

## Sector J – Non-Metallic Mineral Mining and Dressing.

**Note:** Where compliance with a requirement in a separate exploration permit, mining permit, reclamation plan, Surface Mining Control and Reclamation Act (SMCRA) requirements, etc. will result in you fully meeting any requirement in this Subpart, you are considered to have complied with the relevant requirement in this Subpart. You must include documentation in your SWPPP describing your rationale for concluding that any particular action on your part is sufficient to comply with the corresponding requirement in this Subpart.

### J.1 Covered Stormwater Discharges.

The requirements in Sector J apply to stormwater and certain process water discharges associated with industrial activity from Active and Inactive Non-Metallic Mineral Mining and Dressing facilities as identified by the SIC Codes specified under Sector J in Appendix A of the permit.

J.1.1 *Covered Discharges from Inactive Facilities.* All stormwater discharges.

J.1.2 *Covered Discharges from Active and Temporarily Inactive Facilities.* All stormwater discharges, except for most stormwater discharges subject to the existing effluent limitation guideline at 40 CFR Part 436. Mine dewatering discharges composed entirely of stormwater or uncontaminated ground water seepage from: construction sand and gravel, industrial sand, and crushed stone mining facilities.

J.1.3 *Covered Discharges from Exploration and Construction of Non-Metallic Mineral Mining Facilities.* All stormwater discharges.

J.1.4 *Covered Discharges from Sites Undergoing Reclamation.* All stormwater discharges.

### J.2 Limitations on Coverage.

Most stormwater discharges subject to an existing effluent limitation guideline at 40 CFR Part 436 are not authorized by this permit. The exceptions to this limitation, which are covered by this permit, are mine dewatering discharges composed entirely of stormwater or uncontaminated ground water seepage from construction sand and gravel, industrial sand, and crushed stone mining facilities. This coverage doesn't include industrial sand and gravel that use hydrofluoric acid flotation (HF).

### J.3 Definitions.

The following definitions are not intended to supersede the definitions of active and inactive mining facilities established by 40 CFR 122.26(b)(14)(iii).

J.3.1 ***Mining operations*** – For this permit, mining operations are grouped into two distinct categories, with distinct effluent limits and requirements applicable to each: a) earth-disturbing activities conducted prior to active mining activities; and b) active mining activities, which includes reclamation. "Mining operations" can occur at both inactive mining facilities and temporarily inactive mining facilities.

J.3.2 ***Earth-disturbing activities conducted prior to active mining activities*** – Consists of two classes of earth-disturbing (i.e., clearing, grading and excavation) activities:

- a. activities performed for purposes of mine site preparation, including: cutting new rights of way (except when related to access road construction); providing access to a mine site for vehicles and equipment (except when related to access road construction); other earth disturbances associated with site preparation activities on any areas where active mining activities have not yet commenced (e.g., for heap leach pads, waste rock facilities, tailings impoundments, wastewater treatment plants); and
- b. construction of staging areas to prepare for erecting structures such as to house project personnel and equipment, mill buildings, etc., and construction of access roads. Earth-

disturbing activities associated with the construction of staging areas and the construction of access roads conducted prior to active mining are considered to be “construction” and have additional effluent limits in Part J.4.2.

**J.3.3 Active mining activities** – Activities related to the extraction, removal or recovery, and beneficiation of non-metallic minerals from the earth; removal of overburden and waste rock to expose mineable minerals; and site reclamation and closure activities. All such activities occur within the “active mining area.” Reclamation involves activities undertaken, in compliance with applicable mined land reclamation requirements, to return the land to an appropriate post-mining contour and land use in order to meet applicable federal and state reclamation requirements. In addition, once earth-disturbing activities conducted prior to active mining activities have ceased and all related requirements in Part J.4 have been met, and a well-delineated “active mining area” has been established, all activities (including any clearing, grading, and excavation) that occur within the active mining area are “active mining activities

**J.3.4 Active mining area** – A place where work or other activity related to the extraction, removal or recovery of non-metallic minerals is being conducted, except, with respect to surface mines, any area of land on or in which grading has been completed to return the earth to desired contour and reclamation work has begun.

Note: Earth-disturbing activities described in the definition in Part J.3.2 that occur on areas outside the active mining area (e.g., for expansion of the mine into undeveloped territory) are considered “earth-disturbing conducted prior to active mining activities”, and must comply with the requirements in Part J.4.

**J.3.5 Inactive mineral mining facility** – A site or portion of a site where mineral mining and/or milling occurred in the past but there are no active mining activities occurring as defined above, and where the inactive portion is not covered by an active mining permit issued by the applicable state or federal agency. An inactive mineral mining facility has an identifiable owner / operator. Sites where mining claims are being maintained prior to disturbances associated with the extraction, beneficiation, or processing of mined materials, and sites where minimal activities are undertaken for the sole purpose of maintaining a mining claim are not considered either active or inactive mining facilities and do not require an NPDES industrial stormwater permit.

**J.3.6 Temporarily inactive mineral mining facility** – A site or portion of a site where non-metallic mineral mining and/or milling occurred in the past but currently are not being actively undertaken, and the facility is covered by an active mining permit issued by the applicable state or federal agency.

#### **J.4 Requirements Applicable to Earth-Disturbing Activities Conducted Prior to Active Mining Activities.**

Stormwater discharges from earth-disturbing activities conducted prior to active mining activities (defined in Part J.3.2) are covered under this permit. You cannot begin discharging stormwater associated with that portion of the operation until you have been issued a mining permit, and an updated and approved erosion & sediment control plan.

#### **J.5 Technology-Based Effluent Limits for Active Mining Activities.**

Note: These requirements do not apply for any discharges from earth-disturbing activities conducted prior to active-mining as defined in J.3.2(a) or J.3.2(b).

**J.5.1 Employee Training.** Conduct employee training at least annually at active and temporarily inactive sites. (See also Part III.C.1.b.ix)

**J.5.2 Stormwater Controls.** Apart from the control measures you implement to meet your Part III.B effluent limits, where necessary to minimize pollutant discharges, implement the following control measures at your site. The potential pollutants identified in Part J.5.3 shall determine the priority and appropriateness of the control measures selected.

*Stormwater Diversions:* Divert stormwater away from potential pollutant sources through implementation of control measures such as the following, where determined to be feasible (list not exclusive): interceptor or diversion controls (e.g., dikes, swales, curbs, berms); pipe slope drains; subsurface drains; conveyance systems (e.g., channels or gutters, open-top box culverts, and waterbars; rolling dips and road sloping; roadway surface water deflector and culverts); or their equivalents. For mines subject to dust control requirements under state or county air quality permits, provided the requirements are equivalent, compliance with such air permit dust requirements shall constitute compliance with the dust control effluent limit in Part III.B.1.b.xii.

*Capping:* When capping is necessary to minimize pollutant discharges in stormwater, identify the source being capped and the material used to construct the cap.

*Treatment:* If treatment of stormwater (e.g., chemical or physical systems, oil and water separators, artificial wetlands) is necessary to protect water quality, describe the type and location of treatment used. Passive and/or active treatment of stormwater runoff is encouraged. Treated runoff may be discharged as a stormwater source regulated under this permit provided the discharge is not combined with discharges subject to effluent limitation guidelines for the Mineral Mining and Processing Point Source Category (40 CFR Part 436).

**J.5.3 Discharge Testing.** (See also Part III.C.3.d) Test or evaluate all outfalls covered under this permit for the presence of specific mining-related but unauthorized non-stormwater discharges such as discharges subject to effluent limitations guidelines (e.g., 40 CFR Part 436). Alternatively (if applicable), you may keep a certification with your SWPPP, per Part J.6.6.

## **J.6 Additional SWPPP Requirements.**

The requirements in Part J.6 are not applicable to inactive mineral mining facilities.

**J.6.1 Nature of Industrial Activities.** (See also Part III.C.2) Document in your SWPPP the mining and associated activities that can potentially affect the stormwater discharges covered by this permit, including a general description of the location of the site relative to major transportation routes and communities.

**J.6.2 Site Map.** (See also Part III.C.2) Document in your SWPPP the locations of the following (as appropriate): mining or milling site boundaries; access and haul roads; outline of the drainage areas of each stormwater outfall within the facility with indications of the types of discharges from the drainage areas; location(s) of all permitted discharges covered under an individual NPDES permit, outdoor equipment storage, fueling, and maintenance areas; materials handling areas; outdoor manufacturing, outdoor storage, and material disposal areas; outdoor chemicals and explosives storage areas; overburden, materials, soils, or waste storage areas; location of mine drainage dewatering or other process water; heap leach pads; off-site points of discharge for mine dewatering and process water; surface waters; boundary of tributary areas that are subject to effluent limitations guidelines; and location(s) of reclaimed areas.

**J.6.3 Potential Pollutant Sources.** (See also Part III.C.3) For each area of the mine or mill site where stormwater discharges associated with industrial activities occur, document in your SWPPP (or in an Environmental Management System (EMS) accessible by site personnel) the types of pollutants (e.g.,  
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heavy metals, sediment) likely to be present in significant amounts. For example, phosphate mining facilities will likely need to document pollutants such as selenium, which can be present in significant amounts in their discharges. Consider these factors: the mineralogy of the waste rock (e.g., acid forming); toxicity and quantity of chemicals used, produced, or discharged; the likelihood of contact with stormwater; vegetation of site (if any); and history of significant leaks or spills of toxic or hazardous pollutants. Also include a summary of any existing waste rock or overburden characterization data and test results for potential generation of acid rock drainage.

*J.6.4 Documentation of Control Measures.* To the extent that you use any of the control measures in Part J.5.2, document them in your SWPPP pursuant to Part III.C.4. If control measures are implemented or planned but are not listed here (e.g., substituting a less toxic chemical for a more toxic one), include descriptions of them in your SWPPP. If you are in compliance with dust control requirements under state or county air quality permits, you must state (or summarize, as necessary) what the state or county air quality permit dust control requirements are and how you've achieved compliance with them.

*J.6.5 Employee Training.* All employee training(s) conducted in accordance with Part J.5.1 must be documented with the SWPPP (or in an Environmental Management System (EMS) accessible by site personnel).

*J.6.6 Certification of Permit Coverage for Commingled Non-Stormwater Discharges.* If you determine that you are able to certify, consistent with Part J.5.3, that a particular discharge composed of commingled stormwater and non-stormwater is covered under a separate NPDES permit, and that permit subjects the non-stormwater portion to effluent limitations prior to any commingling, you must retain such certification with your SWPPP. This certification must identify the non-stormwater discharges, the applicable NPDES permit(s), the effluent limitations placed on the non-stormwater discharge by the permit(s), and the points at which the limitations are applied.

**J.7 Additional Inspection Requirements.**

Except for earth-disturbing activities conducted prior to active mining activities as defined in Part J.3.2(a) and J.3.2(b), perform inspections at least quarterly unless adverse weather conditions make the site inaccessible. Sites which discharge to waters which are designated as Tier 2 or waters which are impaired for sediment must be inspected monthly. See Part J.8.1 for inspection requirements for inactive and unstaffed sites.

**J.8 Sector-Specific Benchmarks**

Tables J-1 identifies benchmarks that apply to the specific subsectors of Sector J. These benchmarks apply to both your primary industrial activity and any co-located industrial activities, which describe your site activities. You may be subject to requirements for more than one sector/subsector. Note: There are no Part J.8 monitoring and reporting or impaired waters monitoring requirements for inactive and unstaffed sites.

**Table J-1 Sector J1 Benchmarks Sand and Gravel Mining (SIC 1442-1446) and Stone and Minerals (SIC 1411, 1422-1429, 1481, 1499)**

Parameter	Benchmark	Units	Frequency	Sample Type
Total Suspended Solids (TSS)	100	mg/L	1/quarter	Grab

J.8.1 Inactive and Unstaffed Sites – Conditional Exemption from No Exposure Requirement for Routine Inspections, Quarterly Visual Assessments, and Benchmark Monitoring and Impaired Waters Monitoring. As a Sector J facility, if you are seeking to exercise a waiver from either the routine inspection, quarterly visual assessment or the benchmark and/or impaired monitoring requirements for inactive and unstaffed sites (including temporarily inactive sites), you are conditionally exempt from the

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requirement to certify that “there are no industrial materials or activities exposed to stormwater” in Parts V.A.4 and V.B.5, respectively. This exemption is conditioned on the following:

- If circumstances change and your facility becomes active and/or staffed, this exception no longer applies and you must immediately begin complying with the applicable benchmark monitoring requirements as if you were in your first year of permit coverage, and the quarterly visual assessment requirements; and
- The Department retains the authority to revoke this exemption and/or the monitoring waiver where it is determined that the discharge causes, has a reasonable potential to cause, or contributes to an instream excursion above an applicable water quality standard, including designated uses.

Subject to the two conditions above, if your facility is inactive and unstaffed, you are waived from the requirement to conduct routine facility inspections, quarterly visual assessments, and benchmark and impaired waters monitoring. You must still conduct an annual site inspection in accordance with Part V.A.2. You are encouraged to inspect your site more frequently where you have reason to believe that severe weather or natural disasters may have damaged control measures or increased discharges.

**J.9 Effluent Limitations Process Water and Dewatering Based on Effluent Limitations Guidelines for Dewatering (See also Part V.B and Part V.C of the permit)**

Tables J-2 through J-5 identify effluent limits that apply to the industrial activities described below during dry weather conditions. Compliance with these effluent limits is to be determined based on discharges from these industrial activities independent of commingling with any other wastestreams that may be covered under this permit.

**Table J-2 Numeric Limits for dewatering and/or process water discharges at crushed or broken limestone mining facilities (SIC 1422)**

Parameter	Effluent Limit	Units	Frequency	Sample Type
Flow	REPORT monthly avg, and daily maximum	gpd	1/month	Measured
pH (daily maximum)	6.0 - 9.0	s.u.	1/month	Grab
pH (monthly average)	6.5 – 8.5	s.u.	1/month	Grab
Total Suspended Solids (TSS) – Dewatering Only	15 monthly avg, 31 daily maximum	mg/L	1/month	Grab (a)
Total Suspended Solids (TSS) – Dewatering and Process Water	17 monthly avg, 37 daily maximum	mg/L	1/month	Grab (a)
Temperature – Summer	REPORT	°F	1/month	i-s (b)
Temperature Difference	0 maximum	°F	1/month	Calculated (b, c)

**Notes:**

- (a) Monthly average limits apply to every facility that discharges three or more times during the month. A discharge beginning one day and lasting into a second day is considered two discharges when determining whether or not the monthly average limit applies.
- (b) For discharges to Use III or Use IV streams during June, July, August and September. Samples to be taken at the beginning of discharge and midway through discharge.
- (c) Temperature Difference is determined by following the steps below until you verify you are either demonstrating compliance or noncompliance.
  - i) If the effluent temperature <= 68°F (Use III) or <= 75°F (Use IV), then report “Temperature Difference” = 0, demonstrating compliance. Otherwise proceed to the next step.

- ii) Calculate “Temperature Difference” = effluent temperature - receiving water temperature upstream of the discharge. If the result is “<= 0” then report the negative value which is compliant. If it is “> 0” proceed to the next step.
- iii) Calculate “Temperature Difference” = edge of mixing zone temperature (50 feet downstream of discharge) - [68°F (Use III) or 75°F (Use IV)]. If the result is “<= 0” then report the negative value which is compliant. If it is “>0” proceed to the next step.
- iv) Calculate “Temperature Difference” = edge of mixing zone temperature (50 feet downstream of discharge) - receiving water temperature upstream of the discharge. If the result is “<= 0” then report the negative value which is compliant. If it is “>0” then report the positive value which is a permit violation.

**Table J-3 Numeric Limits for dewatering discharges at crushed stone mining facilities (SIC 1423 – 1429)**

Parameter	Effluent Limit	Units	Frequency	Sample Type
Flow	REPORT monthly avg, and daily maximum	gpd	1/month	Measured
pH (daily maximum)	6.0 - 9.0	s.u.	1/month	Grab
pH (monthly average)	6.5 – 8.5	s.u.	1/month	Grab
Total Suspended Solids (TSS) – Dewatering Only	30 monthly avg, 66 daily maximum	mg/L	1/month	Grab
Total Suspended Solids (TSS) – Dewatering and Process Water	45 monthly avg, 60 daily maximum	mg/L	1/month	Grab (a)
Temperature – Summer	REPORT	°F	1/month	i-s (b)
Temperature Difference	0 maximum	°F	1/month	Calculated (b, c)

**Notes:**

- (a) Monthly average limits apply to every facility that discharges three or more times during the month. A discharge beginning one day and lasting into a second day is considered two discharges when determining whether or not the monthly average limit applies.
- (b) For discharges to Use III or Use IV streams during June, July, August and September. Samples to be taken at the beginning of discharge and midway through discharge.
- (c) Temperature Difference is determined by following the steps below until you verify you are either demonstrating compliance or noncompliance.
  - i) If the effluent temperature <= 68°F (Use III) or <= 75°F (Use IV), then report “Temperature Difference” = 0, demonstrating compliance. Otherwise proceed to the next step.
  - ii) Calculate “Temperature Difference” = effluent temperature - receiving water temperature upstream of the discharge. If the result is “<= 0” then report the negative value which is compliant. If it is “> 0” proceed to the next step.
  - iii) Calculate “Temperature Difference” = edge of mixing zone temperature (50 feet downstream of discharge) - [68°F (Use III) or 75°F (Use IV)]. If the result is “<= 0” then report the negative value which is compliant. If it is “>0” proceed to the next step.
  - iv) Calculate “Temperature Difference” = edge of mixing zone temperature (50 feet downstream of discharge) - receiving water temperature upstream of the discharge. If the result is “<= 0” then report the negative value which is compliant. If it is “>0” then report the positive value which is a permit violation.

**Table J-4 Numeric Limits for dewatering discharges at construction sand and gravel mining facilities (SIC 1442) and clay mines (SIC 1455-1459)**

Parameter	Effluent Limit	Units	Frequency	Sample Type
Flow	REPORT monthly avg, and daily maximum	gpd	1/month	Measured
pH (daily maximum)	6.0 - 9.0	s.u.	1/month	Grab
pH (monthly average)	6.5 – 8.5	s.u.	1/month	Grab
Total Suspended Solids (TSS) – Dewatering and/or Process Water	30 monthly avg, 60 daily maximum	mg/L	1/month	Grab (a)
Temperature – Summer	REPORT	°F	1/month	i-s (b)
Temperature Difference	0 maximum	°F	1/month	Calculated (b, c)

**Notes:**

- (a) Monthly average limits apply to every facility that discharges three or more times during the month. A discharge beginning one day and lasting into a second day is considered two discharges when determining whether or not the monthly average limit applies.
- (b) For discharges to Use III or Use IV streams during June, July, August and September. Samples to be taken at the beginning of discharge and midway through discharge.
- (c) Temperature Difference is determined by following the steps below until you verify you are either demonstrating compliance or noncompliance.
  - i) If the effluent temperature  $\leq 68^{\circ}\text{F}$  (Use III) or  $\leq 75^{\circ}\text{F}$  (Use IV), then report “Temperature Difference” = 0, demonstrating compliance. Otherwise proceed to the next step.
  - ii) Calculate “Temperature Difference” = effluent temperature - receiving water temperature upstream of the discharge. If the result is “ $\leq 0$ ” then report the negative value which is compliant. If it is “ $> 0$ ” proceed to the next step.
  - iii) Calculate “Temperature Difference” = edge of mixing zone temperature (50 feet downstream of discharge) - [ $68^{\circ}\text{F}$  (Use III) or  $75^{\circ}\text{F}$  (Use IV)]. If the result is “ $\leq 0$ ” then report the negative value which is compliant. If it is “ $>0$ ” proceed to the next step.
  - iv) Calculate “Temperature Difference” = edge of mixing zone temperature (50 feet downstream of discharge) - receiving water temperature upstream of the discharge. If the result is “ $\leq 0$ ” then report the negative value which is compliant. If it is “ $>0$ ” then report the positive value which is a permit violation.

**Table J-5 Numeric Limits for dewatering discharges at industrial sand mining facilities (SIC 1446)**

Parameter	Effluent Limit	Units	Frequency	Sample Type
Flow	REPORT monthly avg, and daily maximum	gpd	1/month	Measured
Total Suspended Solids (TSS) – Dewatering and/or Process Water	25 monthly avg. 45 daily maximum	mg/L	1/month	Grab (a)
pH (daily maximum)	6.0 - 9.0	s.u.	1/month	Grab
pH (monthly average)	6.5 – 8.5	s.u.	1/month	Grab

**Notes:**

- (a) Monthly average limits apply to every facility that discharges three or more times during the month. A discharge beginning one day and lasting into a second day is considered two discharges when determining whether or not the monthly average limit applies.

**J.10 Vehicle washwater from mining operations.**

Washwater from mining operations may be comingled with the other process water from the mining activity with the following restrictions.

J.10.1 *Vehicle Wash Prohibitions.* You are prohibited from discharging or causing to be discharged any automotive fluids (i.e. waste oil, fuels, grease, antifreeze such as ethylene glycol, organic solvents, or paint) or washwater from engine or under-carriage cleaning. Additionally, the use of soaps to wash vehicles is prohibited if it results in a surface water discharge.

J.10.2 *Additional Technology-Based Effluent Limits.* You must design, select and implement an appropriate wastewater treatment system to meet the limits of this permit. The system must include the following components.

J.10.2.1 *Dedicated Area.*

Your vehicle washing must be performed in an area dedicated to the exterior washing of vehicles and must be separate from any area where vehicle maintenance work is performed. This dedicated area must be identified as a dedicated washing area with signage. If this area may be used by anyone not trained on your practices, include any prohibitions on the signage to aid in compliance with this permit.

J.10.2.2 *Inspection and Maintenance.*

You must inspect components of any wastewater treatment system - including grit traps, floor drains, oil/water separators, and drainfield, as part of your routine facility inspections. You must remove waste materials from these components before such material would cause the discharge of pollutants, but not less than once per year.

J.10.2.3 *Required Documentation.*

You must maintain a record of the following:

- any observations of a visible oil sheen and description of any resulting actions that may have been taken to resolve; and
- calculations of your water use.

J.10.3 *Groundwater Discharges.*

Wastewater containing oil and grease from the vehicle washwater shall be observed for oil and grease prior to being allowed to infiltrate into ground waters. If either a visible oil sheen or evidence of oil and grease exists (Note Part V.D), you shall contain and dispose of this wastewater to a sanitary sewer in accordance with applicable industrial pretreatment requirements, or dispose otherwise in accordance with applicable law.

J.10.4 *Vehicle Wash Water*

All surface water discharges exclusively containing vehicle wash water shall be monitored by the permittee at each discharge point associated and limited as specified below in Table J-6.

**Table J-6 Numeric Reporting and Limits for Vehicle Wash Water**

PARAMETER	Limits			UNITS	Monitoring Frequency	Sample Type
	Daily Minimum	Monthly Average	Daily Maximum			
<b>Flow</b>		REPORT	REPORT	gpd	1/month	measured

No visible sheen is permissible on any water discharging from the facility. The permittee shall observe any vehicle or wheel washwater on each day the facility is in operation to verify compliance with this requirement.

### **J.11 Termination of Permit Coverage**

*J.11.1 Termination of Permit Coverage for Sites Reclaimed After December 17, 1990.* A site or a portion of a site that has been released from applicable state or federal reclamation requirements after December 17, 1990, is no longer required to maintain coverage under this permit. If the site or portion of a site reclaimed after December 17, 1990, was not subject to reclamation requirements, the site or portion of the site is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed as defined in Part J.3.5.

*J.11.2 Termination of Permit Coverage for Sites Reclaimed Before December 17, 1990.* A site or portion of a site that was released from applicable state or federal reclamation requirements before December 17, 1990, or that was otherwise reclaimed before December 17, 1990, is no longer required to maintain coverage under this permit if the site or portion of the site has been reclaimed. A site or portion of a site is considered to have been reclaimed if: (1) stormwater runoff that comes into contact with raw materials, intermediate byproducts, finished products, and waste products does not have the potential to cause or contribute to violations of state water quality standards, (2) soil disturbing activities related to mining at the sites or portion of the site have been completed, (3) the site or portion of the site has been stabilized to minimize soil erosion, and (4) as appropriate depending on location, size, and the potential to contribute pollutants to stormwater discharges, the site or portion of the site has been revegetated, will be amenable to natural revegetation, or will be left in a condition consistent with the post-mining land use.