quantified" (DNQ) or "Not Detected" (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.
2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Average Monthly Effluent Limitation (AMEL).

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger will be

considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

D. Average Weekly Effluent Limitation (AWEL).

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

E. Maximum Daily Effluent Limitation (MDEL).

If a daily discharge (or when applicable, the median determined by subsection B above for multiple sample data of a daily discharge) exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

F. Instantaneous Minimum Effluent Limitation.

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

G. Instantaneous Maximum Effluent Limitation.

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).