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EM CX Center of Expertise Fact Sheet FY 09-02

Proposed Effluent Limitations Guidelines for Construction

Purpose	This summary provides basic information about a proposed federal rule with potential impact on DoD Construction and Development activities.
Rule/ Regulation Identification	**Title: Effluent Limitations Guidelines and Standards for the Construction and Development Point Source Category** • Status: Proposed rule • Date: November 28, 2008 • Reference: 73 FR 72562 • Deadline for Comment Submittal: February 26, 2009 • Who Should Review and Comment?: Engineering and Construction • Affected regulations: 40 CFR 450 • Link: http://edocket.access.gpo.gov/2008/pdf/E8-27848.pdf
Deadline	Comments on this proposal are due to EPA by February 26, 2009
Executive Summary	This proposal would establish a new Effluent Limitation Guideline for discharges associated with construction activity required to obtain NPDES permit coverage pursuant to 40 CFR 122.26(b)(14)(x)[≥ 5 acres] and (b)(15) [≥1, < 5 acres]. An Effluent Limitation Guideline (ELG) establishes a technology-based "floor" or minimum requirement applied at a national level. This proposal would require storm water discharges for certain construction and development (C&D) sites to meet effluent limitations designed to reduce the amount of sediment, turbidity, total suspended solids (TSS) and other pollutants in storm water discharged from the site. The proposal would establish a set of non-numeric effluent limitations requiring dischargers to provide and maintain effective erosion control measures, sediment control measures, and other pollution prevention measures to minimize and control pollutant discharges in storm water and other wastewater associated with construction site activities. The rule would specify particular minimum best management practices (BMPs) to meet the effluent limitations. For sites disturbing ten (10) or more acres at one time, the ELG would require the installation of a sediment basin. The proposal presents a minimum set of design criteria but allows equivalent performance alternatives if approved by the permitting authority. Further, the proposal would establish a numeric effluent limit for turbidity in discharges from C&D sites that meet certain triggering criteria. For certain large sites (≥ 30 acres) located in areas with high rainfall energy (≥ 50 "R-factor) and with soils containing significant clay content (≥ 10%), storm

	water discharges would be required to meet an any time maximum numeric effluent limit of 13 nephelometric turbidity units (NTUs). EPA expects a Final Rule in December 2009 with final incorporation into Federal and State general permits by 2014.
Potential Impact	This proposal is substantial and will impact Military Construction, Remediation and Civil Works missions. Engineering staff will need to incorporate these new ELG criteria into all site designs when storm water discharges are subject to NPDES permitting requirements. These provisions are in addition to existing federal or state requirements under existing construction general permits. Compliance staff will need to be aware of the general requirements of the ELG.
Key Elements of the Proposed Rule	<u>Effluent limitations reflecting the best practicable technology currently available (BPT)</u> EPA is required by statute to develop technology based standards for conventional (BOD_5, TSS, fecal coliform, pH, oil and grease), toxic (priority pollutants), and nonconventional pollutants (phenol, ammonia, turbidity etc). EPA has done this for all [NPDES permit required] C&D storm water discharges by developing the following non numeric controls. *Erosion Controls* • Stabilize disturbed soils immediately when earth disturbing work has temporarily or permanently ceased • Control storm water volume and velocity to minimize soil erosion • Minimize the amount of soil exposed at any one time and over the project duration • Control storm water discharges, peak flow rates and total volumes to prevent erosion at outlets, channels and stream banks • Preserve topsoil and natural vegetation • Minimize soil compaction • Provide and maintain natural buffers • Minimize construction of stream crossings • Sequence/phase construction to minimize extent and duration of exposed soils • Minimize disturbance of steep slopes • Implement erosion controls specifically designed to minimize erosion on slopes • Establish temporary or permanent vegetation (grass/sod) or use non-vegetative controls (mulch, geotextiles, polymer etc.) to stabilize exposed soils • Divert storm water run on away from disturbed areas *Sediment Controls* • Provide and maintain perimeter controls (diversion dikes, storm drain inlet protections, filter berms and/or silt fences) • Use vegetated filter strips or buffers no less than six (6) feet wide

	for silt fence discharges • Minimize the length of slopes and install linear sediment controls along the toe, face and at grade breaks of exposed and erodible slopes • Establish and maintain stabilized construction site entrances and exits and install and utilize wheel wash stations • Remove sediment and other pollutants from paved surfaces on a daily basis • Establish controls and practices to minimize introduction of sediments and other pollutants to storm drain inlets • Control sediment and other pollutants from dewatering activities. Discharges from dewatering activities are prohibited unless treated to minimize the discharge of pollutants and sediments within the range of particle sizes expected to be present onsite. • <u>For sites of 10 acres or more</u> install and maintain a sediment basin to control and treat storm water run off or alternative controls with equivalent pollutant reductions *if* authorized by the permitting authority. o The sediment basin must incorporate, at a minimum, the following requirements: ▪ Designed to manage a 2-year, 24-hour storm event or alternatively designed with a water storage volume of 3,600 ft^3 per acre of the total watershed area draining to the basin. ▪ The basin must also provide a sediment storage volume of 1,000 ft^3 per acre of disturbed land area directed to the basin. ▪ The effective length of the basin must be at least four (4) times the width of the basin. ▪ The basin must be equipped with an outlet device such as a skimmer, designed to withdraw water from the surface. ▪ Detention time for storage volume must be 72 hours unless otherwise authorized by the permitting authority (24 hour absolute minimum). • Direct storm water discharges from sediment controls to seep berms and level spreaders or use spray or drip irrigation systems to vegetated areas or buffers to increase sediment removal an maximize infiltration. *Pollution Prevention Measures* • Prohibit the discharge of construction wastes, trash, and sanitary waste. • Prohibit the discharge of wastewater from washout of concrete, stucco, paint and cleanout of other construction materials. • Prohibit the discharge of fuels, oils, or other pollutants used in

vehicle and equipment operation and maintenance.

- Prohibit the discharge of pollutants resulting from the washing of equipment and vehicles when soaps or solvents are used.
- Prohibit the discharge of pollutants resulting from the washing of equipment and vehicles using only water to remove sediments unless treated in a sediment basin (i.e. wheel washing).
- Implement measures to minimize exposures of building materials, landscape materials and associated products (fertilizers, herbicides, pesticides etc.) from storm water. Implement spill prevention and response procedures.
- Prevent storm water run off from contacting areas with uncured concrete to minimize pH changes to storm water.

Effluent limitations reflecting the best available technology economically achievable (BAT)

BAT effluent guidelines are applicable to toxic (priority) and nonconventional pollutants. EPA is required by statute to develop these technology based standards. Turbidity and settleable solids are nonconventional pollutants. EPA is proposing a "Maximum for any time" BAT numeric standard for turbidity of 13 nephelometric turbidity units (NTUs) and is intended to remove fine-grained and slowly settling or non-settleable particles contained in storm water. Turbidity, expressed as NTUs are "an expression of the optical property that causes light to be scattered and absorbed …." The numeric expression is calibrated to a specific standard.

The 13 NTU standard is proposed to apply to sites that meet the following parameters:

- Construction activity located at a site with $\geq$10% by mass of soils less than 2 microns in diameter (i.e. clays)
- Has an annual rainfall erosivity factor (R factor) of $\geq$ 50 as defined by the Revised Universal Soil Loss Equation (RUSLE)? [See 40 CFR 122.26(b)(15)(i)(A) for specific RUSLE manual reference.]
- Construction site activity $\geq$ 30 acres

The 13 NTU effluent limit does not apply to discharges of pollutants in the overflow from a sediment basin or other storage impoundment whenever rainfall events (chronic or catastrophic) cause an overflow of storm water from a sediment basin designed, constructed, an operated to contain runoff from a 2-year, 24-hour rainfall event.

Comment Period

EPA is soliciting comments in many areas of this proposed rule. Comments are due by 2/26/09. EPA proposed this rule under order of a court. EPA has

	sought an extension for re-hearing as of 12/03/08.
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