

RATIONALE
STORMWATER DISCHARGES ASSOCIATED WITH
SAND AND GRAVEL PRODUCTION OPERATIONS
(AND OTHER NONMETALLIC MINERALS EXCEPT FUEL)
GENERAL PERMIT IN COLORADO
COLORADO DISCHARGE PERMIT NUMBER COR-340000
NEW PERMIT

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I. INTRODUCTION – NEW PERMIT

This is a new stormwater discharge general permit. It incorporates the stormwater provisions from the Division’s Sand and Gravel Mining and Processing (and Other Nonmetallic Minerals Except Fuel) General Permit (COG-500000). That permit covers both process water and stormwater discharges. Permit COG-500000 will be renewed separately and will address additional pollutants of concern, such as selenium. Due to the expected complexity of the renewed permit, the Division determined that sand and gravel operations that only discharge stormwater could be covered under a separate stormwater-only discharge permit.

All existing stormwater-only dischargers covered under the COG-500000 permit, who have reapplied, will be automatically transferred to coverage under this new permit (COR-340000), and will be assigned a new permit certification number.

This permit is for the regulation of stormwater discharges associated with sand and gravel mining operations. (The permit also covers other nonmetallic minerals except fuel; all references to sand and gravel will include the other minerals, unless specifically exempted. Dedicated asphalt and concrete batch plants and recycling areas at these facilities may also be covered.) This rationale will explain the activities and discharges that are covered under this permit, how to apply for coverage under the permit, and the requirements of the permit.

The forms discussed in the rationale and permit are available on the Water Quality Control Division’s website at: www.cdphe.state.co.us/wq/PermitsUnit

II. CHANGES IN THIS GENERAL PERMIT

This permit incorporates the stormwater provisions from the Division’s Sand and Gravel Mining and Processing (and Other Nonmetallic Minerals Except Fuel) General Permit (COG-500000). However, there have been several notable changes from the COG-500000 permit, which have been incorporated into this permit. Significant changes are listed below. Numerous other minor changes, including revisions to the order of sections, were made for clarification purposes only.

A. Permit Coverage

1. **New Permit:** *As discussed above, this is a new permit, although it incorporates most of the provisions from the Division’s existing Sand and Gravel General Permit. Only discharges of stormwater are covered.*
2. **Concrete and Asphalt Recycling:** *The list of facility types that are covered by the permit has been expanded to include the recycling of concrete and asphalt (when done consistent with the activity descriptions for Standard Industrial Classification (SIC) Code 14). This type of activity has been routinely covered under this permit; the additional language formalizes this practice.*

B. Application Requirements

The permit application requirements have changed slightly, including the addition of an email address, if available. See Part I.A.3.

II. CHANGES IN THIS GENERAL PERMIT (cont.)

C. General Limitations

Several additions and clarifications were made to this section:

1. **Bulk Storage:** General requirements for bulk storage structures for petroleum products and other chemicals were clarified to state that secondary containment or equivalent adequate protection is required.
2. **Erosion Prevention:** A statement was added clarifying that all stormwater shall be discharged in a manner to prevent erosion, scouring, or damage to stream banks, streambeds, or ditches.

D. 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 either clarifications, reformatting, or adopting requirements from the Division's other stormwater general permits (e.g., BMP installation specifications). For existing permittees (i.e., those with permit coverage under permit COG-500000 before September 30, 2007), their SWMP 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 by **March 1, 2008**. The plan is not to be submitted to the Division unless requested, but must be available on site as outlined in Part I.B.7.b of the permit.

1. **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.**
2. **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.**
3. **Stormwater Management Controls:** This section has been modified to require that the SWMP provide installation and implementation specifications for each BMP identified in the SWMP. For structural BMPs, in most cases, this must include a technical drawing to provide adequate installation specifications. See Part I.B.2.c of the permit. Sections have also 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 with the permit. **This requirement may necessitate changes to existing permittees' SWMPs.**

E. Stormwater Discharges - BMP Implementation and Design Standards

Part I.B.3 of the permit reiterates the requirement that facilities select, install, implement, and maintain appropriate BMPs, following good engineering, hydrologic and pollution control practices. This part also requires that BMPs must be adequately designed to prevent pollution or degradation of State waters. Additional language was also added to Section VI.C of the rationale discussing these BMP requirements and further clarifying the expectations for compliance with this permit.

F. 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 SWMP includes appropriate cross references.

G. Inspections

A section has been added explaining the inspection requirements for sites undergoing reclamation.

II. CHANGES IN THIS GENERAL PERMIT (cont.)

H. Employee Training

The Employee Training section has been expanded to cover contractor and temporary personnel, in keeping with other stormwater permits.

I. Total Maximum Daily Load (TMDL)

A section on TMDLs has been added. This section gives a general outline of the additional requirements that may be imposed by the Division if the facility discharges to a waterbody for which a stormwater-related TMDL is in place. See Section VI.A of the rationale and Part I.B.10 of the permit.

J. Record Keeping

The Record Keeping section (Part I.C.5) was amended to clarify requirements for inspection reports generated during an inspection conducted in accordance with Part I.B.5 of the permit. Inspection reports must be signed by the inspector, or the individual verifying the corrective action indicated in the inspection report, on behalf of the permittee. Inspection reports are not typically required to be submitted to the Division, and therefore, are not required to be signed and certified for accuracy in accordance with Part I.C.6 of the permit. However, any inspection reports that are submitted to the Division must follow the signatory requirements contained in that section.

K. Permit Termination Criteria

A section has been added providing details on the criteria for terminating permit coverage. Sites that are covered by a bond under the Colorado Division of Reclamation, Mining, And Safety, or CDRMS, will need to prove that bond release has occurred before permit coverage can be terminated. Sites that are not under a CDRMS bond must provide additional information before the permit can be terminated.

III. STORMWATER PROGRAM

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. This framework is under the National Pollutant Discharge Elimination System (NPDES) program. (Note: The Colorado program is referred to as the Colorado Discharge Permit System, or CDPS, instead of NPDES.) 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 that discharge industrial stormwater either directly to surface waters or indirectly, through municipal separate storm sewers, must be covered by a permit.

IV. COVERAGE UNDER THIS PERMIT – INDUSTRIAL CATEGORIES

A. Types of Facilities Covered

The types of facilities covered by this permit include all mining and quarrying of nonmetallic minerals, except fuels. This is the description of Standard Industrial Classification (SIC) Code 14. Also, stormwater from dedicated asphalt and concrete batch plants and recycling activities located at sand and gravel operations is covered by this permit, due to their similarity to the covered mines in pollution potential, and their function as an adjunct to the mine operations. (The definition of asphalt and concrete batch plants can include the use of recycled asphalt or concrete.) The categories include:

<u>SIC Code</u>	<u>Industry Type</u>	<u>SIC Code</u>	<u>Industry Type</u>
141	Dimension stone	148	Nonmetallic minerals services, except fuels
142	Crushed and broken stone	(overburden removal, strip mining, etc.)	
144	Sand and gravel	149	Miscellaneous nonmetallic minerals, except
145	Clay, ceramic, and refractory minerals	fuels (asbestos, gems, fill dirt pits,	
147	Chemical and fertilizer mineral mining	graphite, gypsum, peat, pumice, talc, etc.)	
2951	Asphalt batch plants	3273	Concrete batch plants

IV. COVERAGE UNDER THIS PERMIT – INDUSTRIAL CATEGORIES (cont.)

B. Types of Facilities NOT Covered

This permit does not cover discharges from the following sources:

- 1) Product wash waters;
- 2) Maintenance/equipment wash waters;
- 3) Transport waters;
- 4) Scrubber waters (crushers or classifiers);
- 5) Mine dewatering (groundwater and/or runoff);
- 6) Other process water as determined by the permit issuing authority;
- 7) Stormwater runoff from mine or processing areas; and
- 8) Stormwater runoff which mixes with process generated wastewater before sampling.

The permit is not intended to cover discharges that have the potential to be contaminated with selenium. This includes stormwater that comes in contact with mining or waste materials that include shale deposits known to be a source of selenium contamination. Selenium can also occur in groundwater. As indicated above, if stormwater mixes with groundwater and is discharged, it must be covered by an alternate CDPS permit (for surface water discharges) or be regulated by CDRMS (for groundwater discharges).

V. APPLICATION AND CERTIFICATION

At least thirty days prior to the commencement of mining activities, the owner or operator of the site shall submit an original completed application, including a signed certification that the SWMP is complete. Original signatures are required for the application to be considered complete.

If coverage under this general permit is appropriate, then a certification will be developed and the applicant will be certified under this general permit.

VI. TERMS AND CONDITIONS OF PERMIT

A. Total Maximum Daily Loads (TMDLs)

If the designated use of a stream or water body has been impaired by the presence of a pollutant(s), development of a Total Maximum Daily Load (TMDL) may be required. A TMDL is an estimate of allowable loading in the waterbody for the pollutant in question. Types of discharges that are or have the potential to be a significant source of the pollutant are also identified. If a TMDL has been approved for any waterbody into which the permittee discharges, and stormwater discharges associated with industrial activity have been assigned a pollutant-specific Wasteload Allocation (WLA) under the TMDL, the Division will notify the permittee of the TMDL, and either amend the permittee's certification to add specific BMPs and/or other requirements, as appropriate, or write an individual permit to regulate discharges from this facility. See Part I.B.10 of the permit for further information.

B. Stormwater Management Plan (SWMP)

The stormwater regulations for this industry 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. 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 CDRMS of any significant changes at their site resulting from the implementation of the SWMP. This is so that the CDRMS 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:

1. Site Map
2. Description of Potential Pollutant Sources/Material Inventory

VI. *TERMS AND CONDITIONS OF PERMIT (cont.)*

3. *Stormwater Quality Controls*

- a) *SWMP Administrator*
- b) *Materials handling and spill prevention*
- c) *Erosion and sediment controls*
- d) *Other pollution prevention measures*
- e) *Preventive maintenance*
- f) *Good housekeeping*
- g) *Identification of discharges other than stormwater.*

C. *Practice-Based Effluent Limitations and BMPs*

The permit does not impose numeric effluent limits or require submission of effluent monitoring data for stormwater discharges covered under this permit. The permit instead imposes practice-based effluent limitations for stormwater discharges through the requirement to develop and implement a SWMP.

The permit conditions for the SWMP include the requirement for dischargers to select, implement and maintain Best Management Practices (BMPs) at a permitted site that adequately minimize pollutants in the discharges to assure compliance with the terms and conditions of the permit. Part I.B.2.c of the permit includes requirements for basic design standards for BMPs implemented at the site. 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 control all potential pollutant sources associated with mining activity to prevent pollution or degradation of State waters. Pollution is defined in CDPS regulations (5CCR 1002-61) as man-made or man-induced, or natural alteration of the physical, chemical, biological, and radiological integrity of water. Utilizing industry-accepted standards for BMP selection that are appropriate for the conditions and pollutant sources present, will typically be adequate to meet these criteria. However, site-specific design, including ongoing assessment of BMPs and pollutant sources, is necessary to ensure that BMPs operate as intended.

The permit further requires that stormwater discharges from industrial activities shall not cause, have the reasonable potential to cause, or measurably contribute to an excursion above any water quality standard, including narrative standards for water quality. This condition is the basis for all CDPS Discharge permits, and addresses the need to ensure that waters of the State maintain adequate water quality, in accordance with water quality standards, to continue to meet their designated uses. It is believed that, in most cases, BMPs can be adequate to meet applicable water quality standards. If water quality impacts are noted, or the Division otherwise determines that additional permit requirements are necessary, they are typically imposed as follows: 1) at the renewal of this general permit or through a general permit specific to an industrial sector (if the issue is sector-based); 2) through direction from the Division based on the implementation of a TMDL (if the issue is watershed-based); or 3) if the issue is site-specific, through a revision to the certification from the Division based on an inspection or SWMP review, or through an individual permit.

D. *Other Requirements*

1. ***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.B.5 of the permit for alternate schedules.) These inspections must be documented and summarized in the Annual Report to the Division.*
2. ***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.*
3. ***Annual Report:*** *As outlined under Part I.C.2 of the permit, an Annual Report must be submitted to the Division, covering January 1 through December 31, on the overall compliance with the SWMP. The Stormwater Annual Report will be due to the Division on or before **February 15** of the following year. The exact due date for the permittee's first Annual Report will be listed in their permit certification.*

All reports required for submittal shall be signed and certified for accuracy by the permittee. (See Part I.C.6 of the permit.)

*Kathryn Dolan
July 25, 2007*

VII. CHANGES AFTER PUBLIC NOTICE

Written comments were received from the Colorado Rock Products Association during the public notice period. Response to these comments is discussed below.

- A. Comment: The permit requires that existing permittees update their SWMPs, if necessary, to incorporate additional requirements for the site map, description of potential pollutant sources, and stormwater management controls. The deadline for this update is February 1, 2008. It was requested that permittees be allowed additional time to complete the update, as some entities have numerous sites. (See Part I.B(2) of the permit.)

Response: The SWMP changes are not extensive, and are not expected to require substantial time to complete. However, the deadline was extended to March 1, 2008.

- B. Comment: The permit requires that, for most sites, inspections of the facility's stormwater management system is required twice a year, in the spring and fall. It was requested that the permit not specify an exact timeframe for these inspections. (See Part I.B(5) of the permit.)

Response: The spring and fall timeframes were included so as to avoid having the two required inspections conducted too close together. The permit has been changed to state that the twice yearly inspections are required "approximately" in spring and fall. If this is not possible, the inspections must be conducted at least 120 days apart. Note that at least two inspections must still be conducted within each calendar year, and reported on the following Annual Report.

- C. Comment: The permit requires that a copy of the SWMP be retained on site for active mines, and mines undergoing reclamation. It was requested that, for sites undergoing reclamation, the SWMP be retained by the permittee, but not necessarily on site. (See Part I.B(7)(b) of the permit.)

Response: The reason for maintaining the SMWP on site is to ensure that the plan is readily accessible to those who are working on the site (such as BMP installation and maintenance staff), as well as to state and local inspectors. This is the default requirement, and is expected to be feasible at the vast majority of sites. The permit has been changed to allow for the SWMP to be retained at another location, provided that it is approved by the Division. The allowance for an alternate location is intended for specific circumstances, to take into account operations that do not have a suitable on-site location where the SMWP may be maintained.

- D. Comment: The permit states that the Division has the authority to require continued permit coverage, even if the site has been reclaimed, if the Division has shown or has reason to suspect that the stormwater discharges may contribute to a violation of a water quality standard. It was requested that the Division include a rationale for this provision. (See Part I.D(2) of the permit.)

Response: This provision, part of Regulation 61, Colorado Discharge Permit Regulations, section 61.3(2)(e)(vii), is standard in all stormwater discharge permits. It gives the Division the discretion to require permit coverage whenever water quality standards may be jeopardized, regardless of the source. No changes were made to the permit.

- E. Comment: The permit authorizes access to the site by the Division, EPA, and/or their authorized representative(s). Concerns were raised regarding safety, liability, and insurance issues, if inspectors access the site without notifying mining personnel, or access the site without the required training or escort. (See Part II.B(1) of the permit.)

Response: Although the Division understands the concerns included in the comment, the comment addresses Division and EPA procedures and is therefore outside of the scope of the permit. No changes were made to the permit.

Kathryn Dolan
August 27, 2007