

# CHECKPOINT

SPRING 2005

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## DATES TO REMEMBER:

- ⇒ April 15, 2005: Deadline for Air source registration in Massachusetts
- ⇒ March 1, 2005: Massachusetts Annual Recycling Reporting
- ⇒ March 1, 2005: USEPA EPCRA Tier II inventory reporting

## CONSTRUCTION SITES REQUIRE A USEPA STORM WATER PERMIT IN ADDITION TO LOCAL WETLAND PERMIT

There is confusion over the applicability and requirements of USEPA's storm water permit at construction sites. Fulfilling local wetland protection requirements with the conservation commission does not satisfy the federal storm water program and the USEPA has levied significant fines and bad press on owners and general contractors managing construction sites.



Any construction site where one (1) or more acre of land is disturbed requires a storm water discharge permit under the USEPA National Pollution Discharge Elimination System (NPDES) program. The project owner, general contractor, or other entity in control of construction activities must apply for coverage under a General Permit for Storm Water Discharges from Construction Activities. Application for coverage is made by preparing a Storm Water Pollution Prevention Plan (SWPPP) which is required under the rule and submitting a completed Notice of Intent (NOI) to USEPA Headquarters in Washington, DC. When your NOI is posted on USEPA's web site <http://cfpub1.epa.gov/npdes/stormwater/noi/noisearch.cfm> and listed as "active", you are authorized under the permit. Authorization takes approximately seven (7) days. An individual permit for the project is generally not required. A waiver from the rule can be sought for construction sites located in areas of low predicted rainfall. For projects in New England however, the waiver is generally limited to construction activities that are very short duration.

The following are important aspects to understand between federal storm water permit requirements and local wetland protection requirements:

- The Order of Conditions issued by the local conservation commission or state wetland protection agency does not satisfy USEPA storm water permitting requirements.
- A construction site still requires a USEPA storm water permit even when located upland away from wetland, riverbanks, and other resource areas. That's because USEPA regulates any storm water generated at a construction site that leaves the project site. Unless all storm water remains on the project site, a USEPA permit is required.
- A separate and different Notice of Intent (NOI) to that filed with the local conservation commission or state agency for wetland protection is submitted to the USEPA to apply for coverage under the federal Construction General Permit. A SWPPP must be prepared prior to submitting the NOI.
- A storm water management plan required by the local conservation commission or state wetland protection agency may satisfy some, but not all requirements under the USEPA storm water program. Aspects of the SWPPP under the USEPA storm water rule that are not required by state or local permitting authorities include minimizing exposure of building materials to precipitation, demonstrating proper construction and management of fuel storage tanks and containers, responding to releases of petroleum and hazardous materials from construction vehicles and other vessels, and reducing the volume of storm water produced during construction through phased/sequenced construction.

For additional information, contact SAK Environmental, LLC.

## USEPA PROPOSES GENERAL PERMIT FOR REMEDIATION WASTEWATER DISCHARGES TO SURFACE WATERS

On November 2, 2004, the USEPA published in the Federal Register a draft Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) for discharges to surface waters in Massachusetts (Permit #MAG910000, <http://www.epa.gov/ne/npdes/mass.html>) and New Hampshire (Permit #NHG910000, <http://www.epa.gov/ne/npdes/newhampshire.html>). Public comment ended on December 17, 2004.

The Remediation General Permit (RGP) allows owners and operators of remediation systems to discharge treated wastewater to surface waters under four (4) main categories:

Activities Covered by the Remediation General Permit	
Category	Sub-Category
I - Petroleum Related Site Cleanups	A. Gasoline Only Sites B. Fuel Oils and Other Oil Sites C. Petroleum Sites Containing Other Contaminants
II - Non Petroleum Site Cleanups	A. VOC Only Sites B. VOC Sites Containing Other Contaminants C. Sites Containing Primarily Metals
III - Contaminated Construction Dewatering	A. General Urban Fill Sites B. Known Contamination Sites
IV - Miscellaneous Related Discharges Contaminated Sites	A. Aquifer Pump Testing to Evaluate Formerly B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites C. Hydrostatic Testing of Pipelines and Tanks D. Long-Term Cleanup of Contaminated Non-residential Sumps and Dikes E. Non-emergency Pump-out of Utility Vaults & Manholes F. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit)

Facilities eligible to apply for the RGP include new dischargers, facilities with on-going discharges pursuant to approved federal and/or state site remediation plans such as a Massachusetts Release Abatement Measure or New Hampshire Groundwater Management Permit, facilities with expired individual NPDES permits that have been administratively continued in accordance with 40 CFR 122.6, and facilities operating under an unexpired individual NPDES permit. Applicants seeking a RGP who already discharge under an individual NPDES permit will have the individual permit revoked when RGP coverage is granted by USEPA.

To be covered under the RGP, owners or operators of a remediation discharge must submit to USEPA New England Regional offices in Boston and respective state offices, a completed Notice of Intent (NOI). For new discharges, the NOI must be submitted at least 14 days prior to commencement of the discharge. For existing discharges operating under approved federal or state site remediation plans that have no individual NPDES permit, the NOI must be submitted within 30 days of the effective date of the RGP. For existing discharges operating under an individual NPDES permit or application for individual permit, no NOI is required if only minor changes to the discharge operations since submission of the application occurred. Significant changes to discharge operations require submittal of a NOI. The applicant must certify the NOI and submit it to USEPA for review. A copy is also submitted to the respective state agency and the municipality in which the proposed discharge is located. NOIs submitted for discharges in New Hampshire must be signed and stamped by a Professional Engineer. Coverage under the RGP is not effective until the applicant receives written notification from USEPA.

The RGP includes a comprehensive list of effluent limits for each discharge category and subcategories. Specific sampling and analysis requirements are included for initial treatment system discharge startup, intermittent operations and re-starts, extended system shutdown, and short term discharges.

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## USEPA RGP *continued*

The RGP requires all permittees to develop and implement a Best Management Practices Plan (BMPP) that include methods to:

- Minimize the potential for permit violations
- Protect the designated water uses of the receiving water body
- Mitigate pollution from materials storage areas
- Operate and maintain the wastewater treatment system to meet effluent limits
- Site security
- Management of generated wastes
- Erosion, scouring and sediment control from the discharge, and
- Training.

The BMPP may be an independent document or part of any other BMPP, Pollution Prevention (P2) plan or Spill Prevention Control and Counter Measures (SPCC) plan for a facility. For new discharges, a BMPP must be developed before discharging. Existing discharges planning to operate under the RGP less than 180 days do not require a BMPP, if the applicant can document that best management practices outlined in the federal or state approved site remediation plan are being implemented. Existing discharges planning to operate for 180 days or more must develop and implement a BMPP within 30 days after receiving USEPA notification that the discharge is covered under the RGP. The permittee must submit a certification to USEPA and the respective state agency by February 15 or each year indicating that activities such as inspections and record keeping requirements under the BMPP have been performed.

The final RGP rule is scheduled for spring 2005.

For additional information, contact SAK Environmental, LLC.

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## SUCCESS STORY

SAK Environmental, LLC completed ASTM Phase I and Phase II investigations at a chemical blending facility located in New Hampshire. Working for the owner and Delta Environmental Consultants, Inc. for potential sale of the property, SAK completed a rapid subsurface investigation and chemical for review of a release of solvents and metals to soil and groundwater beneath the facility. Complex chemistry required analysis of tentatively identified compounds. SAK prepared a draft Initial Site Investigation Report and Remedial Action Plan in accordance with New Hampshire Department of Environmental Services (NHDES) regulations Env-Wm 1403 and coordinated NHDES' consideration under the Expedited Review Program (WMD-REM-10). SAK successfully completed the project via intense coordination with field teams and daily client meetings to meet aggressive deadlines under the purchase and sales agreement.

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## UPDATES ON PROPOSED RULES PREVIOUSLY REPORTED BY SAK

This section keeps you up to date on proposed rules and other topics of interest previously reported by SAK Environmental, LLC in the prior issue of CheckPoint. Rather than repeating earlier summaries, we provide you concise updates on their status. Our complete summary of each proposed rule, legislation, or other matter of interest that is updated below can be obtained from [www.SAKenvironmental.com](http://www.SAKenvironmental.com) or by calling (978) 688-7804.

**"All Appropriate Inquiry" under the Comprehensive Environmental Response Compensation & Liability Act (CERCLA)** also known as Superfund has advanced from USEPA's draft final consensus document to a proposed rule promulgated in the Federal Register on August 26, 2004. Public comment on the proposed rule ended on November 30, 2004. The rule would establish specific regulatory requirements for conducting all appropriate inquiries into the previous ownership, uses, and environmental conditions of a property for the purposes of qualifying for certain landowner liability protections under CERCLA. When final, "All Appropriate Inquiry" will affect the process and legal significance of performing environmental due diligence on real property. The rule can be found at <http://www.epa.gov/brownfields/reg-neg.htm>.

**Massachusetts Contingency Plan (MCP)** amendments complete public comment period. The Massachusetts Department of Environmental Protection (MADEP) released draft regulations on September 17, 2004 amending the Massachusetts Contingency Plan (MCP, 310 CMR 40.0000). The proposed changes were significant and expand public involvement and notification requirements, numerical reporting and clean up standards, and add Asbestos as a regulated compound. The public comment period closed on December 10, 2004. Final regulations are scheduled for spring 2005. MADEP's red-line/strikeout version of proposed changes to the MCP can be found at [www.mass.gov/dep/bwsc/files/mcp/pubnot04.htm](http://www.mass.gov/dep/bwsc/files/mcp/pubnot04.htm).

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## MASS. DEP ISSUES FINAL POLICY FOR FEASIBILITY OF ACHIEVING OR APPROACHING BACKGROUND UNDER THE MCP

On July 16, 2004, the Massachusetts Department of Environmental Protection (MADEP) issued a final guidance policy to perform feasibility evaluations on achieving or approaching background conditions when remediating sudden releases and historically contaminated sites under Massachusetts' waste site clean up regulations, the Massachusetts Contingency Plan 310 CMR 40.0000. Evaluations for achieving or approaching background is part of a comprehensive policy entitled Conducting Feasibility Evaluations Under the MCP (#WSC-04-160) which, when completed, will provide guidance on performing feasibility evaluations in support of the MCP for feasibility evaluations required at Critical Exposure Pathways, Permanent versus Temporary Solutions, Selection of Remedial Action Alternatives, Reducing/Detoxifying Oil and Hazardous Material Present at a Site Above Upper Concentration Limits, and Destruction/Detoxification versus Capping. At this time, the policy provides final guidance for only performing feasibility evaluations for achieving or approaching background.

### "Background" Defined

Massachusetts General Law Chapter 21E describes background as those conditions that would exist in the absence of the disposal site. The MCP similarly defines background, but recognizes chemical deposits from some historic widespread human activities such as compounds present from coal or wood ash in fill materials, releases to groundwater from a public water supply system, and petroleum residues identical to the normal operation of motor vehicles.

Section 310 CMR 40.1056(2)(e) of the MCP requires submittal of a background feasibility evaluation with a Class A RAO where background concentrations have not been achieved (i.e. Class A-2, A-3, and A-4 RAOs). Because Class A-1 RAOs achieved background, an evaluation is not required. A Class A RAO reduces exposure point concentrations for each contaminant to a level of No Significant Risk (NSR), as defined in the MCP. NSR is a result of a risk characterization where exposure point concentrations are either below applicable groundwater and soil quality standards for individual contaminants, or below cumulative cancer and non-cancer toxicity risk limits for all contaminants present at a site. All Class A RAOs must, at a minimum achieve a level of NSR. NSR is not background however. The policy of achieving or approaching background addresses the increment of cleanup beyond NSR to background.

### The Benchmark of Presumptive Certainty

The policy defines specific conditions that, if present at a disposal site, would indicate achieving or approaching background as either Categorical Feasibility or Categorical Infeasibility. In either case, the presence of such conditions would qualify for Presumptive Certainty where MADEP would find the method of evaluation acceptable. Completion of a site-specific feasibility evaluation can always be performed at a site, but is not required if Presumptive Certainty is achieved. The Presumptive Certainty model is designed to provide for quick, cost effective, and consistent feasibility evaluation.

### Conditions of Categorical Feasibility

MADEP considers it Categorically Feasible to achieve or approach background at a site where a condition of NSR has been reached, the remaining contamination is equal to or less than 20 cubic yards of soil contaminated solely by Petroleum products and where the soil is:

- Located less than three (3) feet below the ground surface
- Not covered by pavement or a permanent structure
- Not located within a sensitive environment (i.e. wetland). and
- Not located in an area where removal will substantially interrupt public service or threaten public safety.

### Conditions of Categorical Infeasibility

For certain type of pollutants in certain environmental settings, remedial actions to achieve or approach background may be considered Categorically Infeasible such that the incremental cost of reducing concentrations from NSR to background would almost always be disproportionate to the incremental benefit or reduction in risk. Categorical Infeasibility may be achieved for:

- Excavations under permanent structures.
- Remedial actions that will substantially interrupt public service or threaten public safety.
- Remediation of degradable (nonpersistent) contaminants. (see table)
- Remediation of persistent contaminants located in S-2 and S-3 soil. (see table)

A site-specific feasibility evaluation is required for persistent contaminants that are located in areas of highest exposure potential for soil (i.e. S-1 category) and for all groundwater categories (i.e. GW-1, GW-2, and GW-3). *continued*

# MASS. DEP ISSUES FINAL POLICY CONTINUED *continued*

## Approaching Background

Approaching background is more difficult to define and MADEP provides several conditions that indicate when background has been approached. For soil, conditions at a site that qualify as approaching background and include:

- Soil containing persistent compounds located in areas classified as S-1, background is considered approached when the concentration of each persistent contaminant at each sampling location is equal to, or less than, the MCP Method 1 S-1 soil standard; or
- When remediating using soil vapor extraction, the concentration of each persistent contaminant in the influent stream has been reduced by treatment to the point of inflection on the concentration versus time curve; or
- The mass of each persistent contaminant present in S-1 soil is reduced by 50% below the mass present at NSR; or
- The exposure point concentration of each persistent contaminant is reduced by 50% below the exposure point concentration present at NSR.

For groundwater, conditions at a site that qualify as approaching background and include:

- The concentration of each persistent contaminant at each exposure point are at or below the applicable MCP Method 1 groundwater standard; or
- When remediating using a groundwater/Non Aqueous Phase Liquid extraction and treatment system, the concentrations/quantity of each persistent contaminant in the influent stream, have been reduced by treatment to the point of inflection on a concentration versus time curve.

Technologies that are technically or categorically feasible to implement are also subject to a benefit-cost evaluation. The policy includes simple criteria. It is considered feasible to achieve background conditions if the additional cost to remediate from NSR to background is equal to, or less than, 20% of the cost it was to remediate to NSR. It is considered feasible to approach background conditions, as defined in the policy, if the additional cost to remediate from NSR to approaching background is equal to, or less than, 20% of the cost it was to remediate to NSR.

MADEP's policy can be found at <http://www.mass.gov/dep/bwsc/files/04-160.pdf>.

List of Degradable (Nonpersistent) Contaminants 310 CMR 40.1514(4)	
Acenaphthene	Isophorone
Acetone	Methylene Chloride
Benzene	Methyl Ethyl Ketone
Benzoic Acid	Methyl Naphthalene
Chlorobenzene	NaphthaleneNitrobenzene
Chloroethane	Petroleum Compounds (except No. 6 oil)
2-Chlorophenol	Phenol
2,4-Dichlorophenoxyacetic Acid	Tetrahydrofuran
Dimethyl Phthalate	Toluene
Ethylbenzene	2,4,6-Trichlorophenol
Hexachlorobenzene	Xylenes
2-Hexanone	

List of Persistent Contaminants 310 CMR 40.1514(4)	
Arsenic	1,4-Dioxane
Asbestos <sup>1</sup>	bis(2-Ethylhexyl)phthalate
Benzo(a)pyrene	Heptachlor
Benzo(g,h,i)perylene	Hexachlorobenzene
Beryllium	p-Dichlorobenzene(1,4)
Bromodichloromethane	Lead
Bromoform	Mercury
Cadmium	Methyl Tert-Butyl Ether
Carbon Tetrachloride	No. 6 Fuel Oil
Chloroform	Pentachlorophenol
Chromium	PCBs
Copper	Selenium
Cyanide	1,1,2,2-Tetrachloroethane
p-Dichlorobenzene(1,4)	Tetrachloroethylene
1,1-Dichloroethane	1,2,4-Trichlorobenzene
1,2-Dichloroethane	1,1,1-Trichloroethane
1,1-Dichloroethylene	1,1,2-Trichloroethane
cis=1,2-Dichloroethylene	Trichloroethylene
trans-1,2-Dichloroethylene	Vinyl Chloride
2,6-Dinitrotoluene	Zinc

<sup>1</sup> Due to the qualities of asbestos, the criteria outlined in this policy to evaluate the feasibility of achieving or approaching background is not applicable. See DEP's Asbestos in Soil Policy for more information.

## COMPANY NEWS

- ⇒ SAK Environmental, LLC has improved its expertise with the addition of ***Susan D. Curtis***. Sue is an ***Environmental Engineer*** with 10 years experience in remedial investigations, feasibility studies, conceptual design, and subcontractor management for a variety of government and industrial hazardous waste sites. She managed hazardous waste projects for Superfund sites under the EPA TES III and ARCS contracts, as well as under the Massachusetts's c.21E sites and the Massachusetts Contingency Plan. Sue has a Bachelors Degree in Civil Engineering from the University of Vermont and a Masters Degree in Hazardous Materials Management from Tufts University.
- ⇒ ***Jeanne M. Westervelt*** also joined the firm as an ***Environmental Geologist***. Jeanne has 10 years experience conducting and managing environmental investigations at government and industrial facilities. She has designed and implemented comprehensive site investigations and sampling plans, and designed long-term groundwater compliance programs and protocols for data evaluation during remediation. Ms. Westervelt performed numerous hydrogeologic investigations in New England and the Mid-Atlantic which included soil and groundwater investigations, aquifer pump tests, landfill gas investigations, and associated quality control and assurance. Jeanne has a Bachelors Degree in Geology from Bucknell University and has completed numerous graduate level courses in hydrogeology from SUNY Stony Brook and City College New York. Ms. Westervelt is a registered Professional Geologist (PG).



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