

RATIONALE  
FOURTH RENEWAL  
CDPS GENERAL PERMIT NO:COG-0850000 - COAL MINING FACILITIES  
ANNUAL FEE \$780, CATEGORY 07 SUBCATEGORY 05 (EFFECTIVE JULY 1, 2007)

**I. INTRODUCTION**

*This is the fourth renewal of the general permit for coal mining discharges (COG-0850000) to surface waters. Changes have been made to allow for more coverage of coal mining facilities under this general permit.*

**II. GENERAL PERMIT SCOPE**

**A. Applicability**

*The previous general included only discharges from acid or ferruginous type mine drainage, while this permit is designed to cover Alkaline Mine Drainage, Acid or Ferruginous Mine Drainage, Coal Preparation Plants and Associated Areas, Post Mining Areas, discharges from Western Alkaline Coal Mining areas, and discharges of surface water runoff or other non-coal mining water.*

**Type of Coal Mining Facilities** - This general permit (COG-085000) authorizes the discharge of wastewater from coal mining operations from the following categories of coal mines, as defined in 40 CFR Part 434:

- 1) Acid or Ferruginous Mine Drainage - meaning mine drainage which, before any treatment, either has a pH of less than 6.0 or a total iron concentration equal to or greater than 10 mg/l.
- 2) Alkaline Mine Drainage - meaning mine drainage which, before any treatment, has a pH equal to or greater than 6.0 and total iron concentration of less than 10 mg/l.
- 3) Coal Preparation Plant and Coal Preparation Plant Associated Areas - meaning a facility where coal is subjected to cleaning, concentrating, or other processing or preparation in order to separate coal from its impurities and then is loaded for transit to a consuming facility, and coal preparation plant yards, immediate access roads, coal refuse piles and coal storage piles and facilities.
- 4) Post Mining Areas – meaning a reclamation area or the underground workings of an underground coal mine after the extraction, removal, or recovery of coal from its natural deposit has ceased and prior to bond release.
- 5) Western Alkaline Coal Mining - meaning a surface or underground coal mining operation located in the interior western United States, west of the 100th meridian west longitude, in an arid or semiarid environment with an average annual precipitation of 26.0 inches or less.

*Note that this general permit does not cover the discharges from coal remining operations, defined as a coal mining operation at a site on which coal mining operations have previously been conducted, and where the site has been abandoned or the performance bond has been forfeited.*

**Groundwater** - Under Section 25-8-202(7) of the Colorado Water Quality Control Act, 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 appropriate state agency which for a discharge to groundwater may be 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 coal mining operation that are not already subject to effluent limitations.

**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 a combined industrial and domestic 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, that possess highly toxic chemicals in elevated concentrations, that 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 Coal Mining Permit (COG-0850000) 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. 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**

**A. General Effluent Limitations and Monitoring Requirements**

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 to which outfalls, 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.

1. Surface Runoff or Non-Coal Mining Related Wastestreams – Table III-1 contains the general limitations and monitoring requirements for wastewater from coal mining sites that are not directly related to mining activities.

**Table III-1: Effluent Limitations and Monitoring Requirements for Outfalls Comprised of Surface Runoff or Non-Coal Mining Related Waste Streams**

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>						
Settleable Solids, ml/l	Report	NA	0.5	Federal ELG	Weekly	Grab
Settleable Solids, ml/l *	Report	NA	Report	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

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.

\* If caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume)

\*\* The TDS limitation will normally apply to discharges in the Colorado River Basin. An evaluation of the discharge will take place upon certification, to see if the facility meets the 1 ton/day or 350 tons/year allowable discharge of salt. If the facility does not meet this requirement, the facility will be required to submit a salinity report documenting that achieving this level of discharge is not feasible. See Regulation 61.8(2)(l) for more information.

\*\*\* 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. Alkaline Drainage, Coal Preparation Plants and Coal Preparation Plant Associated Areas and Western Alkaline Coal Mining - Tables III-a, III-b and III-c apply to Alkaline Drainage, Coal Preparation Plants and Coal Preparation Plant Associated Areas and Western Alkaline Coal Mining. These tables cover the basic limitations, as well as alternate limitations based upon precipitation events. These categories are subject to 40 CFR Part 434 Subparts B (Coal Preparation Plant and Associated Areas), D (Alkaline Mine Drainage) and F (Miscellaneous Provisions). These limitations also apply to Western Coal Mining Operations. Additional limitations for Western Coal Mining can be found under Section III.A.3 of this rationale. At a minimum, the following limitations may apply as outlined in these subparts.

**Table III-2a: Effluent Limitations and Monitoring Requirements – Alkaline Drainage, Coal Preparation Plants and Coal Preparation Plant Associated Areas and Western Alkaline Coal Mining (additional requirements apply to Western Coal Mining, See Section III.A.3 of this rationale)**

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	35	NA	70	Federal ELG	Weekly	Grab
Total Iron, mg/l						
Existing Sources (before 5/4/84)	3.5	NA	7.0	Federal ELG	Weekly	Grab
New Sources (after 5/4/84)	3.0	NA	6.0			
Settleable Solids, ml/l	Report	NA	0.5	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
Total Recoverable Iron, ug/l ***	1000	NA	NA	Water Quality Standards	Weekly	Grab
Other Pollutants of Concern	Various	NA	Various	Water Quality Standards	Weekly	Grab
Whole Effluent Toxicity (WET)						
Chronic	Stat Diff and IC25 ≥ IWC			State Permit Limitations	Quarterly	3 Grab/Test
Acute	LC50 > 100%			State Permit Limitations		Grab

Footnotes 1-4, \*, and \*\*, See Footnotes under Table III-1

\*\*\* This limitation will apply and will substitute for the 30-day average total iron limit based upon the ELG, when a total recoverable iron standard is applicable to the stream segment.

**Alternate Limitations For Alkaline Mine Drainage, Coal Preparation and Associated Areas and Western Alkaline Coal Mining** – Table III-2b contains limitations for any discharge or increase in the volume of a discharge from an above ground alkaline mine (or an underground alkaline mine where the effluent is commingled with other categorical wastewater prior to discharge), caused by precipitation within any 24-hour period less than or equal to the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) may substitute the following limitations for these specific parameters only, subject to burden of proof requirements described in Part I.B.4 of the permit.

**Table III-2b: Alternate Effluent Limitations and Monitoring Requirements – Alkaline Drainage, Coal Preparation Plants and Coal Preparation Plant Associated Areas and Western Alkaline Coal Mining (additional requirements apply to Western Coal Mining, See Section III.A.3 of this rationale)**

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
<b>-----Federal Effluent Limitation Guidelines-----</b>						
Total Suspended Solids, mg/l	Report	NA	Report	Federal ELG	Weekly	Grab
Total Iron, mg/l						
Existing Sources (before 5/4/84)	Report	NA	Report	Federal ELG	Weekly	Grab
New Sources (after 5/4/84)	Report	NA	Report			

**Alternate Limitations For Alkaline Mine Drainage, Coal Preparation and Associated Areas, and Western Alkaline Coal Mining** - Table III-2c contains limitations for any discharge or increase in the volume of a discharge from an above ground alkaline mine (or an underground alkaline mine where the effluent is commingled with other categorical wastewater prior to discharge), caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) may substitute the following limitations for these specific parameters only, subject to burden of proof requirements described in Part I.B.4 of the permit.

**Table III-2c: Alternate Effluent Limitations and Monitoring Requirements – Alkaline Drainage, Coal Preparation Plants and Coal Preparation Plant Associated Areas and Western Alkaline Coal Mining (additional requirements apply to Western Coal Mining, See Section III.A.3 of this rationale)**

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
-----Federal Effluent Limitation Guidelines-----						
Total Suspended Solids, mg/l	Report	NA	Report	Federal ELG	Weekly	Grab
Total Iron, mg/l						
Existing Sources (before 5/4/84)	Report	NA	Report	Federal ELG	Weekly	Grab
New Sources (after 5/4/84)	Report	NA	Report	Federal ELG	Weekly	Grab
Settleable Solids, ml/l	Report	NA	Report	Federal ELG	Weekly	Grab

3. Effluent Limitations - Western Alkaline Coal Mining - In addition to the requirements under Part I.B.1 above, western alkaline coal mines are subject to 40 CFR Part 434 Subpart H. This subpart applies to alkaline mine drainage at western coal mining operations from reclamation areas, brushing and grubbing areas, topsoil stockpiling areas, and regraded areas, where the discharge, before any treatment has a pH equal to or greater than 6.0; has a dissolved iron concentration less than 10 mg/L; and has a net alkalinity that is greater than zero. The effluent limitations in this subpart apply until the appropriate authority has authorized bond release.

a. Sediment Control Plan - The following items apply to those facilities, and specifically those areas outlined above.

1. The operator must submit a site-specific Sediment Control Plan to the permitting authority that is designed to prevent an increase in the average annual sediment yield from pre-mined, undisturbed conditions. The Sediment Control Plan must be approved by the permitting authority and be incorporated into the permit as an effluent limitation. The Sediment Control Plan must identify best management practices (BMPs) and also must describe design specifications, construction specifications, maintenance schedules, criteria for inspection, as well as expected performance and longevity of the best management practices.

2. Using watershed models, the operator must demonstrate that implementation of the Sediment Control Plan will result in average annual sediment yields that will not be greater than the sediment yield levels from pre-mined, undisturbed conditions. The operator must use the same watershed model that was, or will be, used to acquire the SMCRA permit.

3. The operator must design, implement, and maintain BMPs in the manner specified in the Sediment Control Plan.

b. Definitions – The following definitions are specific to this subpart.

1. Brushing and grubbing area means the area where woody plant materials that would interfere with soil salvage operations have been removed or incorporated into the soil that is being salvaged.

2. Regraded area means the surface area of a coal mine that has been returned to required contour.

3. Topsoil stockpiling area means the area outside the mined-out area where topsoil is temporarily stored for use in reclamation, including containment berms.

4. Reclamation area means an area that was previously disturbed as a part of the coal mining operation that is being reclaimed.

4. Effluent Limitations – Post Mining Areas and Reclamation Areas - Post-mining limitations may apply to outfalls serving reclamation areas, which have been returned to the required contour and on which revegetation (seeding or planting) work has commenced. Limitations may also apply to post mining underground mine areas. The permittee may request consideration for change from active mining limitations to post-mining limitations when these conditions have been met.

a. Post Mining Reclamation Areas – Tables III-3a and III-b apply to this category, subject to 40 CFR Part 434 Subpart E (Post Mining Areas). The following limitations apply to reclamation areas. The federal ELG limitations would apply until bond release. If these wastewaters are combined with other waters under Section III of this rationale, then those limitations shall apply. If this wastewater is combined with post mining underground mine wastewater, then the limitations in Section III.D.2 apply to the combined discharge. If this post mining wastewater is separate, then the following limitations apply.

**Table III-3a: Effluent Limitations and Monitoring Requirements – Post Mining reclamation Areas**

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
Total Suspended Solids, mg/l	30	45	NA	State Effluent Regulations	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>						
Settleable Solids, ml/l	Report	NA	0.5	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
Total Recoverable Iron, ug/l ***	1000	NA	NA	Water Quality Standards	Weekly	Grab
Other Pollutants of Concern	Various	NA	Various	Water Quality Standards	Weekly	Grab
Whole Effluent Toxicity (WET)						
Chronic	Stat Diff and IC25 ≥ IWC			State Permit Limitations	Quarterly	3 Grab/Test
Acute	LC50 > 100%			State Permit Limitations		Grab

Footnotes 1-4, \*, \*\*, and \*\*\* - See Footnotes under Table III-1 and Table III-2.

**Alternate Limitations For Post-Mining Reclamation Areas** - Table III-3b contains limitations for any discharge or increase in the volume of a discharge from a **reclamation area**, caused by precipitation within any 24-hour period greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) may substitute the following limitations for these specific parameters only, subject to burden of proof requirements described in Part I.B.4 of the permit.

**Table III-3b: Alternate Effluent Limitations and Monitoring Requirements – Post Mining reclamation Areas**

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
<b>-----Federal Effluent Limitation Guidelines-----</b>						
Settleable Solids, ml/l	Report	NA	Report	Federal ELG	Weekly	Grab

**b. Post Mining Underground Areas** – Table III-4 applies to this category, subject to 40 CFR Part 434 Subpart E (Post Mining Areas). The following limitations apply to underground areas. The federal ELG limitations would apply until bond release. If these wastewaters are combined with other waters under Part I.B.1, then those limitations shall apply. If this wastewater is combined with post mining reclamation area wastewater, then these limitations apply to the combined discharge. If the post mining wastewater is separate, then the following limitations apply. Discharges of mine drainage from underground workings of underground mines which are not commingled with discharges eligible for alternate limitations set forth in this section shall in no event be eligible for the alternate limitations set forth in this section.

**Table III-4: Effluent Limitations and Monitoring Requirements – Post Mining Reclamation Areas**

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	35	NA	70	Federal ELG	Weekly	Grab
Total Iron, mg/l						
Existing Sources (before 5/4/84)	3.5	NA	7.0	Federal ELG	Weekly	Grab
New Sources (after 5/4/84)	3.0	NA	6.0			
Settleable Solids, ml/l	Report	NA	0.5	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
Total Recoverable Iron, ug/l ***	1000	NA	NA	Water Quality Standards	Weekly	Grab
Other Pollutants of Concern	Various	NA	Various	Water Quality Standards	Weekly	Grab
Whole Effluent Toxicity (WET)						
Chronic	Stat Diff and IC25 ≥ IWC			State Permit Limitations	Quarterly	3 Grab/Test
Acute	LC50 > 100%			State Permit Limitations		Grab

Footnotes 1-4, \*, \*\*, and \*\*\* - See Footnotes under Table III-1 and Table III-2.

5. Effluent Limitations and Monitoring Requirements – Acid or Ferruginous Mine Drainage - Tables III-5a through III-5e apply to this category, subject to 40 CFR Part 434 Subparts C (Acid or Ferruginous Mine Drainage). At a minimum, the following limitations may apply as outlined in these subparts.

**Table III-5a: Effluent Limitations and Monitoring Requirements – Acid or Ferruginous Mine Drainage**

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	35	NA	70	Federal ELG	Weekly	Grab
Total Manganese, mg/l	2.0	NA	4.0	Federal ELG	Weekly	Grab
Total Iron, mg/l						
Existing Sources (before 5/4/84)	3.5	NA	7.0	Federal ELG	Weekly	Grab
New Sources (after 5/4/84)	3.0	NA	6.0			
Settleable Solids, ml/l	Report	NA	0.5	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
Total Recoverable Iron, ug/l ***	1000	NA	NA	Water Quality Standards	Weekly	Grab
Other Pollutants of Concern	Various	NA	Various	Water Quality Standards	Weekly	Grab
Whole Effluent Toxicity (WET)						
Chronic	Stat Diff and IC25 ≥ IWC			State Permit Limitations	Quarterly	3 Grab/Test
Acute	LC50 > 100%			State Permit Limitations		Grab

Footnotes 1-4, \*, \*\*, and \*\*\* - See Footnotes under Table III-1 and Table III-2.

**Alternate Limitations For Acid Or Ferruginous Mine Drainage (except as covered below under coal refuse piles or mountaintop removal)** – Table III-5b contains limitations for any discharge or increase in the volume of a discharge from an above ground mine (or underground mine where the effluent is commingled with other categorical wastewater prior to discharge), caused by precipitation within any 24 hour period less than or equal to the 2-year, 24-hour precipitation event (or snowmelt of equivalent volume) may substitute the following limitations for these specific parameters only, subject to burden of proof requirements described in Part I.B.4 of the permit.

**Table III-5b: Alternate Effluent Limitations and Monitoring Requirements – Acid or Ferruginous Mine Drainage**

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
<b>-----Federal Effluent Limitation Guidelines-----</b>						
Total Suspended Solids, mg/l	Report	NA	Report	Federal ELG	Weekly	Grab
Total Manganese, mg/l	Report	NA	Report	Federal ELG	Weekly	Grab
Total Iron, mg/l						
Existing Sources (before 5/4/84)	Report	NA	7.0	Federal ELG	Weekly	Grab
New Sources (after 5/4/84)	Report	NA	Report			
Settleable Solids, ml/l	Report	NA	0.5	Federal ELG	Weekly	Grab

**Alternate Limitations For Acid Or Ferruginous Mine Drainage (except as covered below under coal refuse piles or mountaintop removal)** – Table III-5c contains limitations for any discharge or increase in the volume of a discharge from an above ground mine (or underground mine where the effluent is commingled with other categorical wastewater prior to discharge), caused by precipitation within any 24 hour period greater than the 2-year, 24-hour precipitation event, but less than or equal to the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) may substitute the following limitations for these specific parameters only, subject to burden of proof requirements described in Part I.B.4.

**Table III-5c: Alternate Effluent Limitations and Monitoring Requirements – Acid or Ferruginous Mine Drainage**

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
<b>-----Federal Effluent Limitation Guidelines-----</b>						
Total Suspended Solids, mg/l	Report	NA	Report	Federal ELG	Weekly	Grab
Total Manganese, mg/l	Report	NA	Report	Federal ELG	Weekly	Grab
Total Iron, mg/l						
Existing Sources (before 5/4/84)	Report	NA	Report	Federal ELG	Weekly	Grab
New Sources (after 5/4/84)	Report	NA	Report			
Settleable Solids, ml/l	Report	NA	0.5	Federal ELG	Weekly	Grab

**Alternate Limitations For Acid Or Ferruginous Mine Drainage (except as covered below under coal refuse piles or mountaintop removal)** – Table III-5d contains limitations for any discharge or increase in the volume of a discharge from an above ground mine (or underground mine where the effluent is commingled with other categorical wastewater prior to discharge), caused by precipitation within any 24 hour period greater than the 2-year, 24-hour precipitation event, but greater than the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) may substitute the following limitations for these specific parameters only, subject to burden of proof requirements described in Part I.B.4.

**Table III-5d: Alternate Effluent Limitations and Monitoring Requirements – Acid or Ferruginous Mine Drainage**

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
<b>-----Federal Effluent Limitation Guidelines-----</b>						
Total Suspended Solids, mg/l	Report	NA	Report	Federal ELG	Weekly	Grab
Total Manganese, mg/l	Report	NA	Report	Federal ELG	Weekly	Grab
Total Iron, mg/l						
Existing Sources (before 5/4/84)	Report	NA	Report	Federal ELG	Weekly	Grab
New Sources (after 5/4/84)	Report	NA	Report			
Settleable Solids, ml/l	Report	NA	Report	Federal ELG	Weekly	Grab

**Alternate Limitations For Acid Or Ferruginous Mine Drainage From Coal Refuse Piles And From Steep Slope Areas Or Mountaintop Removal Operations** – Table III-5e contains limitations for any discharge or increase in the volume of a discharge caused by precipitation within any 24 hour period greater than the 1-year, 24-hour precipitation event, but less than or equal to the 10-year, 24-hour precipitation event (or snowmelt of equivalent volume) may substitute the following limitations for these specific parameters only, subject to burden of proof requirements described in Part I.B.4

**Table III-5e: Alternate Effluent Limitations and Monitoring Requirements – Acid or Ferruginous Mine Drainage**

Parameter	Limitations			Rationale	Monitoring Frequency <sup>1</sup>	Sample Type
	30-Day Avg.	7-Day Avg.	Daily Max.			
<b>-----Federal Effluent Limitation Guidelines-----</b>						
Total Suspended Solids, mg/l	Report	NA	Report	Federal ELG	Weekly	Grab
Total Manganese, mg/l	Report	NA	Report	Federal ELG	Weekly	Grab
Total Iron, mg/l						
Existing Sources (before 5/4/84)	Report	NA	Report	Federal ELG	Weekly	Grab
New Sources (after 5/4/84)	Report	NA	Report			
Settleable Solids, ml/l	Report	NA	0.5	Federal ELG	Weekly	Grab

**IV. OTHER PERMIT CONDITIONS**

- a. Regulations for Effluent Limitations (Regulation No. 62) – Section 62.4 of the regulations includes effluent limitations that apply to all discharges of wastewater to State waters. These regulations are the basis for the oil and grease limitations in the tables above. Note that the limitations for TSS are not included in many cases due to the presence of federal ELGs.
- b. Technology-Based Limitations (Federal Effluent Limitation Guidelines) – Federal Effluent Limitation Guidelines (ELG’s) guidelines 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 ELGs, 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. Metals – The permit writer will review the application and determine if any 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. If a water quality based limitation for metals is considered in the permit, the more stringent of the federal ELG and the water quality based limit will be applied.
  - 3. 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.
  - 4. Chemicals- The addition of chemicals (including release agents) to the discharge is not allowed unless expressly authorized by the Division. 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)(1) 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 day/year threshold, TDS limitations 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)(1)(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 the 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 to these watersheds. If a discharge is to one of these areas, as defined in Regulations 71, 72, 73, and 74, the permittee may 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 maybe 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 two 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 permittee will be required to request an amendment to the certification to evaluate 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.

The Division has found that discharges of pit pumpage, spoils spring water and similar sources from coal mines at similar sites have exhibited effluent toxicity and therefore WET limitations may be included in this permit for wastewater from coal mining operations. Wastewater from outfalls that contain surface runoff only will not be subject to WET testing requirements.

Chronic WET testing will normally be incorporated into this permit. An exception may be made where the receiving stream has a low flow of zero in all months, and when the discharge is intermittent. This exception is being made as a zero low flow stream will not normally contain water, and the discharge does not flow continuously, therefore, chronic conditions are not likely to occur. The exception shall be granted on a site-specific basis. In the case of this exception, acute WET limits will be added to the certification.

- 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 listed waters. Is 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 an 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.

- i. 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.).
- j. 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.
- k. Compliance Schedules- Existing dischargers may be granted compliance schedules for any new effluent limitations applicable to the discharge. Some items requiring a compliance schedule may require an individual permit. Note that compliance schedules cannot be granted for limitations based upon the federal ELGs.

## V. STORMWATER DISCHARGES

Stormwater requirements have been included in this general permit and are outlined in Part I.C of the permit.

## VI. PUBLIC NOTICE COMMENTS

No comments were received during the public notice period. Note that the Division eliminated the 2 year maximum compliance schedule requirement.

**Andrew J. Neuhart**  
May 28, 2008