US ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne St.
San Francisco, CA 94105

AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGEELIMINATION SYSTEM

NPDES PERMIT NO. CA0049675

In compliance with the provisions of the Clean Water Act ("CWA") (Public Law 92-500, as amended, 33 USC1251 et seq.), the following discharger is authorized to discharge from the identified facility at the outfall location(s) specified below, in accordance with the effluent limits, monitoring requirements, and other conditions set forth in this permit and in the attached EPA Region 9 "Standard Federal NPDES Permit Conditions," dated June 3, 2002.

Discharger Name	Buena Vista Rancheria
Discharger Address	1418 20th St.
	Sacramento, CA 95811
Facility Name	BuenaVue Casino Wastewater Treatment Plant
Facility Location Address	4650 Coal Mine Road
	Ione, CA

Outfall Number	General Type of Waste Discharged	Outfall Latitude	Outfall Longitude	Receiving Water
001	Tertiary treated domestic wastewater	N. 38° 16' 23"	W. 120° 54' 36"	Unnamed Tributary to Jackson Creek

This permit was issued on:	TBD
This permit shall become effective on:	TBD
This permit shall expire at midnight on:	TBD
In accordance with 40 CFR 122.21(d), the discharger shall submit a new application for a permit at least 180 days before the expiration date of this permit, unless permission for a date no later than the permit expiration date has been granted by the Director.	

Signed this_____day of_____, 2015, for the Regional Administrator.

_____
Nancy Woo, Acting Director
Water Division

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Part I EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

A. Buena Vista Rancheria ("permittee") is authorized to discharge treated wastewater from Outfall 001 as specified in Table 1 below:

Table 1: Effluent Limitations and Monitoring Requirements

Parameter	Maximum Allowable Discharge Limitations						Monitoring Requirements	
	Mass Limits			Concentration Limits				
	Average Monthly	Average Weekly	Daily Maximum	Average Monthly	Average Weekly	Daily Maximum		
Flow	----	----	----	0.1 mgd	----	0.2 mgd	Continuous	meter
Ammonia (Total, as N)	1.43 lbs/day	----	5.75 lbs/day	1.72 mg/L	----	3.45 mg/L	Once/week	Composite
Biochemical Oxygen Demand (1)	25 lbs/day	75 lbs/day	----	30 mg/L	45 mg/L	---	Once/week	Composite
Electrical Conductivity	----	-----	-----	(3)	----	(3)	Once/week	Discrete
Total Coliform Bacteria	----	----	----	----	(4)	23 MPN/ 100 ml	Once/week or Once/day (5)	Discrete
Nitrate (measured as N)	8.3 lbs/day	----	----	10 mg/L	----	----	Once/week	Composite
Oil and Grease	8.3 lbs/day	----	25 lbs/day	10 mg/L	----	15 mg/L	Once/week	Discrete
Settleable Solids	----	----	----	0.1 ml/L	----	0.2 ml/L	Once/week	Discrete
Total Suspended Solids (1)	25 lbs/day	75 lbs/day	----	30 mg/L	45 mg/L	---	Once/week	Composite
Total Dissolved Solids	(3)	-----	(3)	(3)	-----	(3)	Once/week	Composite
Total Residual Chlorine (6)	----	----	----	0.01 mg/L	----	0.02 mg/L	Once/week	Composite
Turbidity (2)	----	----	----	2 NTU	----	5 NTU	Once/week or Continuous (5)	Discrete
Whole Effluent Toxicity, Chronic	----	----	----	(3)	----	(3)	1st, 3rd, 5th year	Composite
Priority Pollutants	----	----	----	(3)	----	(3)	1st, 3rd, 5th year	Composite
pH	The pH shall not be depressed below 6.5 nor raised above 8.5. Changes in normal ambient pH levels shall not exceed 0.5						Once/day	Discrete

Footnotes to Table 1: (see Next Page)

Footnotes to Table 1:

(1) Both the influent and the effluent shall be monitored for Biochemical Oxygen Demand (5-day) and Total Suspended Solids by concentration. The arithmetic mean of effluent samples collected over a monthly period shall not exceed 15 percent of the arithmetic mean of the values for influent samples collected over the same time period. (i.e., Must demonstrate 85% removal of BOD and TSS).

(2) The daily average turbidity shall not exceed 2 NTU. Turbidity shall not exceed 5 NTU more than 5 percent of the time within a 24-hour period. At no time shall the turbidity exceed 10 NTU.

(3) Monitoring and reporting required. No limit set at this time.

(4) Total Coliform Bacteria shall not exceed 2.2 MPN/ 100 ml as a weekly median.

(5) Reclaimed water must be monitored continuously for Turbidity and once per day for Total Coliform Bacteria.

(6) The operator shall maintain an on-site log of all chlorine dosage rates applied to the effluent discharge.

B. Additional Monitoring Requirements

1. The permittee shall conduct effluent monitoring for the following parameters once during the first 90 days of discharge from the new wastewater treatment plant and in the 3rd and 5th year of the permit term.

Priority Toxics Pollutants. The permittee shall monitor for the full list of priority pollutants as listed in the Code of Federal Regulations (CFR) at 40 CFR Part 122 Appendix J, Table 2.

Hardness ($CaCO_3$). The permittee shall monitor for hardness in addition to priority pollutants.

Chronic Toxicity. The requirements for chronic toxicity are specified in Part IV of this permit.

2. The permittee shall conduct weekly receiving water quality monitoring for pH, dissolved oxygen, turbidity, total dissolved solids, and temperature at the following locations when water is present in the receiving water:

M001U - Outfall 001 Upstream: Approximately 10' upstream of location where discharge enters receiving water.

M001D - Outfall 001 Downstream: Approximately 100’ downstream of location where discharge enters receiving water.

C. The discharge shall not cause the following in unnamed receiving waters immediately downstream of the discharge:

1. The fecal coliform concentration, based on a minimum of not less than five samples for any 30-day period, to exceed a geometric mean of 200 MPN/100 mg/L or cause more than 10 percent of total samples taken during any 30-day period to exceed 400 MPN/100 mg/L.

2. Biostimulatory substances that promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses.

3. Aesthetically undesirable discoloration.

4. Concentrations of dissolved oxygen to fall below 7.0 mg/L. The monthly median of the mean daily dissolved oxygen concentration shall not fall below 85 percent of saturation in the main water mass, and the 95th percentile concentration shall not fall below 75 percent of saturation.

5. Floating material to be present in amounts that cause nuisance or adversely affect beneficial uses.

6. Oils, greases, waxes, or other materials to accumulate in concentrations that cause nuisance, result in a visible film or coating on the water surface or on objects in the water, or that otherwise adversely affect beneficial uses.

7. The ambient pH to fall below 6.5, exceed 8.5, or change by more than 0.5 units. A one-month averaging period may be applied when calculating the pH change of 0.5 units.

8. Radionuclides to be present in concentrations 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.

9. Deposition of material that causes nuisance or adversely affects beneficial uses.

10. Taste- or odor-producing substances to impart undesirable tastes or odors to domestic or municipal water supplies or to fish flesh or other edible products of aquatic origin or to cause nuisance or adversely affect beneficial uses.

11. The ambient temperature to increase more than 5°F.

12. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental response in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health.

13. The turbidity to increase as follows:

i. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
ii. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
iii More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
iv. More than 10 percent where natural turbidity is greater than 100 NTUs.

14. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.

Part II . SPECIAL CONDITIONS

A. Erosion Protection

The permittee shall design and install erosion protection measures to prevent erosion from the discharge point to receiving water. The erosion protection measures shall be designed to protect adjacent wetlands from harm.

B. Reporting of Capacity Attainment and Planning

The permittee shall file a written report with EPA within ninety (90) days after the average dry-weather waste flow for any month either equals or exceeds 90 percent of the annual dry weather design capacity of the waste treatment and/or disposal facilities. The permittee's senior administrative officer shall sign a letter which transmits that report and certifies that the policy-making body is adequately informed about it. The report shall include:

1. Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for the day.

2. The permittee's best estimate of when the average daily dry weather flow rate will equal or exceed the design capacity of the facilities.

3. The permittee's intended schedule for the studies, design, and other steps needed to provide additional capacity for the waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present facilities.

C. Reclaimed Water Limitations

1. Reclaimed water used for irrigation and interior water shall meet the criteria contained in Title 22, California Code of Regulations.

2. Reclaimed water shall be monitored continuously for turbidity and once per day for total coliform.

3. All reclamation equipment, pumps, pipings, valves, and outlets shall be appropriately marked to differentiate them from potable facilities. All reclamation distribution system piping shall be purple or adequately wrapped with purple tape.

4. All use areas where recycled water is used that are accessible to the public shall be posted with signs that are visible to the public, in a size no less than 4 inches high by 8 inches wide, that include the following wording: "Recycled Water - Do Not Drink" and the international symbol for non-potable water.

5. No physical connection shall be made or allowed to exist between any system and any separate system conveying potable water except as allowed under section 7604 of title 17, California Code of Regulations.

6. Direct or windblown spray of reclaimed water shall be confined to the designated

land application area and shall be prevented from entering outdoor eating areas, dwellings, drinking water facilities, food handling facilities, and other locations where the public may be present. In addition, direct or windblown spray of reclaimed water shall not enter surface watercourses.

7. Application of wastewater to land shall not be performed within 24 hours before a forecasted storm, during precipitation, or within 24 hours after any precipitation event, nor when the ground is saturated.

8. Areas irrigated with reclaimed water shall be managed to prevent breeding of mosquitoes. More specifically:

a. All applied irrigation water must infiltrate completely within 24 hours.

b. Ditches not serving as wildlife habitat should be maintained free of emergent, marginal, and floating vegetation.

c. Low-pressure and un-pressurized pipelines and ditches which are accessible to mosquitoes shall not be used to store reclaimed water.

9. A 15-foot buffer zone shall be maintained between any watercourse and the wetted area produced during land application of effluent.

10. A 50-foot buffer zone shall be maintained between any spring, domestic well or irrigation well and the wetted area produced during land application of effluent.

D. Reopener

This permit may be modified in accordance with the requirements set forth at 40 CFR Parts 122 and 124, to include appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new State or Tribal water quality standards.

Part III. MONITORING AND REPORTING

A. Sample locations

Samples taken in compliance with the monitoring requirements specified in Part I, Section A, above, shall be taken at the following location(s):

1. Influent samples shall be taken after the last addition to the collection system prior to treatment.

2.Effluent samples shall be taken downstream from the last treatment process. Samples may be taken prior to UV disinfection where a representative sample will be obtained.

B. Reporting of Monitoring Results

1.For a period of six months from the effective date of the permit, the permittee may submit the DMRs to EPA in hard copy form or in DMRs electronically submitted using NetDMR. NetDMR is a web-based tool that allows permittees to electronically submit DMRs and other required reports via a secure internet connection. NetDMR is accessed from: http://www.epa.gov/netdmr. Beginning no later than six months after the effective date of the permit, the permittee shall begin reporting monthly, quarterly, yearly, etc. monitoring data using NetDMR, unless the facility is able to demonstrate a reasonable basis, such as technical or administrative infeasibility, that precludes the use of NetDMR for submitting DMRs. The permittee shall continue to use the NetDMR tool for reporting all discharge monitoring data. By using NetDMR, the permittee will no longer be required to submit hard copies of DMRs to EPA under 40 CFR 122.41 and 403.12.

Duplicate signed copies of hard copy forms, and all other reports required herein, must be submitted to EPA at the following addresses:

EPA Region IX
NPDES Data Team (ENF 4-1)
75 Hawthorne Street
San Francisco, CA 94105-3901

2. Where quarterly monitoring is required for a continuous discharge, samples shall be taken during the months of January, April, July and October.

3. For effluent analyses, the permittee shall utilize an analytical method with the published Method Detection Limit (MDL, as defined in Appendix A of this permit) that is lower than the effluent limitations (or lower than EPA's nationally recommended water quality criteria). If all published MDLs are higher than effluent limitations or water quality criteria concentrations, the permittee shall utilize the EPA approved analytical method with the lowest published MDL. In accordance with 40 CFR 122.45(c), effluent analyses for metals shall measure "total recoverable metals".

4. For the purposes of reporting, the permittee shall use the reporting threshold equivalent to the laboratory's MDL[1]. As such the permittee or its laboratory must utilize a standard calibration where the lowest standard point is equal to or less than the minimum level (ML), as defined in Appendix A of this permit.

For analytical results greater than the laboratory's MDL and less than the ML, the permittee shall report No Discharge/No Data (Not Quantifiable) ["NODI(Q)"] on the DMR form. Analytical results below the laboratory's MDL shall be reported as No Discharge/No Data (Below Detection Level) ["NODI(B)"].

As an attachment to the first DMR form submitted following the effective date of this permit, and at any time thereafter that the following information should change, the permittee shall report for all parameters with monitoring requirements: the analytical result; the analytical method number or title, preparation and analytical procedure, and published MDL; the laboratory MDL, standard deviation (S) from the laboratory's MDL study (see 40 CFR Part 136, Appendix B), and the number of replicate analyses used to compute the laboratory's MDL (n); and ML.

When requested by EPA, the permittee or its laboratory shall participate in the NPDES DMR-QA performance study and shall submit their study results to EPA. The permittee must have a success rate of at least 80 percent (%).

5. Quality Assurance (QA) Manual
Sample collection will be performed as stated in the Quality Assurance (QA) Manual/QA Plan.

The permittee shall develop a QA Manual/QA Plan for collection and analysis of samples. If the water samples are analyzed by an independent laboratory, the permittee shall ensure that the laboratory has a Quality Assurance (QA) Manual.

The purpose of the QA Manual is to assist in planning for the collection and analysis of samples and explaining data anomalies if they occur. As appropriate and applicable, the QA Manual shall include the details enumerated below. The QA Manual shall be

[1] Because MLs and MDLs specified in or approved under 40 CFR 136 are generally determined by the EPA using reagent water, matrix interferences in some wastewaters may result in a permittee being unable to achieve a required ML. In other cases, inappropriate laboratory techniques and poor quality assurance/quality control (QA/QC) procedures will result in a permittee failing to achieve a required ML. To distinguish between cases where a ML (or MDL) is not achieved due to poor laboratory technique and when matrix interferences do, in fact, occur, and to document that a discharge-specific MDL and ML are warranted, a permittee attempting to overcome matrix interference problems shall follow guidelines provided in *Guidance on Evaluation, Resolution, and Documentation of Analytical Problems Associated with Compliance Monitoring* (EPA 821-B-93-001, June 1993). In such a case, the permittee shall submit a report to EPA documenting that a discharge-specific MDL is warranted. Upon approval of this report by EPA, the permittee shall follow procedures set forth in 40 CFR 136, Appendix B, to determine the discharge-specific MDL and ML, which are also subject to EPA evaluation and approval. Additional guidance on development and review of discharge-specific MDLs is available in EPA's draft National Guidance for the Permitting, Monitoring, and Enforcement of Water Quality-Based Effluent Limitations Set Below Analytical Detection/Quantitative Levels, March 22, 1994, Appendix B.

retained on the permittee's premises and be available for review by EPA upon request. The permittee or the independent laboratory as the case may be shall review its QA Manual annually and revise it when appropriate. Throughout all field sampling and laboratory analyses, the permittee or the laboratory shall use quality assurance/quality control (QA/QC) procedures as documented in their QA Manual.

(i) Project Management including roles and responsibilities of the participants; purpose of sample collection; matrix to be sampled; the analytes or compounds being measured; applicable technical, regulatory, or program-specific action criteria; personnel qualification requirements for collecting samples.

(ii) Sample collection procedures; equipment used; the type and number of samples to be collected including QA/QC samples (i.e., background samples, duplicates, and equipment or field blanks); preservatives and holding times for the samples (see 40 CFR Part 136.3); and chain of custody procedures.

(iii) Identification of the laboratory to be used to analyse the samples; provisions for any proficiency demonstration that will be required by the laboratory before or after contract award such as passing a performance evaluation sample; analytical method to be used; method detection limit (MDL) and minimum level (ML) to be reported; required QC results to be reported (e.g., matrix spike recoveries, duplicate relative percent differences, blank contamination, laboratory control sample recoveries, surrogate spike recoveries, etc.) and acceptance criteria; and corrective actions to be taken by the permittee or the laboratory as a result of problems identified during QC checks.

(iv) Discussion of how the permittee will perform data review and requirements for reporting of results to EPA to include resolving of data quality issues and identifying limitations on the use of the data.

C. Monitoring and Records

In addition to the information requirements specified under 40 CFR 122.41(j)(3), records of monitoring information shall include: The laboratory(ies) which performed the analyses and any comment, case narrative, or summary of results produced by the laboratory. These should identify and discuss QA/QC analyses performed concurrently during sample analyses and whether project and 40 CFR 136 requirements were met. The summary of results must include information on initial and continuing calibration, surrogate analyses, blanks, duplicates, laboratory control samples, matrix spike and matrix spike duplicate results; and sample receipt condition, holding time, and preservation.

D. Twenty-Four Hour Reporting of Noncompliance

The permittee shall report any noncompliance which may endanger human health or the environment. This information shall be provided orally within 24 hours from the time the permittee becomes aware of the circumstances to the following persons or their offices:

CWA Compliance Office Chief: USEPA (415) 972-3577

If the permittee is unsuccessful in contacting the persons above, the permittee shall report by 9 a.m. on the first business day following the noncompliance. A written submission shall also be provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including dates and times, and, if the noncompliance has not been corrected, the time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

E. Intermittent Discharge Monitoring

If the discharge is intermittent rather than continuous, then on the first day of intermittent discharge, the permittee shall monitor and record data for all the characteristics listed in the monitoring requirements of Table 1 in Part I.A of this permit, after which the frequencies of analysis listed in the monitoring requirements shall apply for the duration of each such intermittent discharge. The permittee shall not be required to monitor more than the frequency required by the permit.

F. Monitoring Modification

Monitoring, analytical, and reporting requirements may be modified by the Regional Administrator upon due notice.

G. Operation

The facilities and/or systems shall be operated by an operator with training and/or certification equivalent to the requirements of the State of California, at the level appropriate to the facility and/or system.

Part IV. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

The permittee shall conduct annual toxicity tests on 24-hour composite effluent samples. Each year, the permittee shall conduct this routine toxicity testing at a different time of year from the previous years. Samples shall be collected for each point of discharge at the designated NPDES sampling station for the effluent. During years 1, 3, and 5 of the permit, a split of each sample shall be analyzed for all other monitored parameters at the minimum frequency of analysis specified by the effluent monitoring program.

A. Species and Test Methods

Species and short-term test methods for estimating the chronic toxicity of NPDES effluents are found in the fourth edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA-821-R-02-013, October 2002; Table IA, 40 CFR Part 136). The permittee shall conduct static-renewal toxicity tests with the fathead minnow, *Pimephales promelas* (Larval Survival and Growth Test Method 1000.01); the daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.0); and the green alga, *Selenastrum capricornutum* (also named *Raphidocelis subcapitata)* (Growth Test Method 1003.0).

B. Chronic Toxicity Monitoring Triggers

There are no chronic toxicity effluent limits for this discharge. For this discharge, the chronic toxicity monitoring triggers are any one test result greater than 1.6 TUc (during the monthly reporting period), or any one or more test results with a calculated median value greater than 1.0 TUc (during the monthly reporting period). Results shall be reported in TUc, where TUc = 100/NOEC. The No Observed Effect Concentration (NOEC) is the highest concentration of toxicant to which organisms are exposed in a short-term chronic test that causes no observable adverse effects on the test organisms (e.g., the highest concentration of toxicant in which the values for the observed responses are not statistically significantly different from the controls). This permit requires additional toxicity testing if a chronic toxicity monitoring trigger is exceeded.

C. Quality Assurance

1. Quality assurance measures, instructions, and other recommendations and requirements are found in the test methods manual previously referenced. Additional requirements are specified, below.

2. The chronic instream waste concentrations (IWCs) for this discharge are 100% effluent and 62.5% effluent. A series of at least five effluent dilutions and a control shall be tested. At minimum, the dilution series shall include the IWCs and three dilutions below the IWCs (e.g., 100%, 62.5%, 50%, 25% and 12.5%).

3. Dilution water and control water should be laboratory water, as described in the test methods manual. If the dilution water is different from test organism culture water, then a second control using culture water shall be used.

4. If organisms are not cultured in-house, then concurrent testing with a reference toxicant shall be conducted. If organisms are cultured in-house, then monthly reference toxicant testing is sufficient. Reference toxicant tests and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).

5. If either the reference toxicant test or effluent toxicity test do not meet all test acceptability criteria in the test methods manual, then the permittee must resample and retest within 14 days.

6. Because this permit requires sublethal hypothesis testing endpoints from Methods 1000.0, 1002.0, and 1003.0, with-in test variability must be reviewed and variability criteria (upper and lower PMSD bounds) must be applied, as specified under Section 10.2.8 of the test methods manual. The calculated PMSDs for both reference toxicant test and effluent toxicity test results must meet the upper and lower PMSD bounds variability criteria specified in Section 10 of the test methods manual, Table 6 - *Variability Criteria (Upper and Lower PMSD Bounds) for Sublethal Hypothesis Testing Endpoints Submitted Under NPDES Permits*.

7. If the discharged effluent is chlorinated, then chlorine shall not be removed from the effluent sample prior to toxicity testing without written approval by EPA.

8. Where total ammonia concentrations in the effluent are ≥5 mg/L, toxicity may be contributed by unionized ammonia. pH drift during the toxicity test may contribute to artifactual toxicity when ammonia or other pH-dependent toxicants (e.g., metals) are present. If sample toxicity is confirmed to be artifactual and due to pH drift (as determined through parallel testing described in Section 11.3.6.1 of the test methods manual), then, following written approval by EPA, the permittee may use procedures outlined in Section 11.3.6.2 of the test methods manual to control sample pH during the toxicity test.

D. Initial Investigation TRE Workplan

Within 90 days of the permit effective date, the permittee shall prepare and submit a copy of its Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan (1-2 pages) to EPA for review. This plan shall include steps the permittee intends to follow if toxicity is measured above the chronic toxicity monitoring triggers and should include, at minimum:

1. 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.

2. A description of methods for maximizing in-house treatment system efficiency, good housekeeping practices, and a list of all chemicals used in operations at the facility.

3. If a Toxicity Identification Evaluation (TIE) is necessary, an indication of who would conduct the TIEs (i.e., an in-house expert or outside contractor).

E. Accelerated Toxicity Testing and TRE/TIE Process

1. If a chronic toxicity monitoring trigger is exceeded and the source of toxicity is known (e.g., a temporary plant upset), then the permittee shall conduct one additional toxicity test using the same species and test method. This test shall begin within 14 days of receipt of test results exceeding a chronic toxicity monitoring trigger. If the additional toxicity test does not exceed a chronic toxicity monitoring trigger, then the permittee may return to its regular testing frequency.

2. If a chronic toxicity monitoring trigger is exceeded and the source of toxicity is not known, then the permittee shall conduct four additional toxicity tests using the same species and test method, approximately every two weeks, over an eight week period. This testing shall begin within 14 days of receipt of test results exceeding a chronic toxicity monitoring trigger. If none of the additional toxicity tests exceed a chronic toxicity monitoring trigger, then the permittee may return to its regular testing frequency.

3. If one of the additional toxicity tests (in paragraphs a or b) exceeds a chronic toxicity monitoring trigger, then, within 14 days of receipt of this test result, the permittee shall initiate a TRE using the same species and test method and, as guidance, EPA manual *Toxicity Reduction Evaluation Guidance for Municipal Wastewater Treatment Plants* (EPA 833-B-99-002, August 1999). In conjunction, the permittee shall develop and implement a Detailed TRE Workplan which shall include: further actions undertaken by the permittee to investigate, identify, and correct the causes of toxicity; actions the permittee will take to mitigate the impact of the discharge and prevent the recurrence of toxicity; and a schedule for these actions.

4. The permittee may initiate a Toxicity Identification Evaluation (TIE) as part of a TRE to identify the causes of toxicity, using as guidance EPA manuals: *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005F, May 1992); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, September 1993); and *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, September 1993).

F. Reporting of Chronic Toxicity Monitoring Results

1. A full laboratory report for all toxicity testing shall be submitted as an attachment to the DMR for the month in which the toxicity test was conducted and shall also include: the toxicity test results (in TUc, NOEC, and EC25 or IC25) reported according to the test methods manual chapter on Report Preparation and Test Review; the dates of sample collection and initiation of each toxicity test; all results for effluent parameters monitored concurrently with the toxicity test(s); and progress reports on TRE/TIE investigations.

2. The permittee shall notify EPA in writing within 14 days of exceedance of a chronic toxicity monitoring trigger. This notification shall describe actions the permittee has taken or will take to investigate, identify, and correct the causes of toxicity; the status of actions required by this

permit; and schedule for actions not yet completed; or reason(s) that no action has been taken.

Part V. BIOSOLIDS

A. Biosolids (Sludge) Requirements

1. All biosolids generated by the permittee shall be reused or disposed of in compliance with the applicable portions of:

   a) 40 CFR 503 for biosolids that are land applied, placed in surface disposal sites (dedicated land disposal sites or monofills), or incinerated;

   b) 40 CFR 258 for biosolids disposed of in Municipal Solid Waste landfills;

   c) 40 CFR 257 for all biosolids disposal practices not covered under 40 CFR 258 or 503.

   d) 40 CFR 503 Subpart B (land application) for biosolids placed on the land for the purpose of providing nutrients or conditioning the soil for crops or vegetation.

   e) 40 CFR 503 Subpart C (surface disposal) for biosolids placed on the land for the purpose of disposal.

2. The permittee is responsible for assuring that all biosolids produced at its facility are used or disposed of in accordance with 40 CFR 257, 258, and 503, whether the permittee reuses or disposes of the biosolids itself or transfers them to another party for further treatment, reuse, or disposal. The permittee is responsible for informing subsequent preparers, appliers, or disposers of the requirements they must meet under 40 CFR 257, 258, and 503.

3. Duty to mitigate: The permittee shall take all reasonable steps to prevent or minimize any biosolids use or disposal which has a likelihood of adversely affecting human health or the environment.

4. No biosolids shall be allowed to enter wetlands or other waters of the United States.

5. Biosolids treatment, storage, and use or disposal shall not contaminate groundwater.

6. Biosolids treatment, storage, and use or disposal shall not create a nuisance such as objectionable odors or flies.

7. The permittee shall assure that haulers who transport biosolids off site for treatment, reuse, or disposal take all necessary measures to keep the biosolids contained.

8. If biosolids are stored for over two years from the time they are generated, the permittee must ensure compliance with all the requirements for surface disposal under 40 CFR 503 Subpart C, or must submit a written request to EPA with the information in 503.20 (b), requesting permission for longer temporary storage.

9. Biosolids containing more than 50 mg/kg PCB's shall be disposed of in accordance with 40 CFR 761.

10. Any biosolids treatment, disposal, or storage site shall have facilities adequate to divert surface runoff from the adjacent area, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials in the disposal site to escape from the site. Adequate protection is defined as protected from at least a 100-year storm and from the highest tidal stage that may occur.

11. Inspection and Entry: The permittee shall allow the Regional Administrator or an authorized representative thereof, upon the presentation of credentials, to:

a) enter upon all premises where biosolids produced/treated by the permittee are treated, stored, used, or disposed, either by the permittee or by another party to whom the permittee transfers the biosolids for treatment, use, or disposal,

b) have access to and copy any records that must be kept under the conditions of this permit or of 40 CFR 503, by the permittee or by another party to whom the permittee transfers the biosolids for further treatment, use, or disposal,

c) inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in the biosolids treatment, storage, use, or disposal by the permittee or by another party to whom the permittee transfers the biosolids for treatment, use, or disposal.

12. Monitoring shall be conducted as follows:

a) Biosolids shall be tested for the metals required in Section 503.16 (for land application) or 503.26 (for surface disposal), using the methods in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods" (SW-846), as required in 503.8(4), at the following minimum frequencies:

Volume (dry metric tons)	Frequency
0 - 290	once per year
290 - 1500	once per quarter
1500 - 15000	once per 60 days
> 15000	once per month

Sampling Plan - For accumulated, previously untested biosolids, the permittee shall develop a representative sampling plan, including number and location of sampling points, and collect representative samples. Test results shall be expressed in mg

pollutant per kg biosolids on a 100% dry weight basis.

Sampling Requirements: Biosolids to be land applied shall be tested for TKN, ammonium-N, and nitrate-N at the frequencies required above.

b) Prior to land application, the permittee shall demonstrate that the biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed in 503.32. Prior to disposal in a surface disposal site, the permittee shall demonstrate that the biosolids meet Class B levels or shall ensure that the site is covered at the end of each operating day.

c) For biosolids that are land applied or placed in a surface disposal site, the permittee shall track and keep records of the operational parameters used to achieve Vector Attraction Reduction requirements in 503.33(b).

d) Class 1 facilities (facilities with pretreatment programs or others designated as Class 1 by the Regional Administrator) and Federal facilities with > 5 MGD influent flow shall sample biosolids for pollutants listed under Section 307(a) of the Act (as required in the pretreatment section of the permit for POTW's with pretreatment programs). Class 1 facilities and Federal Facilities with > 5 MGD influent flow shall test dioxin/dibenzofurans using a detection limit of < 1 pg/g during their next sampling period if they have not done so within the past 5 years and once per 5 years thereafter.

e) The biosolids shall be tested annually using the Toxicity Characteristic Leaching Procedure, or more frequently if necessary to determine hazardousness.

f) If biosolids are placed in a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site, or shall certify that the placement of biosolids on the site will not contaminate an aquifer.

g) Biosolids placed in a municipal landfill shall be tested by the Paint Filter Test (method 9095) at the frequency in 12(a) above or more often if necessary to demonstrate that there are no free liquids.

13. The permittee shall comply with the following notification requirements:

a) At least 60 days prior to the use or disposal of any biosolids from this facility to a new or previously unreported site, the permittee shall submit a reuse/disposal plan to EPA and the State. The plan shall include results of the analyses required under the Monitoring Section above, a description and topographic map of the proposed site(s) for reuse or disposal, names and addresses of the applier(s) and site owner(s), and a listing of any state or local permits which must be obtained. For land application sites, the plan shall include a description of the crops or vegetation to be grown, proposed loading rates and nitrogen loadings to be used for the crops, and a groundwater monitoring plan if one exists. If the biosolids do not meet 503.13 Table 3 metals concentration limits, the permittee must notify EPA of any previous applications of biosolids subject to cumulative loading limits to the site, the cumulative amounts of pollutants applied to date, and background concentrations if known.

b) For biosolids that are land applied, the permittee shall notify the applier in writing of the nitrogen content of the biosolids, and of the applier's requirements under 503, including the requirement that the applier certify that the management practices, site restrictions, and any applicable vector attraction reduction requirements required in 40 CFR 503 Subpart B have been met. The permittee shall require the applier to certify at the end of 38 months following application of Class B biosolids that those harvesting restrictions in effect for up to 38 months have been met.

c) If biosolids are shipped to another State or to Indian Lands, the permittee must send 60 days prior notice of the shipment to the permitting authorities in the receiving State or Indian Land (the EPA Regional Office for that area and the State/Indian authorities).

d) Notification of non-compliance: The permittee shall notify EPA Region 9 of any non-compliance within 24 hours if the non-compliance may seriously endanger health or the environment. For other instances of non-compliance, the permittee shall notify EPA Region 9 and the Board of the non-compliance in writing within 5 working days of becoming aware of the non-compliance.

14. The permittee shall submit an annual biosolids report to EPA and the Board by February 19 of each year for the period covering the previous calendar year. The report shall include:

a) the amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.

b) results of all pollutant monitoring required in the Monitoring Section above.

c) Descriptions of pathogen reduction methods, vector attraction reduction methods, site and harvesting restrictions, and management practices, and certifications of these, as required in 503.17 and 503.27.

d) Results of any groundwater monitoring or certification by groundwater scientist that the application/disposal will not contaminate an aquifer.

e) Names and addresses of land appliers and surface disposal site operators, location of sites (latitude and longitude and names of sites); volumes applied (dry metric tons) and loading rates (metric tons/ha), dates of applications, crops grown and dates of seeding and harvesting.

f) Names, mailing addresses, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal waste landfill, or for other reuse/disposal methods not covered above, and volumes delivered to each.

Reports shall be submitted to: U.S. EPA,
Regional Biosolids Coordinator
75 Hawthorne St. WTR 2-3
San Francisco, CA 94105-3901

Appendix A: STANDARD DEFINITIONS

1. A "composite sample" means, for flow rate measurements, the arithmetic mean of no fewer than eight (8) individual measurements taken at equal intervals for eight (8) hours or for the duration of discharge, whichever is shorter. For other than flow rate measurements, a composite sample means, a combination of either (8) individual portions obtained at equal time intervals for eight (8) hours or for the duration of the discharge, whichever is shorted. The volume of each individual portion shall be directly proportional to the discharge flow rate at the time of sampling. The sampling period shall coincide with the period of maximum discharge.

Sample collection, preservation and handling shall be performed as described in the most recent edition of 40 CFR 136.3 (Table II). Where collection, preservation and handling procedures are not outlined in 40 CFR 136.3, procedures outlined in the 20th edition of *Standard Methods for the Examination of Water and Wastewater* shall be used.

2. The "daily maximum concentration limit" means the measurement made on any single discrete sample or composite sample.

3. The "daily maximum mass limit" means the total discharge by mass during any calendar day.

4. A "discrete" or "grab"sample means an individual sample collected from a single location at a specific time, or over a period of time not exceeding 15 minutes. Sample collection, preservation and handling shall be performed as described in the most recent edition of 40 CFR 136.3 (Table II). Where collection, preservation and handling procedures are not outlined in 40 CFR 136.3, procedures outlined in the 20th edition of *Standard Methods for the Examination of Water and Wastewater* shall be used.

5. The "Method Detection Limit (MDL)" is the minimum concentration of an analyte that can be detected with 99 percent confidence that the analyte concentration is greater than zero, as defined by the specific laboratory method listed in 40 CFR Part 136. The procedure for determination of a laboratory MDL is in 40 CFR Part 136, Appendix B.

6. The "Minimum Level (ML)" is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all of the method-specified sample weights, volumes, and processing steps have been followed (as defined in EPA's draft *National Guidance for the Permitting, Monitoring, and Enforcement of Water Quality-Based Effluent Limitations Set Below Analytical Detection/Quantitative Levels*, March 22, 1994). Promulgated method-specific MLs are contained in 40 CFR Part 136, Appendix A and must be utilized if available. If a promulgated method-specific ML is not available, then an interim ML shall be calculated. The interim ML is equal to 3.18 times the promulgated method-specific MDL rounded to the nearest multiple of 1, 2, 5, 10, 20, 50, etc.

When neither an ML nor an MDL are available under 40 CFR 136, an interim ML should be

calculated by multiplying the best estimate of detection by a factor of 3.18; when a range of detection is given, the lower end value of the range of detection should be used to calculate the ML. At this point in the calculation, a different procedure is used for metals than for non-metals.

a. For metals: due to laboratory calibration practices, calculated MLs for metals may be rounded to the nearest whole number.

b. For non-metals: because analytical instruments are generally calibrated using the ML as the lowest calibration standard, the calculated ML is then rounded to the nearest multiple of (1, 2, or 5) × 10^n, where *n* is zero or an integer. (For example: if an MDL is 2.5 ug/L, then the calculated ML is 2.5 ug/L × 3.18 = 7.95 ug/L. The multiple of (1, 2, or 5) × 10^n nearest to 7.95 is 1 × 10^1 = 10 ug/L, so the calculated ML (rounded to the nearest whole number) is 10 ug/L.)

7. The "monthly or weekly average concentration limit", other than for fecal or total coliform bacteria, means the arithmetic mean of consecutive measurements made during calendar month or weekly period, respectively. The "monthly or weekly average" concentration for fecal or total coliform bacteria means the geometric mean of measurements made during a monthly or weekly period, respectively. The geometric mean is the *n*th root of the product of *n* numbers.

8. The "monthly or weekly average mass limitation" means the total discharge by mass during a calendar monthly or weekly period, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily sampling is required by this permit, the monthly or weekly average value shall be determined by the summation of all the measured discharges by mass divided by the number of days during the monthly or weekly period when the measurements were made.

9. A "24-hour composite sample" means either: (i) a time-proportioned mixture of not less than eight (8) discrete aliquots obtained at equal time intervals. The volume of each aliquot shall be directly proportional to the discharge flow rate at the time of sampling, but not less 100 ml; or (ii) a flow-proportional combination of individual samples obtained at regular intervals over a 24-hour sampling period. The volume of each sample shall be proportional to the flow rate during the 24-hour sampling period. Sample collection, preservation and handling shall be performed as described in the most recent edition of 40 CFR Part 136.3 (Table II). Where collection, preservation and handling procedures are not outlined in 40 CFR Part 136.3, procedures outlined in the 20th edition of *Standard Methods for the Examination of Water and Wastewater* shall be used.