US Army Corps of Engineers®

REGULATORY GUIDANCE LETTER

No. 06 -02 **Date: July 6, 2006**

SUBJECT: Guidance on Dredged Material Testing for Purposes of Section 404 of the Clean Water Act, Section 10 of the Rivers and Harbors Act, and Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972

1. Purpose and applicability

a. Purpose. The purpose of this document is to provide guidance to Corps Districts regarding determinations of the need to test dredged material for projects that require Department of the Army (DA) permits and Congressionally approved Federal projects that do not require DA permits. This RGL rescinds and replaces RGL 87-08.

b. Applicability. For purposes of Section 404 of the Clean Water Act (CWA), this guidance applies to the discharge of dredged or fill material into waters of the U.S. (inland of and including the territorial sea[1]). For purposes of Section 10 of the Rivers and Harbors Act (RHA), this guidance applies to all dredging activities and the discharge of the dredged material into navigable waters, including the territorial sea. For purposes of Section 103 of the Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA), this guidance applies to the transportation of dredged material for the purpose of dumping it into ocean waters. Proposed discharges of dredged or fill material into inland waters (i.e., waters that lie inland of the baseline from which the territorial sea is measured) are evaluated under the CWA and may be subject to Section 10 requirements if placed in navigable waters.[2] An overlap of CWA and MPRSA jurisdiction exists within the territorial sea. The disposal of dredged material in the territorial sea is evaluated in accordance with the MPRSA. In general, in those cases where the discharge of dredged material into the territorial sea would be for the primary purpose of fill, such as the use of dredged material for beach nourishment, island creation, or construction of underwater berms, the discharge is evaluated under the CWA (33 CFR 336.0).

The standards under CWA and MPRSA for determining the need for testing differ. The requirement for testing of dredged material under the CWA is based on a reason to believe that contaminants are present in the material proposed for discharge and have the potential to cause an unacceptable adverse impact (40 CFR 230.60). Testing under the MPRSA is required when the dredged material does not meet the

1 The territorial sea includes all ocean and coastal waters within a zone three geographic (nautical) miles seaward from the baseline.

2 An exception to this regulatory regime exists for the disposal of dredged material in Long Island Sound. Long Island Sound is considered inland waters; however, Section 106(f) of the MPRSA requires that any dumping of dredged material into Long Island Sound from a federal project, or a non-federal project exceeding 25,000 cubic yards of dredged material, shall comply with the requirements of the MPRSA as well as CWA Section 404. Refer to the June 2002 Settlement Agreement in Fishers Island Conservancy v. Corps of Engineers, No. CV-95-4374 (E.D.N.Y), AP-00-6284 (2d Cir.) for additional information on dredged material disposal in Long Island Sound.

exclusionary criteria in 40 CFR 227.13(b)[3]. Once it is determined that testing is needed, however, the physical, chemical, and biological (bioassay) tests relied upon for evaluating dredged material are similar (variations may reflect geographic and ecosystem type differences).

2. Background

a. Corps regulations at 33 CFR 323.6(a) state, in part, "The district engineer (DE) will review applications for permits for the discharge of dredged or fill material into waters of the U.S. in accordance with guidelines promulgated by the administrator, the Environmental Protection Agency (EPA) under authority of Section 404(b)(1) of the Clean Water Act (CWA)".

b. EPA regulations at 40 CFR 230 contain the CWA Section 404(b)(1) Guidelines by which permit applications are evaluated. The Guidelines at 40 CFR 230.10(c) state, in part, that "...no discharge of dredged or fill material shall be permitted which will cause or contribute to significant degradation of waters of the U.S. Findings of significant degradation related to the proposed discharge shall be based upon appropriate factual determinations, evaluations and tests..." The evaluation procedures described in 40 CFR 230.60 must be used to make such factual determinations (40 CFR 230.11), and if necessary, the chemical and biological testing sequence in 230.61 must be used.

c. Corps regulations at 33 CFR 324.4(b) state, in part, "Applications for permits for the transportation of dredged material for the purpose of dumping it in ocean waters will be evaluated to determine whether the proposed dumping will unreasonably degrade or endanger human health, welfare, amenities, or the marine environment, ecological systems or economic potentialities".

d. It has been a longstanding policy that testing and evaluation procedures for discharges of dredged material will be substantially the same for permit applicants as they are for civil works (CW) projects. Testing for contaminants is used to make the necessary findings regarding public interest factors, 404(b)(1) Guidelines compliance and ocean dumping criteria compliance.

e. The CWA Section 401 water quality certification, required for DA permits and CW projects, generally involves a state decision[4]. It remains the prerogative of the state to determine the requirements necessary for a CWA Section 401 water quality certification. Section 401 certification conditions become a part of the Section 404 permit and are generally enforced by the state.

f. Some states require predischarge testing beyond what is deemed necessary by the Corps. Predictive testing can be a reasonable prerequisite to reaching a sound decision on whether to allow a discharge. When CWA Section 401 certification testing requirements coincide with the Corps testing requirements, districts should work with state agencies to ensure that one set of results satisfies the requirements of both agencies. If a state deems that certain additional tests are necessary before it reaches a decision on water quality certification, the applicant will need to work with the state agency as required.

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3 The entire text of 40 CFR 227.13 is attached to this RGL.

4 CWA Section 401 certifications generally are issued by states, or by tribes eligible to be treated in the same manner as a state for purposes of the water quality standards program. EPA issues a CWA Section 401 certification if the relevant state or tribe does not have authority to do so.

3. Testing Manuals[5]

a. The *Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S.*, also known as the "Inland Testing Manual", may be found at http://www.epa.gov/waterscience/itm/total.pdf This manual is intended to address 1) contaminant-related impacts associated with discharges of dredged material (resulting from navigational dredging or dredging activities of essentially the same character as navigation dredging, such as open water discharges of dredged material excavated from a soft-bottom flood control channel or reservoir) in open water disposal areas, including wetlands, and 2) contaminant – related impacts to waters of the U.S. associated with dredged material runoff from confined disposal areas. This manual is not intended to address 1) impacts associated with the dredging activity itself, 2) impacts associated with dredged material discharges associated with excavation of drainage ditches and landclearing, 3) impacts associated with the discharge of fill material (however where dredged material associated with navigational dredging will be discharged in open water as fill, the procedures of this manual are applicable), or 4) microbiological impacts except for impacts in conjunction with the state designated use of a waterbody and human health considerations. The manual provides a list of applicable references, as the technology for analyzing other potential impacts from microorganisms is in various states of development.

b. The *Evaluation of Dredged Material Proposed for Ocean Disposal*, commonly referred to as the "Green Book", may be found at http://www.epa.gov/owow/oceans/gbook/index.html. The manual contains technical guidance for determining the suitability of dredged material for ocean disposal through chemical, physical, and biologically evaluations and is intended for use by dredging applicants, laboratory scientists and regulators in evaluating dredged material compliance with the MPRSA. This manual provides national technical guidance for use in making limited permissible concentration (LPC) determinations for proposed discharges of dredged material; it does not provide comprehensive guidance on other factors that should be considered during the sediment evaluation process.

4. Analysis and Policy under the CWA

a. The testing of dredged material may not be required for every project. The Guidelines employ a "reason to believe" process to determine whether testing is necessary. Where there is reason to believe that contaminants are not present in the discharge material, no testing is required (40 CFR 230.60(a)). Subpart G of the 404(b)(1) Guidelines requires the use of available information (e.g., prior evaluations, chemical and biological tests, scientific research, and experience) to make preliminary determinations concerning the need for testing. Such prior results may make new testing unnecessary (40 CFR 230.60). The reason to believe that no testing is required is based on the type of material to be dredged and/or its potential to be contaminated. For example, dredged material is most likely to be free of contaminants if the material is composed primarily of sand, gravel, or other inert material and is found in areas of high current or wave energy (40 CFR 230.60(a)). In addition, districts should carefully assess whether an excavation site is sufficiently removed from sources of pollution to provide reasonable assurance that the proposed discharge material is not a carrier of contaminants. Some factors to consider include, but are not limited to, potential routes of contaminants or contaminated sediments to the extraction site based on hydrographic or other maps, aerial photography or other materials that show watercourses, surface relief, proximity to tidal movement, and locations of private and public roads, buildings, municipal and

5 Efforts are underway to combine the two manuals described in this section into one document. However, the specific testing requirements under MPRSA and the CWA would not be changed.

industrial areas and agricultural or forest lands (40 CFR 230.60(b)(1)).

b. Another consideration should be pertinent results from tests previously carried out on the material at the extraction site, or carried out on similar material for other permitted projects in the area. Materials are considered similar if the sources of contamination, the physical configuration of the sites and the sediment composition of the material are comparable, in light of water circulation and stratification, sediment accumulation and general sediment characteristics. Prior tests may be relied on only if no changes have occurred at the extraction sites to render the results irrelevant (40 CFR 230.60(b)(2)).

c. Other considerations include: the potential for significant introduction of persistent pesticides from land runoff or percolation; records of spills or disposal of petroleum products or hazardous materials; information from Tribal, Federal, state or local records indicating significant introductions of pollutants from industries, municipalities or other sources, including types and amounts of waste materials discharged along the potential routes of contaminants to the extraction site; and any possibility of the presence of substantial natural deposits of minerals or other substances which could be released to the aquatic environment in harmful quantities by man-induced discharge activities (40 CFR 230.60(b)(3-6)). For example, consideration should be given to whether the extraction site is located within waters listed by a State as impaired under Section 303(d) of the CWA, and whether sediment contamination is a cause of impairment[6]. Furthermore, determining whether the proposed disposal site is located in impaired waters can help districts assess the potential effects of a proposed discharge on the aquatic environment.

d. Where the discharge site is adjacent to the extraction site and subject to the same sources of contaminants, and materials at the two sites are substantially similar, the fact that the material to be discharged may be a carrier of contaminants is not likely to result in degradation of the disposal site. In such circumstances, when dissolved material and suspended particulates can be controlled to prevent carrying pollutants to less contaminated areas, testing will not be required (40 CFR 230.60(c)).

e. Even if the evaluation under 40 CFR 230.60(b) (previous tests, presence of polluting industries and information about their discharge or runoff into waters of the U.S., bioinventories, etc.) leads to the conclusion that there is a high probability that the material proposed for discharge is a carrier of contaminants, testing may not be necessary if constraints are available to reduce contamination to acceptable levels within the disposal site and to prevent contaminants from being transported beyond the boundaries of the disposal site, if such constraints are acceptable to the DE and the Regional Administrator of the EPA, and if the potential discharger is willing and able to implement such constraints. However, even if tests are not performed, DEs must still determine the probable impact of the discharge on the receiving aquatic ecosystem (40 CFR 230.60(d)).

f. Any decision not to test must be documented in the administrative record as one of the determinations made under 40 CFR 230.11.

g. If the DE determines that testing is necessary, the decision should be documented for the administrative record. If the DE determines that testing is required based on site-specific information, the testing should be conducted in accordance with the standards and procedures set out in 40 CFR 230.61

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6 Section 303(d) of the federal Clean Water Act requires each state to periodically submit to EPA for approval a list of impaired waters. Impaired waters are those waters that do not meet water quality standards set by the state. Information on impaired waters can be found at http://www.epa.gov/waters/tmdl/.

and the Inland Testing Manual.

5. Analysis and Policy under the MPRSA

a. Pursuant to 40 CFR 227.13(b), dredged material which meets the following criteria is environmentally acceptable for ocean dumping without further testing:

1. Dredged material is composed predominantly of sand, gravel, rock, or any other naturally occurring bottom material with particle sizes larger than silt, and the material is found in areas of high current or wave energy such as streams with large bed loads or coastal areas with shifting bars and channels; or

2. Dredged material is for beach nourishment or restoration and is composed predominantly of sand, gravel or shell with particle sizes compatible with material on the receiving beaches; or

3. When (i) the material proposed for dumping is substantially the same as the substrate at the proposed disposal site, and (ii) the site from which the material proposed for dumping is to be taken is far removed from known existing and historical sources of pollution so as to provide reasonable assurance that such material has not been contaminated by such pollution.

b. When dredged material proposed for ocean dumping does not meet the criteria in 227.13(b), further testing of the liquid, suspended particulate(s), and solid phases is required. Testing should be conducted in accordance with applicable regulations at 40 CFR 227.13(c) and the procedures in the Green Book.

c. Based on the results of such testing, dredged material can be considered to be environmentally acceptable for ocean dumping only when the conditions in 40 CFR 227.13(c) have been met.

6. Duration

This guidance remains effective unless revised or rescinded.

FOR THE COMMANDER:

DON T. RILEY
Major General, U.S. Army
Director of Civil Works

Attachment

40 CFR 227.13 Dredged materials.

(a) Dredged materials are bottom sediments or materials that have been dredged or excavated from the navigable waters of the United States, and their disposal into ocean waters is regulated by the U.S. Army Corps of Engineers using the criteria of applicable sections of parts 227 and 228. Dredged material consists primarily of natural sediments or materials which may be contaminated by municipal or industrial wastes or by runoff from terrestrial sources such as agricultural lands.

(b) Dredged material which meets the criteria set forth in the following paragraphs (b)(1), (2), or (3) of this section is environmentally acceptable for ocean dumping without further testing under this section:

(1) Dredged material is composed predominantly of sand, gravel, rock, or any other naturally occurring bottom material with particle sizes larger than silt, and the material is found in areas of high current or wave energy such as streams with large bed loads or coastal areas with shifting bars and channels; or

(2) Dredged material is for beach nourishment or restoration and is composed predominantly of sand, gravel or shell with particle sizes compatible with material on the receiving beaches; or

(3) When:

(i) The material proposed for dumping is substantially the same as the substrate at the proposed disposal site; and

(ii) The site from which the material proposed for dumping is to be taken is far removed from known existing and historical sources of pollution so as to provide reasonable assurance that such material has not been contaminated by such pollution.

(c) When dredged material proposed for ocean dumping does not meet the criteria of paragraph (b) of this section, further testing of the liquid, suspended particulate, and solid phases, as defined in §227.32, is required. Based on the results of such testing, dredged material can be considered to be environmentally acceptable for ocean dumping only under the following conditions:

(1) The material is in compliance with the requirements of §227.6; and

(2)(i) All major constituents of the liquid phase are in compliance with the applicable marine water quality criteria after allowance for initial mixing; or

(ii) When the liquid phase contains major constituents not included in the applicable marine water quality criteria, or there is reason to suspect synergistic effects of certain contaminants, bioassays on the liquid phase of the dredged material show that it can be discharged so as not to exceed the limiting permissible concentration as defined in paragraph (a) of §227.27; and

(3) Bioassays on the suspended particulate and solid phases show that it can be discharged so as not to exceed the limiting permissible concentration as defined in paragraph (b) of §227.27.

(d) For the purposes of paragraph (c)(2) of this section, major constituents to be analyzed in the liquid phase are those deemed critical by the District Engineer, after evaluating and considering any comments received from the Regional Administrator, and considering known sources of discharges in the area.