

# Mining, Extraction & Paving Material Preparation General Permit

NDR32-0000

**WHEN DO I NEED THIS PERMIT?**

# NEED THIS PERMIT IF

- In ND, not on Reservation
- Operations involved in mining or extracting activities, including processes to prepare materials for use, SIC Codes between 12 and 14
- Facilities operated to obtain or prepare materials for highway construction activities including concrete or asphalt batch plants, SIC Codes 1611, 2951 and some 327
- Equipment storage and maintenance yards supporting the industrial categories identified above

# NEED SOMETHING ELSE WHEN

- Discharges are subject to a nationally established effluent limitations guideline or other performance standard under 40 CFR subchapter N
- Discharges are not stormwater, example wastewater from processing operations or sanitary facilities
- Placing fill into waters of the state requiring local, state, or federal authorizations, ie Sec 404 permits
- Falls under the NEPA, ESA, or NHPA
- Stormwater discharges that the Department determines will cause, or have the reasonable potential to cause or contribute to, violations of water quality standards

# HOW TO GET PERMIT

- Completely fill out NOI form
  - NO BLANK SPACES AT ALL
- Develop a SWPPP
  - Follow requirements in part II.C on pg 6 or NDR32-0000
- Send NOI to the Department
- And send SWPPP **if** site is 50+ acres or has a discharge point within 2000 ft of, and flow to, a 303d listed water body due to sediment or parameters associated with sediment transport
- Coverage begins 7 days after we receive completed application

# Don't forget to consult..

- Local agencies may operate a local stormwater management program or other sediment and erosion control program
- The local authority may require that a copy of the application be provided to them for review and approval

# What if I have multiple temporary or portable operations?

- You may submit a single application to cover all operations under one permit

# OIL AND GAS EXEMPTION

# Oil and Gas Exemption SIC codes 13

- Facilities that have not discharged a reportable quantity of oil or hazardous substances are not required to apply for a stormwater permit.
- UNLESS....

# EXEMPTION CANCELLED

- When facilities experience a stormwater discharge resulting in or contacting a reportable quantity release of oil or hazardous substance
- Then you shall submit a NOI within **15 days** of becoming aware of the release.
- And submit a SWPPP and provide for compliance with the terms of the plan within **30 days** of the operator becoming aware of the release

# HOW MUCH IS A REPORTABLE QUANTITY?

- It depends on what was spilled
- READ THE Code of Federal Regulations
  - 40 CFR 110.6
  - 40 CFR 117.21
  - 40 CFR 302.6

# O&G: Even if you have the permit...

- It does not relieve you of the reporting requirements of 40 CFR 110, 40 CFR 117, and 40 CFR 302.
- Any release of a hazardous substance, including a release in a stormwater discharge, must be reported to the agencies identified in Part IV.A.7
- The potential discharge of hazardous substances in stormwater discharges shall be minimized by including measures in the SWPPP to prevent and respond to releases of hazardous substances.
  - Should a reportable quantity release occur, the SWPPP shall be revised to prevent the reoccurrence of such a release.

# WHAT IF?

- What if I have an equipment storage and maintenance facilities of the field services sector?
  - SIC codes 1381-1389
- We might request you get permit coverage to manage potential impacts to surface waters.

# Odd Ball Discharges

- The following non-stormwater discharges may be authorized if the non-stormwater sources are identified in the SWPPP with a description of the pollution prevention measures to be implemented:
  - fire-fighting, fire hydrant flushing, potable water line flushing, infrequent building and equipment wash down without detergents, uncontaminated foundation drains, springs, lawn watering and air conditioning condensate.

**WHEN CAN I CLOSE THE PERMIT?**

# HOW TO CLOSE THE PERMIT

- Submit a NOT or other written request identifying:
  - The facility
  - The reason why the permit is no longer needed
  - And signed in accordance with Part IV.A.6
- Compliance with the conditions of this permit is required until the NOT is submitted

# MOST COMMON REASONS

- All stormwater discharges associated with industrial activity have been eliminated and final stabilization has been achieved
  - OR
- Another operator has assumed control over all areas of the site that have not achieved final stabilization in accordance with Transfer provisions, Part IV.B.3

# LESS COMMON REASONS

- The discharges were from an inactive coal mining operation no longer meeting the definition of a reclamation area under 40 CFR 434.11(I) because the performance bond issued to the facility by the appropriate SMCRA authority has been released
- A non-coal mining operation which has been released from applicable state or federal reclamation requirements after December 17, 1990

# OIL AND GAS REASON

- The discharges were from an oil or gas extraction facility where the areas affected by a reportable quantity release that resulted in coverage under this permit have been reclaimed and the facility has operated satisfactorily under a stormwater pollution prevention plan for a minimum of 3 yr

# SWPPP REQUIREMENTS

# Stormwater Pollution Prevention Plans

- All facilities prepare and implement a SWPPP
- SWPPP and revisions are subject to review by the Department
- Major objectives of the SWPPP are to identify potential sources of stormwater pollution associated with industrial activity and ensure that practices are implemented to minimize the contribution of pollutants

# SWPPP includes...

- Description of the activity conducted at the facility
- Site map showing drainage patterns, the drainage area for each outfall, storage or disposal areas, any structures to reduce stormwater contamination, property boundaries, natural drainage ways receiving discharges, TRS or Lat Long lines
- Identify individuals responsible for implementing, maintaining and revising the SWPPP

# Describe Potential Pollutant Sources

- Identify materials that are processed, handled, stored, or disposed that have the potential to be released with stormwater
- Evaluate loading/unloading operations, outdoor storage, disposal and processing activities, significant dust generating activities and disturbed area vulnerable to erosion for potential to contribute pollutants
  - Consider the nature and quantity of material, degree of exposure to stormwater, history of spills or leaks, and any measures in place to control stormwater
- Identify non-stormwater discharges that may be present and controls used to minimize the impact of the source
  - If it is not authorized include measures to remove the illicit discharge

# SWPPP Stormwater Controls

- Describe controls for each source or operation that may contribute pollutants in stormwater runoff
- A combination of BMPs and structural controls must be implemented as appropriate to reduce pollutant contributions in stormwater

# Good Housekeeping

- Practices to maintain a clean and orderly facility
- Litter, debris, chemicals and parts must be handled properly to minimize exposure to stormwater
- Includes measures to reduce and remove sediment tracked offsite by vehicles and the generation of dust

# Preventive Maintenance

- Practices must be provided for the inspection and maintenance necessary to ensure the proper operation of stormwater management devices (e.g., oil-water separators, catch basins, and silt fences) as well as equipment used or stored at a site

# Spill Prevention and Response

- Procedures must be developed where potential spills can occur
- Where appropriate, specific handling procedures, storage requirements, spill containment and cleanup procedures shall be identified

# Employee Training

- Informs personnel of their responsibility in implementing the practices and controls included in the plan such as spill response, good housekeeping, and sediment control practices
- Operators of active fixed location facilities, and temporary or portable facilities should provide employee training at least **annually** or as new employees are hired

# Erosion and Sediment Controls

- Must be implemented on areas of operations vulnerable to erosion
- Must conform to the guidelines provided in Appendix 1
- SWPPP describes the appropriate control measures and when they will be implemented during the process for each major phase of site activity

# ESC Sediment Basins

- Sediment basins
  - or an appropriate combination of equivalent sediment controls such as smaller sediment basins, and/or sediment traps, silt fences, fiber logs, vegetative buffer strips, berms, etc.
- are required for all down slope boundaries of the disturbance area and for those side slope boundaries as may be appropriate for site conditions

# ESC Temporary Protection

- Temporary erosion protection
  - (such as cover crop planting or mulching)
- or permanent cover must be provided for the exposed soil areas where activities have been completed or temporarily ceased
- These areas include graded slopes, pond embankments, ditches, berms and soil stockpiles

# ESC Installation

- All control measures must be properly selected, installed, and maintained in accordance with the manufacturer's specifications and good engineering practices
- If info indicates a control has been used inappropriately, or incorrectly, you must replace or modify the control for site situations
- You may deviate from the manufacturer's specifications and erosion and sediment control guidelines in Appendix 1 if you provide justification and document the rationale in the SWPPP

# ESC Clean Up

- If sediment escapes the site, off-site accumulations of sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts
- SWPPP must be modified to prevent further sediment deposition off-site

# Long Term Stormwater Management

- Describe practices that will be installed during the construction phase to control pollutants in stormwater discharges occurring after construction operations have been completed or incorporated into the reclamation of a temporary site
  - Stormwater ponds; flow reduction by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems which combine several practices
- Include an explanation of the technical basis used to select the practices to control pollution where flows exceed pre-development levels in the SWPPP

# SWPPP Maintenance

- All ESC measures and other protective measures identified in the plan must be maintained in effective operating condition
- SWPPP must indicate as appropriate the maintenance or clean out interval for sediment controls
- If site inspections identify BMPs that are not operating effectively, maintenance shall be arranged and accomplished ASAP

# SWPPP Inspections

- SWPPP must provide for site inspections to monitor the condition of stormwater discharge outlets and effectiveness of BMPs
- Objectives are to:
  - assess the stability and performance of existing runoff controls
  - identify areas adversely impacted by runoff from the site
- The inspections shall include discharge outlets from:
  - disturbed areas of the site that have not reached final stabilization
  - areas used for storage of materials
  - structural control measures
  - and vehicle maintenance areas

# Active facilities

- Inspect at least **1x/6mo** period
  - Periods are January – June and July – December
- Inspect within **48 hours** or ASAP following storm events of  $\geq 1$ " in 24 hrs
  - AND at least one inspection during a 6 month period when no such events occur

# Temporary or Portable Facilities

- ie sand and gravel, batch plants
- Inspect **1x/mo** while the operation is active
- AND **1x/6mo** until final stabilization is achieved after ceasing operations

# Inactive Operations

- Inspect at least 1x/3yr by a qualified individual with experience in surface water pollution issues

# SWPPP Review and Revisions

- SWPP shall be signed in accordance with the signatory requirements, and retained on-site for the duration of activity at the permitted location
- The permittee shall make plans available upon request to the Department, EPA, or, in the case of discharges to a municipal separate storm sewer system, to the operator of the municipal system

# SWPPP Amendments

- Amend the SWPPP whenever there is a change in design, construction, operation, or maintenance, which has a significant effect on the potential for the discharge of pollutants to the waters of the state
- The plan shall also be amended if the plan is found to be ineffective in controlling pollutants present in stormwater

# Oil and Gas Exemption SWPPP

- Oil or gas extraction facilities which have a discharge of a reportable quantity of oil or hazardous substance after the effective date of this permit shall submit a SWPPP and provide for compliance with the terms of the plan within **30 days** of the operator becoming aware of the release.

# **ADDITIONAL TERMS AND CONDITIONS**

# Dewatering

- Dewatering or basin draining related to the permitted activity must be managed with the appropriate BMPs, such that the discharge does not adversely affect the receiving water or downstream landowners
- Operate the discharge to minimize the release of sediment and provide energy dissipation measures to adequately protect the outlet from erosion
- The dewatering is limited to stormwater and small amounts of ground water that may collect on a site
- A separate permit must be obtained for the release of water from other sources such as sand and gravel wash plants

# Concrete Wash Water

- Concrete wash water shall not be discharged to waters of the state, storm sewer systems or allowed to drain onto adjacent properties
- Wash water disposal must be limited to a defined area of the site or to an area designated for cement washout
- The area must be sufficient to contain the wash water and residual cement

# Bulk storage

- Bulk storage structures for petroleum products and other chemicals shall have adequate leak and spill protection to prevent any spilled materials from entering waters of the state

# Stormwater Discharges

- Discharges from construction related activity inherent to the normal operation and expansion of covered facilities are covered by this permit
- Such activities shall be conducted in accordance with the practices identified in the SWPPP
- Any newly constructed stormwater discharges associated with industrial activity shall be added to the SWPPP or, if appropriate, covered by another applicable NDPDES permit

**MONITORING**

# Sampling Self-Monitoring Requirements

- Conduct sampling on stormwater discharges for the following circumstances:
  - The Department directs the permittee to conduct sampling
  - Instances where sampling could be required include, but are not limited to, any of the following:
    - Analytical data is needed to estimate water quality impacts,
    - Discharges are shown to be generally of poor quality, or
    - The SWPPP is delinquent or determined to be insufficient.

# Alternative to Reduce Inspections

- A permittee can sample stormwater discharges as an alternative to reduce inspection requirements
- Any request to conduct sampling in lieu of inspections shall be made in writing and approved by the Department

# **SAMPLE PROCEDURES**

# Test Parameters

- Sampling shall, at a minimum, consist of **semiannual grab** samples for the following parameters:

Required Parameter	Benchmark Value	Discharge Limit
pH		between 6.0 and 9.0 S.U
Oil and Grease	No visible sheen (15 mg/L)	
Total Suspended Solids	100 mg/L	
Total Nitrates	0.68 mg/L	
Total Phosphorus		
Ammonia as Nitrogen		

# Additional Parameters

- Facility must also test stormwater for any parameter that may be limited on discharges subject to effluent guideline limitations

# Discharge Samples

- All samples and measurements taken shall be representative of the discharge
- Samples shall be collected from discharges resulting from a storm event that is  $>0.1''$  and that has occurred at least 72 hours from the last  $0.1''+$  storm event which generated runoff

# Snowmelt Samples

- Snowmelt which generates runoff considered to be  $\geq 0.1$ " precipitation event qualifies for sampling purposes
- **Only one** sample per year for each sampling site can be from a snowmelt event

# Holding Pond Samples

- For discharges from holding ponds or other impoundments with a 24-hour or greater retention capability, grab samples of the discharge may be obtained at any time

# Collection Time

- For all other discharges, grab samples shall be taken **during the first 30 minutes** of the discharge
- If you can't do that, then a grab sample may be taken **during the first hour** of the discharge
  - Submit a description of why the grab sample could not be obtained during the first 30 minutes with the DMR

# Sample Records

- Record:
  - Date and duration (in hours) of the event
  - Rainfall amount or estimates (in inches) of the event
  - Approximate duration since the end of the last 0.1"+ storm event which generated runoff
  - An estimate of the size of the drainage area
- Included on DMRs

# Precipitation Gauge

- Maintain a rain gauge on site
- Or use the nearest National Weather Service rain gauge station
- Any gauge station used shall be located within **10 miles** of the stormwater discharge

# Impractical or Adverse Conditions

- If unable to collect samples due to impractical or adverse climatic conditions, submit a description of why samples could not be collected, including available documentation of the event
- Conditions which may prohibit collection include: normal non-working hours, nightfall, or weather conditions that create dangerous conditions for personnel or otherwise make the collection of a sample impractical

# Representative Sampling

- When a facility has 2+ outfalls which are believed to discharge substantially identical effluents,
  - based on the features and activities within the areas drained by the outfalls,submit a representative sampling plan in which at least 20 percent of all outfalls would be monitored
- To use this option submit documentation as to why discharges from the sites will be substantially similar and identify proposed sampling sites
- Upon approval by the Department, the representative sampling plan can be implemented

# Equivalent Monitoring Plans

- Where appropriate, results for monitoring plans developed for other regulatory agencies or other purposes can be used for the requirements of this permit
- The alternative monitoring plans can only be implemented upon written request and approval

# Equivalent Alternative Monitoring Plans

- When it is not feasible to develop a monitoring plan based on the percentage of outfalls, an alternative monitoring plan representative of the features and activities impacting stormwater outfalls may be developed
- The alternative plan must contain an explanation of why a percentage based plan is impracticable and how the plan is representative of the stormwater discharges at the facility

# Test Procedures

- The collection and transportation of all samples shall conform with EPA preservation techniques and holding times
- All laboratory tests shall be performed by a certified laboratory in conformance with test procedures pursuant to 40 CFR 136
- The method of determining the total amount of water discharged shall provide results within reasonable accuracy

# Recording of Results

- For each sample taken:
  - name of the sampler
  - the exact place of the sampling
  - date and time of the sampling
  
- For each sample analyzed:
  - name of the laboratory
  - name of the analyzer
  - analytical techniques used
  - test results
  - date and time of the analysis

# Additional Monitoring

- If the discharge is monitored more frequently than this permit requires, all additional results shall be included in the summary on the DMR

**REPORTS**

# Annual Inspection Summary

- A summary of the inspections outlined in the SWPPP requirements shall be provided on an annual basis
- Consists of a listing of all incidents of sediment or significant material residue accumulation, or erosion due to stormwater discharges observed during the calendar year
- Include:
  - inspection date
  - outfall identification or location of incident
  - description of incident
  - estimated quantity of material or size of area affected
  - brief explanation of potential cause and remedial actions taken

# Location Record

- Operators of portable or temporary facilities maintain a location record that shows the location where they operated facilities The record includes:
  - Permit number
  - Name and mailing address of the owner or operator
  - The site or plant name or number
  - Site location
  - Start date of each site
  - The estimated area of total disturbance in acres of each site
  - Name of water bodies within 2000 feet that may receive drainage from the site
  - Status of each site (active, reclaiming, inactive)
  - Date of final stabilization or when contoured to contain all stormwater discharges

# Annual Reports

- A copy of the Location Record and/or Inspection Summary shall be submitted to the Department by **January 31** of each year, covering the activities occurring during the preceding calendar year (January 1 through December 31).

# Discharge Monitoring Reports

- Monitoring results shall be summarized and reported on DMR forms
- If no discharge occurs, write "no discharge"
- Each report shall cover the calendar year (January 1 through December 31)
- Send by January 31 of the following year

# What do I send?

- If sampling send: DMRs, Annual Inspection Summary and Location Record
- If not sampling send: Annual Inspection Summary and Location Record

# Report Submittals

- The reports and any other correspondence required in this permit shall be submitted to the Department at the following address:

North Dakota Department of Health  
Division of Water Quality  
918 East Divide Ave  
Bismarck, ND 58501-1947

Guidelines for designing, implementing and maintaining erosion and sediment controls

# **EROSION AND SEDIMENT CONTROL GUIDELINES**

# Sediment Basins

- Or equivalent controls must be provided where 10+ acres of disturbed area drain to a common location prior to the runoff leaving the site or entering surface waters
- It is encouraged to install temporary sediment basins where appropriate in areas with steep slopes or highly erodible soils even if less than 10 acres drains to one area
- Temporary or permanent drainage ditches and sediment basins that are designed as part of a treatment system (e.g., ditches with rock check dams) require sediment control practices only as appropriate for site conditions

# Sediment Basin Design Requirements

- The basins must provide at least the following:
  - Sized to provide 3,600 cubic feet of storage per acre drained to the basin
  - OR a calculated volume of runoff from a 2 year, 24 hour storm and provides not less than 1800 cubic feet of storage from each acre drained to the basin
  - Outlets must be designed to avoid short-circuiting.
  - Designed with the ability to allow complete basin drawdown for maintenance activities
  - A stabilized emergency overflow to prevent failure of pond integrity.
  - Energy dissipation must be provided for the basin outlet.

# Temporary Sediment Basin Alternative

- Where the temporary sediment basin is not practical due to site limitations or nature of disturbance a combination of measures must be used within the disturbance area and down slope boundaries
- In determining whether installing a sediment basin is attainable, consider public safety, factors such as site soils, slope, and available area on site

# Erosion Protection

- Provide temporary erosion protection or permanent cover for the exposed soil areas where activities have been completed or temporarily ceased
- For those areas with a continuous positive slope within 200 lineal feet of a surface water, temporary erosion protection or permanent cover must be applied **within 21 days** of completing or ceasing earth moving activities
- Areas include pond embankments, ditches, berms and soil stockpiles

# Temporary Stockpile Exemption

- Temporary stockpiles **without significant silt, clay or organic components** (e.g., clean aggregate stockpiles, demolition concrete stockpiles, sand stockpiles) are **exempt** from the temporary erosion protection requirement

# Soil Stockpiles

- Temporary soil stockpiles must have effective sediment controls, and cannot be placed in surface waters, including stormwater conveyances such as curb and gutter systems, or conduits and ditches

# Drainage Ditches

- The normal wetted perimeter of any drainage ditch that drains water from a construction site, or diverts water around a site, must be stabilized at least 200 lineal feet from the property edge, or from the point of discharge to any surface water
- Stabilization should be completed within 24 hours of connecting to a surface water
- Drainage ditches that are designed as part of a treatment system (e.g., ditches with rock check dams) require sediment control practices only as appropriate for site conditions

# Pipe Outlets

- Pipe outlets must be provided with temporary or permanent energy dissipation within 24 hours of connection to a surface water.

# Slope Lengths

- In order to maintain sheet flow and minimize rills and/or gullies, there should be no unbroken slope length of greater than 75 feet for slopes with a grade of 3:1 or steeper.

# Inlet Protection

- Where appropriate, inlet protection devices may be used to reduce the amount of sediment that may enter a storm sewer system
- Maintenance and cleaning of inlet protection devices, including onsite sediment and erosion controls, must be performed in a timely manner

# Vegetated Buffers

- Min width of 25' for every 125' of disturbed area which drains to the buffer. For each additional 5' of disturbance, an additional 1' of width must be added
- The buffer shall have a slope  $\leq 5\%$  and the area draining to the buffer shall have a slope  $\leq 6\%$ . Concentrated flows should be minimized throughout the buffer
- Buffers shall consist of dense grassy vegetation, 3-12" tall with uniform coverage over 90% of the buffer. Woody vegetation shall not be counted for the 90% coverage
- No more than 10% of the overall buffer may be comprised of woody vegetation
- Vegetative buffers must be inspected for proper distribution of flows, sediment accumulation and signs of rill formation
- If a buffer becomes silt covered, contains rills, or is otherwise rendered ineffective, other control measures shall be implemented. Eroded areas shall be repaired and stabilized

# ESC Maintenance Considerations

- All erosion prevention and sediment control BMPs must be inspected to ensure integrity and effectiveness
- All nonfunctional BMPs must be repaired, replaced, or supplemented with functional BMPs

# Silt Fence Cleanout Requirements

- All control devices similar to silt fence or fiber rolls must be repaired, replaced, or supplemented when they become nonfunctional or the sediment reaches  $\frac{1}{3}$  of the height of the device
- These repairs must be made within **24 hours** of discovery, or as soon as field conditions allow access

# Sediment Basin Cleanout Requirements

- Temporary and permanent sedimentation basins must be drained and the sediment removed when the depth of sediment collected in the basin reaches  $1/2$  the storage volume
- Drainage and removal must be completed within **72 hours** of discovery, or as soon as field conditions allow access

# Sediment Removal

- Surface waters must be inspected for evidence of sediment being deposited by erosion
- Immediately remove all deltas and sediment deposited in surface waters, and restabilize the areas where sediment removal results in exposed soil
- Use all reasonable efforts to obtain access. If precluded, removal and stabilization shall take place immediately, but no more than, 7 calendar days after obtaining access
- You are responsible for contacting all local, regional, state and federal authorities and receiving any applicable permits, prior to conducting any work

# Vehicle Tracking

- Vehicle tracking from the site must be minimized by BMPs such as a designated vehicle entrance to the site and providing aggregate surface on the entrance as soon as practical
- Operators are responsible for street sweeping and/or scraping if BMPs are not adequate to prevent sediment from being tracked onto the street from the facility

# Vehicle Exits

- Construction site vehicle exit locations must be inspected for evidence of off-site sediment tracking onto paved surfaces
- Accumulations of tracked and deposited sediment must be removed from all off-site paved surfaces, as soon as practicable, or if applicable, within a shorter time specified by local authorities

# Off Site Sediment Accumulation

- Sediment must be removed in a manner and at a frequency sufficient to minimize off-site impacts
- e.g., fugitive sediment in streets could be washed into storm sewers by the next rain and/or pose a safety hazard to users of public streets

# Housekeeping

- Properly handle construction debris and waste materials
- Provide appropriate containers on site for storing debris and other wastes until disposal
- Litter and debris shall be picked-up regularly to reduce the chance for materials to be carried off the site by wind or water
- Collected material shall be taken to the appropriate facility for disposal or recycling

# Material Storage

- Liquid or soluble materials including oil, fuel, paint and any other hazardous substances must be properly stored, to prevent spills, leaks or other discharges
- Restricted access to storage areas must be provided to prevent vandalism
- Storage and disposal of hazardous waste must be in compliance with applicable regulations