

PS New California Storm Water Regulations and the Impact on Oil and Gas Exploration and Development*

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Search and Discovery Article #40952 (2012)**

Posted June 18, 2012

*Adapted from poster presentation at AAPG Annual Convention and Exhibition, Long Beach, California, April 22-25, 2012

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Abstract

With recent Ninth Circuit Court of Appeals decision requiring oil and gas producers to comply with the Clean Water Act, the oil and gas industry must now follow National Pollutant Discharge Elimination System (NPDES) requirements including construction storm water permitting. Our presentation will discuss the impacts of regulations required by the State of California Construction General Permit (CGP) for storm water runoff associated with oil and gas exploration and production activities that may cause storm water runoff and effluent discharges into surface waters. As of July 1, 2010, these regulations apply to all construction projects that disturb soil greater than one acre associated with exploration and production, including drill site preparation, the movement and placement of drilling equipment, including access roads and pipeline installation. CGP storm water monitoring requirements are based on Risk Levels (1, 2, & 3) for traditional sites such as drill pads and roads, and Type Levels (1, 2 & 3) for Linear Underground/Above Ground (LUP's) pipelines and overhead utilities. Monitoring may include field pH and turbidity measurements, suspended sediment, concentration, and non-visual pollutants three times per day during rain events. Numeric Action Levels and Numeric Effluent Limits have been set for pH and turbidity. Required Best Management Practices (BMP's) and good housekeeping practices at drill sites will be discussed that could aid in maintaining the runoff from pre-to post construction condition. As of September 1, 2011, new professional certifications are required to prepare the construction project Storm Water Pollution Prevention Plan (SWPPP) and associated activities. The SWPPP writer must be a trained Qualified SWPPP Developer (QSD) and site inspections must be conducted by a Qualified SWPPP Practitioner (QSP). These requirements and strategies for successful oil and gas operations necessary to limit soil erosion and storm water runoff will be discussed.

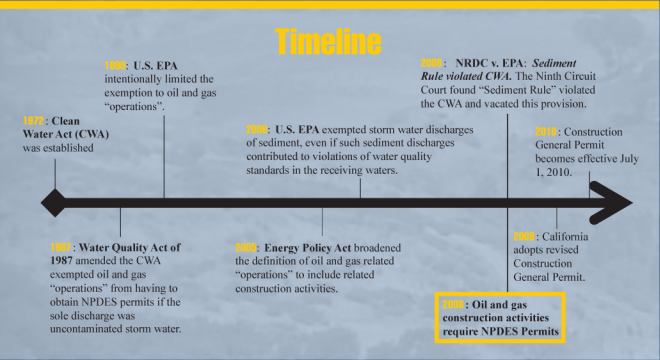
New California Storm Water Regulations and the Impact on Oil and Gas Exploration and Development

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California construction storm water regulations now apply to oil and gas exploration and development activities that exceed one acre of land disturbance!

BACKGROUND

- The 2008 United States Court of Appeals Ninth Circuit (9th Cir. 2008) 526 F.3d 591 [NRDC v. U.S. EPA.] determined that oil and gas construction activities discharging storm water contaminated only with sediment are no longer exempt from the National Pollutant Discharge Elimination System (NPDES) program.
- If a storm water discharge of sediment from these activities has the potential to contribute to a violation of a water quality standard, the operator must apply for an NPDES permit, or else be in violation of the Clean Water Act.
- In California, such activities are subject to the General Construction Storm Water Permit and operators must file a Notice of Intent for coverage under this General Permit.



New Conduction Permit

- In July 1, 2010, the California State Water Resources Control Board issued a revised storm water permit for construction projects.
- The Construction General Permit (CGP) applies to ALL projects in CA with ground-disturbance greater than one acre. These projects include traditional construction sites and linear underground/overhead projects.

Risk Levels for traditional sites applied based upon sediment risk and receiving water risk

- ✓ **Risk Level 1** – Small projects, with low slopes that do not discharge into impaired (or 3 Beneficial Uses) water bodies.
- ✓ **Risk Level 2** – Most projects with some erosion potential or near impaired (or 3 Beneficial Uses) water bodies.
- ✓ **Risk Level 3** – Large projects on higher slopes discharging to impaired (or 3 Beneficial Uses) water bodies
- Linear underground/overhead projects (LUP's):** Type Levels (Type 1, 2, & 3) are similar to risk levels based on threat to receiving water risk and sediment risk. Project activities include but not limited to any construction or excavation activity for access roads, pipelines for oil or natural gas, cables or electrical communication or power lines etc.

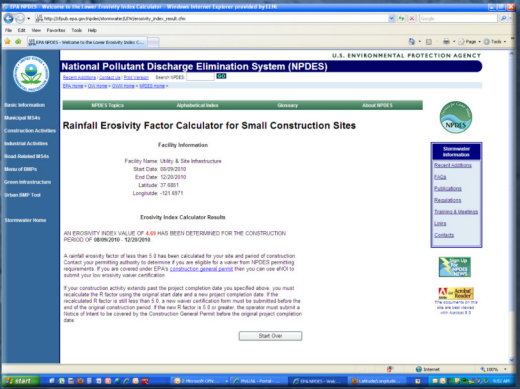
ABSTRACT

With recent Ninth Circuit Court of Appeals decision requiring oil and gas producers to comply with the Clean Water Act, the oil and gas industry must now follow National Pollutant Discharge Elimination System (NPDES) requirements including construction storm water permitting. This poster describes the impacts of regulations required by the State of California Construction General Permit (CGP) for storm water runoff associated with oil and gas exploration and production activities that may cause storm water runoff and effluent discharges into surface waters. As of July 1, 2010, these regulations apply to all construction projects that disturb soil greater than one acre associated with exploration and production, including drill site preparation, the movement and placement of drilling equipment, including access roads and pipeline installation. CGP storm water monitoring requirements are based on Risk Levels (1, 2, & 3) for traditional sites such as drill pads and roads, and Type Levels (1, 2 & 3) for Linear Underground/Above Ground (LUP's) pipelines and overhead utilities. Monitoring may include field pH and turbidity measurements, suspended sediment, concentration, and non-visual pollutants three times per day during rain events. Numeric Action Levels have been set for pH and turbidity. Required Best Management Practices (BMP's) and good housekeeping practices at drill sites will be discussed that could aid in maintaining the runoff from pre-to post construction condition. As of September 1, 2011, new professional certifications are required to prepare the construction project Storm Water Pollution Prevention Plan (SWPPP) and associated activities. The SWPPP writer must be a trained Qualified SWPPP Developer (QSD) and site inspections must be conducted by a Qualified SWPPP Practitioner (QSP). These requirements and strategies for successful oil and gas operations are necessary to limit soil erosion and storm water runoff.

STORM WATER PERMIT EXCLUSIONS

A storm water waiver may apply to your site!

- Not all drill sites are subject to regulatory requirement under the California General Storm Water Permit.
- Construction activities that disturb **less than 1** acre of land surface, unless part of a larger common plan of development, are not covered under this permit.
- EPA's Storm Water Phase II Final Rule provides the option for a Small Construction Rainfall Erosivity Waiver. This **waiver** applies to small construction sites between one and five acres, and allows permitting authorities to waive the requiremntn for those sites that do not have adverse water quality impacts.
- Dischargers eligible for this waiver can apply for exemption from the California Construction General Permit coverage.**
- In order to obtain the waiver, the discharger must certify to the State Water Board that small construction site activity will occur only when the rainfall erosivity factor is less than 5 ("R" Factor in the Revised Universal Soil Loss Equation). "R" Factor is dependent on project location and start and end date.
- Linear underground/overhead projects (LUP's): EPA's Small Construction Erosivity Waiver applies to sites between **one** and **five acres** demonstrating that there is no adverse water quality impacts.
- LUP sites are allowed to segment project areas and apply separate risk Types, so only areas of high sediment risk that are in close proximity to sensitive receiving waters will need to implement all permit requirements.



REFERENCES:

- California Environmental Protection Agency-State Water Resources Control Board. Impact of Natural Resources Defense Council v. U.S. EPA (9th Cir. 2008) 526 F.3d 591 on the Regulation of Storm Water Discharges of Sedimentation from Oil and Gas Construction Activities. http://www.swrcb.ca.gov/water_issues/programs/stormwater/docs/public_oil_gas_memo021809.pdf
- California State Water Resources Control Board (SWRCB) (September 2, 2009). National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ, NPDES No. CA5000002

IMPLICATIONS

Documentation

- Legally responsible person must file a Notice of Intent to Discharge prior to any earth moving activities.
- Legally responsible person must file a Notice of Termination within 90 days after completion of drilling activities.
- Operator must file a Storm Water Pollution Prevention Plan (SWPPP) 30 days prior to any earth moving activities.
- Operator must file a Rain Event Action Plan (REAP) 48 hours prior to any qualifying rain event.
- All permit required documents (PRD's) must be filed electronically on the State Water Resources Control Board Storm Water Multi-Application Reporting and Tracking System (SMARTS).

Minimum BMP Requirements

- Good Site Management "Housekeeping"
- ✓ construction materials
- ✓ waste management
- ✓ vehicle storage and maintenance
- ✓ landscape materials
- ✓ potential pollutant sources
- Non-Storm Water Management
- Erosion Control
- Sediment Controls
- Run-on and Runoff Controls
- Inspection, Maintenance and Repair



CASQA BMP Handbook - www.cabmphandbooks.com

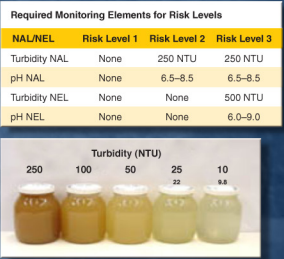
Monitoring

Storm Water Effluent Monitoring Requirements by Risk Level		
	Frequency	Effluent Monitoring (Section E, below)
Risk Level 1	When applicable	Non-visible pollutant parameters (if applicable)
Risk Level 2	Minimum of 3 samples per day during qualifying rain event characterizing discharges associated with construction activity from the entire project disturbed area.	pH, turbidity, and non-visible pollutant parameters (if applicable)
Risk Level 3	Minimum of 3 samples per day during qualifying rain event characterizing discharges associated with construction activity from the entire project disturbed area.	If NEL exceeded: pH, turbidity and suspended sediment concentration (SSC). Plus non-visible pollutant parameters if applicable

Required Monitoring Elements for Risk Levels			
	Visual	Non-visible pollutant	Receiving water
Risk Level 1	Three types required for all Risk Levels (see below)	As needed for all Risk Levels (see below)	Where applicable (if NEL exceeded) pH, turbidity and SSC
Risk Level 2	Not required	Not required	(if NEL exceeded) pH, turbidity and SSC
Risk Level 3	Not required	Not required	Bioassessment for sites 30 acres or larger.

Effluent Limits

- Numeric Action Levels (NALs)** An exceedance of an NAL triggers additional monitoring, investigation, and reporting requirements.
- Numeric Effluent Limitations (NELs)** An exceedance of NELs is considered a permit violation. This General Permit contains NELs for Risk Level 3 projects (under litigation).



New Training Requirements

- SWPPP Preparers must be supervised by a "Qualified SWPPP Developers" or QSDs as of September 1, 2011
- ✓ Professional Engineer (P.E.), Professional Geologist (P.G.), Registered Landscape Architect, Professional Hydrologist, Certified Professional Erosion and Sediment Control, Certified Professional Storm Water Quality
- Staff implementing SWPPPs (including visual inspections) must be "Qualified SWPPP Practitioners" or QSPs, also effective September 1, 2011
- ✓ Certified Inspector of Sediment and Erosion Control, Certified Erosion, Sediment, and Storm Water Inspector