



EPA Proposes BMP Approach to Storm Water Pollution Prevention

The Environmental Protection Agency (EPA) plans to propose within a month a new policy that would allow dischargers of large quantities of storm water to use best management practices to comply with water quality standards instead of meeting numerical effluent limits. The change will be detailed in an EPA draft interim policy statement. Under such an approach, a facility would be considered to be in compliance with water quality standards if it implemented a series of best management practices (BMPs). Stricter limits would be needed only if monitoring showed that the discharge was contributing to water quality problems despite the implementation of BMPs.

The Urban Wet Weather Federal Advisory Committee considered several cross-cutting issues related to wet weather runoff, including how to address storm water discharges from facilities whose industrial processes, materials, and equipment have no contact with rainwater. EPA officials plan to circulate the draft interim policy to the advisory committee and other interested groups once it is completed. The measure could be issued in final form within a few months.

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The interim policy would affect sources covered under the first phase of the EPA storm water permitting program, which is designed to manage large storm water discharges. Such discharges include those associated with industrial activity, discharges from municipal separate storm water sewer systems serving 100,000 people or more, and construction projects disturbing more than five acres of land. The EPA issued a final rule August 7, 1995, that established a two-tier program for regulating the remaining, smaller dischargers (60 FR 40230). Under the rule, sources determined to be significant contributors to water quality problems are required to obtain discharge permits within 180 days of receiving such a designation. The remaining discharges would be required to apply for permits, if needed, by August 2, 2001. The approach for regulating these sources will be further refined in an EPA rule slated to be promulgated in 1999.

The storm water permitting program under Section 402(p) of the Clean Water Act (CWA) would be retained under draft language in a related proposal agreed to by representatives of the states. Storm water discharges still would need national pollutant discharge elimination system permits, as is currently required under the CWA, however, the proposal would establish additional flexibility under the act to ensure that such permits would include only provisions that are appropriate for storm water discharges. Numeric effluent limitations from storm water permits would be excluded for 15 years under the proposal, with the objective of the storm water permitting program under the states' proposal being the attainment of water quality standards within 15 years.

Air & Water Pollution Control, Vol. 9, No. 4, February 14, 1996, p. 5.

Environment Reporter, Vol. 26, No. 35, January 12, 1996, p. 1621.

Environment Reporter, Vol. 26, No. 39, February 9, 1996, p. 1976.

Copper, Mercury, Nickel and Lead Total Maximum Daily Loads Established for New York-New Jersey Harbor

Environmental Protection Agency (EPA) Region II issued a final public notice on the establishment of Phased Total Maximum Daily Loads (TMDLs) for copper and mercury in New York-New Jersey Harbor. The TMDLs are being established in cooperation with the States of New York and New Jersey. Under the auspices of the New York-New Jersey Harbor Estuary Program, the States of New York and New Jersey and the EPA joined in a cooperative effort to collect ambient and source data, develop a water quality model to assess relative loading from all sources (municipal and industrial discharges, storm water, combined sewer overflows, sediment flux, atmospheric deposition and tributaries), and develop TMDLs.



Due to the interstate nature of the New York-New Jersey Harbor and the desirability of consistency and equity among dischargers, the State of New Jersey requested that the EPA promulgate TMDLs for the New York-New Jersey Harbor. The EPA will, therefore, establish TMDLs as a federal action. New York State has already implemented the necessary water quality-based effluent limits for most water bodies within the Harbor by issuing individual control strategies in the form of modified permits. The EPA is establishing TMDLs for the remaining water bodies for which New York State has not established TMDLs as well as Harbor water bodies in the State of New Jersey. The EPA promulgation will result in the incorporation of TMDLs into State Water Quality Management Plans. In the State of New Jersey, this promulgation will amend the Northeast, the Lower Raritan/ Middlesex County and the Monmouth County Water Quality Management Plans. In New York State, this promulgation will amend the New York State Water Quality Management Plan.

Copies of the responsiveness summary and TMDL support documents can be obtained by writing to Ms. Rosella T. O'Connor, Technical Evaluation Section, US Environmental Protection Agency Region II, 290 Broadway, 25th Floor, New York, New York 10006-1866 or by calling (212) 637-3711.

The administrative record containing background technical information on the TMDLs developed by EPA, in conjunction with the States of NY and NJ, is on file and may be inspected at the US EPA, Region II office between the hours of 9:00 a.m. and 4:30 p.m., Monday through Friday, except holidays. Arrangements to examine the administrative record may be made by contacting Ms. Rosella O'Connor.

Federal Register: January 24, 1996, Volume 61, Number 16, pp. 1930-1932.

Final NPDES Storm Water Multi-Sector General Permit Technical Corrections Published, Deadlines Extended

On September 29, 1995, the EPA published final NPDES Multi-Sector General Permits (MSGP) for storm water discharges associated with industrial activity (60 FR 50804). On February, 9 1996, the EPA released a notice which corrects typographical errors, and inadvertent omissions in the text of the MSGP as well as clarifies the fact sheet to the permit. That notice also extended deadlines for the submittal of a Notice of Intent (NOI) to be covered by the MSGP and the development and implementation of required Storm Water Pollution Prevention Plans (SWPPPs).

Sections II.A.5. and IV.A.7. of the permit authorize the Director to extend deadlines for certain actions required of individual permittees. The EPA has received a number of requests from applicants to extend the MSGP deadlines for submittal of the NOI. After careful consideration of the deadlines for submitting



NOIs and developing the storm water pollution prevention plan required by the MSGP, the EPA is extending the deadlines for the submittal of an NOI to be covered by the storm water MSGP and the development of the SWPPP. This deadline extension will provide MSGP applicants more time to study the sector specific requirements in the permit and to decide whether they wish to seek coverage under the MSGP or the baseline general permit. The new deadline for development and implementation of the SWPPP required by the storm water MSGP is 25 September 1996. For information contact Marilyn Fonseca at (202) 260-0592.

Federal Register: February 9, 1996, Volume 61, Number 28, pp. 5247-5254.

EPA Proposes Modified Secondary Treatment Requirements for POTW Discharges Into Marine Waters

The EPA is proposing an amendment to the regulations contained at 40 CFR Part 125, Subpart G, which implement section 301(h) of the Clean Water Act, 33 U.S.C. 1311(h). Section 301(h) provides for modifications of secondary treatment requirements for discharges into marine waters by publicly owned treatment works (POTWs) that demonstrate their compliance with the 301(h) criteria. As required by statutory amendments, a provision was added to the 301(h) regulations in 1994 that requires 301(h) POTWs to show they are removing a minimum of 30 percent of the biological oxygen demanding material (BOD) from their influent. Under the rule, compliance with the 30-percent removal requirement of BOD was generally to be achieved on a monthly-average basis. The rule did, however, allow some applicants, subject to an eligibility provision, to request that they be allowed to average their BOD removal percentages over a longer than monthly period. The eligibility provision excluded facilities that had demonstrated an ability to achieve 30-percent BOD removal on a monthly-average basis over the calendar year prior to August 9, 1994. The proposal would amend 40 CFR 125.60(c)(1) to provide increased flexibility by removing the eligibility provision, thereby allowing any 301(h) POTWs to apply for a longer than monthly BOD averaging period. The remaining provisions of the 301(h) regulations remain in full force and effect, and are not the subject of this proposed rule.

The agency emphasizes that removing the eligibility provision would not automatically provide any POTW with a longer averaging period for determining compliance with the 30-percent removal requirement for BOD. Instead, it simply allows all POTWs to request a longer averaging period. Under the regulations, POTWs who make such a request will continue to be required to demonstrate to the satisfaction of the Regional Administrator that a longer period is warranted in order to be granted relief from the requirement to meet BOD removal on a monthly basis. In determining whether to grant a request for longer than monthly averaging under Sec. 125.60(c)(2)(iii), the Regional Administrator will



still consider the POTW's historical removal data as a relevant factor. The EPA also notes that if it grants a longer averaging period, the required frequency of monitoring for BOD will remain the same as if the period for calculating compliance for BOD removal was the monthly average basis.

As noted above, all POTWs remain subject to the required 30 percent BOD removal condition, and all POTWs that want a longer than monthly averaging period will need to make a showing to the Regional Administrator that a longer period is warranted, and actual monitoring frequencies for BOD will not change. These safeguards, coupled with the continued requirement that the discharge must meet all the other 301(h) environmental criteria, lead the EPA to believe that the level of environmental protection would not be changed by this proposal in any material way, and the flexibility provided is appropriate.

The agency considered other alternatives for providing relief from the strict bar on requesting a longer averaging period represented by the eligibility provision, such as: (1) deleting the eligibility provision of Sec. 125.60(c)(1) and restricting the factors in the Regional Administrator's determination to grant or deny the longer averaging period; (2) retaining the eligibility provision, but adding a provision that allows an applicant that achieved 30-percent removal of BOD on a monthly average basis over the year preceding August 9, 1994, to satisfy the Regional Administrator that the data did not reflect representative conditions; and (3) retaining a modified eligibility provision that would be based on the BOD removal rates achieved over longer than one year preceding August 9, 1994, e.g., two years, to account for a range of conditions.

For further information contact: Virginia Fox-Norse, Office of Wetlands, Oceans and Watersheds, Oceans and Coastal Protection Division (4504F), US Environmental Protection Agency, 401 M St., SW, Washington, DC 20460; (202) 260-8448.

EPA Press Release, Friday, February 16, 1996.

Federal Register, February 27, 1996, Volume 61, Number 39, pp. 7403-7406.

EPA Proposes New Testing Requirements for Ocean Dumping

The EPA is issuing a proposed rule that would clarify certain provisions of the agency's ocean dumping regulations relating to requirements for bioassay testing. The purpose of the proposal is to clarify regulatory language that was interpreted by the U.S. Court of Appeals for the Third Circuit in a different manner than the EPA intended. The EPA's proposal would confirm the validity of existing testing practices, and would not change them.



The Ocean Dumping Regulations, which govern the evaluation and permitting of material to be ocean dumped, were promulgated by EPA on 11 January 1977, under Title I of the Marine Protection, Research, and Sanctuaries Act (MPRSA) of 1972, as amended, 33 U.S.C. 1401 *et seq.* These regulations are contained in 40 CFR Parts 220-229. The MPRSA prohibits the transportation of material from the United States for the purpose of ocean dumping without a permit, and prohibits U.S. instrumentalities and U.S. registered or flagged vessels from transporting materials from any location for the purpose of ocean dumping without a permit. The act also prohibits the unpermitted dumping of material transported from a location outside the United States into the Territorial Sea or the Contiguous Zone, if the dumping affects the Territorial Sea or U.S. territory.

As a result of the opinion of the Third Circuit Court, a degree of uncertainty now exists regarding some of the ocean dumping regulatory testing requirements. The EPA's proposed rulemaking would clarify those regulatory requirements in a manner that is consistent with existing testing practices. In particular, the Third Circuit Court examined the language of 40 CFR 227.6(c). That section currently provides that the potential for significant undesirable effects due to the presence of constituents listed at 40 CFR 227.6(a) "shall be determined by application of results of bioassays on liquid, suspended particulate, and solid phases of wastes according to procedures acceptable to EPA, and for dredged material, acceptable to EPA and the Corps of Engineers." The EPA and the Corps had argued, and the District Court had found, that Sec. 227.6(c) reserves discretion in the agencies not to require bioaccumulation bioassay tests in the suspended phase if acceptable procedures for such tests are not available and approved for use. The Third Circuit Court, however, concluded that Sec. 227.6(c) requires suspended phase bioaccumulation bioassays even where neither the EPA nor the Corps of Engineers has identified acceptable procedures. The Court read that section as reserving discretion in the agencies to determine how, not whether, to conduct the tests.

The EPA is proposing to amend the definition of the "appropriate sensitive benthic organisms" used in benthic bioassay tests to mean at least two species that together exhibit filter-feeding, deposit-feeding, and burrowing characteristics. Consistent with current agency guidance, the proposed language would clarify that the use of two such species is sufficient. In addition, today's proposal would amend the definition of "appropriate sensitive marine organisms," which are to be used in suspended phase tests under Sec. 227.6(c)(3), to mean at least two species that together are representative of the following types of organisms: phytoplankton or zooplankton, crustacean or mollusk, and fish. The proposed language would clarify, consistent with current agency guidance, that the use of two such species is sufficient. The purpose of today's proposal is to clarify the regulatory language that was interpreted by the Third Circuit Court in a different manner than the EPA intended. The agency is not changing the evaluative procedures that are currently used and set out in program guidance and thus is not changing the level of environmental protection of the ocean dumping program. The EPA is allowing for a thirty day period for comment on this proposal. The agency believes a thirty day comment period is adequate because the proposal would clarify the regulations in a manner consistent with existing practices. The agency also is working on more comprehensive amendments to the ocean dumping regulations in order to



further update them and improve their clarity. The agency anticipates issuance of a proposal later this year.

Federal Register, February 29, 1996, Volume 61, Number 41, pp. 7765-7770.

EPA Issues First Trading Policy for Water Pollution Sources

In response to President Clinton's Reinventing Environmental Regulation (March 1995), the EPA strongly promotes the use of effluent trading to achieve water quality objectives and standards. This statement communicates the EPA's policy on effluent trading in watersheds, discusses the benefits of trading, presents an explanation of several types of effluent trading, and outlines how the EPA will be encouraging trading. This policy is Agency guidance only and does not establish or affect legal rights or obligations. It does not establish a binding norm and is not finally determinative of the issues addressed. Agency decisions in any particular case will be made by applying the law and regulations on the basis of specific facts when permits are issued.

The EPA will actively support and promote effluent trading within watersheds to achieve water quality objectives, including water quality standards, to the extent authorized by the Clean Water Act and implementing regulations. The EPA will work cooperatively with key stakeholders to find sensible, innovative ways to meet water quality standards quicker and at less overall cost than with traditional approaches alone. The EPA will assure that effluent trades are implemented responsibly so that environmental progress is enhanced, not hindered.

Trading supplements the current regulatory approach. It is a method to attain and/or maintain water quality standards, by allowing sources of pollution to achieve pollutant reductions through substituting a cost-effective and enforceable mix of controls on other sources of discharge. As the agency improves its understanding of the opportunities afforded by watershed-based decision making, the EPA will provide information for additional forms of trading. To take advantage of trading, a point source must be in compliance, and remain in compliance, with applicable technology-based limits. Intra-plant trades must also have a technology-based floor, while the technology floor for pretreatment trading is determined by the categorical standards. The EPA expects that most trades will be covered by Total Maximum Daily Loads (TMDL) or similar watershed-based analysis.

For further information, contact Mahesh Podar, Director, Policy and Budget Staff, Office of Water; telephone (202) 260-7818; Email: herzi.hawa@epamail.epa.gov or tuano.theresa@epamail.epa.gov.



The Policy Statement may also be accessed on the EPA Office of Water Home Page on the Internet at the following address: <http://www.epa.gov/OWOW>.

EPA Press Release: Friday, January 26, 1996.

Federal Register: February 9, 1996, Volume 61, Number 28, pp. 4994-4996.

DOD May Seek Regulation Exemptions in Tradeoffs with California, Texas

The Department of Defense may invest in cost-effective pollution projects at Vandenberg Air Force Base in California as a way of gaining an exemption from strict compliance with some California environmental regulations. Plant 4, an Army base in northern Texas, also may negotiate a tradeoff of pollution prevention for regulation exemption soon. The DOD recently nominated eight bases in Alaska, California, Florida, Texas, and Washington state to serve as pilot Environmental Investment Program (ENVVEST) projects. If the DOD can negotiate tradeoff programs with the state, federal, and regional regulators, and then run the programs successfully and without public opposition, the program will be expanded to all bases nationwide. The Environmental Protection Agency offered its support to the program on November 2, 1995, when it signed a memorandum of understanding that permitted ENVVEST projects to proceed.

Environment Reporter, Vol. 26, No. 37, January 26, 1996, p. 1796.

Experimental Integrated Management Programs in Three States Show Promise

Projects in three states to ease regulatory burdens through integrated strategies have had some successes despite troubles with EPA grants and working within a media-specific regulatory structure. According to the Government Accounting Office, the three states employed different tactics to implement integrated regulatory activities, ranging from Massachusetts' multimedia, facilitywide inspections to New York's approach of coordinating the activities of its separate media-specific programs. New Jersey is experimenting with facilitywide permits to replace media-specific permits.



In the report, *Environmental Management: An Integrated Approach Could Reduce Pollution and Increase Regulatory Efficiency*, the GAO said Massachusetts, New Jersey, and New York are trying to encourage innovative programs that incorporate pollution prevention tactics rather than focusing on traditional end-of-the-pipe controls that target releases to a single medium, such as air or water. The EPA has provided grants to assist the states in their funding, the GAO said, but all three found that “continued funding for multimedia activities was not easily obtained under the current federal medium-specific grant programs.”

Environment Reporter, Vol. 26, No. 39, February 9, 1996, p. 1964.

Cal/EPA Prohibits SF Bay Area Sale and Use of Two Pesticides

Cal/EPA announced on December 13, 1995 a ban on the sale and use within nine Bay Area counties of two pesticides which have been proven harmful to San Francisco Bay and its estuaries. The pesticides are used in sewers and in large air conditioning systems. Emergency regulations went into effect this week which prohibit the sale and use of pesticide products containing copper sulfate or tributyltin (TBT) in Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma counties. The prohibition affects copper sulfate-containing pesticide products that are poured into sewers and drains to kill plant and tree roots. The affected TBT products are used in cooling towers in larger air conditioning systems to control microorganisms (such as bacteria, algae, and fungi) that can cause fouling.

Over the past several years, copper and TBT levels have exceeded acceptable levels in the Bay and its estuaries, prompting the Regional Water Board to mandate that water treatment plants reduce the two chemicals in their discharges to acceptable levels by 1996 or face penalties up to \$25,000 a day and possible suspension of their operating permits. In February 1994, Assemblyman Byron Sher (D, Palo Alto) introduced AB 3394, which would have allowed the state’s regional water quality control boards to prohibit the sale, use, and discharge of pesticides containing copper and TBT into water systems. However, after discussions among Assemblyman Sher, Department of Pesticide Regulation (DPR), Cal/EPA, and representatives of Bay Area water treatment plants, it was decided that DPR should develop a solution using existing regulatory authority.

Although the copper and TBT products are used in relatively small amounts, the way they are applied--poured either directly or indirectly into sewers--has a disproportionate impact on water treatment plants and the treated water they discharge into the Bay and estuaries. Water treatment typically does not remove all pesticide residues. The Bay is particularly vulnerable to contamination because it has many shallow estuaries with little natural flushing or surface water recharge. Because low-level contamination



can hurt marine life such as crabs, clams, and microscopic aquatic organisms at the bottom of the food chain, the Regional Board in 1992 set a limit for TBT of 0.005 parts per billion and 4.9 ppb for copper in water discharged from treatment plants.

Many sources of copper are not easy to control. They include abandoned mines, drinking water pipes, brake linings, human wastes, food wastes, and laundry graywater. A 1994 study by the Palo Alto Regional Water Quality Control Plant of trace metals in wastewater determined that of all metals evaluated, copper should be given a high priority for control, with the focus being on reducing use of copper-containing root control compounds. Potential sources of TBT are entirely pesticidal, including some cooling water system additives, antifouling paints used on boats, protective wood treatments, commercial toilet bowl cleaners, and disinfectant carpet cleaners. A second Palo Alto study determined that the TBT contamination was primarily the result of discharges from cooling water systems. Studies of copper and TBT contamination by other water treatment agencies have drawn similar conclusions.

Cal/EPA News Release C63-95, December 13, 1995.

Oregon Adopts New Water Quality Standards, Releases Draft List of Impaired Water Bodies

The Oregon Environmental Quality Commission adopted new water quality standards on January 11, 1996 including new temperature standards, as part of the triennial review required by the Clean Water Act (CWA). Earlier in January, the Department of Environmental Quality (DEQ) released the draft list of water bodies that do not meet state water quality standards under Section 303(d) of the CWA.

Promulgation of the Section 303 list for Oregon waters came as part of an effort by conservation groups to force the Environmental Protection Agency to require Northwest states to develop comprehensive lists of impaired waters. In 1995, the EPA Region X became the first region to issue a guidance document to the states on this listing (26 ER 1298).

Waters listed under this section of the CWA are considered in violation of state water quality standards or threaten to violate such standards. The standards most commonly violated in Oregon are those covering bacteria, temperature, toxic pollutants levels, and lack of in-stream water. Under the new temperature standard, the statewide maximum ambient temperature will be 64 degrees to protect cold water fish, considered a beneficial use. Exceptions will be made in cases where natural conditions cause temperatures to rise above the standard. The commission also made some revisions to water quality standards for bacteria, pH, ground water nitrate, and dissolved oxygen.



Copies of the section 303(d) list and related materials are available from Andy Schaedel at DEQ's Water Quality Division; telephone (503) 229-6121 or (800) 452-4011.

Environment Reporter, Vol. 26, No. 36, January 19, 1996, p. 1768.

New Jersey Water Quality Assessment Report Available

A comprehensive assessment of New Jersey river, lake, estuary, ocean water, and groundwater quality has been made available by the state Department of Environmental Protection (DEP). The New Jersey State Water Quality Inventory Report, published every two years under Section 305(b) of the Clean Water Act, describes the condition of the majority of state waters, including 120 miles of ocean coastline. The report also reviews suspected and known sources of water pollution. An outline of efforts by the department to develop a watershed management approach to identify pollutants causing problems in particular areas is also included.

Copies of the report can be purchased for \$10 from: Maps and Publications, Bureau of Revenue, NJDEP, CN417, Trenton, NJ, 08625; (609) 777-1038.

Air & Water Pollution Control, Vol. 8, No. 25, December 6, 1995, p. 8.

Proposed Overhaul of New Jersey Water Quality Programs Would Allow Government-Industry Partnerships

New Jersey environmental regulators proposed on January 11, 1996 to implement a watershed-based approach to permitting that would allow cooperative partnerships between government and industry. The state would repeal and replace the New Jersey Pollutant Discharge Elimination System rules and amend coordinated portions of the Water Quality Management Planning, Surface Water Quality Standards, and Water Pollution Control Act regulations. Under the new approach to discharge permitting, the Department of Environmental Protection (DEP) would identify significant water pollutants and their point and nonpoint sources for each of the state's 96 watersheds through chemical and biological water quality monitoring. The proposal would establish a mechanism to allow the watershed studies to be



undertaken individually or jointly by permittees, watershed associations, local government agencies, and the DEP.

Proposed administrative reforms to the discharge permit program would allow permittees to submit draft permits, expand the scope of changes that can be accomplished by minor permit modifications, and establish expedited review for permit renewals where detailed review would not provide significant environmental benefit. Other changes would expand the use of general permits and allow concurrent review and processing of water quality management plan amendments and discharge permit applications.

Proposed revisions in surface water quality standards will clarify key provisions regarding protection of cleaner waters from significant declines in quality, limits on zones where treated effluent from point sources can mix into a water body, and use of water quality modeling to develop permit limits. New and revised surface water quality criteria to protect human health and aquatic life are also proposed. The DEP proposes to lower the ranges of penalties assessed under the Water Pollution Control Act and to clarify and make non specific the factors by which penalties can be adjusted to reflect the specific circumstances of a case.

Environment Reporter, Vol. 26, No. 37, January 26, 1996, p. 1800.

Environmental Information on the Internet

EPA ENVIROFACTS

URL = http://www.epa.gov/enviro/html/ef_home.html

ENVIROFACTS is a relational database that integrates data from four major EPA program systems: RCRIS, TRIS, CERCLIS, and PCS. It contains data, updated monthly, that is available under the Freedom of Information Act (FOIA). Permit Compliance System (PCS): Data on more than 75,000 water-discharge permits including permit issuance, permit limits, monitoring data and other data pertinent to facilities with permits. Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS): Superfund data on hazardous waste site assessment and remediation, including data on active sites from point of discovery to listing on the National Priorities List through completion of remedial and response actions. Toxic Release Inventory System (TRIS): Data about the release and transfer of more than 300 toxic chemicals and compounds by medium of release (air, water, underground injection, land disposal and off-site), reported by over 33,000 submitters. Resource Conservation and Recovery Information System (RCRIS): Data used to track handler permit or closure



status, compliance with Federal and State regulations, and cleanup activities, including hazardous waste generation and management data on over 450,000 facilities and transporters.

RULES, REGULATIONS, AND LEGISLATION ON THE EPA HOME PAGE

URL = <http://www.epa.gov/epahome/rules.html>

The Rules, Regulations and Legislation section of this server offers access to the daily table of contents for the Federal Register, selected Federal Register documents, and other Internet sites that maintain electronic versions of the U.S. Code and the Code of Federal Regulations. Access to electronic versions of the statutes around which the EPA is organized, such as the Clean Air Act, Clean Water Act, etc., is proposed but not available at this time. The Federal Register (FR) - Daily Table of Contents section represents the entire table of contents for each daily issue of the Federal Register since October 1, 1994; it is not limited to an environmental focus. The Federal Register (FR) Environmental Subset section represents an environmental subset of the regular daily issue of the Federal Register from October 1, 1994. These documents, along with the complete table of contents, are downloaded from the Government Printing Office (GPO) WAIS server, which maintains the official electronic version of the Federal Register. The documents are then posted to the EPA's gopher and web servers on a daily basis. While all of the documents found in the Environmental Subset are related to environmental issues, not all of the documents are published by the EPA. The subdivisions within the Environmental Subset are arbitrary distinctions and are provided to facilitate browsing; they do not indicate that the documents originate from any particular program, office, or division of the EPA or any other agency.

NOAA NATIONAL OCEANOGRAPHIC DATA CENTER

URL = <gopher://ariel.nodc.noaa.gov:70/1>

The items now on the National Oceanographic Data Center (NODC) Gopher include monthly data acquisition summaries, NODC contact points, information on submitting and obtaining NODC data, NOAA Library information, information on World Data Center A, Oceanography, and complete list of NODC publications and CD-ROM data products. The National Oceanographic Data Center (NODC) is one of the national environmental data centers operated by the National Oceanic and Atmospheric Administration (NOAA) of the U.S. Department of Commerce. The main NODC facility is located in Silver Spring, Maryland. The NODC also has field offices in Woods Hole, MA, Miami, FL, La Jolla, CA, Seattle, WA, and Honolulu, HI.

CODE OF FEDERAL REGULATIONS TITLE 40 - ENVIRONMENTAL PROTECTION

URL = <http://www.epa.gov/epacfr40/>

The release of the 1995 issue of Title 40 of the Code of Federal Regulations (CFR) is a pilot project of the EPA. This project is designed to provide expanded access to environmental regulations prior to the



release of an official electronic version of the entire Code of Federal Regulations by the Government Printing Office (GPO). The files used to create the information released under this pilot were provided by the Office of the Federal Register and represent the data used to print the July 1, 1995 edition of 40 CFR. Files are structured by Part, or in the case of large Parts, by Subpart. The List of Sections Affected, arranged by Subchapter, is scheduled to be available under the option "finding aids" in the very near future. All files are provided in Adobe® Portable Document Format (PDF), with the exception of background and explanatory files.

P2TECH - POLLUTION PREVENTION MAILING LIST

The P2TECH mailing list invites all those involved in providing technical assistance to industries on pollution prevention matters to share information and assist one another in these efforts. The P2TECH mailing list was implemented by the National Roundtable of State Pollution Prevention Programs with support from the EPA's Pollution Prevention Information Exchange System (PIES), the National Institute of Standards and Technology's (NIST) Manufacturing Extension Partnership TECNET Program, Battelle Pacific Northwest Laboratories, and the Great Lakes Information Network (GLIN). In addition to its function as a problem-solving forum, the list will post information that "improve[s] the level of collaboration among subscribers such as: identifying significant new technical assistance resources, requests for proposals, or announcements of collaborative research or training projects." Listings of conferences and meetings, job postings, and general P2 related information is not encouraged. To subscribe to the list, send an email message to: **GLIN-majordomo@great-lakes.net** with the following in the body of the message: **subscribe P2TECH**

Upcoming Conferences

JOINT SERVICE POLLUTION PREVENTION CONFERENCE AND EXHIBITION: "WORKING TOGETHER FOR A CLEANER TOMORROW"

The Annual Joint Service Pollution Prevention Conference and Exhibition provides an open forum for exchanging ideas, success stories, case histories and technologies related to pollution prevention. The Joint Conference will be hosted by the Headquarters Air Force Center for Environmental Excellence, Brooks AFB, TX. The conference will be held August 19-22, 1996, at the Henry B. Gonzalez Convention Center, San Antonio, Texas. This joint meeting will provide a national forum for the free exchange of environmentally-related pollution prevention technical information and ideas, with the central theme relating to the interaction between the Department of Defense and Industry to find and implement the



most efficient and cost effective means of leveraging limited resources to achieve a mutually effective environmental leadership role on pollution prevention.

Paper topics include: P2 Information Sources--DENIX, Environ\$en\$, P2 Technical Library; Solid Waste Reduction; Recycling/Composting; Hazardous Material Control and Tracking; P2 in Facility Design and Construction; P2 through Energy Efficiency; P2 in Vehicle Maintenance; Recycling NiCAD and other batteries; Electric Vehicle Programs; Navy/Army/Air Force P2 Program Strategy/Policy/Status; P2 Equipment Procurement Programs/ EPCRA/TRI Reporting/Affirmative Procurement; P2 in Munitions Manufacturing; P2 in Hospitals and Labs; Solvent Substitutions; P2 Management tools; P2 Success Stories; Obstacles to P2 and How to Handle Them; Funding for P2; Impacts of Proposed Regulations on P2; Pesticide Management in P2; P2 on Firing Ranges; P2 in Mission Readiness; P2 in Painting Operations; P2 in Cleaning Process; P2 in Stripping or Degreasing Operations; New P2 Technologies; P2 in Shipboard Operations; P2 Initiatives; Installation Applications of P2; EPA-17 Management/Reductions; Technical Order/Specification Changes for P2; and P2 Education and Training. The Annual Joint Service Pollution Prevention Conference final agenda will be published in May 1996.

For information, contact Carla Blaine, American Defense Preparedness Association, 2101 Wilson Boulevard, Suite 400, Arlington, VA 22201-3061, telephone (703) 247-2572; FAX (703) 522-1885.

PACON 96

The Pacific Congress brings together industry, scholars and resource people to address key issues concerning marine technology related to the oceanic economic potential of the region from a multidisciplinary perspective. The Pacific Congress facilitates the exchange of views and ideas between representatives of the Pacific Island nations and the larger Pacific Rim countries and thereby strengthens future information exchange and collaboration. The seventh Pacific Congress on Marine Science and Technology, will be held June 17-22, 1996 in Honolulu, Hawaii. This conference draws attendees from around the world, primarily from Pacific basin countries such as the US, Canada, Australia, China, Japan, and Singapore. Sessions planned include:

- Ocean Acoustic Systems;
- Ocean Optics;
- Coastal and Island Engineering;
- Ocean Energy;
- EEZ Mapping and Electronic Charting;
- Marine Bioremediation;
- Undersea Vehicles and Ocean Robotics;
- Ports, Harbors and Marinas;



- Modeling the Ocean Floor/Digital Mapping;
- Marine Environmental Protection;
- Marine Applications of Global Positioning Systems;
- Industry Forum - Trends in Positioning and Surveillance Systems; and
- SEABEAM - Seafloor Mapping.

For further information, contact PACON International at (808) 956-6163, or FAX (808) 956-2580.

Environmental Research & Development Update

Chadwick, D.B., et al., *Environmental Analysis of U.S. Navy Shipboard Solid Waste Discharges*, NCCOSC RDT&E Division Technical Report 1716, January 1996.

International regulations negotiated through the International Maritime Organization (IMO) have imposed restrictions pertaining to pollution from vessels in international waters. Regulation 5 of Annex V to the International Convention for the Prevention of Pollution from Ships 1973, as modified by the Protocol of 1978, (MARPOL 73/78) prohibits the discharge of nonfood solid wastes into sensitive oceanographic and ecological areas, known as Special Areas. These Special Areas include the Baltic Sea, the North Sea, the Mediterranean Sea, the Wider Caribbean Region (including the Gulf of Mexico and the Caribbean Sea), the Antarctic area, the Black Sea, the Red Sea, and the "Gulfs" area (including the Persian Gulf). The U.S. Congress, through provisions of the Marine Plastic Pollution Research and Control Act (MPPRC) of 1987 and the Defense Authorization Act of 1994, requires that the U.S. Navy come into full compliance with MARPOL 73/78. The provisions call for compliance of all U.S. Navy surface ships in all enforced Special Areas by December 31, 2000, and submarines by December 31, 2008. Currently, only the North Sea, the Baltic Sea, and the Antarctic areas are in force.

The Navy is in the process of researching alternatives for ways to comply with these restrictions and developing a compliance plan to propose to Congress. One alternative providing partial compliance to existing legislation consists of an equipment suite comprising a plastics processor to handle plastics waste, pulpers for food and paper/cardboard products, and a shredder for metal and glass waste. This suite would be installed on all commissioned ships, with the exception of a few vessels whose waste generation rates would allow for temporary storage onboard. The equipment suite would be used not only in Special Areas but also in the open ocean as an improvement to current solid waste discharge practices.

This report summarizes the findings to date of work performed on the environmental analysis of pulped and shredded solid waste discharges from U.S. Navy ships. Although the assessment is ongoing, the



present analysis suggests that there will be no significant adverse environmental impact from the discharges studied. The results of the ongoing studies will be integrated with findings presented here, and included in a follow-on report.

For further information, contact Bart Chadwick at NCCOSC RDTE DIV 362, San Diego, CA 92152-5001; telephone, (619) 553-2773; E-mail: d362@nosc.mil.

Stallard, M.O., et al., X-Ray Fluorescence Spectrometry for Field Analysis of Metals in Marine Sediments, *Marine Pollution Bulletin*, Vol. 31, Nos. 4-12, pp. 297-305, 1995.

Metal contamination in sediments is of environmental concern, since heavy metals, when bio-available, can be toxic to marine organisms and can bio-accumulate and move up the food-chain. Lead, for example, was identified as a major contaminant at about 30% of 546 evaluated Superfund sites, and arsenic, cadmium, chromium and zinc were each of concern at about 15% of the sites. These heavy metals, and others such as organotin and copper, can reach the estuarine and marine environments from many sources. The heavy metal sources include boating operations, rivers draining densely populated and heavily industrialized areas, and non-point source runoff.

The accuracy, precision and performance of a field-portable X-ray fluorescence (XRF) spectrometer was evaluated for the determination of metals in marine sediments both in the laboratory and, more importantly, on board a small research vessel. The XRF performed with minimal problems on board the survey vessel and provided precise, near-real-time determination of metals at levels indicative of contamination in samples obtained by sediment grabs. Analytical results obtained on the wet, bulk samples in the field and on the dry, homogenized samples in the laboratory were comparable.

This study demonstrated that improved effectiveness, cost and time savings can be realized by employing portable XRF to screen heavy metal contamination. These savings are realized by immediate on-site analytical data that delineate the contaminated area. XRF provides precise and rapid measurements at detection levels relevant to concentrations indicative of pollution for a wide range of metals. Field-portable XRF can perform well on board survey vessels and can generate data from sediment grabs in a time-frame that could guide on-site decision making for mapping strategies and detailed sampling.

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ABOUT THE MARINE ENVIRONMENTAL UPDATE

This newsletter is produced quarterly by the Marine Environmental Support Office (MESO), and is dedicated specifically to inform the Navy about marine environmental issues that may influence how the Navy conducts its operations. MESO is located at the Naval Command, Control and Ocean Surveillance Center, Research, Development, Test and Evaluation Division (NRaD) in San Diego, California. The mission of MESO is to provide Navy-wide technical and scientific support on marine environmental science, protection and compliance issues. This support covers a broad spectrum of activities, including routine requests for data and information, technical review and consultation, laboratory and field studies, comprehensive environmental assessments, and technology transfer. Significant developments in marine law, policy, and scientific advancements will be included in the newsletter, along with references and points of contact for further information. The Marine Environmental Support Office may be reached at:

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