

CDPS GENERAL PERMIT  
FOR SAND AND GRAVEL MINING AND PROCESSING  
(AND OTHER NONMETALLIC MINERALS EXCEPT FUEL)  
COLORADO DISCHARGE PERMIT SYSTEM

In compliance with the provisions of the Colorado Water Quality Control Act (25-8-101 et seq., CRS, 1973 as amended), facilities engaged in mining and processing of sand and gravel and other nonmetallic minerals (except fuel) are authorized to discharge surface runoff and process water from authorized locations throughout the State of Colorado to specified surface waters of the State. Such discharges shall be in accordance with conditions of this permit.

The applicant may demand an adjudicatory hearing within thirty (30) days of the issuance of the final permit determination, per the Colorado Discharge Permit System Regulations, Regulation No. 61 (5 CCR 1002-61). Should the applicant choose to contest any of the effluent limitations, monitoring requirements or other conditions contained herein, the applicant must comply with Section 24-4-104 CRS and the Colorado Discharge Permit System Regulations. Failure to contest any such effluent limitation, monitoring requirement, or other condition, constitutes consent to the condition by the Applicant.

This permit specifically authorizes the facility listed on page 1 of this permit to discharge process generated wastewaters and/or stormwater, as of the date stated below, in accordance with the permit requirements and conditions set forth in Parts I and II hereof. All discharges authorized herein shall be consistent with the terms and conditions of this permit.

This permit and the authorization to discharge shall expire at midnight, **June 30, 2013**

Issued and Signed this 30th day of **May, 2008**

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT



Janet Kieler, Permits Section Manager  
Water Quality Control Division

**ADMINISTRATIVELY CONTINUED  
JULY 1, 2013**

**ISSUED AND SIGNED: MAY 30, 2008**

**EFFECTIVE DATE OF PERMIT: JULY 1, 2008**

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A. COVERAGE UNDER THIS PERMIT

1. This general permit authorizes stormwater and process water discharges from sand and gravel operations and other non-metallic mineral mining (except fuel), including asphalt and concrete batch plants into surface waters of the State of Colorado. Discharges to groundwater are not authorized under this general permit, and would be subject to the jurisdiction of the Division of Reclamation, Mining and Safety.

This permit may cover the stormwater and process water discharges from crushed stone, construction sand and gravel, phosphate rock, industrial sand, graphite, and concrete or hot asphalt batch plants as defined in 40 CFR Part 436. This general permit does not cover the discharge from any domestic type wastewaters, or operations mining or processing from gypsum, asphaltic mineral, asbestos and wollastonite, barite, fluorspar, salines from brine lakes, borax, potash, sodium sulfate, frash sulfur, bentonite, magnesite, diatomite, jade, novaculite, or tripoli facilities. An individual permit may be necessary for the coverage of domestic wastewater in combination with any other allowable discharge due to the incorporation of baseline conditions into the federal limitations. Due to the nature of general permits, determinations of the assimilative capacity of the receiving stream(s) are not available. All limitations set in this permit are based upon the most stringent water quality standards, the Regulations for Effluent Limitations, and/or the federal effluent limitation guidelines.

Discharges may be covered under this permit at the Division's discretion, providing that such wastewater would not require effluent limitations and/or monitoring requirements other than those contained in this permit. Such determinations will be made on a case-by-case basis upon review of the permit application and any additional relevant information. If discharge from one or more of the above listed sources require additional limitations and/or monitoring requirements, an individual permit may be required. Multiple discharge points from one facility may be authorized through this permit providing all meet these criteria.

2. This permit does not constitute authorization under 33 U.S.C. 1344 (Section 404 of the Clean Water Act) of any stream dredging or filling operations.
3. In order to apply for certification under this general permit, the owner, operator, and/or authorized agent of the subject facility shall submit by certified mail or hand delivery, the completed General Permit for Nonmetallic Mineral Mining and Processing (Sand and Gravel) Application.

If the discharge is to a storm sewer system, ditch, or other manmade conveyance, approval from the owner of the system must be obtained before discharge.

At least 30 days before the anticipated date of discharge, the application in its entirety, shall be submitted to:

Colorado Department of Public Health and Environment  
Water Quality Control Division  
Permits Section  
4300 Cherry Creek Drive South  
Denver, CO 80246

The Division shall have up to thirty days after receipt of the above information to request additional data or deny the authorization to discharge under this general permit. Upon receipt of additional information, the Division shall have an additional 30 days to issue or deny authorization to discharge. If the Division determines that a new facility does not fall under the authority of the general permit, then the information received will be processed for an individual permit, and the applicant shall be notified of such a determination. If during the renewal process, the Division determines that a facility no longer qualifies for the general permit, the facility will be allowed to discharge under the general permit until an individual permit is issued.

4. The final limitations to be applied under this permit shall take into consideration the application of the appropriate discharge categories, applicable water quality standards, control regulations, total maximum daily loads, and other regulatory requirements. Potential limitations may include but are not limited to the general limitations as provided in Part I.B below.
5. Authorization to discharge under this general permit shall expire on June 30, 2013. The Division must evaluate this general permit once every five years and must recertify all applicants' authority to discharge under the general permit at such time. Therefore, a permittee desiring continued coverage under the general permit must reapply by November 30, 2012. The Division will determine if the applicant continues to operate under terms of the general permit.
6. No chemicals shall be added to the discharge unless the Division grants specific approval in a certification, letter, or other

form of communication. To approve a chemical (including release agents), the Division must have the chemical's MSDS sheet. All chemicals must be used and stored in accordance with the manufacturers recommendations and in accordance with any applicable state or federal regulation.

7. There shall be no discharge of solid animal or food waste, vegetative wastes (grass, leaves, manure, garbage, etc), or any floating solids or visible foam, in other than trace amounts.
8. All discharges must comply with the lawful requirements of federal agencies, municipalities, counties, drainage districts and other local agencies regarding any discharges to storm drains systems, conveyances, or other water courses under their jurisdiction. In addition, prior to the discharge the permittee must notify the owner of the system of the date, approximate time, location, and duration of the discharge(s).
9. Bulk storage structures for petroleum products and other chemicals shall have secondary containment or equivalent adequate protection so as to contain all spills and prevent any spilled material from entering discharged waters or waters of the State.

**B. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

1. Effluent Limitations and Monitoring Requirements – **Crushed Stone, Construction Gravel and all other industrial facilities covered under SIC Code 14 (not covered below)**
  - a. Crushed Stone -means process wastewater generated during the mining or quarrying and processing of crushed and broken stone and rip rap. This includes all types of rock and stone, except rock and stone that is crushed or broken prior to the extraction of mineral, which is covered elsewhere. The processing of calcite, however, in conjunction with the processing of crushed and broken limestone or dolomite is included.
  - b. Construction Sand and Gravel– means process wastewater generated during the mining and processing of sand and gravel for construction or fill uses.

The above categories are subject to 40 CFR Part 436 Subparts B (Crushed Stone), and C (Construction Sand and Gravel). These limitations also apply to all other industrial facilities covered under SIC Code 14 (that are not covered below). The following limitations apply as outlined in these subparts.

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
<b>-----General Permit Requirements-----</b>						
Flow, MGD	Report	NA	Report	Discharge Evaluation	Continuous / Instantaneous <sup>2</sup>	Recorder / In-situ <sup>2</sup>
pH, s.u.	N/A	NA	6.5-9.0	Water Quality Standards	Weekly	Grab
Oil and Grease, mg/l	N/A	NA	10	State Effluent Regulations	Weekly	Visual <sup>3</sup>
Total Suspended Solids, mg/l	30	45	NA	State Effluent Regulations	Weekly	Grab
<b>-----Site Specific Limitations-----</b>						
Total Dissolved Solids, mg/l *	Report	NA	Report	Salinity Regulations	Quarterly <sup>4</sup>	Grab
Total Phosphorus (as P), mg/l **	Report	NA	Various	Control Regulations	Monthly	Grab
Other Pollutants of Concern	Various	NA	Various	Water Quality Standards	Weekly	Grab
Whole Effluent Toxicity (WET)				State Permit Limitations	Quarterly	3 Grab/Test
Chronic	Stat Diff and IC25 ≥ IWC				Quarterly	Grab
Acute	LC50 > 100%					

1 – For a minor facility, as determined by the EPA NPDES Permit Rating Worksheet, all weekly monitoring requirements shall be changed to 2 days per month.

2 – If power is not available, flow may be measured on an instantaneous basis. Major facilities shall monitor flow weekly, minor facilities 2 days / month

3 – If a visual sheen is noticed, a grab sample must be taken and analyzed for oil and grease

4 – Quarterly monitoring shall be prescribed if the limitation is based upon discharge to the Colorado River Basin. If the limitation is based upon agricultural protection, the monitoring frequency shall be weekly.

\* The TDS limitation will normally apply to discharges in the Colorado River Basin.

\*\* The phosphorus limitations apply to discharges to the Dillon Reservoir Watershed, Cherry Creek Reservoir Watershed, Chatfield Reservoir Watershed, and the Bear Creek Watershed, as defined in Regulation 71, 72, 73 or 74 respectively. The permittee may be required to obtain a phosphorus allocation from the applicable control regulation authority prior to certification under this general permit.

2. Effluent Limitations and Monitoring Requirements– **Phosphate Rock Mining** -means process wastewater generated by the mining or quarrying of phosphate bearing rock, ore, or earth, for the phosphate content.

The above category is subject to 40 CFR Part 436 Subpart R (Phosphate Rock). The following limitations apply as outlined in this subpart.

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
<b>-----General Permit Requirements-----</b>						
Flow, MGD	Report	NA	Report	Discharge Evaluation	Continuous / Instantaneous <sup>2</sup>	Recorder / In-situ <sup>2</sup>
pH, s.u.	N/A	NA	6.5-9.0	Water Quality Standards	Weekly	Grab
Oil and Grease, mg/l	N/A	NA	10	State Effluent Regulations	Weekly	Visual <sup>3</sup>
<b>-----Federal Effluent Limitation Guidelines-----</b>						
Total Suspended Solids, mg/l	30	NA	60	Federal ELG	Weekly	Grab
<b>-----Site Specific Limitations-----</b>						
Total Dissolved Solids, mg/l *	Report	NA	Report	Salinity Regulations	Quarterly <sup>4</sup>	Grab
Total Phosphorus (as P), mg/l **	Report	NA	Various	Control Regulations	Monthly	Grab
Other Pollutants of Concern	Various	NA	Various	Water Quality Standards	Weekly	Grab
Whole Effluent Toxicity (WET)				State Permit Limitations	Quarterly	3 Grab/Test
Chronic	Stat Diff and IC25 ≥ IWC				Quarterly	Grab
Acute	LC50 > 100%				Quarterly	

Footnotes 1-4, \* and \*\* can be found under Part I.B.1.

3. Effluent Limitations and Monitoring Requirements – **Industrial Sand**-means process wastewater generated during the mining and processing of sand and gravel for uses other than construction and fill. These uses include, but are not limited to, glassmaking, molding, abrasives, filtration, refractories, and refractory bonding. This does **not** include HF flotation facilities, which are covered in a different table.

The above category is subject to 40 CFR Part 436 Subpart D (Industrial Sand). The following limitations apply as outlined in this subpart.

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
<b>-----General Permit Requirements-----</b>						
Flow, MGD	Report	NA	Report	Discharge Evaluation	Continuous / Instantaneous <sup>2</sup>	Recorder / In-situ <sup>2</sup>
pH, s.u.	N/A	NA	6.5-9.0	Water Quality Standards	Weekly	Grab
Oil and Grease, mg/l	N/A	NA	10	State Effluent Regulations	Weekly	Visual <sup>3</sup>
<b>-----Federal Effluent Limitation Guidelines-----</b>						
Total Suspended Solids, mg/l	25	NA	45	Federal ELG	Weekly	Grab
<b>-----Site Specific Limitations-----</b>						
Total Dissolved Solids, mg/l *	Report	NA	Report	Salinity Regulations	Quarterly <sup>4</sup>	Grab
Total Phosphorus (as P), mg/l **	Report	NA	Various	Control Regulations	Monthly	Grab
Other Pollutants of Concern	Various	NA	Various	Water Quality Standards	Weekly	Grab
Whole Effluent Toxicity (WET)				State Permit Limitations	Quarterly	3 Grab/Test
Chronic	Stat Diff and IC25 ≥ IWC				Quarterly	Grab
Acute	LC50 > 100%				Quarterly	

Footnotes 1-4, \* and \*\* can be found under Part I.B.1.

4. **Effluent Limitations and Monitoring Requirements-Industrial Sand, HF Flotation**- means process wastewater generated during the mining and processing of sand and gravel using HF Flotation for uses other than construction and fill.

The above category is subject to 40 CFR Part 436 Subpart D (Industrial Sand, HF Flotation). The following limitations apply as outlined in this subpart.

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
<b>-----General Permit Requirements-----</b>						
Flow, MGD	Report	NA	Report	Discharge Evaluation	Continuous / Instantaneous <sup>2</sup>	Recorder / In-situ <sup>2</sup>
pH, s.u.	N/A	NA	6.5-9.0	Water Quality Standards	Weekly	Grab
Oil and Grease, mg/l	N/A	NA	10	State Effluent Regulations	Weekly	Visual <sup>3</sup>
<b>-----Federal Effluent Limitation Guidelines-----</b>						
Total Suspended Solids, lbs/day	0.023 lbs per 1,000 lbs total production***	NA	0.046 lbs per 1,000 lbs total production***	Federal ELG	Weekly	Grab
Total Fluoride, lbs/day	0.003 lbs per 1,000 lbs total production***	NA	0.006 lbs per 1,000 lbs total production***	Federal ELG	Weekly	Grab
<b>-----Site Specific Limitations-----</b>						
Total Production, lbs/day	Report	NA	Report	Discharge Evaluation	Weekly	Actual
Total Dissolved Solids, mg/l *	Report	NA	Report	Salinity Regulations	Quarterly <sup>4</sup>	Grab
Total Phosphorus (as P), mg/l **	Report	NA	Various	Control Regulations	Monthly	Grab
Other Pollutants of Concern	Various	NA	Various	Water Quality Standards	Weekly	Grab
Whole Effluent Toxicity (WET)				State Permit Limitations	Quarterly	3 Grab/Test
Chronic	Stat Diff and IC25 ≥ IWC				Quarterly	Grab
Acute	LC50 > 100%					

Footnotes 1-4, \* and \*\* can be found under Part I.B.1.

5. **Effluent Limitations and Monitoring Requirements-Graphite Mining**-means process wastewater generated during the mining and processing of naturally occurring graphite.

The above category is subject to 40 CFR Part 436 Subpart AL (Graphite). The following limitations apply as outlined in this subpart.

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
<b>-----General Permit Requirements-----</b>						
Flow, MGD	Report	NA	Report	Discharge Evaluation	Continuous / Instantaneous <sup>2</sup>	Recorder / In-situ <sup>2</sup>
pH, s.u.	N/A	NA	6.5-9.0	Water Quality Standards	Weekly	Grab
Oil and Grease, mg/l	N/A	NA	10	State Effluent Regulations	Weekly	Visual <sup>3</sup>
<b>-----Federal Effluent Limitation Guidelines-----</b>						
Total Suspended Solids, mg/l	10	NA	20	Federal ELG	Weekly	Grab
Total Iron, mg/l	1	NA	2	Federal ELG	Weekly	Grab
<b>-----Site Specific Limitations-----</b>						
Total Dissolved Solids, mg/l *	Report	NA	Report	Salinity Regulations	Quarterly <sup>4</sup>	Grab
Total Phosphorus (as P), mg/l **	Report	NA	Various	Control Regulations	Monthly	Grab
Other Pollutants of Concern	Various	NA	Various	Water Quality Standards	Weekly	Grab
Whole Effluent Toxicity (WET)				State Permit Limitations	Quarterly	3 Grab/Test
Chronic	Stat Diff and IC25 ≥ IWC				Quarterly	Grab
Acute	LC50 > 100%					

Footnotes 1-4, \* and \*\* can be found under Part I.B.1.

6. Effluent Limitations and Monitoring Requirements-**Concrete and Hot Asphalt Batch Plants**-means process wastewater generated during the mixing process. This also includes the associated truck and drum wash area for concrete facilities, and the wet scrubber discharge from hot asphalt plants.

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
<b>-----General Permit Requirements-----</b>						
Flow, MGD	Report	NA	Report	Discharge Evaluation	Continuous / Instantaneous <sup>2</sup>	Recorder / In-situ <sup>2</sup>
pH, s.u.	N/A	NA	6.5-9.0	Water Quality Standards	Weekly	Grab
Oil and Grease, mg/l	N/A	NA	10	State Effluent Regulations	Weekly	Visual <sup>3</sup>
Total Suspended Solids, mg/l	30	NA	45	State Effluent Regulations	Weekly	Grab
<b>-----Federal Effluent Limitation Guidelines-----</b>						
Total Iron, mg/l	1	NA	2	Federal ELG	Weekly	Grab
<b>-----Site Specific Limitations-----</b>						
Total Dissolved Solids, mg/l *	Report	NA	Report	Salinity Regulations	Quarterly <sup>4</sup>	Grab
Total Phosphorus (as P), mg/l **	Report	NA	Various	Control Regulations	Monthly	Grab
Other Pollutants of Concern	Various	NA	Various	Water Quality Standards	Weekly	Grab
Whole Effluent Toxicity (WET) Chronic	Stat Diff and IC25 ≥ IWC LC50 > 100%			State Permit Limitations	Quarterly	3 Grab/Test

Footnotes 1-4, \* and \*\* can be found under Part I.B.1.

7. Compliance Schedules- If necessary, any compliance schedule items will be noted in the certification to discharge.

8. WET Testing

a. Acute WET Testing (See also Part I.B.7.c for WET requirements applicable to both chronic and acute WET testing)

1. Testing and Reporting Requirements

Tests shall be done at the frequency listed in Parts I.B.1 through I.B.6. Test results shall be reported along with the Discharge Monitoring Report (DMR) submitted for the end of the reporting period when the sample was taken. (i.e., WET testing results for the calendar quarter ending March 31 shall be reported with the DMR due April 28, etc.) The results shall be submitted on the Acute Toxicity Test report form, available from the Division. Copies of these reports are to be submitted to the Division along with the DMR.

The permittee shall conduct each acute WET test in general accordance with methods described in Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms EPA/600/4-90/027 or its most current edition, except as modified by the most current Division guidance document entitled Guidelines for Conducting Whole Effluent Toxicity Tests. The permittee shall conduct an acute 48-hour WET test using Ceriodaphnia sp., and an acute 96-hour WET test using fathead minnows. Acute tests will be replacement static tests of a single effluent grab sample.

2. Failure of Test and Division Notification

An acute WET test is failed whenever the LC<sub>50</sub>, which represents an estimate of the effluent concentration which is lethal to 50% of the test organisms in the time period prescribed by the test, is found to be less than or equal to 100% effluent. The permittee must provide written notification of the failure of a WET test to the Division, along with a statement as to whether the Preliminary Toxicity Incident (PTI)/Toxicity Identification Evaluation (TIE) investigation or accelerated testing is being performed. **Notification must be received by the Division within 14 calendar days of the demonstration of acute WET in the routine required test.** Demonstration means no later than the last day of the laboratory test.

b. Chronic WET Testing (See also Part I.B.7.c for WET requirements applicable to both chronic and acute WET testing)

1. Testing and Reporting Requirements

Tests shall be done at the frequency listed in Parts I.B.1 through I.B.6. Test results shall be reported along with the Discharge Monitoring Report (DMR) submitted for the reporting period during which the sample was taken. (i.e., WET

testing results for the first calendar quarter ending March 31 shall be reported with the DMR due April 28.) The results shall be submitted on the Chronic Toxicity Test report form, available from the Division. Copies of these reports are to be submitted to the Division along with the DMR.

The permittee shall conduct each chronic WET test in general accordance with methods described in Short Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA/600/4-89/001 or the most current edition, except as modified by the most current Division guidance document entitled Guidelines for Conducting Whole Effluent Toxicity Tests. The permittee shall conduct such tests using *Ceriodaphnia dubia* and fathead minnows.

## 2. Failure of Test and Division Notification

A chronic WET test is failed whenever 1) there is a statistically significant difference in lethality between the control and any effluent concentration less than or equal to the instream waste concentration (IWC) and, 2) the IC<sub>25</sub>, which represents an estimate of the effluent concentration at which 25% of the test organisms demonstrate inhibition as reflected by lethality, is at any effluent concentration less than or equal to the IWC. The permittee must provide written notification of the failure of a WET test to the Division, along with a statement as to whether a Preliminary Toxicity Investigation (PTI)/Toxicity Identification Evaluation (TIE) or accelerated testing is being performed (see Part I.B.7.c.). **Notification must be received by the Division within 21 calendar days of the demonstration of chronic WET in the routine required test.** Demonstration means no later than the last day of the laboratory test.

### c. Other WET Testing Requirements Applicable to both Chronic and Acute WET Testing

#### 1. Automatic Compliance Schedule Upon Failure of Test

If a routine chronic WET test is failed, regardless of whether the limit is in effect, the following automatic compliance schedule shall apply. As part of this, the permittee shall either:

- i. Proceed to conduct the PTI/TIE investigation as described in Part I.B.7.c., or
- ii. Conduct accelerated testing using the single species found to be more sensitive.

If accelerated testing is being performed, the permittee shall provide written notification of the results within 14 calendar days of completion of the Pattern of Toxicity/No Toxicity demonstration. Testing will be at least once every two weeks for up to five tests until; 1) two consecutive tests fail or three of five tests fail, in which case a pattern of toxicity has been demonstrated or 2) two consecutive tests pass or three of five tests pass, in which case no pattern of toxicity has been found. If no pattern of toxicity is found the toxicity episode is considered to be ended and routine testing is to resume. If a pattern of toxicity is found, a PTI/TIE investigation is to be performed. If a pattern of toxicity is not demonstrated but a significant level of erratic toxicity is found, the Division may require an increased frequency of routine monitoring or some other modified approach.

#### 2. PTI/TIE

The results of the PTI/TIE investigation are to be received by the Division within 120 days of the demonstration of chronic WET in the routine test, as defined above, or if accelerated testing is performed, the date the pattern of toxicity is demonstrated. A status report is to be provided to the Division at the 30, 60 and 90 day points of the PTI/TIE investigation. The Division may extend the time frame for investigation where reasonable justification exists. A request for an extension must be made in writing and received prior to the 120 day deadline. Such request must include a justification and supporting data for such an extension.

The permittee may use the time for investigation to conduct a PTI or move directly into the TIE. A PTI consists of a brief search for possible sources of WET, which might reveal causes of such toxicity and appropriate corrective actions more simply and cost effectively than a formal TIE. If the PTI allows resolution of the WET incident, the TIE need not necessarily be conducted. If, however, WET is not identified or resolved during the PTI, the TIE must be conducted within the allowed 120 day time frame.

Any permittee that is required to conduct a PTI/TIE investigation shall do so in conformance with procedures identified in the following documents, or as subsequently updated: 1) Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I, EPA/600/6-91/005F May 92, 2) Methods for Aquatic Toxicity Identification Evaluations, Phase I Toxicity Characterization Procedures, EPA/600/6-91/003 Feb. 91 and 3) Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures, EPA/600/3-88/035 Feb. 1989.

A fourth document in this series is Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures, EPA/600/3-88/036 Feb. 1989. As indicated by the title, this procedure is intended to confirm that the suspected toxicant is truly the toxicant. This investigation is optional.

Within 90 days of the determination of the toxicant or no later than 210 days after demonstration of toxicity, whichever is sooner, a control program is to be developed and received by the Division. The program shall set down a method and procedure for elimination of the toxicity to acceptable levels.

### 3. Request For Relief

The permittee may request relief from further investigation and testing where the toxicant has not been determined and suitable treatment does not appear possible. In requesting such relief, the permittee shall submit material sufficient to establish the following:

- i. It has complied with terms and conditions of the permit compliance schedule for the PTI/TIE investigation and other appropriate conditions as may have been required by the WQCD;
- ii. During the period of the toxicity incident it has been in compliance with all other permit conditions, including, in the case of a POTW, pretreatment requirements;
- iii. During the period of the toxicity incident it has properly maintained and operated all facilities and systems of treatment and control; and
- iv. Despite the circumstances described in paragraphs (i) and (iii) above, the source and/or cause of toxicity could not be located or resolved.

If deemed appropriate by the Division, the permit or the compliance schedule may be modified to revise the ongoing monitoring and toxicity investigation requirements to avoid an unproductive expenditure of the permittee's resources, provided that the underlying obligation to eliminate any continuing exceedance of the toxicity limit shall remain.

### 4. Spontaneous Disappearance

If toxicity spontaneously disappears at any time after a test failure, the permittee shall notify the Division in writing within 14 days of a demonstration of disappearance of the toxicity. The Division may require the permittee to develop and submit additional information, which may include, but is not limited to, the results of additional testing. If no pattern of toxicity is identified or recurring toxicity is not identified, the toxicity incident response is considered closed and normal WET testing shall resume.

### 5. Toxicity Reopener

This permit may be reopened and modified (following proper administrative procedures) to include new compliance dates, additional or modified numerical permit limitations, a new or different compliance schedule, a change in the whole effluent toxicity testing protocol, or any other conditions related to the control of toxicants if one or more of the following events occur:

- i. Toxicity has been demonstrated in the effluent and the permit does not contain a toxicity limitation.
- ii. The PTI/TIE results indicate that the identified toxicant(s) represent pollutant(s) that may be controlled with specific numerical limits and the permit issuing authority agrees that the control of such toxicants through numerical limits is the most appropriate course of action.
- iii. The PTI/TIE reveals other unique conditions or characteristics, which, in the opinion of the permit issuing authority, justify the incorporation of unanticipated special conditions in the permit.

## C. STORMWATER DISCHARGES

(This section (I.C) applies to all facilities with a potential discharge of stormwater.)

### 1. Stormwater Management Plan (SWMP)

A Stormwater Management Plan (SWMP) shall be developed for each facility covered by this section (Part I.C). The SWMP shall be prepared in accordance with good engineering, hydrologic and pollution control practices. (The SWMP need not be prepared by a registered engineer.)

The plan shall identify potential sources of pollution (including sediment), which may reasonably be expected to affect the quality of stormwater discharges associated with the mining activity. In addition, the plan shall describe the practices to be used to reduce the pollutants in stormwater discharges associated with mining activity at the facility; and ensure the practices are selected and described in accordance with good engineering practices, including the installation, implementation and maintenance requirements. Also, the plan shall be properly prepared, and updated in accordance with Part I.D.5.c, to ensure compliance with the terms and conditions of this permit.

Facilities must implement the provisions of the SWMP as written and updated, from commencement of site activity until final reclamation is complete, as a condition of this permit. The Division reserves the right to review the SWMP, and to require the permittee to develop and implement additional measures to prevent and control pollution as needed.

**The permittee must implement the provisions of SWMP required under this part as a condition of this permit.**

**For any sites under this permit that had permit coverage before September 30, 2007, the permittee's SMWP must meet the new SWMP requirements as summarized in Section II.I of the rationale. Any needed changes must be made within 5 months of the effective date of the certification.**

The SWMP shall include the following items, at a minimum:

- a. **Site Map:** The plan shall provide a site map or maps, which indicate at a minimum:
  - Mining site boundaries;
  - Access and haul roads;
  - Stormwater outfalls and an outline of the drainage area of each stormwater outfall;
  - An estimate of the direction of flow;
  - Each existing structural control measure to reduce pollutants in stormwater runoff;
  - Non-structural BMPs, as applicable;
  - Springs, streams, wetlands and other surface waters;
  - Mine drainage or any other process water;
  - Dedicated asphalt or concrete batch plants;
  - Areas used for recycling of asphalt or concrete
  - All areas of soil disturbance;
  - The location and description of all potential stormwater pollution sources, including, but not limited to, the following:
    - Materials handling areas;
    - Vehicle fueling areas;
    - Fertilizer or chemical storage areas;
    - Areas used for storage or disposal of overburden, materials, soils or wastes; and
    - Areas used for mineral milling and processing.
  - Boundary of tributary area that is subject to effluent limitations; and
  - Date the map was prepared.
- b. **Description of Potential Pollutant Sources/Material Inventory:** The SWMP shall identify potential sources of pollutants (activities and materials) at the site, and assess the potential of these sources to contribute pollutants to stormwater discharges associated with mining activities. The SWMP must also describe appropriate Best Management Practices (BMPs) to reduce the potential of these identified sources to contribute pollutants to stormwater discharges. At a minimum, each of the following shall be evaluated for the reasonable potential for contributing pollutants to runoff:
  - Loading and unloading operations;
  - Outdoor storage of chemicals or equipment;
  - Crushing facilities or significant dust and particulate generating activities;
  - On site waste disposal practices;
  - Stockpiles of overburden, raw material, intermediate products, byproducts, finished products or waste products;
  - Dedicated asphalt or concrete batch plants;
  - Areas used for recycling of asphalt or concrete
  - Routine maintenance activities involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc.;
  - Haul roads; and
  - Disturbed areas.

In each case where stormwater pollution potential exists, appropriate preventive measures must be taken and documented.

- c. **Stormwater Quality Controls:** Each site covered by this permit shall develop a description of stormwater quality controls appropriate for that site, and implement such controls. The appropriateness and priorities of controls in the plan shall reflect identified potential sources of pollutants at the site. The SWMP shall clearly describe the installation and implementation specifications for each BMP identified in the SWMP to ensure proper implementation, operation and maintenance of the BMP. The description of stormwater quality controls shall address the following minimum components, including a schedule for implementing such controls:
- 1) **SWMP Administrator:** The SWMP shall identify a specific individual(s), position or title within the mining organization who is responsible for developing, implementing, maintaining, and revising the SWMP. The activities and responsibilities of the administrator shall address all aspects of the facility's SWMP.
  - 2) **Materials Handling and Spill Prevention:** Areas or procedures where potential spills can occur must have spill prevention and response procedures identified in the SWMP. The SWMP shall clearly describe and locate all practices implemented at the site to minimize impacts from procedures or significant materials that could contribute pollutants to runoff. Such procedures or significant materials could include exposed storage of fuels, other chemicals, or waste material; and equipment maintenance areas.
  - 3) **Erosion and Sediment Controls:** Describe the BMPs that will be used to reduce erosion and prevent sediment delivery to State waters. These should include structural (such as silt fences, sediment ponds, drop structures, check dams) and non-structural (such as mulching and revegetation) practices.
  - 4) **Other Pollution Prevention Measures:** The plan shall identify any other structural and non-structural measures for stormwater quality control on-site.
  - 5) **Preventive Maintenance:** A preventive maintenance program is required, and shall involve inspection and maintenance of stormwater management devices (maintenance of dikes separating mine drainage from stormwater, cleaning oil/water separators and catch basins, etc.) as well as inspecting and testing of equipment and systems to prevent conditions that could cause breakdowns or failures resulting in discharges of pollutants to surface waters. These periodic inspections are different from the comprehensive site evaluation (see Part I.D.5), although the former may be incorporated into the latter. Equipment, area, or other inspections are typically visual and are normally conducted on a regular basis (e.g., daily inspections of loading areas).
  - 6) **Good Housekeeping:** The SWMP shall identify good housekeeping procedures that will be followed by the mining operation. Good housekeeping requires the maintenance of a clean, orderly facility. This part of the SWMP shall address cleaning and maintenance schedules, trash collection and disposal and collection practices, grounds maintenance, etc.
  - 7) **Identification of Discharges other than Stormwater:** The stormwater conveyance system on the site shall be evaluated for the presence of discharges other than stormwater, such as mine drainage, spoil springs, sanitary waste, or process water of any kind. The SWMP shall include a description of the results of any evaluation for the presence of discharges other than stormwater, the method used, the date of the evaluation, and the on-site drainage points that were directly observed during the evaluation.

A number of discharges other than stormwater may not require a CDPS Industrial Wastewater Discharge permit and are considered Allowable Non-Stormwater Discharges. Any of these discharges that exist at the site must be identified in the SWMP. See Part \_\_\_ of the permit for the list of such allowable discharges.

## 2. **BMP Implementation and Design Standards**

Facilities must select, install, implement, and maintain appropriate BMPs, following good engineering, hydrologic and pollution control practices. BMPs implemented at the site must be adequately designed to provide control for all potential pollutant sources associated with construction activity to prevent pollution or degradation of State waters.

## 3. **Consistency with Other Plans**

SWMPs may reflect requirements for Spill Prevention Control and Countermeasure (SPCC) plans under section 311 of the CWA, or Best Management Practices (BMPs) Programs otherwise required by a CDPS permit, and may incorporate any part of such plans into the SWMP by reference. The SWMP may rely upon information developed for other similar pollution control programs, including the Mined Land Reclamation Plan. Appropriate portions of these other plans may be incorporated in the SWMP by reference, as long as the reference materials are maintained on site, and a complete SWMP can be reproduced and submitted to the requesting agency. The SWMP must also be readily available to an on-site inspector.

#### 4. Facility Inspections

In addition to the inspections necessary to comply with the preventive maintenance program requirements in Part I.B.4.c, qualified personnel identified by the permittee shall make a comprehensive inspection of their stormwater management system, at least twice per year, except as provided in paragraphs d, e and f, below. The inspections must be conducted in approximately the spring and fall; if this is not possible, the inspections must be conducted at least 120 days apart. These comprehensive inspections must be documented and summarized in the Annual Report (see Part I.D.4 of the permit).

- a. Material handling areas, disturbed areas, areas used for material storage that are exposed to precipitation, and other potential sources of pollution identified in the SWMP in accordance with Part I.C.2 of this permit shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Structural stormwater management measures, sediment and control measures, and other structural pollution prevention measures identified in the plan shall be observed to ensure that they are operating correctly. A visual inspection of equipment needed to implement the plan, such as spill response equipment, shall be made.
- b. Any repairs or maintenance needs identified by the inspection shall be completed immediately. Based on the results of the inspection, if revisions to the description of the potential pollutant sources and the pollution prevention and control measures identified in the SWMP are needed, the plan shall be revised as appropriate as soon as practicable after such inspection. Revised control measures shall be implemented in a timely manner, but in no case more than 60 calendar days after the inspection, unless otherwise provided by the Division, and in compliance with the requirements of Part I.D.2.c.2.
- c. A report summarizing the scope of the inspection, personnel making the inspection, the date(s) of the inspection, significant observations relating to the implementation of the SWMP, and actions taken in accordance with paragraph (b), above, shall be made and retained as part of the SWMP for at least three years after the date of inspection. Significant observations include such things as the locations of discharges of pollutants from the site; locations of previously unidentified sources of pollutants; locations of BMPs needing maintenance or repair; locations of failed BMPs that need replacement; and locations where additional BMPs are needed. The report must also document any incidents of noncompliance observed. This record shall be made available to the Division upon request and summarized in the Annual Report.
- d. Where semi-annual site inspections are shown in the plan to be impractical for sites where an employee is not stationed or does not routinely visit the site, inspections as required in this part shall be conducted at appropriate intervals specified in the plan, but never less than once in two years.
- e. **Inactive Sites:** Where semi-annual site inspections are shown in the plan to be impractical for inactive sites (sites where industrial activity is no longer conducted), site inspections required by this part shall be conducted at appropriate intervals specified in the plan, but, in no case less than once in three years. At least one site inspection required under this part shall be conducted before October 1, 2011 or the date two years after such site becomes inactive, whichever is earlier.
- f. **Reclamation Operations:** For sites undergoing reclamation and where all mining activity has ceased, qualified personnel identified by the operator permittee shall make a thorough inspection of their stormwater management system, at least once per year (in the field season). Where annual site inspections are shown in the plan to be impracticable, because an employee is not stationed at or does not routinely visit the site, inspections as required in this part shall be conducted at appropriate intervals specified in the plan, but never less than once in two years.

#### 5. SWMP Availability

Upon request, the permittee shall submit a copy of the SWMP to the Division, the Colorado Division of Reclamation, Mining, And Safety, or CDRMS (formerly the Division of Minerals and Geology, or DMG) and/or EPA, and any local agency approving sediment and erosion plans or stormwater management plans, within the time frames specified in the request. If the SWMP is required to be submitted to any of these entities, it must include a signed certification in accordance with Part I.E.5 of the permit, certifying that the SWMP is complete and meets all permit requirements.

All SWMPs required under this permit are considered reports that shall be available to the public under Section 308(b) of the CWA. The owner or operator of a facility with stormwater discharges covered by this permit shall make plans available to members of the public upon request. However, the permittee may claim any portion of a SWMP as confidential in accordance with 40 CFR part 2.

6. **SWMP Administrative Requirements**

- a. **SWMP Preparation and Implementation:** The SWMP shall be prepared prior to applying for coverage under the general permit, and certification of completion submitted with the application. The SWMP shall be implemented when the facility begins operation, or when the general permit certification is issued, whichever is later, and updated as appropriate (see paragraph c., below).
- b. **SWMP Retention:** For active mining operations and sites undergoing reclamation, the plan shall be retained on site unless another location, specified by the permittee, is approved by the Division. For inactive mining operations, the plan shall be retained by the permittee.
- c. **SWMP Review/Changes:**
  - 1) **Division Review:** The Division reserves the right to request and review the SWMP, and to require additional measures to prevent and control pollution, as needed. Upon review of the SWMP, the Division may notify the permittee at any time that the plan does not meet one or more of the minimum requirements of this permit. After such notification, the permittee shall make changes to the plan and shall submit to the Division an update to the plan including the requested changes. Unless otherwise provided by the Division, the permittee shall have 30 days after such notification to both make the necessary changes to the plan and to implement them.
  - 2) **Permittee Review/Change:** The permittee shall amend the plan whenever there is a change in design, construction, operation, or maintenance which has a significant effect on the potential for the discharge of pollutants to the waters of the State, or if the SWMP proves to be ineffective in achieving the general objectives of controlling pollutants in stormwater discharges associated with mining activity. If existing BMPs need to be modified or if additional BMPs are necessary, the plan changes and implementation should be completed before the next anticipated storm, but in no case more than 60 days after: the change in design, construction, operation, or maintenance, or; when the SWMP has been determined to be ineffective. Amendments to the plan shall be summarized in the Annual Report.

It is the permittee's responsibility to notify the Colorado Division of Minerals and Geology (formerly the Mined Land Reclamation Division) of any significant changes at their site resulting from the implementation of the SWMP.

7. **Prohibition of Non-Stormwater Discharges**

- a. Except as provided in paragraph b, below, **all discharges authorized by Part I.C. of the permit shall be composed entirely of stormwater.** Discharges of material other than stormwater must be addressed in Part I.B. or in a separate CDPS permit issued for that discharge.
- b. Discharges from the following sources that are combined with stormwater discharges associated with mining activity may be authorized by this permit, provided that the non-stormwater component of the discharge is identified in the SWMP (see Part I.C.2.c.4 of the permit): emergency fire fighting activities, uncontaminated compressor condensate, irrigation drainage, lawn watering, air conditioner condensate, uncontaminated seeps and springs, and foundation or footing drains where flows are not contaminated.

8. **Employee Education**

The permittee shall develop and implement employee education programs to inform personnel at all levels of responsibility of the components and goals of the SWMP. Education shall address topics such as spill response, good housekeeping, and material management practices. The permittee shall identify periodic dates for such instruction. Contractor or temporary personnel shall be informed of mine operations and control features in order to prevent stormwater pollution from occurring.

9. **Total Maximum Daily Load (TMDL)**

If a TMDL has been approved for any waterbody into which the permittee discharges, and it has been determined that the types of stormwater discharges covered under this permit are or have the potential to be identified as a significant source of the pollutant in question, the permittee will be notified by the Division. The permittee will be required to do the following:

- a) under the permittee's SWMP, implement specific management practices based on requirements of the TMDL, and evaluate whether the requirements are being met through implementation of existing stormwater BMPs or if additional BMPs are necessary. Document the calculations or other evidence that show that the requirements, including any specific pollutant wasteload allocations (WLAs), are expected to be met; and

- b) if the evaluation shows that additional or modified BMPs are necessary, describe the type and schedule for the BMP additions/revisions. A description of the SWMP changes shall be included with the next Annual Report, or if requested by the Division, whichever is sooner.

Stormwater discharge monitoring may also be required. The permittee may maintain coverage under the general permit provided they comply with the applicable requirements outlined above. The Division reserves the right to require individual or alternate general permit coverage.

#### D. DEFINITIONS OF TERMS

1. "Acute Toxicity" means there shall be no acute toxicity in the effluent from this discharge point. The acute toxicity limitation is exceeded if 1) a statistically significant difference in mortality (at the 95% confidence level) is observed for either species between the control and any dilution less than or equal to the identified IWC or 2) a species mortality in any dilution of effluent (including 100% effluent) exceeds 50%. OR "Chronic lethality" occurs when a statistically significant difference, at the 95% confidence level, occurs in the chronic test between the mortality of the test species in «IWC»% effluent (the chronic IWC = «IWC»%) and the control.
2. Antidegradation limits apply as the average of all data collected for months in that group during a rolling 24-month period. These limits become effective after data has been collected for all months in the group during the 24 months following permit issuance. Where antidegradation groups are not indicated, data from all months will be utilized to determine the reported value and the limit will become effective in the 24th month in which the permit is effective.
3. "Continuous" measurement, is a measurement obtained from an automatic recording device which continually measures provides measurements.
4. "Chronic lethality" occurs when a statistically significant difference, at the 95% confidence level, occurs in the chronic test between the mortality of the test species in 100% effluent (the chronic IWC = 100%) and the control.
5. "Daily Maximum limitation" means the limitation for this parameter shall be applied as an instantaneous maximum (or, for pH or DO, instantaneous minimum) value. The instantaneous value is defined as the analytical result of any individual sample. DMR's shall include the maximum (and/or minimum) of all instantaneous values within the calendar month. Any instantaneous value beyond the noted daily maximum limitation for the indicated parameter shall be considered a violation of this permit.
6. "Dissolved (D) metals fraction" is defined in the Basic Standards and Methodologies for Surface Water 1002-31, as that portion of a water and suspended sediment sample which passed through a 0.40 or 0.45 UM (micron) membrane filter. Determinations of "dissolved" constituents are made using the filtrate. This may include some very small (colloidal) suspended particles which passed through the membrane filter as well as the amount of substance present in true chemical solution.
7. "Grab" sample, is a single "dip and take" sample so as to be representative of the parameter being monitored.
8. "In-situ" measurement is defined as a single reading, observation or measurement taken in the field at the point of discharge.
9. "Instantaneous" measurement is a single reading, observation, or measurement performed on site using existing monitoring facilities.
10. "New source" is generally defined as a coal mine (or major alteration to a coal mine) the construction of which commenced after May 4, 1984. See 40 CFR 434.11(j) for the complete definition.
11. "Potentially dissolved (PD) metals fraction" is defined in the Basic Standards and Methodologies for Surface Water 1002-31, as that portion of a constituent measured from the filtrate of a water and suspended sediment sample that was first treated with nitric acid to a pH of 2 or less and let stand for 8 to 96 hours prior to sample filtration using a 0.40 or 0.45-UM (micron) membrane filter. Note the "potentially dissolved" method cannot be used where nitric acid will interfere with the analytical procedure used for the constituent measured.
12. "Quarterly measurement frequency" means samples may be collected at any time during the calendar quarter if a continual discharge occurs. If the discharge is intermittent, then samples shall be collected during the period that discharge occurs.
13. "Recorder" requires the continuous operation of a chart and/or totalizer (or drinking water rotor meters or pump hour meters where previously approved.)
14. "Settleable solids analytical procedure" is contained in 40 CFR 434.64. The method detection limit for measuring settleable solids under this part shall be 0.4 ml/l.
15. "Seven (7) day average" means, with the exception of fecal coliform or E. coli bacteria, the arithmetic mean of all samples collected in a seven (7) consecutive day period. For fecal coliform or E. coli bacteria, it is the geometric mean of all samples taken in a seven (7) consecutive day period. Such seven (7) day averages shall be calculated for all calendar weeks, which are defined as beginning on Sunday and ending on Saturday. If the calendar week overlaps two months (i.e. the Sunday is in one month and the Saturday in the

following month), the seven (7) day average calculated for that calendar week shall be associated with the month that contains the Saturday. Samples may not be used for more than one (1) reporting period. (Not applicable to fecal coliform or E. coli determinations.)

16. "Thirty (30) day average" means the arithmetic mean of all samples collected during a thirty-consecutive-day period. The permittee shall report the appropriate mean of all self-monitoring sample data collected during the calendar month on the Discharge Monitoring Reports. Samples shall not be used for more than one reporting period.
17. "Total Metals" means the concentration of metals determined in an unfiltered sample following vigorous digestion (Section 4.1.3), or the sum of the concentrations of metals in both the dissolved and suspended fractions, as described in Manual of Methods for Chemical Analysis of Water and Wastes, U.S. Environmental Protection Agency, March 1979, or its equivalent
18. "Total Recoverable Metals" means that portion of a water and suspended sediment sample measured by the total recoverable analytical procedure described in Methods for Chemical Analysis of Water and Wastes, U.S. Environmental Protection Agency, March 1979 or its equivalent.
19. "Twice Monthly" monitoring frequency means that two samples shall be collected each calendar month on separate weeks with at least one full week between the two sample dates. Also, there shall be at least one full week between the second sample of a month and the first sample of the following month.
20. "Visual" observation is observing the discharge to check for the presence of a visible sheen or floating oil.
21. "Water Quality Control Division" or "Division" means the state Water Quality Control Division as established in 25-8-101 et al.

Additional relevant definitions are found in the Colorado Water Quality Control Act, CRS §§ 25-8-101 et seq., the Colorado Discharge Permit System Regulations, (Regulation 61 - 5 CCR 1002-61) and other applicable regulations.

#### D. GENERAL MONITORING, SAMPLING, AND REPORTING REQUIREMENTS

##### 1. Routine Reporting of Data

Reporting of the data gathered in compliance with Part I.B.3. shall be on a quarterly basis. Reporting of all data gathered shall comply with the requirements of Part I.D. (General Requirements). Monitoring results shall be summarized for each calendar quarter and reported on Division approved discharge monitoring report (DMR) forms (EPA form 3320-1). The form shall be mailed to the Division at the address listed below so they are received no later than the 28th day of the month following the end of the quarter (for example, the DMR for the first calendar quarter must be received by the Division by April 28th). If no discharge occurs during the reporting period, "No Discharge" shall be reported.

The DMR forms consist of four pages - the top "original" copy, and three attached no-carbon-required copies. After the DMR form has been filled out and signed, the four copies must be separated and distributed as follows:

The first original signed copy of each discharge monitoring report (DMR) shall be submitted to the Division at the following address:

Colorado Department of Public Health and Environment  
Water Quality Control Division  
WQCD-P-B2  
4300 Cherry Creek Drive South  
Denver, CO 80222-1530

Additional copies are for the permittee records. The Discharge Monitoring Report forms shall be filled out accurately and completely in accordance with requirements of this permit and the instructions on the forms. They shall be signed by an authorized person as identified in Part I.D.7 shall sign them.

Calculations for all limitations, which require the averaging of measurements, shall utilize an arithmetic mean unless otherwise specified by the Division in the permit.

##### 2. Reporting - Stormwater Annual Report

The permittee will be required to submit an Annual Report, covering January 1 through December 31 of each year, on the overall compliance with the SWMP. The Annual Report will contain, at a minimum:

- a) Name of permittee, address, phone number, and permit certification number.
- b) A report on the facility's overall compliance with the SWMP.
- c) A summary of each comprehensive stormwater facility inspection made, including date, findings, and action taken.
- d) Results and interpretation of any stormwater monitoring performed.
- e) The report shall be signed and certified for accuracy by the permittee, including the certification language contained in Part I.D.7. of

the permit.

The Annual Report will be due to the Division on or before February 15 of each year, after the first full year of coverage under the permit. The exact due date for the permittee's first Annual Report will be listed in their permit certification. The Division reserves the right to require additional information in the report, on a case-by-case basis, as needed.

All reports required for submittal shall be signed and certified for accuracy by the permittee (see Part I.D.7.).

Colorado Department of Public Health and Environment  
Water Quality Control Division  
WQCD-P-B2  
4300 Cherry Creek Drive South  
Denver, CO 80222-1530

3. Representative Sampling

Samples and measurements taken as required herein shall be representative of the volume and nature of the monitored discharge. All samples shall be taken at the monitoring points specified in this permit and, unless otherwise specified, before the effluent joins or is diluted by any other wastestream, body of water, or substance. Monitoring points shall not be changed without notification to and approval by the Division.

If the permittee monitors at the point of discharge any pollutant limited by the permit more frequently than required by the permit, using approved test procedures or as specified in the permit, the result of this monitoring shall be included in the calculation and reporting of data to the Division.

4. Analytical and Sampling Methods for Monitoring

The permittee shall install, calibrate, use and maintain monitoring methods and equipment, including biological and indicated pollutant monitoring methods. All sampling shall be performed by the permittee according to specified methods in 40 C.F.R. Part 136; methods approved by EPA pursuant to 40 C.F.R. Part 136; or methods approved by the Division, in the absence of a method specified in or approved pursuant to 40 C.F.R. part 136. The analytical method selected for a parameter shall be the one that can measure the lowest detected limit for that parameter unless the permit limitation or stream standard for those parameters not limited, is within the testing range of another approved method. When requested in writing, the Division may approve an alternative analytical procedure or any significant modification to an approved procedure.

When the most sensitive analytical method which complies with this part, has a detection limit greater than or equal to the permit limit, the permittee shall report "less than (the detectable limit)," as appropriate. Such reports shall not be considered as violations of the permit limit. The present lowest practical quantitation limits (PQL) for specific parameters (which have limitations that are, in some cases, less than or equal to the detection limit) are as follows:

Effluent Parameter	PQLs, µg/l
Arsenic	1
Cadmium	0.06
Chromium	2
Chromium, Hexavalent	2
Copper	5
Cyanide	10
Iron	10
Lead	1
Manganese	2
Mercury	0.003
Nickel	3
Phenols	15
Selenium	1
Silver	0.5
Uranium	1
Zinc	10

These limits apply to the total recoverable or the potentially dissolved fraction of metals.

For hexavalent chromium, samples must be unacidified so dissolved concentrations will be measured rather than potentially dissolved concentrations. The procedure for determining settleable solids is contained in 40 CFR 434.64. The method detection limit for measuring settleable solids under this part shall be 0.4 ml/l.

5. Records

The permittee shall establish and maintain records. Those records shall include the following:

- a. The date, type, exact location, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) the analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used;
- f. The results of such analyses; and
- g. Any other observations, which may result in, an impact on the quality or quantity of the discharge as indicated in 40 CFR 122.44 (I)(1)(iii).

The permittee shall retain for a minimum of three (3) years records of all monitoring information, including all original strip chart recordings for continuous monitoring instrumentation, all calibration and maintenance records, copies of all reports required by this permit and records of all data used to complete the application for this permit. This period of retention shall be extended during the course of any unresolved litigation regarding the discharge of pollutants by the permittee or when requested by the Division or EPA.

6. Flow Measuring Device

If not already a part of the permitted facility, within ninety (90) days after the effective date of the permit, a flow measuring device shall be installed to give representative values of effluent quantities at the respective discharge points. Unless specifically exempted or modified by the Division, a flow-measuring device will be applicable at all designated discharge points.

At the request of the Division, the permittee shall show proof of the accuracy of any flow-measuring device used in obtaining data submitted in the monitoring report. The flow-measuring device must indicate values within ten (10) percent of the actual flow being discharged from the facility.

7. Signatory and Certification Requirements

- a. All reports and other information required by the Division, shall be signed and certified for accuracy by the permittee in accord with the following criteria:
  - i) In the case of corporations, by a principal executive officer of at least the level of vice-president or his or her duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge described in the form originates;
  - ii) In the case of a partnership, by a general partner;
  - iii) In the case of a sole proprietorship, by the proprietor;
  - iv) In the case of a municipal, state, or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.
- b. All reports required by permits, and other information requested by the Division shall be signed by a person as described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:
  - i) The authorization is made in writing by a person described above;
  - ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and,
  - iii) The written authorization is submitted to the Division.

If an authorization as described in this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of this section must be submitted to the Division prior to or together with any reports, information, or applications to be signed by an authorized representative.

The permittee, or the duly authorized representative shall make and sign the following certification on all such documents:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

## PART II

### A. NOTIFICATION REQUIREMENTS

#### 1. Notification to Parties

All notification requirements under this section shall be directed as follows:

a. **Oral Notifications, other than for spills, during normal business hours** shall be to:

Water Quality Protection Section - Industrial Compliance Program  
Water Quality Control Division  
Telephone: (303) 692-3500

**Spills notifications at any time and other notifications after hours** shall be to:

Emergency Management Program  
Laboratory and Radiation Services Division  
Telephone: (877) 518-5608

b. **Written notification** shall be to:

Water Quality Protection Section - Industrial Compliance Program  
Water Quality Control Division  
Colorado Department of Public Health and Environment  
WQCD-WQP-B2  
4300 Cherry Creek Drive South  
Denver, CO 80246-1530

#### 2. Change in Discharge

Notice is required only when:

- a. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged, or;
- b. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported pursuant to an approved land application plan.

The permittee shall give advance notice to the Division of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

Whenever notification of any planned physical alterations or additions to the permitted facility is required pursuant to this section,, the permittee shall furnish the Division such plans and specifications which the Division deems reasonably necessary to evaluate the effect on the discharge, the stream, or ground water. If the Division finds that such new or altered discharge might be inconsistent with the conditions of the permit, the Division shall require a new or revised permit application and shall follow the procedures specified in Sections 61.5 through 61.6, and 61.15 of the Colorado Discharge Permit System Regulations.

#### 3. Special Notifications - Definitions

- a. **Bypass:** The intentional diversion of waste streams from any portion of a treatment facility.
- b. **Severe Property Damage:** Substantial physical damage to property at the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. It does not mean economic loss caused by delays in production.

- c. Spill: An incident in which flows or solid materials are accidentally or unintentionally allowed to flow or escape so as to be lost from the treatment, processing or manufacturing system which may cause or threaten pollution of state waters.
- d. Upset: An exceptional incident in which there is unintentional and temporary noncompliance with permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventative maintenance, or careless or improper operation.

4. Noncompliance Notification

- a. If, for any reason, the permittee does not comply with or will be unable to comply with any discharge limitations or standards specified in this permit, the permittee shall, at a minimum, provide the Division and EPA with the following information:
  - i) A description of the discharge and cause of noncompliance;
  - ii) The period of noncompliance, including exact dates and times and/or the anticipated time when the discharge will return to compliance; and
  - iii) Steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.
- b. The permittee shall report the following circumstances **orally within twenty-four (24) hours** from the time the permittee becomes aware of the circumstances, and shall mail to the Division a written report containing the information requested in Part II.A.4 (a) **within five (5) days** after becoming aware of the following circumstances:
  - i) Circumstances leading to any noncompliance which may endanger health or the environment regardless of the cause of the incident;
  - ii) Circumstances leading to any unanticipated bypass which exceeds any effluent limitations in the permit;
  - iii) Circumstances leading to any upset or spill which causes an exceedance of any effluent limitation in the permit;
  - iv) Daily maximum violations for any of the pollutants limited by Part I.A of this permit and specified as requiring 24-hour notification. This includes any toxic pollutant or hazardous substance or any pollutant specifically identified as the method to control any toxic pollutant or hazardous substance.
- c. The permittee shall report instances of non-compliance which are not required to be reported within 24-hours at the time Discharge Monitoring Reports are submitted. The reports shall contain the information listed in sub-paragraph (a) of this section.

5. Other Notification Requirements

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule in the permit shall be submitted no later than fourteen (14) days following each scheduled date, unless otherwise provided by the Division.

The permittee shall notify the Division, in writing, thirty (30) days in advance of a proposed transfer of permit as provided in Part II.B.3.

The permittee's notification of all anticipated noncompliance does not stay any permit condition.

All existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Division as soon as they know or have reason to believe:

- a. That any activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
  - i. One hundred micrograms per liter (100 ug/l);
  - ii. Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/l) for antimony;
  - iii. Five (5) times the maximum concentration value reported for that pollutant in the permit application in accordance with Section 61.4(2)(g).

- iv. The level established by the Division in accordance with 40 CFR ' 122.44(f).
- b. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
  - i. Five hundred micrograms per liter (500 ug/l);
  - ii. One milligram per liter (1 mg/l) for antimony; and
  - iii. Ten (10) times the maximum concentration value reported for that pollutant in the permit application.
  - iv. The level established by the Division in accordance with 40 CFR ' 122.44(f).

6. Bypass Notification

If the permittee knows in advance of the need for a bypass, a notice shall be submitted, at least ten days before the date of the bypass, to the Division. The bypass shall be subject to Division approval and limitations imposed by the Division. Violations of requirements imposed by the Division will constitute a violation of this permit.

7. Upsets

- a. Effect of an Upset.

An upset constitutes an affirmative defense to an action brought for noncompliance with permit effluent limitations if the requirements of paragraph (b) of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.

- b. Conditions Necessary for a Demonstration of Upset

A permittee who wishes to establish the affirmative defense of upset shall demonstrate through properly signed contemporaneous operating logs, or other relevant evidence that:

- i. An upset occurred and that the permittee can identify the specific cause(s) of the upset; and
- ii. The permitted facility was at the time being properly operated and maintained; and
- iii. The permittee submitted proper notice of the upset as required in Part II.A.4. of this permit (24-hour notice); and
- iv. The permittee complied with any remedial measure necessary to minimize or prevent any discharge or sludge use or disposal in violation of this permit, which has a reasonable likelihood of adversely affecting human health or the environment.

In addition to the demonstration required above, a permittee who wishes to establish the affirmative defense of upset for a violation of effluent limitations based upon water quality standards shall also demonstrate through monitoring, modeling or other methods that the relevant standards were achieved in the receiving water.

- c. Burden of Proof

In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

8. Discharge Point

Any discharge to the waters of the State from a point source other than specifically authorized by this permit is prohibited.

9. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee as necessary to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems, which are installed by the permittee only when necessary to achieve compliance with the conditions of the permit.

10. Minimization of Adverse Impact

The permittee shall take all reasonable steps to minimize or prevent any discharge of sludge use or disposal in violation of this permit, which has a reasonable likelihood of adversely affecting human health or the environment. As necessary, accelerated or additional monitoring to determine the nature and impact of the noncomplying discharge is required.

11. Removed Substances

Solids, sludges, or other pollutants removed in the course of treatment or control of wastewaters shall be disposed in accordance with applicable state and federal regulations. For all domestic wastewater treatment works, at industrial facilities, the permittee shall dispose of sludge in accordance with all State and Federal regulations.

12. Submission of Incorrect or Incomplete Information

Where the permittee failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or report to the Division, the permittee shall promptly submit the relevant information, which was not submitted, or any additional information needed to correct any erroneous information previously submitted

13. Bypass

- a. Bypasses are prohibited and the Division may take enforcement action against the permittee for bypass, unless:
  - i. The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;
  - ii. There were no feasible alternatives to bypass such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
  - iii. Proper notices were submitted in compliance with Part II.A.4.
- b. "Severe property damage" as used in this Subsection means substantial physical damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources, which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- c. The permittee may allow a bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance or to assure optimal operation. These bypasses are not subject to the provisions of paragraph a. above.
- d. The Division may approve an anticipated bypass, after considering adverse effects, if the Division determines that the bypass will meet the conditions specified in paragraph a. above.

14. Reduction, Loss, or Failure of Treatment Facility

The permittee has the duty to halt or reduce any activity if necessary to maintain compliance with the effluent limitations of the permit. Upon reduction, loss, or failure of the treatment facility, the permittee shall, to the extent necessary to maintain compliance with its permit, control production, control sources of wastewater, or all discharges, until the facility is restored or an alternative method of treatment is provided. This provision also applies to power failures, unless an alternative power source sufficient to operate the wastewater control facilities is provided.

It shall not be a defense for a permittee in an enforcement action that it would be necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B. RESPONSIBILITIES

1. Inspections and Right to Entry

The permittee shall allow the Division and/or the authorized representative, upon the presentation of credentials:

- a. To enter upon the permittee's premises where a regulated facility or activity is located or in which any records are required to be kept under the terms and conditions of this permit;
- b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit and to

inspect any monitoring equipment or monitoring method required in the permit; and

- c. To enter upon the permittee's premises in a reasonable manner and at a reasonable time to inspect and/or investigate, any actual, suspected, or potential source of water pollution, or to ascertain compliance or non compliance with the Colorado Water Quality Control Act or any other applicable state or federal statute or regulation or any order promulgated by the Division. The investigation may include, but is not limited to, the following: sampling of any discharge and/or process waters, the taking of photographs, interviewing of any person having knowledge related to the discharge permit or alleged violation, access to any and all facilities or areas within the permittee's premises that may have any affect on the discharge, permit, or alleged violation. Such entry is also authorized for inspecting and copying records required to be kept concerning any effluent source.
- d. The permittee shall provide access to the Division to sample the discharge at a point after the final treatment process but before the discharge mixing with state waters upon presentation of proper credentials.

In the making of such inspections, investigations, and determinations, the Division, insofar as practicable, may designate as its authorized representatives any qualified personnel of the Department of Agriculture. The Division may also request assistance from any other state or local agency or institution.

## 2. Duty to Provide Information

The permittee shall furnish to the Division, within a reasonable time, any information which the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Division, upon request, copies of records required to be kept by this permit.

## 3. Transfer of Ownership or Control

- a. Except as provided in paragraph b. of this section, a permit may be transferred by a permittee only if the permit has been modified or revoked and reissued as provided in Section 61.8(8) of the Colorado Discharge Permit System Regulations, to identify the new permittee and to incorporate such other requirements as may be necessary under the Federal Act .
- b. A permit may be automatically transferred to a new permittee if:
  - i. The current permittee notifies the Division in writing 30 days in advance of the proposed transfer date; and
  - ii. The notice includes a written agreement between the existing and new permittee(s) containing a specific date for transfer of permit responsibility, coverage and liability between them; and
  - iii. The Division does not notify the existing permittee and the proposed new permittee of its intent to modify, or revoke and reissue the permit.
  - iv. Fee requirements of the Regulations for the State Discharge Permit System, Section 61.15 have been met.

## 4. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Clean Water Act and Colorado Discharge Permit System Regulations 5 CCR 1002-61, Section 61.5.(4), all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division and the Environmental Protection Agency.

The name and address of the permit applicant(s) and permittee(s), permit applications, permits and effluent data shall not be considered confidential. Knowingly making false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Clean Water Act, and Section 25-8-610 C.R.S.

## 5. Modification, Suspension, Revocation, or Termination of Permits By the Division

The filing of a request by the permittee for a permit modification, revocation, and reissuance/termination or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

- a. A permit may be modified, suspended, or terminated in whole or in part during its term for reasons determined by the Division including, but not limited to, the following:
  - i. Violation of any terms or conditions of the permit;
  - ii. Obtaining a permit by misrepresentation or failing to disclose any fact which is material to the granting or denial of a permit or to the establishment of terms or conditions of the permit; or
  - iii. Materially false or inaccurate statements or information in the permit application or the permit.

- iv. A determination that the permitted activity endangers human health or the classified or existing uses of state waters and can only be regulated to acceptable levels by permit modifications or termination.
- b. A permit may be modified in whole or in part for the following causes, if such modification complies with the provisions of Section 61.10 of the Colorado Discharge Permit System Regulations:
  - i. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.
  - ii. The Division has received new information which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of different permit conditions at the time of issuance. For permits issued to new sources or new dischargers, this cause includes information derived from effluent testing required under Section 61.4(7)(e) of the Colorado Discharge Permit System Regulations. This provision allows a modification of the permit to include conditions that are less stringent than the existing permit only to the extent allowed under Section 61.10 of the Colorado Discharge Permit System Regulations.
  - iii. The standards or regulations on which the permit was based have been changed by promulgation of amended standards or regulations or by judicial decision after the permit was issued. Permits may be modified during their terms for this cause only as follows:
    - (A) The permit condition requested to be modified was based on a promulgated effluent limitation guideline, EPA approved water quality standard, or an effluent limitation set forth in 5 CCR 1002-62, '62 et seq.; and
    - (B) EPA has revised, withdrawn, or modified that portion of the regulation or effluent limitation guideline on which the permit condition was based, or has approved a Commission action with respect to the water quality standard or effluent limitation on which the permit condition was based; and
    - (C) The permittee requests modification after the notice of final action by which the EPA effluent limitation guideline, water quality standard, or effluent limitation is revised, withdrawn, or modified; or
    - (D) For judicial decisions, a court of competent jurisdiction has remanded and stayed EPA promulgated regulations or effluent limitation guidelines, if the remand and stay concern that portion of the regulations or guidelines on which the permit condition was based and a request is filed by the permittee in accordance with this Regulation, within ninety (90) days of judicial remand.
  - iv. The Division determines that good cause exists to modify a permit condition because of events over which the permittee has no control and for which there is no reasonable available remedy.
  - v. The permittee has received a variance.
  - vi. When required to incorporate applicable toxic effluent limitation or standards adopted pursuant to '307(a) of the Federal act.
  - vii. When required by the reopener conditions in the permit.
  - viii. As necessary under 40 C.F.R. 403.8(e), to include a compliance schedule for the development of a pretreatment program.
  - ix. When the level of discharge of any pollutant, which is not limited in the permit, exceeds the level, which can be achieved by the technology-based treatment requirements appropriate to the permittee under Section 61.8(2) of the Colorado Discharge Permit System Regulations.
  - x. To establish a pollutant notification level required in Section 61.8(5) of the Colorado Discharge Permit System Regulations.
  - xi. To correct technical mistakes, such as errors in calculation, or mistaken interpretations of law made in determining permit conditions, to the extent allowed in Section 61.10 of the Colorado Discharge Permit System Regulations.
  - xii. When required by a permit condition to incorporate a land application plan for beneficial reuse of sewage sludge, to revise an existing land application plan, or to add a land application plan.
  - xiii. For any other cause provided in Section 61.10 of the Colorado Discharge Permit System Regulations.
- c. At the request of a permittee, the Division may modify or terminate a permit and issue a new permit if the following conditions are met:
  - i. The Regional Administrator has been notified of the proposed modification or termination and does not object in writing within thirty (30) days of receipt of notification,
  - ii. The Division finds that the permittee has shown reasonable grounds consistent with the Federal and State statutes and regulations for such modifications or termination;
  - iii. Requirements of Section 61.15 of the Colorado Discharge Permit System Regulations have been met, and

- iv. Requirements of public notice have been met.
- d. Permit modification (except for minor modifications), termination or revocation and reissuance actions shall be subject to the requirements of Sections 61.5(2), 61.5(3), 61.6, 61.7 and 61.15 of the Colorado Discharge Permit System Regulations. The Division shall act on a permit modification request, other than minor modifications requests, within 180 days of receipt thereof. Except for minor modifications, the terms of the existing permit govern and are enforceable until the newly issued permit is formally modified or revoked and reissued following public notice.
- e. Upon consent by the permittee, the Division may make minor permit modifications without following the requirements of Sections 61.5(2), 61.5(3), 61.7, and 61.15 of the Colorado Discharge Permit System Regulations. Minor modifications to permits are limited to:
  - i. Correcting typographical errors; or
  - ii. Increasing the frequency of monitoring or reporting by the permittee; or
  - iii. Changing an interim date in a schedule of compliance, provided the new date of compliance is not more than 120 days after the date specific in the existing permit and does not interfere with attainment of the final compliance date requirement; or
  - iv. Allowing for a transfer in ownership or operational control of a facility where the Division determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittees has been submitted to the Division; or
  - v. Changing the construction schedule for a discharger which is a new source, but no such change shall affect a discharger's obligation to have all pollution control equipment installed and in operation prior to discharge; or
  - vi. Deleting a point source outfall when the discharge from that outfall is terminated and does not result in discharge of pollutants from other outfalls except in accordance with permit limits.
- f. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term.
- g. The filing of a request by the permittee for a permit modification, revocation and reissuance or termination does not stay any permit condition.
- h. All permit modifications and reissuances are subject to the antibacksliding provisions set forth in 61.10 (e) through (g).

6. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject to under Section 311 (Oil and Hazardous Substance Liability) of the Clean Water Act.

7. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority granted by Section 510 of the Clean Water Act.

8. Permit Violations

Failure to comply with any terms and/or conditions of this permit shall be a violation of this permit. The discharge of any pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit.

9. Property Rights

The issuance of this permit does not convey any property or water rights in either real or personal property, or stream flows, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Severability

The provisions of this permit are severable. If any provisions of this permit, or the application of any provision of this permit to any circumstance, are held invalid, the application of such provision to other circumstances and the application of the remainder of this permit shall not be affected.

11. Renewal Application

If the permittee desires to continue to discharge, a permit renewal application shall be submitted at least one hundred eighty (180) days before this permit expires. If the permittee anticipates there will be no discharge after the expiration date of this permit, the Division should be promptly notified so that it can terminate the permit in accordance with Part II.B.5.

12. Confidentiality

Any information relating to any secret process, method of manufacture or production, or sales or marketing data which has been declared confidential by the permittee, and which may be acquired, ascertained, or discovered, whether in any sampling investigation, emergency investigation, or otherwise, shall not be publicly disclosed by any member, officer, or employee of the Commission or the Division, but shall be kept confidential. Any person seeking to invoke the protection of this Subsection (12) shall bear the burden of proving its applicability. This section shall never be interpreted as preventing full disclosure of effluent data.

13. Fees

The permittee is required to submit payment of an annual fee as set forth in the 1983 amendments to the Water Quality Control Act. Section 25-8-502 (1) (b), and the Colorado Discharge Permit System Regulations 5 CCR 1002-61, Section 61.15 as amended. Failure to submit the required fee when due and payable is a violation of the permit and will result in enforcement action pursuant to Section 25-8-601 et. seq., C.R.S. 1973 as amended.

14. Duration of Permit

The duration of a permit shall be for a fixed term and shall not exceed five (5) years. Filing of a timely and complete application shall cause the expired permit to continue in force to the effective date of the new permit. The permit's duration may be extended only through administrative extensions and not through interim modifications.

15. Section 307 Toxics

If a toxic effluent standard or prohibition, including any applicable schedule of compliance specified, is established by regulation pursuant to Section 307 of the Federal Act for a toxic pollutant which is present in the permittee's discharge and such standard or prohibition is more stringent than any limitation upon such pollutant in the discharge permit, the Division shall institute proceedings to modify or revoke and reissue the permit to conform to the toxic effluent standard or prohibition.

16. Antibacksliding

- a. A permit may not be renewed, reissued, or modified to contain effluent limitations adopted pursuant to Section 25-8-503(1)(b) (BPJ) of the Water Quality Control Act, which are less stringent than the comparable effluent limitations or standards in the previous permit, unless any one of the following exceptions is met and the conditions of paragraph c. of this section are met:
  - i. Material and substantial alterations or additions to the permitted facility occurred after permit issuance which justify the application of less stringent effluent limitations; or
  - ii. Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation or standard at the time of permit issuance; or
  - iii. The Division determines that technical mistakes or mistaken interpretations of law were made in issuing the permit, which justified relaxation of the effluent limitations or standards; or
  - iv. A less stringent effluent limitation or standard is necessary because of events over which the permittee has no control and for which there is not reasonable available remedy; or
  - v. The permittee has received a permit variance; or
  - vi. The permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous effluent limitations, in which case, the limitations in the renewed, reissued, or modified permit may reflect the level of pollutant control actually achieved (but shall not be less stringent than required by effluent guidelines in effect at the time of permit renewal, reissuance, or modification).
- b. A permit may not be renewed, reissued, or modified to contain effluent limitations adopted pursuant to 61.8(2)(b) or (c) of the Colorado Discharge Permit System Regulations that are less stringent than the comparable effluent limitations in the previous permit, unless any of the exceptions provided herein is met and the conditions of paragraph c. of this section are met.
  - i. In waters where the applicable water quality standard has not yet been attained, effluent limitations based on a total maximum daily load or other waste load allocation may be revised to be less stringent if the cumulative effect of all such revisions assures attainment of such water quality standard, or the designated use which is not being attained is removed in accordance with Section 31.6 of the Basic Standards.
  - ii. In waters where the applicable water quality standard has been attained, effluent limitations based on a total maximum daily

load, other waste load allocation, or any other permitting standard (including any water quality standard) may be revised to be less stringent if such revision is subject to and consistent with the antidegradation provisions of Section 31.8 of the Basic Standards. Consistency with Section 31.8 shall be presumed if the waters in question have been designated by the Commission as "use protected"; or

iii. Whether or not the applicable water quality standard has been attained:

- (A) Material and substantial alterations or additions to the permitted facility occurred after permit issuance which justified the application of less stringent effluent limitations; or
- (B) A less stringent effluent limitation is necessary because of events over which the permittee has no control and for which there is not reasonable available remedy; or
- (C) The permittee has received a permit variance; or
- (D) The permittee has installed the treatment facilities required to meet the effluent limitations in the previous permit and has properly operated and maintained the facilities but has nevertheless been unable to achieve the previous effluent limitations, in which case, the limitations in the reviewed, reissued, or modified permit may reflect the level of pollutant control actually achieved (but shall not be less stringent than required by effluent guidelines in effect at the time of permit renewal, reissuance, or modification).

c. In no event may a permit with respect to which paragraphs a. and b. of this section apply be renewed, reissued, or modified to contain an effluent limitation or standard which is less stringent than required by federal effluent guidelines in effect at the time the permit is renewed, reissued, or modified. In no event may such a permit to discharge into state waters be renewed, reissued, or modified to contain a less stringent effluent limitation if the implementation of such limitation would result in a violation of an applicable water quality standard.

#### 17. Effect of Permit Issuance

- a. The issuance of a permit does not convey any property rights or any exclusive privilege.
- b. The issuance of a permit does not authorize any injury to person or property or any invasion of personal rights, nor does it authorize the infringement of federal, state, or local laws or regulations.
- c. Except for any toxic effluent standard or prohibition imposed under Section 307 of the Federal act or any standard for sewage sludge use or disposal under Section 405(d) of the Federal act, compliance with a permit during its term constitutes compliance, for purposes of enforcement, with Sections 301, 302, 306, 318, 403, and 405(a) and (b) of the Federal act. However, a permit may be modified, revoked and reissued, or terminated during its term for cause as set forth in Section 61.8(8) of the Colorado Discharge Permit System Regulations.
- d. Compliance with a permit condition which implements a particular standard for sewage sludge use or disposal shall be an affirmative defense in any enforcement action brought for a violation of that standard for sewage sludge use or disposal.

#### 18. Requiring an Individual CDPS Permit

The Director may require any owner or operator covered under this permit to apply for and obtain an individual CDPS permit if:

- a. The discharger is not in compliance with the conditions of this General Permit; or,
- b. Conditions or standards have changed so that the discharge no longer qualifies for a General Permit; or,
- c. Data becomes available which indicates water quality standards may be violated.

The owner or operator must be notified in writing that an application for an individual CDPS permit is required. When an individual CDPS permit is issued to an owner or operator otherwise covered under this General Permit, the applicability of the General Permit to that owner or operator is automatically terminated upon the effective date of the individual CDPS permit.

#### 19. Requesting an Individual CDPS Permit

Any owner or operator covered by this General Permit may request to be excluded from the coverage by applying for an individual CDPS permit.

#### 20. Requesting Coverage Under the General Permit

The owner or operator of a facility excluded from coverage by this General Permit solely because that facility already has an individual permit may request that the individual permit be revoked and that the facility be covered by this General Permit. Such request shall be evaluated by the Division per criterion specified in Part I of this permit.

**RATIONALE**  
**FIFTH RENEWAL**  
**CDPS GENERAL PERMIT NO. COG-0500000- SAND AND GRAVEL PRODUCTION OPERATIONS**  
**(AND OTHER NONMETALLIC MINERALS EXCEPT FUEL)**  
**ANNUAL FEE \$270, CATEGORY 07 SUBCATEGORY 1A (EFFECTIVE JULY 1, 2007)**

**I. INTRODUCTION**

*This is the fifth renewal of the general permit for sand and gravel (and other nonmetallic minerals) discharges (COG-0500000) to surface waters. This permit is for the regulation of stormwater runoff and process water discharges. Changes have been made to incorporate additional categories of mining facilities under this general permit.*

**II. GENERAL PERMIT SCOPE**

**A. Applicability**

*This general permit authorizes Stormwater and Process water discharges for the following types of facilities:*

*Mining and quarrying of nonmetallic minerals, except fuels; Standard Industrial Classification (SIC) Code 14.*

*Asphalt (SIC 2951) and concrete batch plants (SIC 3273) and recycling activities located at sand and gravel operations (Batch plants can include the use of recycled asphalt or concrete)*

*This general permit does not cover stormwater only discharges, which are covered under stormwater permit COR-340000.*

**Types of Nonmetallic Mineral Mining and Processing Facilities** - *This general permit (COG-0500000) authorizes the discharge of wastewater and stormwater from the following categories of nonmetallic mineral mining and processing, as defined in 40 CFR Part 436:*

**Crushed Stone (Subpart B)**-*means process wastewater generated during the mining or quarrying and processing of crushed and broken stone and rip rap. This includes all types of rock and stone, except rock and stone that is crushed or broken prior to the extraction of mineral, which is covered elsewhere. The processing of calcite, however, in conjunction with the processing of crushed and broken limestone or dolomite is included.*

**Construction Sand and Gravel (Subpart C)** – *means process wastewater generated during the mining and processing of sand and gravel for construction or fill uses.*

**Phosphate Rock (Subpart R)**-*means process wastewater generated by the mining or quarrying of phosphate bearing rock, ore, or earth, for the phosphate content.*

**Industrial Sand (Subpart D)**-*means process wastewater generated during the mining and processing of sand and gravel for uses other than construction and fill. These uses include, but are not limited to, glassmaking, molding, abrasives, filtration, refractories, and refractory bonding.*

**Graphite (Subpart AL)**-*means process wastewater generated during the mining and processing of naturally occurring graphite.*

**Batch Plants (Concrete or Hot Asphalt)**-*means process wastewater generated during the mixing process. This also includes the associated truck and drum wash area for concrete facilities, and the wet scrubber discharge from hot asphalt plants.*

*All references to sand and gravel will include the other non-metallic minerals (except fuels), unless specifically exempted. This general permit will cover both the process water discharges and stormwater discharges for sand and gravel operations including asphalt and concrete batch plants and recycling activities located at such facilities. Process water discharges are addressed under Part I.B of the permit; stormwater discharges are addressed under Part I.C of the permit.*

*Due to the potential toxicity and wide variety of pollutants, the minimal operations in Colorado, and some categories with provisions difficult to incorporate into a general permit, Mineral mining and processing point source category - 40 CFR 436 - subparts E (gypsum), F (asphaltic mineral), G (asbestos and wollastonite), J (barite), K (fluorspar), L (salines from brine lakes), M (borax), N (potash), O (sodium sulfate), S (Frasch Sulfer), V (bentonite), W (magnesite), X (diatomite), Y (jade), Z (novaculite), and AF (tripoli), will not be covered under this general permit.*

**Groundwater** – Under Section 25-8-202(7) of the Colorado Water Quality Control Act, sand and gravel discharges to groundwater can not be authorized under the Division’s jurisdiction, and a certification to discharge can not be issued. In these instances, an applicant will need to contact the Division of Reclamation Mining and Safety, or the Environmental Protection Agency under the Underground Injection Control program. In some cases, where the discharge to groundwater is in the alluvial material, and the groundwater discharge is considered to impact the surface waters, a facility may be authorized under this general permit.

**Stormwater** - When stormwater mixes with process water, the process water limitations (Part I.B of the permit) apply to the discharge of that mixed water. The stormwater section (Part I.C of the permit) is intended to cover those portions of a nonmetallic minerals production operation (except fuel) that are not already subject to effluent limitations under 40 CFR 436, and to cover stormwater runoff from asphalt and concrete batch plants and recycling areas.

**Domestic Wastewater** - Note that this general permit does not cover the discharge of domestic type wastewater. If this type of coverage is needed, the permittee may apply for an individual permit, or may apply separately for a domestic general permit (if applicable).

**Need for an Individual Permit**- Dischargers that do not fit under this characterization, possess highly toxic chemicals in elevated concentrations, elect to have an individual permit, or wish to have mixing zone or site-specific antidegradation considerations, should apply for coverage under an individual permit.

**B. Application**

Dischargers can apply for coverage under this general permit once the permit is issued. Holders of certifications under the administratively extended Sand and Gravel and other Nonmetallic Mineral Mining Permit (COG-0500000) will automatically be transferred to this new general permit. Their coverage will be transferred to the new general permit without a lapse of coverage (i.e. discharging without a permit) and without loss of fee payments. Incidentally, the annual fee for each of these general permits is \$270, effective July 1, 2007. The permittee will have 90 days, from the date of transfer, to comply with any new terms and conditions of this general permit. For all others, the owner or operator of the site shall submit one original completed application and a copy, including a signed certification that the SWMP is complete **at least thirty days prior** to the commencement of mining activities.

**III. EFFLUENT LIMITATIONS**

Numeric effluent limitations are imposed for pollutants that are specific to the discharges covered, and are shown in Tables III-1 through III-6. Some of these limits are based on the EPA Federal Effluent Guidelines for the applicable point source category and are described below. The certification will state which conditions apply, based on the nature of the discharge. Note that any parameter that is determined to be a site-specific pollutant of concern may be added to the discharge certification.

**Table III-1- crushed stone (subpart B), construction sand and gravel (subpart C), and all other industrial facilities covered under SIC Code 14, except those specifically listed in the tables below.**

Effluent Parameter	Discharge Limitations			Rationale
	30 Day Avg	7 Day Avg	Daily Max	
Flow, mgd	Report	NA	Report	Discharge Evaluation
Total Suspended Solids, mg/l	30	45	NA	State Effluent Regulations
pH, s.u.	NA	NA	6.5-9.0	Water Quality Standards
Oil and Grease, mg/l	NA	NA	10	State Effluent Regulations
<b>Site specific</b>				
Selenium, ug/l****	Various	NA	Various	Water Quality Standards
Metals, ug/l	Various	NA	Various	Water Quality Standards
Organics, ug/l	Various	NA	Various	Water Quality Standards
<b>Whole Effluent Toxicity (WET) ***</b>				
Chronic	Stat. Diff & IC25≥IWC			State Permit Limitations
Acute	LC50>100%			State Permit Limitations
Total Dissolved Solids, mg/l*	Report	NA	Report	Salinity Regulations
Total Phosphorus, mg/l**	Report	NA	0.2-1.0	Control Regulations

\* Monitoring will normally apply to discharges within the Colorado River Basin.

\*\*The Phosphorus limitations apply to discharges to the Dillon Reservoir Watershed, Cherry Creek Reservoir Watershed, Chatfield Reservoir Watershed, and the Bear Creek Watershed, as defined in Regulation 71, 72, 73, or 74, respectively.

\*\*\* Not applicable to every certification. If included in the permit, either acute or chronic will apply. See Section IV (g)

\*\*\*\* Selenium will be included based on the presence of selenium-containing shale deposits

**Table III-2- Phosphate rock (Subpart R)**

Effluent Parameter	Discharge Limitations			Rationale
	30 Day Avg	7 Day Avg	Daily Max	
Flow, mgd	Report	NA	Report	Discharge Evaluation
Total Suspended Solids, mg/l	30	NA	60	Federal Effluent Guidelines
pH, s.u.	NA	NA	6.5-9.0	Water Quality Standards
Oil and Grease, mg/l	NA	NA	10	State Effluent Regulations
<b>Site specific</b>				
Selenium, ug/l****	Various	NA	Various	Water Quality Standards
Metals, ug/l	Various	NA	Various	Water Quality Standards
Organics, ug/l	Various	NA	Various	Water Quality Standards
Whole Effluent Toxicity (WET)				
Chronic	Stat. Diff & IC25≥IWC			State Permit Limitations
Acute	LC50>100%			State Permit Limitations
Total Dissolved Solids, mg/l*	Report	NA	Report	Salinity Regulations
Total Phosphorus, mg/l**	Report	NA	0.2-1.0	Control Regulations

Footnotes \*, \*\*, \*\*\*, and \*\*\*\* can be found under Table III-1

**Table III-3- Industrial Sand (subpart D) except Industrial Sand HF flotation facilities (see Table III-4)**

Effluent Parameter	Discharge Limitations			Rationale
	30 Day Avg	7 Day Avg	Daily Max	
Flow, mgd	Report	NA	Report	Discharge Evaluation
Total Suspended Solids, mg/l	25	NA	45	Federal Effluent Guidelines
pH, s.u.	NA	NA	6.5-9.0	Water Quality Standards
Oil and Grease, mg/l	NA	NA	10	State Effluent Regulations
<b>Site specific</b>				
Selenium, ug/l****	Various	NA	Various	Water Quality Standards
Metals, ug/l	Various	NA	Various	Water Quality Standards
Organics, ug/l	Various	NA	Various	Water Quality Standards
Whole Effluent Toxicity (WET)				
Chronic	Stat. Diff & IC25≥IWC			State Permit Limitations
Acute	LC50>100%			State Permit Limitations
Total Dissolved Solids, mg/l*	Report	NA	Report	Salinity Regulations
Total Phosphorus, mg/l**	Report	NA	0.2-1.0	Control Regulations

Footnotes \*, \*\*, \*\*\*, and \*\*\*\* can be found under Table III-1

**Table III-4- Industrial Sand (subpart D) HF flotation facilities only**

Effluent Parameter	Discharge Limitations			Rationale
	30 Day Avg	7 Day Avg	Daily Max	
Flow, mgd	Report	NA	Report	Discharge Evaluation
Total Suspended Solids, lbs/day	0.023 lbs per 1,000 lbs total production***	NA	0.046 lbs per 1,000 lbs total production***	Federal Effluent Guidelines
pH, s.u.	NA	NA	6.5-9.0	Water Quality Standards
Oil and Grease, mg/l	NA	NA	10	State Effluent Regulations
Total Fluoride, lbs/day	0.003 lbs per 1,000 lbs total production*****	NA	0.006 lbs per 1,000 lbs total production*****	Federal Effluent Guidelines
Production Rate, lbs/day	Report	NA	Report	Discharge Evaluation
<b>Site specific</b>				
Selenium, ug/l****	Various	NA	Various	Water Quality Standards
Fluoride, mg/l*****	NA	NA	2	Water Quality Standards
Metals, ug/l	Various	NA	Various	Water Quality Standards
Organics, ug/l	Various	NA	Various	Water Quality Standards
Whole Effluent Toxicity (WET)				
Chronic	Stat. Diff & IC25≥IWC			State Permit Regulations
Acute	LC50>100%			State Permit Limitations
Total Dissolved Solids, mg/l*	Report	NA	Report	Salinity Regulations
Total Phosphorus, mg/l**	Report	NA	0.2-1.0	Control Regulations

Footnotes \*, \*\*, \*\*\*, and \*\*\*\* can be found under Table III-1

\*\*\*\*\* This limitation will be calculated from the facility's production rate. The water quality-based limit for Fluoride applies only on Water Supply segments, and the more stringent limit (WQS, ELG) will apply.

**Table III- 5- Graphite (subpart AL)**

Discharge Limitations	
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	<b>30 Day Avg</b>	<b>7 Day Avg</b>	<b>Daily Max</b>	
<i>Flow, mgd</i>	<i>Report</i>	<i>NA</i>	<i>Report</i>	<i>Discharge Evaluation</i>
<i>Total Suspended Solids, mg/l</i>	<i>10</i>	<i>NA</i>	<i>20</i>	<i>Federal Effluent Guidelines</i>
<i>pH, s.u.</i>	<i>NA</i>	<i>NA</i>	<i>6.5-9.0</i>	<i>Water Quality Standards</i>
<i>Oil and Grease, mg/l</i>	<i>NA</i>	<i>NA</i>	<i>10</i>	<i>State Effluent Regulations</i>
<i>Total Iron, mg/l****</i>	<i>1</i>	<i>NA</i>	<i>2</i>	<i>Federal Effluent Guidelines</i>
<b>Site specific</b>				
<i>Selenium, ug/l****</i>	<i>Various</i>	<i>NA</i>	<i>Various</i>	<i>Water Quality Standards</i>
<i>Total Recoverable Iron, ug/l*****</i>	<i>1,000</i>	<i>NA</i>	<i>NA</i>	<i>Water Quality Standards</i>
<i>Dissolved Iron****</i>	<i>300</i>	<i>NA</i>	<i>NA</i>	<i>Water Quality Standard</i>
<i>Metals, ug/l</i>	<i>Various</i>	<i>NA</i>	<i>Various</i>	<i>Water Quality Standards</i>
<i>Organics, ug/l</i>	<i>Various</i>	<i>NA</i>	<i>Various</i>	<i>Water Quality Standards</i>
<b>Whole Effluent Toxicity (WET)</b>				
<i>Chronic</i>	<i>Stat. Diff &amp; IC25≥IWC</i>			<i>State Permit Limitations</i>
<i>Acute</i>	<i>LC50&gt;100%</i>			<i>State Permit Limitations</i>
<i>Total Dissolved Solids, mg/l*</i>	<i>Report</i>	<i>NA</i>	<i>Report</i>	<i>Salinity Regulations</i>
<i>Total Phosphorus, mg/l**</i>	<i>Report</i>	<i>NA</i>	<i>0.2-1.0</i>	<i>Control Regulations</i>

Footnotes \*, \*\*, \*\*\*, and \*\*\*\* can be found under Table III-1

\*\*\*\*\* The water quality-based limit for dissolved fluoride applies only on Water Supply segments. The more stringent limit (WQS, ELG) will apply.

**Table III- 6. Batch Plants-Concrete and Hot Asphalt**

<b>Effluent Parameter</b>	<b>Discharge Limitations</b>			<b>Rationale</b>
	<b>30 Day Avg</b>	<b>7 Day Avg</b>	<b>Daily Max</b>	
<i>Flow, mgd</i>	<i>Report</i>	<i>NA</i>	<i>Report</i>	<i>Discharge Evaluation</i>
<i>Total Suspended Solids, mg/l</i>	<i>30</i>	<i>NA</i>	<i>45</i>	<i>State Effluent Regulations</i>
<i>pH, s.u.</i>	<i>NA</i>	<i>NA</i>	<i>6.5-9.0</i>	<i>Water Quality Standards</i>
<i>Oil and Grease, mg/l</i>	<i>NA</i>	<i>NA</i>	<i>10</i>	<i>State Effluent Regulations</i>
<i>Total Iron, mg/l*****</i>	<i>1</i>	<i>NA</i>	<i>2</i>	<i>Federal Effluent Guidelines</i>
<b>Site specific</b>				
<i>Selenium, ug/l****</i>	<i>Various</i>	<i>NA</i>	<i>Various</i>	<i>Water Quality Standards</i>
<i>Total Recoverable Iron*****</i>				
<i>Dissolved Iron****</i>				
<i>Metals, ug/l</i>	<i>Various</i>	<i>NA</i>	<i>Various</i>	<i>Water Quality Standards</i>
<i>Organics, ug/l</i>	<i>Various</i>	<i>NA</i>	<i>Various</i>	<i>Water Quality Standards</i>
<b>Whole Effluent Toxicity (WET)</b>				
<i>Chronic</i>	<i>Stat. Diff &amp; IC25≥IWC</i>			<i>State Permit Limitations</i>
<i>Acute</i>	<i>LC50&gt;100%</i>			<i>State Permit Limitations</i>
<i>Total Dissolved Solids, mg/l*</i>	<i>Report</i>	<i>NA</i>	<i>Report</i>	<i>Salinity Regulations</i>
<i>Total Phosphorus, mg/l**</i>	<i>Report</i>	<i>NA</i>	<i>0.2-1.0</i>	<i>Control Regulations</i>

Footnotes \*, \*\*, \*\*\*, and \*\*\*\* can be found under Table III-1

\*\*\*\*\* The water quality-based limit for dissolved fluoride applies only on Water Supply segments. The more stringent limit (WQS, ELG) will apply.

**IV. EXPLANATION OF PERMIT LIMITATIONS**

- a. Regulations for Effluent Limitations (Regulation No. 62) – Regulation 62.4 includes effluent limitations that apply to all discharges of wastewater to State waters. These regulations are the basis for the oil and grease limitations and some of the total suspended solids (TSS) limitations in the tables above. These regulations do not apply when there are federal Effluent Limitation Guidelines associated with a facility.
- b. Technology-Based Limitations (Federal Effluent Limitation Guidelines) – Federal Effluent Limitation Guidelines (ELG’s) have been promulgated for these facilities and must be applied to these discharges, unless a more stringent Water Quality Standard exists. The Water Quality Standards in many areas of the state are often more stringent than the federal ELG’s, and therefore may be substituted in a certification.
- c. Water Quality Standard-based Limitations (Discharges to Surface Waters)- Water quality-based limits are imposed for pH. Water quality-based reporting may also be imposed for other pollutants of concern based on the discussion that follows.
  - 1. pH – This parameter is limited by Water Quality Standards as the water quality standards of 6.5-9.0 s.u. range are more stringent than those specified under the Regulations for Effluent Limitations.

2. Selenium –The permit writer will review the application and determine if selenium must be limited and/or monitored to protect the classified uses assigned to the receiving water. If required, the permit writer will set these limitations equal to the appropriate water-quality standards. Selenium will be considered a pollutant of concern for facilities operating in areas of shale deposits containing selenium (e.g. Mancos).
  3. Metals- The permit writer will review the application and determine if metals parameters must be limited and/or monitored to protect the classified uses assigned to the receiving water. If required, the permit writer will set these limitations equal to the appropriate water-quality standards. As many water quality standards for metals are listed as TVS, and based upon an equation dependent on the hardness of the receiving stream, the permit writer will obtain hardness data to determine the appropriate metals limitations where appropriate.
  4. Organics- The permit writer will review the application and determine if any organic parameters must be limited and/or monitored to protect the classified uses assigned to the receiving water. If required, the permit writer will set these limitations equal to the appropriate water-quality standards.
  5. Chemicals- The addition of chemicals (including release agents) to the discharge is not allowed unless expressly authorized by the Division. A release agent is a substance used to aid in the separation of the desired material from the substrate, and must be disclosed. To approve a chemical, the Division must have the associated MSDS sheet(s) provided with the application. If authorized, all chemicals must be used and stored in accordance with the manufacturers' recommendations and in accordance with any applicable state or federal regulation.
- d. Salinity Requirements – All permit actions for discharges to surface waters in the Colorado River Basin must include salinity monitoring. Accordingly, the permit writer will perform an analysis, as set out in the paragraphs that follow, to determine which salinity requirements apply pursuant to the requirements of Section 61.8(2)(l) of the Colorado Discharge Permit System Regulations(Regulation No. 61). Multiple discharges covered from a single facility are subject to the limitation that would apply if there were a single discharge point.

Based on the effluent data in the application from a new facility, the permit writer will make an assessment of the expected salinity load in the discharge (from concurrent flows at all outfalls) and if less than 1 ton/day or 366 tons/year, the calculation will be documented in the issued certification. For facilities discharging less than this threshold, quarterly monitoring will be required, as existed in the previous permit.

For facilities that exceed the 1 ton/day or 366 tons/year threshold, a TDS limitation will be applied in the permit, unless the permittee demonstrates that it is not practicable to prevent the discharge of all salt. The Division will decide on this exception prior to the start of discharge and may require further actions by the permittee to reduce the salt load before approval of the discharge. In conformance with section 61.8(2)(l)(i)(A) of the Colorado Discharge Permit System Regulations, the permittee must submit a report that documents whether it is feasible to treat to these levels. The Salinity Regulations allow for a waiver of TDS limitations upon submittal of a report that demonstrates that achievement of zero salt loading or, in the event that is not achievable, discharge of less than one ton per day, is not economically feasible. There is no record that the permittee has previously submitted this report. If a report has previously been submitted, the permittee should submit a copy of this report. **Quarterly** monitoring for total dissolved solids will continue regardless.

In conformance with the Colorado Discharge Permit System Regulation (Regulation No. 61), existing permits for discharges to the Colorado River basin incorporate total dissolved solids (TDS) as the monitoring parameter for compliance with the salinity requirements. Electrical conductivity (EC) may be substituted for TDS if a constant correlation exists between TDS and EC is established for the discharge, based on 5 paired samples, and approved by the permit writer.

- e. Phosphorus Regulations – Additional limitations for phosphorus may apply to discharges to surface waters in four watersheds – Dillon Reservoir, Cherry Creek Reservoir, Chatfield Reservoir, and Bear Creek Reservoir. Wasteloads (e.g., phosphorus) have been allocated in these regulations to various point and non-point sources that discharge on these watersheds. If a discharge is to one of these areas, as defined in Regulations 71, 72, 73, and 74, the permittee will be required to obtain a wasteload allocation from the appropriate authority prior to certification under this general permit.
- f. Antidegradation – As set out in The Basic Standards and Methodologies of Surface Water, Section 31.8(3)(c)(ii)(C), an antidegradation analysis is required for all waters not designated as Use Protected, except in cases where the regulated activity will result in only temporary or short term changes in water quality, or where the ratio of the low flow to the facility flow is 100:1 or more. Discharges permitted under this general permit are not normally temporary or short-term, thus, these discharges are not

exempted from an antidegradation review. Based on the information and data in the application, the permit writer will make an assessment of the low flow dilution ratio of the discharge to determine if antidegradation applies.

Under this general permit, an antidegradation (AD) limit will be calculated as 15% of the Water Quality Standard. The permittee would then have the choice of this AD limit, or of a non-impact limitation (NIL). The NIL is either the limitation contained as of September 2000, or may be determined by the use of an implicit limitation if a previous limit did not exist. The implicit limit is determined as the maximum effluent concentration in the years prior to September 2000 (later data may be substituted on a case by case basis if data is unavailable from this time period). Alternately, if data does not exist, a compliance schedule may be added to the permit to obtain such data, to determine the implicit limitation and the final antidegradation-based effluent limit. An individual permit will be required where the permittee requests consideration of dilution and ambient water quality.

In addition, the permittee may elect to perform an alternatives analysis. As this may be subject to public notice requirements, an individual permit will be required. See Regulation 31.8(3)(d) and the Division's Antidegradation Guidance document for more information regarding an alternatives analysis.

- g. Whole Effluent Toxicity (WET) – The Water Quality Control Division has established the use of WET testing as a method for identifying and controlling toxic discharges from wastewater treatment facilities. WET testing is being utilized as a means to ensure that there are no discharges of pollutants "in amounts, concentrations or combinations which are harmful to the beneficial uses or toxic to humans, animals, plants, or aquatic life" as required by Section 31.11 (1) of the Basic Standards and Methodologies for Surface Waters.

Some discharges covered under this general permit may exhibit whole effluent toxicity based on the potential pollutant concentrations in the discharge. Thus, WET testing may be incorporated into the permit on a case-by-case basis. If it is determined that WET testing is required, Chronic WET testing will normally be incorporated into the permit. However, Acute testing may be applied where the receiving stream has a zero low flow in all months and the discharge is intermittent, or when deemed appropriate for any other site-specific reason.

- h. Threatened and Endangered Species- The US Fish and Wildlife Service and the Division have entered into a Memorandum of Agreement (MOA) regarding discharges to federal T&E waters. In this MOA, a permittee that discharges to a T&E water may have additional constraints placed upon the discharge. These constraints may include accepting end-of-pipe limitations (no dilution), moving the discharge point to a different location, or using a diffuser to obtain instantaneous mixing of the effluent and the receiving water. This last option may allow for a portion of the available assimilative capacity (dilution) to be incorporated into the permit. However, as this is a general permit, all limitations are imposed as end-of-pipe limits, and therefore, the first option is met. Generally, it will be assumed that the end-of-pipe limitations will satisfy the MOA, and no further consideration is needed. On a case-by-case basis, additional constraints may need to be evaluated.
- h. Mixing Zones – Under this general permit mixing zone regulations do not apply, as the water quality standards are applied as the effluent limits(i.e., no dilution is allowed.).
- i. Discharges to 303(d) Listed Waters – Where the receiving water is included on the state's 303(d) list, total maximum daily loads (TMDLs) are being developed in accordance with the Division's schedule for TMDL completion. Once a TMDL has been established, if it is necessary to incorporate limitations for a facility certified under this general permit, based upon the outcomes of the TMDL or the results of the data analysis, a modification to the certification to discharge, or an individual permit may be required to regulate discharges from a facility. The facility would continue to be covered under this general permit certification until the individual permit is issued.

For example, the industrial process of sand and gravel operations typically involves discharging alluvial water. When the alluvium is dewatered in an area of shale deposits (e.g. Mancos), selenium is likely to be present in elevated concentrations in the discharge and is automatically considered a pollutant of concern. Preliminary monitoring data indicates that operations in areas of shale are likely contributing to exceedances of stream standards for selenium, and therefore, monitoring requirements will be included for data collection for a future reasonable potential analysis. New discharges to these segments will be required to meet the water quality limitations for selenium upon commencement of discharge. The basic standards for selenium are found in Table III of The Basic Standards and Methodologies for Surface Water (5 CCR 1002-31).

There are currently ongoing national discussions between the USEPA and the USFWS on appropriate aquatic life standards for selenium. Should the USEPA adopt new water quality standards for selenium, the division's standards unit will begin incorporating federal standards into Colorado's water quality standards during basin triennial reviews. In the future, treatment of effluent to remove selenium may be required to attain water quality standards.

The basin regulations contain information on the adopted standard for the segment (basic standard or site-specific standard) for stream segments for selenium (see examples below), and should be checked for the specific segment and modifications. When temporary modifications are listed for a stream segment, the acute and chronic aquatic life standards of 18.4 ug/l and 4.6, respectively, may not apply.

- j. Compliance Schedules- Existing dischargers may be granted compliance schedules for any new effluent limitations applicable to the discharge. Some items for which a compliance schedule may be necessary may require an individual permit. Note that compliance schedules cannot be granted for limitations based upon the federal ELGs.
- k. Monitoring Requirements- See Section I.B of the permit for monitoring requirements.
- m. Permit Termination- Sites that are covered by a bond under the Colorado Division of Reclamation, Mining, and Safety will need to prove that bond release has occurred before permit coverage can be terminated. Sites that are not covered under a bond must provide additional information before the permit can be terminated.

## V. STORMWATER DISCHARGES

As required under the Clean Water Act amendments of 1987, the Environmental Protection Agency (EPA) has established a framework for regulating municipal and industrial stormwater discharges. The Water Quality Control Division ("the Division") has stormwater regulations (5CCR 1002-61) in place. These regulations require specific types of industrial facilities that discharge stormwater associated with industrial activity (industrial stormwater), to obtain a CDPS permit for such discharge. The regulations specifically include sand and gravel mining activities as industrial facilities. Facilities which discharge industrial stormwater either directly to surface waters or indirectly, through municipal separate storm sewers, must be covered by a permit. This general permit does not cover stormwater only discharges, which are covered under stormwater permit COR-340000.

The federal effluent guidelines that govern discharges from sand and gravel mining facilities (40 CFR 436) control most surface runoff. However, there are some sources of stormwater from these sites which are not addressed, such as roads and railroad lines, pond outsoles, inactive loadouts, sites used for storage and maintenance of material handling equipment, etc.

1. **Stormwater Management Plan (SWMP):** The stormwater regulations primarily apply to areas not covered by 40 CFR Part 436. They require permittees to develop and implement a Stormwater Management Plan (SWMP) to protect the quality of stormwater leaving the site. The plan shall identify potential sources of pollution (including sediment) which may reasonably be expected to affect the quality of stormwater discharges associated with mining activity. In addition, the plan shall describe the best management practices (BMPs) which will be used to reduce the pollutants in stormwater discharges from the mining site.

Some activities required under the SWMP may already be in place. However, the SWMP will require the permittee to coordinate these activities with any necessary new activities in an orderly manner, so that the result is the reduction or elimination of pollutants reaching state waters from areas not limited by effluent limitations. Facilities must implement the provisions of the SWMP required under this part as a condition of this permit.

It is the permittee's responsibility to notify the Colorado Division of Reclamation, Mining and Safety of any significant changes at their site resulting from the implementation of the SWMP. This is so that the Division of Reclamation, Mining and Safety may review the SWMP and incorporate any potential revisions into the facility's reclamation permit which might be needed.

The SWMP shall include the following items, at a minimum:

- a) Site Map
- b) Description of Potential Pollutant Sources/Material Inventory
- c) Stormwater Quality Controls
  - 1) SWMP Administrator
  - 2) Materials handling and spill prevention

- 3) Erosion and sediment controls
- 4) Other pollution prevention measures
- 5) Preventive maintenance
- 6) Good housekeeping
- 7) Identification of discharges other than stormwater.

## 2. Other Requirements

- a) **Facility Inspections:** The permittee will be required to make a thorough inspection of their stormwater management system, at least twice per year (in the spring and fall). (See Part I.D.4 of the permit for alternate schedules.) These inspections must be documented and summarized in the Annual Report to the Division.
- b) **Employee Education:** The permittee shall develop and implement employee education programs to inform personnel at all levels of responsibility of the components and goals of the SWMP. This section has been expanded from the previous permit to include contractor and temporary personnel, in keeping with other stormwater permits.

## E. Stormwater Management Plan (SWMP)

The SWMP Contents section has been modified. Some of the changes are limited to organization of information, which does not require modification of an existing permittee's current SWMP. Most of the SWMP changes involve clarifications, reformatting, or adopting requirements from the Division's Stormwater Construction general permit (e.g., BMP installation specifications). For existing permittees (i.e., those with permit coverage prior to the reissuance date of this permit), their SMWP must be amended to include the new required items:

For existing permittees, any SWMP changes based on the change in permit requirements must be completed within 5 months of the effective date of the certification. The plan is not to be submitted to the Division unless requested, but must be available on site as outlined in Part I.D.5(b) of the permit.

1. **Terms and Conditions, General Limitations and Design Standards:** This section reiterates the requirement that facilities select, install, implement, and maintain appropriate BMPs, following good engineering, hydrologic and pollution control practices. In addition, requirements to adequately design BMPs to prevent pollution or degradation of State waters (see Part I.D.2 of the permit) have been revised and are discussed below.
2. **Site Map:** The list of items needed for the Site Map has been expanded, in order to adequately characterize the site. A list of items and factors has been added to the section on identifying potential stormwater pollutants, in order to clarify the Division's intent in this area. **This requirement may necessitate changes to existing permittees' SWMPs.**
3. **Description of Potential Pollutant Sources:** The requirement to identify Potential Pollutant Sources has been expanded to include more details for the evaluation of such sources. This evaluation allows for the appropriate selection of BMPs for implementation at a facility or site. **This requirement may necessitate changes to existing permittees' SWMPs.**
4. **Stormwater Management Controls:** See Part I.C.1 of the permit.
  - a) This section has been modified to require identification of a SWMP Administrator. The SWMP Administrator is a specific individual(s), position or title who is responsible for the process of developing, implementing, maintaining, and revising the SWMP. This individual serves as the comprehensive point of contact for all aspects of the facility's SWMP. **This requirement may necessitate changes to existing permittees' SWMPs.**
  - b) Sections have been added requiring that preventive maintenance and good housekeeping measures be included in the SWMP. Preventive maintenance is critical to ensuring the success of the BMPs at a site. Good housekeeping measures are a common sense means of increasing compliance. **This requirement may necessitate changes to existing permittees' SWMPs.**
5. **Permit Termination:** A section has been added on additional SWMP items for sites seeking permit termination. This section provides more guidance to permittees than has been available in the past, on the steps needed to inactivate a site's permit coverage. Most sites will be able to inactivate coverage once they have had bond release from the Colorado Division of Reclamation, Mining and Safety. **This requirement may necessitate changes to existing permittees' SWMPs.**
6. **Consistency with Other Plans:** A section has been added clarifying that other documents, such as an SPCC, can be used to meet some of the SWMP requirements, provided that the other documents are readily available and the SMWP includes appropriate cross references.

*Erin Scott*  
*April 18, 2008*

**IV. PUBLIC NOTICE COMMENTS**

*No comments were received during the public notice period. Note, however, that the division eliminated the two year maximum for compliance schedules.*

*Erin Scott*  
*May 28, 2008*