waste) based on guidance provided by EPA on particular cases, or in accordance with approved EPA procedures. For such materials the liquid phase is the filtered and centrifuged supernatant resulting from the mixture after 30 minutes of vigorous shaking followed by undisturbed settling for one hour. The suspended particulate phase is the supernatant as obtained above prior to centrifugation and filtration. The solid phase is the insoluble material settling to the bottom in that period.

PART 228—CRITERIA FOR THE MANAGEMENT OF DISPOSAL SITES FOR OCEAN DUMPING

Sec.

AUTHORITY: 33 U.S.C. 1412 and 1418.

SOURCE: 42 FR 2482, Jan. 11, 1977, unless otherwise noted.

§ 228.1 Applicability.

The criteria of this part 228 are established pursuant to section 102 of the Act and apply to the evaluation of proposed ocean dumping under title I of the Act. The criteria of this part 228 deal with the evaluation of the proposed dumping of material in ocean waters in relation to continuing requirements for effective management of ocean disposal sites to prevent unreasonable degradation of the marine environment from all wastes being dumped in the ocean. This part 228 is applicable to dredged material disposal sites only as specified in §§ 228.4(e), 228.9, and 228.12.

§ 228.2 Definitions.

(a) The term *disposal site* means an interim or finally approved and precise geographical area within which ocean dumping of wastes is permitted under conditions specified in permits issued under sections 102 and 103 of the Act. Such sites are identified by boundaries established by (1) coordinates of latitude and longitude for each corner, or by (2) coordinates of latitude and longitude for the center point and a radius in nautical miles from that point. Boundary coordinates shall be identified as precisely as is warranted by the accuracy with which the site can be located with existing navigational aids or by the implantation of transponders, buoys or other means of marking the site.

(b) The term *baseline* or *trend assessment* survey means the planned sampling or measurement of parameters at set stations or in set areas in and near disposal sites for a period of time sufficient to provide synoptic data for determining water quality, benthic, or biological conditions as a result of ocean disposal operations. The minimum requirements for such surveys are given in § 228.13.

(c) The term *disposal site evaluation study* means the collection, analysis, and interpretation of all pertinent information available concerning an existing disposal site, including but not limited to, data and information from trend assessment surveys, monitoring surveys, special purpose surveys of other Federal agencies, public data archives, and social and economic studies and records of affected areas.

(d) The term *disposal site designation study* means the collection, analysis and interpretation of all available pertinent data and information on a proposed disposal site prior to use, including but not limited to, that from baseline surveys, special purpose surveys of other Federal agencies, public data archives, and social and economic studies and records of areas which would be affected by use of the proposed site.

(e) The term *management authority* means the EPA organizational entity

assigned responsibility for implementing the management functions identified in § 228.3.

(f) *Statistical significance* shall mean the statistical significance determined by using appropriate standard techniques of multivariate analysis with results interpreted at the 95 percent confidence level and based on data relating species which are present in sufficient numbers at control areas to permit a valid statistical comparison with the areas being tested.

(g) *Valuable commercial and recreational species* shall mean those species for which catch statistics are compiled on a routine basis by the Federal or State agency responsible for compiling such statistics for the general geographical area impacted, or which are under current study by such Federal or State agencies for potential development for commercial or recreational use.

(h) *Normal ambient value* means that concentration of a chemical species reasonably anticipated to be present in the water column, sediments, or biota in the absence of disposal activities at the disposal site in question.

§ 228.3 Disposal site management responsibilities.

(a) Management of a site consists of regulating times, rates, and methods of disposal and quantities and types of materials disposed of; developing and maintaining effective ambient monitoring programs for the site; conducting disposal site evaluation and designation studies; and recommending modifications in site use and/or designation (e.g., termination of use of the site for general use or for disposal of specific wastes).

(b) Each site, upon interim or final designation, will be assigned to either an EPA Regional office or to EPA Headquarters for management. These designations will be consistent with the delegation of authority in § 220.4. The designated management authority is fully responsible for all aspects of the management of sites within the general requirements specified in § 220.4 and this section. Specific requirements for meeting the management responsibilities assigned to the designated management authority for each site are outlined in §§ 228.5 and 228.6.

[42 FR 2482, Jan. 11, 1977, as amended at 59 FR 61129, Nov. 29, 1994]

§ 228.4 Procedures for designation of sites.

(a) *General Permits.* Geographical areas or regions within which materials may be dumped under a general permit will be published as part of the promulgation of each general permit.

(b) *Special and Interim Permits.* Areas where ocean dumping is permitted subject to the specific conditions of individual special or interim permits, will be designated by promulgation in this part 228, and such designation will be made based on environmental studies of each site, regions adjacent to the site, and on historical knowledge of the impact of waste disposal on areas similar to such sites in physical, chemical, and biological characteristics. All studies for the evaluation and potential selection of dumping sites will be conducted in accordance with the requirements of §§ 228.5 and 228.6.

The Administrator may, from time to time, designate specific locations for temporary use for disposal of small amounts of materials under a special permit only without disposal site designation studies when such materials satisfy the Criteria and the Administrator determines that the quantities to be disposed of at such sites will not result in significant impact on the environment. Such designations will be done by promulgation in this part 228, and will be for a specified period of time and for specified quantities of materials.

(c) *Emergency Permits.* Dumping sites for materials disposed of under an emergency permit will be specified by the Administrator as a permit condition and will be based on an individual appraisal of the characteristics of the waste and the safest means for its disposal.

(d) *Research Permits.* Dumping sites for research permits will be determined by the nature of the proposed study. Dumping sites will be specified by the Administrator as a permit condition.

(e) *Dredged Material Permits.* (1) Areas where ocean dumping of dredged material is permitted subject to the specific

conditions of Dredged Material permits issued by the U.S. Army Corps of Engineers will be designated by EPA promulgation in this part 228, and such designation will be made based on environmental studies of each site, regions adjacent to the site, and on historical knowledge of the impact of dredged material disposal on areas similar to such sites in physical, chemical, and biological characteristics. All studies for the evaluation and potential selection of dredged material disposal sites will be conducted in accordance with the appropriate requirements of §§ 228.5 and 228.6, except that:

(i) Baseline or trend assessment requirements may be developed on a case-by-case basis from the results of research, including that now in progress by the Corps of Engineers.

(ii) An environmental impact assessment for all sites within a particular geographic area may be prepared based on complete disposal site designation or evaluation studies on a typical site or sites in that area. In such cases, sufficient studies to demonstrate the generic similarity of all sites within such a geographic area will be conducted.

(2) In those cases where a recommended disposal site has not been designated by the Administrator, or where it is not feasible to utilize a recommended disposal site that has been designated by the Administrator, the District Engineer shall, in consultation with EPA, select a site in accordance with the requirements of §§ 228.5 and 228.6(a). Concurrence by EPA in permits issued for the use of such site for the dumping of dredged material at the site will constitute EPA approval of the use of the site for dredged material disposal only.

(3) Sites designated for the ocean dumping of dredged material in accordance with the procedures of paragraph (e) (1) or (2) of this section shall be used only for the ocean dumping of dredged material under permits issued by the U.S. Army Corps of Engineers.

§ 228.5 General criteria for the selection of sites.

(a) The dumping of materials into the ocean will be permitted only at sites or in areas selected to minimize the interference of disposal activities with other activities in the marine environment, particularly avoiding areas of existing fisheries or shellfisheries, and regions of heavy commercial or recreational navigation.

(b) Locations and boundaries of disposal sites will be so chosen that temporary perturbations in water quality or other environmental conditions during initial mixing caused by disposal operations anywhere within the site can be expected to be reduced to normal ambient seawater levels or to undetectable contaminant concentrations or effects before reaching any beach, shoreline, marine sanctuary, or known geographically limited fishery or shellfishery.

(c) If at any time during or after disposal site evaluation studies, it is determined that existing disposal sites presently approved on an interim basis for ocean dumping do not meet the criteria for site selection set forth in §§ 228.5 through 228.6, the use of such sites will be terminated as soon as suitable alternate disposal sites can be designated.

(d) The sizes of ocean disposal sites will be limited in order to localize for identification and control any immediate adverse impacts and permit the implementation of effective monitoring and surveilance programs to prevent adverse long-range impacts. The size, configuration, and location of any disposal site will be determined as a part of the disposal site evaluation or designation study.

(e) EPA will, wherever feasible, designate ocean dumping sites beyond the edge of the continental shelf and other such sites that have been historically used.

§ 228.6 Specific criteria for site selection.

(a) In the selection of disposal sites, in addition to other necessary or appropriate factors determined by the Administrator, the following factors will be considered:

(1) Geographical position, depth of water, bottom topography and distance from coast;

(2) Location in relation to breeding, spawning, nursery, feeding, or passage areas of living resources in adult or juvenile phases;

(3) Location in relation to beaches and other amenity areas;

(4) Types and quantities of wastes proposed to be disposed of, and proposed methods of release, including methods of packing the waste, if any;

(5) Feasibility of surveillance and monitoring;

(6) Dispersal, horizontal transport and vertical mixing characteristics of the area, including prevailing current direction and velocity, if any;

(7) Existence and effects of current and previous discharges and dumping in the area (including cumulative effects);

(8) Interference with shipping, fishing, recreation, mineral extraction, desalination, fish and shellfish culture, areas of special scientific importance and other legitimate uses of the ocean;

(9) The existing water quality and ecology of the site as determined by available data or by trend assessment or baseline surveys;

(10) Potentiality for the development or recruitment of nuisance species in the disposal site;

(11) Existence at or in close proximity to the site of any significant natural or cultural features of historical importance.

(b) The results of a disposal site evaluation and/or designation study based on the criteria stated in paragraphs (b)(1) through (11) of this section will be presented in support of the site designation promulgation as an environmental assessment of the impact of the use of the site for disposal, and will be used in the preparation of an environmental impact statement for each site where such a statement is required by EPA policy. By publication of a notice in accordance with this part 228, an environmental impact statement, in draft form, will be made available for public comment not later than the time of publication of the site designation as proposed rulemaking, and a final EIS will be made available at the time of final rulemaking.

§ 228.7 Regulation of disposal site use.

Where necessary, disposal site use will be regulated by setting limitations on times of dumping and rates of discharge, and establishing a disposal site monitoring program.

§ 228.8 Limitations on times and rates of disposal.

Limitations as to time for and rates of dumping may be stated as part of the promulgation of site designation. The times and the quantities of permitted material disposal will be regulated by the EPA management authority so that the limits for the site as specified in the site designation are not exceeded. This will be accomplished by the denial of permits for the disposal of some materials, by the imposition of appropriate conditions on other permits and, if necessary, the designation of new disposal sites under the procedures of § 228.4. In no case may the total volume of material disposed of at any site under special or interim permits cause the concentration of the total materials or any constituent of any of the materials being disposed of at the site to exceed limits specified in the site designation.

§ 228.9 Disposal site monitoring.

(a) The monitoring program, if deemed necessary by the Regional Administrator or the District Engineer, as appropriate, may include baseline or trend assessment surveys by EPA, NOAA, other Federal agencies, or contractors, special studies by permittees, and the analysis and interpretation of data from remote or automatic sampling and/or sensing devices. The primary purpose of the monitoring program is to evaluate the impact of disposal on the marine environment by referencing the monitoring results to a set of baseline conditions. When disposal sites are being used on a continuing basis, such programs may consist of the following components:

(1) Trend assessment surveys conducted at intervals frequent enough to assess the extent and trends of environmental impact. Until survey data or other information are adequate to show that changes in frequency or scope are necessary or desirable, trend assessment and baseline surveys should generally conform to the applicable requirements of § 228.13. These surveys shall be the responsibility of the Federal government.

(2) Special studies conducted by the permittee to identify immediate and

short-term impacts of disposal operations.

(b) These surveys may be supplemented, where feasible and useful, by data collected from the use of automatic sampling buoys, satellites or in situ platforms, and from experimental programs.

(c) EPA will require the full participation of permittees, and encourage the full participation of other Federal and State and local agencies in the development and implementation of disposal site monitoring programs. The monitoring and research programs presently supported by permittees may be incorporated into the overall monitoring program insofar as feasible.

§ 228.10 Evaluating disposal impact.

(a) Impact of the disposal at each site designated under section 102 of the Act will be evaluated periodically and a report will be submitted as appropriate as part of the Annual Report to Congress. Such reports will be prepared by or under the direction of the EPA management authority for a specific site and will be based on an evaluation of all data available from baseline and trend assessment surveys, monitoring surveys, and other data pertinent to conditions at and near a site.

(b) The following types of effects, in addition to other necessary or appropriate considerations, will be considered in determining to what extent the marine environment has been impacted by materials disposed of at an ocean disposal site:

(1) Movement of materials into estuaries or marine sanctuaries, or onto oceanfront beaches, or shorelines;

(2) Movement of materials toward productive fishery or shellfishery areas;

(3) Absence from the disposal site of pollution-sensitive biota characteristic of the general area;

(4) Progressive, non-seasonal, changes in water quality or sediment composition at the disposal site, when these changes are attributable to materials disposed of at the site;

(5) Progressive, non-seasonal, changes in composition or numbers of pelagic, demersal, or benthic biota at or near the disposal site, when these changes can be attributed to the effects of materials disposed of at the site;

(6) Accumulation of material constituents (including without limitation, human pathogens) in marine biota at or near the site.

(c) The determination of the overall severity of disposal at the site on the marine environment, including without limitation, the disposal site and adjacent areas, will be based on the evaluation of the entire body of pertinent data using appropriate methods of data analysis for the quantity and type of data available. Impacts will be categorized according to the overall condition of the environment of the disposal site and adjacent areas based on the determination by the EPA management authority assessing the nature and extent of the effects identified in paragraph (b) of this section in addition to other necessary or appropriate considerations. The following categories shall be used:

(1) *Impact Category I:* The effects of activities at the disposal site shall be categorized in Impact Category I when one or more of the following conditions is present and can reasonably be attributed to ocean dumping activities;

(i) There is identifiable progressive movement or accumulation, in detectable concentrations above normal ambient values, of any waste or waste constituent from the disposal site within 12 nautical miles of any shoreline, marine sanctuary designated under title III of the Act, or critical area designated under section 102(c) of the Act; or

(ii) The biota, sediments, or water column of the disposal site, or of any area outside the disposal site where any waste or waste constituent from the disposal site is present in detectable concentrations above normal ambient values, are adversely affected by the toxicity of such waste or waste constituent to the extent that there are statistically significant decreases in the populations of valuable commercial or recreational species, or of specific species of biota essential to the propagation of such species, within the disposal site and such other area as compared to populations of the same organisms in comparable locations outside such site and area; or

(iii) Solid waste material disposed of at the site has accumulated at the site or in areas adjacent to it, to such an extent that major uses of the site or of adjacent areas are significantly impaired and the Federal or State agency responsible for regulating such uses certifies that such significant impairment has occurred and states in its certificate the basis for its determination of such impairment; or

(iv) There are adverse effects on the taste or odor of valuable commercial or recreational species as a result of disposal activities; or

(v) When any toxic waste, toxic waste constituent, or toxic byproduct of waste interaction, is consistently identified in toxic concentrations above normal ambient values outside the disposal site more than 4 hours after disposal.

(2) *Impact Category II:* The effects of activities at the disposal site which are not categorized in Impact Category I shall be categorized in Impact Category II.

§ 228.11 Modification in disposal site use.

(a) Modifications in disposal site use which involve the withdrawal of designated disposal sites from use or permanent changes in the total specified quantities or types of wastes permitted to be discharged to a specific disposal site will be made through promulgation of an amendment to the disposal site designation set forth in this part 228 and will be based on the results of the analyses of impact described in § 228.10 or upon changed circumstances concerning use of the site.

(b) Modifications in disposal site use promulgated pursuant to paragraph (a) of this section shall not automatically modify conditions of any outstanding permit issued pursuant to this subchapter H, and provided further that unless the EPA management authority for such site modifies, revokes or suspends such permit or any of the terms or conditions of such permit in accordance with the provisions of § 232.2 based on the results of impact analyses as described in § 228.10 or upon changed circumstances concerning use of the site, such permit will remain in force until its expiration date.

(c) When the EPA management authority determines that activities at a disposal site have placed the site in Impact Category I, the Administrator or the Regional Administrator, as the case may be, shall place such limitations on the use of the site as are necessary to reduce the impacts to acceptable levels.

(d) The determination of the Administrator as to whether to terminate or limit use of a disposal site will be based on the impact of disposal at the site itself and on the Criteria.

[42 FR 2482, Jan. 11, 1977; 43 FR 1071, Jan. 6, 1978]

§ 228.12 [Reserved]

§ 228.13 Guidelines for ocean disposal site baseline or trend assessment surveys under section 102 of the Act.

The purpose of a baseline or trend assessment survey is to determine the physical, chemical, geological, and biological structure of a proposed or existing disposal site at the time of the survey. A baseline or trend assessment survey is to be regarded as a comprehensive synoptic and representative picture of existing conditions; each such survey is to be planned as part of a continual monitoring program through which changes in conditions at a disposal site can be documented and assessed. Surveys will be planned in coordination with the ongoing programs of NOAA and other Federal, State, local, or private agencies with missions in the marine environment. The field survey data collection phase of a disposal site evaluation or designation study shall be planned and conducted to obtain a body of information both representative of the site at the time of study and obtained by techniques reproducible in precision and accuracy in future studies. A full plan of study which will provide a record of sampling, analytical, and data reduction procedures must be developed, documented and approved by the EPA management authority. Plans for all surveys which will produce information to be used in the preparation of environmental impact statements will be approved by the Administrator or his designee. This plan of study also shall be

incorporated as an appendix into a technical report on the study, together with notations describing deviations from the plan required in actual operations. Relative emphasis on individual aspects of the environment at each site will depend on the type of wastes disposed of at the site and the manner in which such wastes are likely to affect the local environment, but no major feature of the disposal site may be neglected. The observations made and the data obtained are to be based on the information necessary to evaluate the site for ocean dumping. The parameters measured will be those indicative, either directly or indirectly, of the immediate and long-term impact of pollutants on the environment at the disposal site and adjacent land or water areas. An initial disposal site evaluation or designation study should provide an immediate baseline appraisal of a particular site, but it should also be regarded as the first of a series of studies to be continued as long as the site is used for waste disposal.

(a) *Timing.* Baseline or trend assessment surveys will be conducted with due regard for climatic and seasonal impact on stratification and other conditions in the upper layers of the water column. Where a choice of season is feasible, trend assessment surveys should be made during those months when pollutant accumulation within disposal sites is likely to be most severe, or when pollutant impact within disposal sites is likely to be most noticeable.

(1) Where disposal sites are near large riverine inflows to the ocean, surveys will be done with due regard for the seasonal variation in river flow. In some cases several surveys at various river flows may be necessary before a site can be approved.

(2) When initial surveys show that seasonal variation is not significant and surveys at greater than seasonable intervals are adequate for characterizing a site, resurveys shall be carried out in climatic conditions as similar to those of the original surveys as possible, particularly in depths less than 200 meters.

(b) *Duration.* The actual duration of a field survey will depend upon the size and depth of the site, weather conditions during the survey, and the types of data to be collected. For example, for a survey of an area of 100 square miles on the continental shelf, including an average dump site and the region contiguous to it, an on-site operation would be scheduled for completion within one week of weather suitable for on-site operations. More on-site operating time may be scheduled for larger or highly complex sites.

(c) *Numbers and locations of sampling stations.* The numbers and locations of sampling stations will depend in part on the local bathymetry with minimum numbers of stations per site fixed as specified in the following sections. Where the bottom is smooth or evenly sloping, stations for water column measurements and benthic sampling and collections, other than trawls, shall be spaced throughout the survey area in a manner planned to provide maximum coverage of both the disposal site and contiguous control areas, considering known water movement characteristics. Where there are major irregularities in the bottom topography, such as canyons or gullies, or in the nature of the bottom, sampling stations for sediments and benthic communities shall be spaced to provide representative sampling of the major different features.

Sampling shall be done within the dump site itself and in the contiguous area. Sufficient control stations outside a disposal site shall be occupied to characterize the control area environment at least as well as the disposal site itself. Where there are known persistent currents, sampling in contiguous areas shall include at least two stations downcurrent of the dump site, and at least two stations upcurrent of the site.

(d) *Measurements in the water column at and near the dump site*—(1) *Water quality parameters measured.* These shall include the major indicators of water quality, particularly those likely to be affected by the waste proposed to be dumped. Specifically included at all stations are measurements of temperature, dissolved oxygen, salinity, suspended solids, turbidity, total organic carbon, pH, inorganic nutrients, and chlorophyll *a*.

(i) At one station near the center of the disposal site, samples of the water column shall be taken for the analysis of the following parameters: Mercury, cadmium, copper, chromium, zinc, lead, arsenic, selenium, vanadium, beryllium, nickel, pesticides, petroleum hydrocarbons, and persistent organohalogens. These samples shall be preserved for subsequent analysis by or under the direct supervision of EPA laboratories in accordance with the approved plan of study.

(ii) These parameters are the basic requirements for all sites. For the evaluation of any specific disposal site additional measurements may be required, depending on the present or intended use of the site. Additional parameters may be selected based on the materials likely to be in wastes dumped at the site, and on parameters likely to be affected by constituents of such wastes. Analysis for other constituents characteristic of wastes discharged to a particular disposal site, or of the impact of such wastes on water quality, will be included in accordance with the approved plan of study.

(2) *Water quality sampling requirements.* The number of samples collected from the water column should be sufficient to identify representative changes throughout the water column such as to avoid short-term impact due to disposal activities. The following key locations should be considered in selecting water column depths for sampling:

(i) Surface, below interference from surface waves;

(ii) Middle of the surface layer;

(iii) Bottom of the surface layer;

(iv) Middle of the thermocline or halocline, or both if present;

(v) Near the top of the stable layer beneath a thermocline or halocline;

(vi) Near the middle of a stable layer;

(vii) As near the bottom as feasible;

(viii) Near the center of any zone showing pronounced biological activity or lack thereof.

In very shallow waters where only a few of these would be pertinent, as a minimum, surface, mid-depth and bottom samples shall be taken, with samples at additional depths being added as indicated by local conditions. At disposal sites far enough away from the influence of major river inflows, ocean or coastal currents, or other features which might cause local perturbations in water chemistry, a minimum of 5 water chemistry stations should be occupied within the boundaries of a site. Additional stations should be added when the area to be covered in the survey is more than 20 square miles or when local perturbations in water chemistry may be expected because of the presence of one of the features mentioned above. In zones where such impacts are likely, stations shall be distributed so that at least 3 stations are occupied in the transition from one stable regime to another. Each water column chemistry station shall be replicated a minimum of 2 times during a survey except in waters over 200 meters deep.

(3) *Water column biota.* Sampling stations for the biota in the water column shall be as near as feasible to stations used for water quality; in addition at least two night-time stations in the disposal site and contiguous area are required. At each station vertical or oblique tows with appropriately-meshed nets shall be used to assess the microzooplankton, the nekton, and the macrozooplankton, Towing times and distances shall be sufficient to obtain representative samples of organisms near water quality stations. Organisms shall be sorted and identified to taxonomic levels necessary to identify dominant organisms, sensitive or indicator organisms, and organism diversity. Tissue samples of representative species shall be analyzed for pesticides, persistent organohalogens, and heavy metals. Discrete water samples shall also be used to quantitatively assess the phytoplankton at each station.

These requirements are the minimum necessary in all cases. Where there are discontinuities present, such as thermoclines, haloclines, convergences, or upwelling, additional tows shall be made in each water mass as appropriate.

(e) *Measurements of the benthic region*—(1) *Bottom sampling.* Samples of the bottom shall be taken for both sediment composition and structure, and to determine the nature and numbers of benthic biota.

(i) At each station sampling may consist of core samples, grab samples, dredge samples, trawls, and bottom photography or television, where available and feasible, depending on the nature of the bottom and the type of disposal site. Each type of sampling shall be replicated sufficiently to obtain a representative set of samples. The minimum numbers of replicates of successful samples at each continental shelf station for each type of device mentioned above are as follows:

Cores	3.
Grabs	5.
Dredge	3.
Trawl	20-min. tow.

Lesser numbers of replicates may be allowed in water deeper than 200 meters, at those sites where pollution impacts on the bottom are unlikely in the judgment of the EPA management authority.

(ii) Selection of bottom stations will be based to a large extent on the bottom topography and hydrography as determined by the bathymetric survey. On the continental shelf, where the bottom has no significant discontinuities, a bottom station density of at least three times the water column stations is recommended, depending on the type of site being evaluated. Where there are significant differences in bottom topography, additional stations shall be occupied near the discontinuity and on each side of it. Beyond the continental shelf, lesser densities may be used.

(2) *Bathymetric survey.* Sufficient tracklines shall be run to develop complete bottom coverage of bathymetry with reasonable assurance of accurate coverage of bottom topography, with trackline direction and spacing as close as available control allows. The site itself is to be developed at the greatest density possible, with data to be collected to a suitable distance about the site as is required to identify major changes in bathymetry which might affect the site. Specifications for each bathymetric survey will vary, depending on control, bottom complexity, depths, equipment, and map scale required. In most cases, a bathymetric map at a scale of 1:25,000 to 1:10,000 will be required, with a minimum of 1–5 meter contour interval except in very flat areas. When the foregoing bathymetric detail is available from recent surveys of the disposal site, bathymetry during a baseline or trend assessment survey may be limited to sonar profiles of bathymetry on transects between sampling stations.

(3) *Nature of bottom.* The size distribution of sediments, mineral character and chemical quality of the bottom will be determined to a depth appropriate for the type of bottom. The following parameters will be measured at all stations: Particle size distribution, major mineral constituents, texture, settling rate, and organic carbon.

(i) At several stations near the center of the disposal site, samples of sediments shall be taken for the analysis of the following parameters: Mercury, cadmium, copper, chromium, zinc, lead, arsenic, selenium, vanadium, beryllium, nickel, pesticides, persistent organohalogens, and petroleum hydrocarbons. These samples shall be preserved for subsequent analysis by or under the direct supervision of EPA laboratories in accordance with the approved plan of study.

(ii) These parameters are the basic requirements for all sites. For the evaluation of any specific disposal site additional measurements may be required, depending on the present or intended use of the site. Additional parameters may be selected based on the materials likely to be in wastes dumped at the site, and on parameters likely to be affected by constituents of such wastes. Such additional parameters will be selected by the EPA management authority.

(4) *Benthic biota.* This shall consist of a quantitative and qualitative evaluation of benthic communities including macroinfauna and macroepifauna, meiobenthos, and microbenthos, and should include an appraisal, based on existing information, of the sensitivity of indigenous species to the waste proposed to be discharged. Organisms, shall be sorted, and identified to taxonomic levels necessary to identify dominant organisms, sensitive or indicator organisms, and organism diversity. Tissue samples of the following types of organisms shall be analyzed for persistent organohalogens, pesticides, and heavy metals:

(i) A predominant species of demersal fish;

(ii) The most abundant macroinfaunal species; and

(iii) A dominant epifaunal species, with particular preference for a species of economic importance.

(f) *Other measurements*—(1) *Hydrodynamic features.* The direction and speed of water movement shall be characterized at levels appropriate for the site and type of waste to be dumped. Where depths and climatic conditions are great enough for a thermocline or halocline to exist, the relationship of water movement to such a feature shall be characterized.

(i) *Current measurements.* When current meters are used as the primary source of hydrodynamic data, at least 4 current meter stations with at least 3 meters at depths appropriate for the observed or expected discontinuities in the water column should be operated for as long as possible during the survey. Where feasible, current meters should be deployed at the initiation of the survey and recovered after its completion. Stations should be at least a mile apart, and should be placed along the long axis of the dumping site. For dumping sites more than 10 miles along the long axis, one current meter station every 5 miles should be operated. Where there are discontinuities in surface layers, e.g., due to land runoff, stations should be operated in each water mass.

(ii) *Water mass movement.* Acceptable methods include: dye, drogues, surface drifters, side scan sonar, bottom drifters, and bottom photography or television. When such techniques are the primary source of hydrodynamic data, coverage should be such that all significant hydrodynamic features likely to affect waste movement are measured.

(2) *Sea state.* Observations of sea state and of standard meteorological parameters shall be made at 8-hour intervals.

(3) *Surface phenomena.* Observations shall be made of oil slicks, floating materials, and other visible evidence of pollution; and, where possible, collections of floating materials shall be made.

(g) *Survey procedures and techniques.* Techniques and procedures used for sampling and analysis shall represent the state-of-the-art in oceanographic survey and analytical practice. Survey plans shall specify the methods to be used and will be subject to approval by EPA.

(h) *Quality assurance.* The EPA management authority may require that certain samples be submitted on a routine basis to EPA laboratories for analysis as well as being analyzed by the surveyor, and that EPA personnel participate in some field surveys.

§ 228.14 Dumping sites designated on an interim basis.

(a)(1) The sites identified in this section are approved for dumping the indicated materials on an interim basis pending completion of baseline or trend assessment surveys and final designation or termination of use. Unless otherwise specifically provided in the entry for a particular site, such interim use sites are available indefinitely pending completion of the present studies and determination of the need for the continuing use of these sites, the completion of any necessary studies, and evaluation of their suitability. Designation studies for particular sites within this group will begin as soon as feasible after the completion of nearby sites presently being studied. The sizes and use specifications are based on historical usage and do not necessarily meet the criteria stated in this part.

(2) Unless otherwise specifically noted, site management authority for each site set forth in this section is delegated to the EPA Regional office under which the site entry is listed.

(3) Unless otherwise specifically noted, all ocean dumping site coordinates are based upon the North American Datum of 1927.

(b) Region I Interim Dredged Material Sites.

(1) Cape Arundel, ME.

(i) *Location:* 43°17′45″N., 70°27′12″W. (500 yds. diameter).

(ii) [Reserved]

(c) Region I Interim Other Wastes Sites.

(1) No interim sites.

(2) [Reserved]

(d) Region II Interim Dredged Material Sites.

(1) No interim sites.

(2) [Reserved]

(e) Region II Interim Other Wastes Sites.

(1) Incineration of Wood, NY/NJ.

(i) *Location:* 40°00′00″N. to 40°04′20″N.; 73°41′00″W. to 73°38′10″W.

(ii) [Reserved]

(2) [Reserved]

(f) Region III Interim Dredged Material Sites.

(1) No interim sites.

(2) [Reserved]

(g) Region III Interim Other Wastes Sites.

(1) No interim sites.

(2) [Reserved]

(h) Region IV Interim Dredged Material Sites.

(1) Port Royal Harbor North, SC.

(i) *Location:* 32°10′11″N., 80°36′00″W.; 32°10′06″N., 80°36′35″W.; 32°08′38″N., 80°36′23″W.; 32°08′41″N., 80°35′49″W.

(ii) [Reserved]

(2) Port Royal Harbor South, SC.

(i) *Location:* 32°05′46″N., 80°35′30″W.; 32°05′42″N., 80°36′27″W.; 32°04′22″N., 80°36′16″W.; 32°04′27″N., 80°35′18″W.

(ii) [Reserved]

(3) Palm Beach Harbor West, FL.

(i) *Location:* 26°46′10″N., 80°02′00″W.; 26°45′54″N., 80°02′06″W.; 26°45′54″N., 80°02′13″W.; 26°46′10″N., 80°02′07″W.

(ii) [Reserved]

(4) Palm Beach Harbor East, FL.

(i) *Location:* 26°46′00″N., 79°58′55″W.; 26°46′00″N., 79°57′47″W.; 26°45′00″N., 79°57′47″W.; 26°45′00″N., 79°58′55″W.

(ii) [Reserved]

(5) Port Everglades Harbor, FL.

(i) *Location:* 26°07′00″N., 80°04′30″W.; 26°07′00″N., 80°03′30″W.; 26°06′00″N., 80°03′30″W.; 26°06′00″N., 80°04′30″W.

(ii) [Reserved]

(6) [Reserved]

(7) Charlotte Harbor, FL.

(i) *Location:* 26°37′36″N., 82°19′55″W.; 26°37′36″N., 82°18′47″W.; 26°36′36″N., 82°18′47″W.; 26°36′36″N., 82°19′55″W.

(ii) [Reserved]

(8) Port St. Joe South, FL.

(i) *Location:* 29°50.9′ N., 85°29.9′ W.; 29°51.3′ N., 85°29.5′ W.; 29°49.2′ N., 85°28.2′ W.; 29°49.0′ N., 85°28.8′ W.

(ii) [Reserved]

(9) Port St. Joe North, FL.

(i) *Location:* 29°53.9′ N., 85°31.8′ W.; 29°54.1′ N., 85°31.3′ W.; 29°52.2′ N., 85°30.1′ W.; 29°52.2′ N., 85°30.8′ W.

(ii) [Reserved]

(10) Panama City, FL.

(i) *Location:* 30°07.1′ N., 85°45.9′ W.; 30°07.2′ N., 85°45.5′ W.; 30°06.9′ N., 85°45.1′ W.; 30°06.7′ N., 85°45.6′

(ii) [Reserved]

(i) Region IV Interim Other Wastes Sites.

(1) No interim sites.

(2) [Reserved]

(j) Region VI Interim Dredged Material Sites.

(1) Mississippi River, Baton Rouge to the Gulf of Mexico, LA—South Pass.

(1) *Description and location:* Maintaince dredging disposal area 0.5 mile square, parallel to the channel and located on the west side. Beginning at 28°58′33″N. and 89°07′00″W., following channel centerline (azimuth 295°41′) of the Gulf entrance channel to 28°58′24″N. and 89°06′30″W., thence to 28°57′54″N. and 89°06′42″W., thence to 28°58′06″N. and 89°07′18″W., thence to the point of beginning.

(ii) [Reserved]

(2) Mississippi River Outlets, Venice, LA—Tiger Pass.

(i) *Description and location:* Maintenance dredging disposal area 0.5 mile wide by 2.5 miles long, parallel and adjacent to the channel and located on the south side. Beginning at 29°08′24″W. and 89°25′35″N. following 270° azimuth to 29°08′24″W. and 89°28′05″N., thence to 29°07′54″W. and 89°28′05″N., thence to 29°07′54″W. and 89°25′35″N., thence to the point of beginning.

(ii) [Reserved]

(3) Waterway from Empire, LA to the Gulf of Mexico—Bar channel.

(i) *Description and location:* Maintenance dredging disposal area 0.5 mile wide by 1 mile long, parallel to the channel and located on the west side. Beginning at 29°15′06″N. and 89°36′30″W., following channel centerline (azimuth 11°08′) of the gulf entrance channel to 29°14′30″N. and 89°36′36″W., thence to 29°14′36″N. and 89°36′48″W., thence to 29°15′12″N. and 89°36′42″W., thence to the point of beginning.

(ii) [Reserved]

(4) Bayou Lafourche and Lafourche—Jump Waterway, LA—Bell Pass.

(i) *Description and location:* Maintenance dredging disposal area 2,000 feet wide by 1.5 miles long, parallel to the channel and located on the west side.

Beginning at 29°05′00″N. and 90°13′45″W., following Bell Pass centerline (azimuth 12°55′) in the gulf entrance channel to 29°03′51″N., and 90°14′06″W., thence to 29°03′57″N. and 90°14′21″W., thence to 29°05′06″N. and 90°14′03″W., thence to the point of beginning.

(ii) [Reserved]

(5) [Reserved]

(6) Mermentau River, LA, Disposal Area ''A''.

(i) *Description and location:* Maintenance dredging disposal area 0.5 mile wide and 1.5 miles long, parallel to the entrance channels in the Lower Mermentau River and in the Lower Mud Lake, both located on the west side: Beginning at 28°44′48″N. and 93°07′12″W., following channel centerline (azimuth 256°59′) of the gulf entrance to 29°43′39″N. and 93°07′36″W., thence to 29°43′42″N. and 93°07′48″W., thence to 29°44′51″N. and 93°07′24″W., thence to the point of beginning.

(ii) [Reserved]

(7) Mermentau River, LA, Disposal Area ''B''.

(i) *Description and location:* Maintenance dredging disposal area 0.5 mile wide by 1.5 miles long, parallel to the entrance channels in the Lower Mermentau River in the Lower Mud Lake, both located on the west side: Beginning at 29°43′24″N. and 93°01′54″W., following channel centerline (azimuth 359°50′) of the gulf centerline to 29°42′33″N. and 93°02′12″W., thence to 29°42′36″N. and 93°02′24″W., thence to 29°43′36″N. and 93°02′06″W., thence to the point of beginning.

(ii) [Reserved]

(8) Freshwater Bayou, LA—Bar channel.

(i) *Description and location:* Maintenance dredging disposal area 2,000 feet wide by 3.5 miles long, parallel to the channel and located on the west side. Beginning at 29°32′00″N. and 92°18′48″W., following channel centerline (azimuth 09°25′) of the gulf entrance to 29°28′24″N. and 92°19′30″W., thence to 29°28′25″N. and 92°19′42″W., thence to 29°32′01″N. and 92°19′00″W., thence to the point of beginning.

(ii) [Reserved]

(k) Region VI Interim Other Wastes Sites.

(1) No interim sites.

(2) [Reserved]

(l) Region IX Interim Dredged Material Sites.

(1) Newport Beach, CA (LA–3).

(i) *Location:* 33°31′42″N., 117°54′48″W. (1,000 yd. radius).

(ii) [Reserved]

(2) Port Hueneme, CA (LA–1).

(i) *Location:* 34°05′00″N., 119°14′00″W. (1,000 yd. radius).

(ii) [Reserved]

(3) Crescent City Harbor, CA (SF–1).

(i) *Location:* 41°43′15″N., 124°12′10″W. (1,000 yd. diameter).

(ii) [Reserved]

(4) Noyo River, CA (SF–5).

(i) *Location:* 39°25′45″N., 123°49′42″W. (500 yd. diameter).

(ii) [Reserved]

(5) Guam—Apra Harbor.

(i) *Location:* 13°29′30″N., 144°34′30″ E. (1,000 yd. radius)

(ii) [Reserved]

(m) Region IX Interim Other Wastes Sites.

(1) No interim sites.

(2) [Reserved]

(n) Region X Interim Dredged Material Sites.

(1) Rogue River Entrance, OR.

(i) *Location:* 42°24′16″N., 124°26′48″W.; 42°24′04″N., 124°26′35″W.; 42°23′40″N., 124°27′13″W.; 42°23′52″N., 124°27′26″W.

(ii) [Reserved]

(2) Port Orford, OR.

(i) *Location:* 42°44′08″N., 124°29′38″W.; 42°44′08″N., 124°29′28″W.; 42°43′52″N., 124°29′28″W.; 42°43′52″N., 124°29′38″W.

(ii) [Reserved]

(3) Umpqua River Entrance, OR.

(i) *Location:* 43°40′07″N., 124°14′18″W.; 43°40′07″N., 124°13′42″W.; 43°39′53″N., 124°13′42″W.; 43°39′53″N., 124°14′18″W.

(ii) [Reserved]

(4) Siuslaw River Entrance, OR.

(i) *Location:* 44°01′32″N., 124°09′37″W.; 44°01′22″N., 124°09′02″W.; 44°01′14″N., 124°09′07″W.; 44°01′24″N., 124°09′42″W.

(ii) [Reserved]

(5) Yaquina Bay and Harbor Entrance, OR.

(i) *Location:* 44°36′31″N., 124°06′4″W.; 44°36′31″N., 124°05′16″W.; 44°36′17″N., 124°05′16″.; 44°36′17″N., 124°06′04″W.

(ii) [Reserved]

(6) Tillamook Bay Entrance, OR.

(i) *Location:* 45°34′09″N., 123°59′37″W.; 45°34′09″N., 123°58′45″W.; 45°33′55″N., 123°58′45″W.; 45°33′55″N., 123°59′37″W.

(ii) [Reserved]

(7) Willapa Bay, WA.

(i) *Location:* 46°44′00″N., 124°10′00″W.; 46°39′00″N., 124°09′00″W.

(ii) [Reserved]

(o) Region X Interim Other Wastes Sites.

(1) No interim sites.

(2) [Reserved]

[59 FR 61129, Nov. 29, 1994, as amended at 61 FR 2946, Jan. 30, 1996; 65 FR 31497, May 18, 2000]

§ 228.15 Dumping sites designated on a final basis.

(a)(1) The sites identified in this section are approved for dumping the indicated materials. Designation of these sites was based on environmental studies conducted in accordance with the provisions of this part 228, and the sites listed in this section have been found to meet the site designation criteria of §§ 228.5 and 228.6.

(2) Unless otherwise specifically noted, site management authority for each site set forth in this section is delegated to the EPA Regional office under which the site entry is listed.

(3) Unless otherwise specifically noted, all ocean dumping site coordinates are based upon the North American Datum of 1927.

(b) Region I Final Dredged Material Sites.

(1) Portland, Maine, Dredged Material Disposal Site.

(i) *Location:* 43°33′36″N., 70°02′42″W.; 43°33′36″N., 70°01′18″W.; 43°34′36″N., 70°02′42″W.; 43°34′36″N., 70°01′18″W.

(ii) *Size:* One square nautical mile.

(iii) *Depth:* 50 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material.

(2) Massachusetts Bay Disposal Site.

(i) *Location:* Center coordinates (NAD 1983) 42°25.1′ north latitude, 70°35.0′ west latitude.

(ii) *Size:* 2 nautical mile diameter.

(iii) *Depth:* Average 90 meters.

(iv) *Exclusive Use:* Dredged material.

(v) *Period of Use:* Continuing.

(vi) *Restriction:* Disposal shall be limited to dredged material which meets the requirements of the MPRSA and its accompanying regulations. Disposal-and-capping is prohibited at the MBDS until its efficacy can be effectively demonstrated.

(c) Region I Final Other Wastes Sites.

(1) No final sites.

(2) [Reserved]

(d) Region II Final Dredged Material Sites.

(1) Fire Island Inlet, Long Island, New York Dredged Material Disposal Site.

(i) *Location:* 40°36′49″N., 73°23′50″W.; 40°37′12″N., 73°21′30″W.; 40°36′41″N., 73°21′20″W.; 40°36′10″N., 73°23′40″W.

(ii) *Size:* Approximately 1.09 square nautical miles.

(iii) *Depth:* Ranges from 7 to 10 meters.

(iv) *Primary Use:* Dredged material disposal.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Fire Island Inlet, Long Island, New York.

(2) Jones Inlet, Long Island, New York Dredged Material Disposal Site.

(i) *Location:* 40°34′32″N., 73°39′14″W.; 40°34′32″N., 73°37′06″W.; 40°33′48″N., 73°37′06″W.; 40°33′48″N., 73°39′14″W.

(ii) *Size:* Approximately 1.19 square nautical miles.

(iii) *Depth:* Ranges from 7 to 10 meters.

(iv) *Primary use:* Dredged material disposal.

(v) *Period of use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Jones Island Inlet, Long Island, New York.

(3) East Rockaway Inlet, Long Island NY Dredged Material Disposal Site.

(i) *Location:* 40°34′36″N., 73°49′00″W.; 40°35′06″N., 73°47′06″W.; 40°34′10″N., 73°48′6″W.; 40°34′12″N., 73°47′17″W.

(ii) *Size:* Approximately 0.81 square nautical miles.

(iii) *Depth:* Ranges from 6 to 9 meters.

(iv) *Primary use:* Dredged material disposal.

(v) *Period of use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from East

Rockaway Inlet, Long Island, New York.

(4) Rockaway Inlet, Long Island, New York Dredged Material Disposal Site.

(i) *Location:* 40°32′30″N., 73°55′00″W.; 40°32′30″N., 73°54′00W″; 40°32′00″N., 73°54′00″W.; 40°32′00″N., 73°55′00″W.

(ii) *Size:* Approximately 0.38 square nautical miles.

(iii) *Depth:* Ranges from 8 to 11 meters.

(iv) *Primary use:* Dredged material disposal.

(v) *Period of use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Rockaway Inlet, Long Island, New York.

(5) Shark River, New Jersey Dredged Material Disposal Site.

(i) *Location:* 40°12′48″N., 73°59′45″W.; 40°12′44″N., 73°59′06″W.; 40°11′36″N., 73°59′28″W.; 40°11′42″N., 74°00′12″W.

(ii) *Size:* Approximately 0.6 square nautical miles.

(iii) *Depth:* Approximately 12 meters.

(iv) *Primary use:* Dredged material disposal.

(v) *Period of use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Shark River Inlet, New Jersey.

(6) Historical Area Remediation Site (HARS) Designation/Mud Dump Site Termination.

(i) Status of Former Mud Dump Site: The Mud Dump Site, designated as an Impact Category I site on May 4, 1984, is terminated.

(ii) Location: (A) The HARS (which includes the 2.2 square nautical mile area of the former Mud Dump Site) is a 15.7 square nautical mile area located approximately 3.5 nautical miles east of Highlands, New Jersey and 7.7 nautical miles south of Rockaway, Long Island. The HARS consists of a Primary Remediation Area (PRA), a Buffer Zone, and a No Discharge Zone. The HARS is bounded by the following coordinates:

Point	Latitude DMS	Longitude DMS	Latitude DDM	Longitude DDM
A	40° 25′ 39″ N	73° 53′ 55″ W	40° 25.65′ N	73° 53.92′ W.
M	40° 25′ 39″ N	73° 48′ 58″ W	40° 25.65′ N	73° 48.97″ W.
P	40° 21′ 19″ N	73° 48′ 57″ W	40° 21.32′ N	73° 48.95′ W.
R	40° 21′ 19″ N	73° 52′ 30″ W	40° 21.32′ N	73° 52.50′ W.
S	40° 21′ 52″ N	73° 53′ 55″ W	40° 21.87′ N	73° 53.92′ W.
V	40° 21′ 52″ N	73° 52′ 30″ W	40° 21.87′ N	73° 52.50′ W.

DMS = Degrees, Minutes, Seconds.
DDM = Degrees, Decimal Minutes.

(B) The PRA, is a 9.0 square nautical mile area to be remediated with at least a 1 meter cap of the Material for Remediation. The PRA is bounded by the following coordinates:

Point	Latitude DMS	Longitude DMS	Latitude DDM	Longitude DDM
B	40° 25′ 23″ N	73° 53′ 34″ W	40° 25.38′ N	73° 53.57′ W.
D	40° 25′ 22″ N	73° 52′ 08″ W	40° 25.37′ N	73° 52.13′ W.
F	40° 23′ 13″ N	73° 52′ 09″ W	40° 23.22′ N	73° 52.15″ W.
G	40° 23′ 13″ N	73° 51′ 28″ W	40° 23.22′ N	73° 51.47′ W.
H	40° 22′ 41″ N	73° 51′ 28″ W	40° 22.68′ N	73° 51.47′ W.
I	40° 22′ 41″ N	73° 50′ 43#″ W	40° 22.68′ N	73° 50.72′ W.
L	40° 25′ 22″ N	73° 50′ 44″ W	40° 25.37′ N	73° 50.73′ W.
N	40° 25′ 22″ N	73° 49′ 19″ W	40° 25.37′ N	73° 49.32′ W.
O	40° 21′ 35″ N	73° 49′ 19″ W	40° 21.58′ N	73° 49.32′ W.
Q	40° 21′ 36″ N	73° 52′ 08″ W	40° 21.60′ N	73° 52.13′ W.
T	40° 22′ 08″ N	73° 52′ 08″ W	40° 22.13′ N	73° 52.13′ W.
U	40° 22′ 08″ N	73° 53′ 34″ W	40° 22.13′ N	73° 53.57′ W.

DMS = Degrees, Minutes, Seconds.
DDM = Degrees, Decimal Minutes.

(iii) Size: 15.7 square nautical miles.

(iv) Depth: Ranges from 12 to 42 meters.

(v) Restrictions on Use:

(A) The site will be managed so as to reduce impacts within the PRA to acceptable levels in accordance with 40 CFR 228.11(c). Use of the site will be restricted to dredged material suitable for use as the Material for Remediation. This material shall be selected so as to ensure it will not cause significant undesirable effects including through bioaccumulation or unacceptable toxicity, in accordance with 40 CFR 227.6.

(B) Placement of Material for Remediation will be limited to the PRA. Placement of Material for Remediation within the PRA is not allowed in a 0.27 nautical mile radius around the following coordinates due to the presence of shipwrecks: 40° 25.30′ W, 73° 52.80′ N; 40° 25.27′ W, 73° 52.13′ N; 40° 25.07′ W, 73° 50.05′ N; 40° 22.46′ W, 73° 53.27′ N.

(C) No placement of material may take place within the Buffer Zone, although this zone may receive material that incidentally spreads out of the PRA. The Buffer Zone is an approximately 5.7 square nautical mile area (0.27 nautical mile wide band around the PRA), which is bounded by the following coordinates:

Point	Latitude DMS	Longitude DMS	Latitude DDM	Longitude DDM
A	40°25′39″ N	73°53′55″ W	40°25.65′ N	73°53.92′ W.
B	40°25′23″ N	73°53′34″ W	40°25.38′ N	73°53.57′ W.
C	40°25′39″ N	73°51′48″ W	40°25.65′ N	73°51.80′ W.
D	40°25′22″ N	73°52′08″ W	40°25.37′ N	73°52.13′ W.
E	40°23′48″ N	73°51′48″ W	40°23.80′ N	73°51.80′ W.
F	40°23′13″ N	73°52′09″ W	40°23.22′ N	73°52.15′ W.
G	40°23′13″ N	73°51′28″ W	40°23.22′ N	73°51.47′ W.
H	40°22′41″ N	73°51′28″ W	40°22.68′ N	73°51.47′ W.
I	40°22′41″ N	73°50′43″ W	40°22.68′ N	73°50.72′ W.
J	40°23′48″ N	73°51′06″ W	40°23.80′ N	73°51.10′ W.
K	40°25′39″ N	73°51′06″ W	40°25.65′ N	73°51.10′ W.
L	40°25′22″ N	73°50′44″ W	40°25.37′ N	73°50.73′ W.
M	40°25′39″ N	73°48′58″ W	40°25.65′ N	73°48.97′ W.
N	40°25′22″ N	73°49′19″ W	40°25.37′ N	73°49.32′ W.
O	40°21′35″ N	73°49′19″ W	40°21.58′ N	73°49.32′ W.
P	40°21′19″ N	73°48′57″ W	40°21.32′ N	73°48.95′ W.
Q	40°21′36″ N	73°52′08″ W	40°21.60′ N	73°52.13′ W.
R	40°21′19″ N	73°52′30″ W	40°21.32′ N	73°52.50′ W.
S	40°21′52″ N	73°53′55″ W	40°21.87′ N	73°53.92′ W.
T	40°22′08″ N	73°52′08″ W	40°22.13′ N	73°52.13′ W.
U	40°22′08″ N	73°53′34″ W	40°22.13′ N	73°53.57′ W.
V	40°21′52″ N	73°52′30″ W	40°21.87′ N	73°52.50′ W.

DMS = Degrees, Minutes, Seconds.
DDM = Degrees, Decimal Minutes.

(D) No placement or incidental spread of the material is allowed within the No Discharge Zone, an approximately 1.0 square nautical mile area, bounded by the following coordinates:

Point	Latitude DMS	Longitude DMS	Latitude DDM	Longitude DDM
C	40°25′39″ N	73°51′48″ W	40°25.65′ N	73°51.80′ W.
E	40°23′48″ N	73°51′48″ W	40°23.80′ N	73°51.80′ W.
J	40°23′48″ N	73°51′06″ W	40°23.80′ N	73°51.10′ W.
K	40°25′39″ N	73°51′06″ W	40°25.65′ N	73°51.10′ W.

DMS = Degrees, Minutes, Seconds.
DDM = Degrees, Decimal Minutes.

(vi) Period of Use: Continuing use until EPA determines that the PRA has been sufficiently capped with at least 1 meter of the Material for Remediation. At that time, EPA will undertake any necessary rulemaking to de-designate the HARS.

(7) Manasquan, New Jersey Dredged Material Disposal Site.

(i) *Location:* 40°06′36″N., 74°01′34″W.; 40°06′19″N., 74°01′39″W.; 40°06′18″N., 74°01′53″W.; 40°06′41″N., 74°01′51″W.

(ii) *Size:* Approximately 0.11 square nautical miles.

(iii) *Depth:* Approximately 18 meters.

(iv) *Primary Use:* Dredged material disposal.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Manasquan Inlet, New Jersey.

(8) Absecon Inlet, NJ Dredged Material Disposal Site.

(i) *Location:* 39°20′39″N., 74°18′43″W.; 39°20′30″N., 74°18′25″W.; 39°20′03″N., 74°18′43″W.; 39°20′12″N., 74°19′01″W.

(ii) *Size:* Approximately 0.28 square nautical miles.

(iii) *Depth:* Approximately 17 meters.

(iv) *Primary Use:* Dredged material disposal.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Absecon Inlet, New Jersey.

(9) Cold Spring Inlet, NJ Dredged Material Disposal Site.

(i) *Location:* 38°55′52″N., 74°53′04″W.; 38°55′37″N., 74°52′55″W.; 38°55′23″N., 74°53′27″W.; 38°55′36″N., 74°53′36″W.

(ii) *Size:* Approximately 0.13 square nautical miles.

(iii) *Depth:* Approximately 9 meters.

(iv) *Primary Use:* Dredged material disposal.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Cold Spring Inlet, New Jersey.

(10) San Juan Harbor, PR, Dredged Material Site.

(i) *Location:* 18°30′10″N., 66°09′31″W.; 18°30′10″N., 66°08′29″W.; 18°31′10″N., 66°08′29″W.; 18°31′10″N., 66°09′31″W.

(ii) *Size:* 0.98 square nautical mile.

(iii) *Depth:* Ranges from 200 to 400 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Port of San Juan, Puerto Rico, and coastal areas within 20 miles of said port entrance.

(11) Arecibo Harbor, PR Dredged Material Disposal Site.

(i) *Location:* 18°31′00″ N., 66°43′47″ W.; 18°31′00″ N., 66°42′ 45″ W.; 18°30′00″ N., 66°42′45″W.; 18°30′00″ N., 66°43′47″ W.

(ii) *Size:* Approximately 1 square nautical mile.

(iii) *Depth:* Ranges from 101 to 417 meters.

(iv) *Primary Use:* Dredged material disposal.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Arecibo Harbor, PR.

(12) Mayaguez Harbor, PR Dredged Material Disposal Site.

(i) *Location:* 18°15′30″ N., 67°16′13″ W.; 18°15′30″ N., 67°15′11″ W.; 18°14′30″ N., 67°15′11″ W.; 18°14′30″ N., 67°16′13″ W.

(ii) *Size:* Approximately 1 square nautical mile.

(iii) *Depth:* Ranges from 351 to 384 meters.

(iv) *Primary Use:* Dredged material disposal.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Mayaguez Harbor, PR.

(13) Ponce Harbor, PR Dredged Material Disposal Site.

(i) *Location:* 17°54′00″ N., 66°37′43″ W.; 17°54′00″ N., 66°36′41″ W.; 17°53′00″ N., 66°36′41″ W.; 17°53′00″ N., 66°37′43″ W.

(ii) *Size:* Approximately 1 square nautical mile.

(iii) *Depth:* Ranges from 329 to 457 meters.

(iv) *Primary Use:* Dredged material disposal.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Ponce Harbor, PR.

(14) Yabucoa Harbor, PR Dredged Material Disposal Site.

(i) *Location:* 18°03′42″ N., 65°42′49″ W.; 18°03′42″ N., 65°41′47″ W.; 18°02′42″ N., 65°41′47″W.; 18°02′42″ N., 65°42′49″ W.

(ii) *Size:* Approximately 1 square nautical mile.

(iii) *Depth:* Ranges from 549 to 914 meters.

(iv) *Primary Use:* Dredged material disposal.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Yabucoa Harbor, PR.

(e) Region II Final Other Wastes Sites.

(1) No final sites.

(2) [Reserved]

(f) Region III Final Dredged Material Sites.

(1) Dam Neck, Virginia, Dredged Material Disposal Site.

(i) *Location:* 36°51′24.1″ N., 75°54′41.4″ W.; 36°51′24.1″ N., 75°53′02.9″ W.; 36°50′52.0″ N., 75°52′49.0″W.; 36°46′27.4″ N., 75°51′39.2″ W.; 36°46′27.5″ N., 75°54′19.0″ W.; 36°50′05.0″ N., 75°54′19.0″ W.

(ii) *Size:* 8 square nautical miles.

(iii) *Depth:* Averages 11 meters.

(iv) *Primary Use:* Dredged Material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material from the mouth of Chesapeake Bay.

(2) Norfolk, VA, Dredged Material Disposal Site.

(i) *Location:* Center point: Latitude—36°59′00″ N., Longitude—75°39′00″ W.

(ii) *Size:* Circular with a radius of 7.4 kilometers (4 nautical miles).

(iii) *Depth:* Ranges from 13.1 to 26 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Site shall be limited to suitable dredged material which passed the criteria for ocean dumping.

(g) Region III Final Other Wastes Sites.

(1) No final sites.

(2) [Reserved]

(h) Region IV Final Dredged Material Sites.

(1) Morehead City, NC Dredged Material Disposal Site.

(i) *Location:* 34°38′30″ N., 76°45′0″ W.; 34°38′30″ N., 76°41′42″ W.; 34°38′09″ N., 76°41′0″ W.; 34°36′0″ N., 76°41′0″ W.; 34°36′0″ N., 76°45′0″ W.

(ii) *Size:* 8 square nautical miles.

(iii) *Depth:* Average 12.0 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Morehead City Harbor, North Carolina area. All material disposed must satisfy the requirements of the ocean dumping regulations.

(2) Wilmington, NC Dredged Material Disposal Site.

(i) *Location:* 33°49′30″ N., 78°03′06″ W.; 33°48′18″ N., 78°01′39″ W.; 33°47′19″ N., 78°02′48″ W.; 33°48′30″ N., 78°04′16″ W.

(ii) *Size:* 2.3 square nautical miles.

(iii) *Depth:* Averages 13 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to the dredged material from Wilmington Harbor area.

(3) Georgetown Harbor; Georgetown, South Carolina: Ocean Dredged Material Disposal Site.

(i) *Location:* 33°11′18″ N., 79°07′20″ W.; 33°11′18″ N., 79°05′23″ W.; 33°10′38″ N., 79°05′24″ W.; 33°10′38″ N., 79°07′21″ W.

(ii) *Size:* 1 square nautical mile.

(iii) *Depth:* 6 to 11 meter range.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to suitable dredged material from the greater Georgetown, South Carolina, area.

(4) [Reserved]

(5) Charleston, SC Harbor Deepening Project Dredged Material Disposal Site.

(i) *Location:* 32°38′06″N., 79°41′57″W.; 32°40′42″N., 79°47′30″W.; 32°39′04″N., 79°49′21″W.; 32°36′28″N., 79°43′48″W.

(ii) *Size:* 11.8 square nautical miles.

(iii) *Depth:* Averages 11 meters.

(iv) *Primary use:* Dredged material from the Charleston Harbor deepening project.

(v) Period of use: Continued use.

(vi) Restriction: Disposal shall be limited to dredged material from the Charleston Harbor area. All dredged materials, except entrance channel materials, shall be limited to that part of the site east of the line between coordinates 32°39′04″ N, 79°44′25″ W and 32°37′24″ N, 79°45′30″ W unless the material can be shown by sufficient testing to contain 10% or less of fine material (grain size of less than 0.074 mm) by weight and shown to be suitable for ocean disposal. Additionally, all disposals shall be in accordance with all provisions of material placement as specified by the Site Management Plan.

(6) Savannah, GA Dredged Material Disposal Site.

(i) *Location:* 31°55′53″N., 80°44′20″W.; 31°57′55″N., 80°46′48″W.; 31°57′55″N., 80°44′20″W.; 31°55′53″N., 80°46′48″W.

(ii) *Size:* 4.26 square nautical miles.

(iii) *Depth:* Averages 11.4 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Savannah Harbor area.

(7) Brunswick Harbor, Brunswick, Georgia Ocean Dredged Material Disposal Site.

(i) *Location:* 31°02′35″N., 81°17′40″W.; 31°02′35″N., 81°16′30″W.; 31°00′30″N., 81°16′30″W.; 31°00′30″N., 81°17′42″W.

(ii) *Size:* Approximately 2 square nautical miles.

(iii) *Depth:* Average 9 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to suitable dredged material from the greater Brunswick, Georgia, vicinity.

(8) Fernandina Beach, FL Dredged Material Disposal Site.

(i) *Location:* 30°33′00″N., 81°16′52″W.; 30°31′00″N., 81°16′52″W.; 30°31′00″N., 81°19′08″W.; 30°33′00″N., 81°19′08″W.

(ii) *Size:* Four square nautical miles.

(iii) *Depth:* Average 16 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing Use.

(vi) *Restriction:* Disposal shall be limited to dredged material which meets the criteria given in the Ocean Dumping Regulations in 40 CFR part 227.

(9) Jacksonville, FL Dredged Material Site.

(i) *Location:* 30°21′30″N., 81°18′34″W.; 30°21′30″N., 81°17′26″W.; 30°20′30″N., 81°17′26″W.; 30°20′30″N., 81°18′34″W.

(ii) *Size:* One square nautical mile.

(iii) *Depth:* Ranges from 12 to 16 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Jacksonville, Florida, area.

(10) Canaveral Harbor, FL, Dredged Material Dumpsite.

(i) *Location:* 28°20′15″N., 80°31′11″W.; 28°18′51″N., 80°29′15″W.; 28°17′13″N., 80°30′53″W.; 28°18′36″N., 80°32′45″W.

Center coordinates: 28°18′44″N., 80°31′00″W. (NAD 27).

(ii) *Size:* 4 square nautical miles.

(iii) *Depth:* Range 47 to 55 feet.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to suitable dredged material from the greater Canaveral, Florida, vicinity.

(11) Fort Pierce Harbor, FL, Fort Pierce, FL, Ocean Dredged material Disposal Site.

(i) Location: 27°28′00″ N., 80°12′33″ W.; 27°28′00″ N., 80°11′27″ W.; 27°27′00″ N., 80°11′27″ W.; and 27°27′00″ N., 80°12′33″ W.

(ii) *Size:* 1 square nautical mile.

(iii) *Depth:* Average range 40 to 54 feet.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to suitable dredged material from the greater Fort Pierce Harbor vicinity. All dredged material consisting of greater than 10% fine grained material (grain size of less than 0.047mm) by weight shall be limited to that part of the site east of 80°12′00″W. and south of 27°27′20″N.

(12) Pensacola Nearshore, FL Dredged Material Disposal Site.

(i) *Location:* 30°17′24″N., 87°18′30″W.; 30°17′00″N., 87°19′50″W.; 30°15′36″N., 87°17′48″W.; 30°15′15″N., 87°19′18″W.

(ii) *Size:* 2.48 square nautical miles.

(iii) *Depth:* Averages 11 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged materials which are shown to be predominantly sand (defined by a median grain size greater than 0.125 mm and a composition of less than 10% fines) and meet the Ocean Dumping Criteria.

(13) Pensacola, Florida Ocean Dredged Material Disposal Site, i.e. the Pensacola (Offshore) Ocean Dredged Material Disposal Site.

(i) *Location:* 30°08′50″N., 87°19′30″W.; 30°08′50″N., 87°16′30″W.; 30°07′05″″N., 87°16′30″W.; 30°07′05″N., 87°19′30″W.

(ii) *Size:* Approximately 6 square statute miles.

(iii) *Depth:* Ranges from 65 to 80 feet.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Disposal is restricted to predominantly fine-grained dredged material from the greater Pensacola, Florida area that meets the Ocean Dumping Criteria but is not suitable for beach nourishment or disposal at the existing EPA designated Pensacola (Nearshore) ODMDS (§ 228.15(h)(11)). The Pensacola (Nearshore) ODMDS is restricted to suitable dredged material with a median grain size of > 0.125 mm and a composition of < 10% fines.

(14) Mobile, Alabama Dredged Material Disposal Site.

(i) *Location:* 30°10′00″N., 88°07′42″W.; 30°10′24″N., 88°05′12″W.; 30°09′24″N.,

88°04′42″W.; 30°08′30″N., 88°05′12″W.; 30°08′30″N., 88°08′12″W.

(ii) *Size:* 4.8 square nautical miles.
(iii) *Depth:* Average 14 meters.
(iv) *Primary use:* Dredged material.
(v) *Period of use:* Continuing use.
(vi) *Restriction:* Disposal shall be limited to dredged materials which meet the Ocean Dumping Criteria.

(15) Pascagoula, MS, Ocean Dredged Material Dumpsite.
(i) *Location:* 30°12′06″N., 88°44′30″W.; 30°11′42″N., 88°33′24″W.; 30°08′30″N., 88°37′00″W.; and 30°08′18″N., 88°41′54″W.

Center coordinates: 30°10′09″N., 88°39′12″W.

(ii) *Size:* 18.5 square nautical miles.
(iii) *Depth:* Average 46 feet, range 38–52 feet.
(iv) *Primary Use:* Dredged material.
(v) *Period of Use:* Continuing use.
(vi) *Restriction:* Disposal shall be limited to suitable material from the Mississippi Sound and vicinity.

(16) Gulfport, Mississippi Dredged Material Disposal Site—Eastern Site
(i) *Location:* 30°11′10″N., 88°58′24″W.; 30°11′12″N., 88°57′30″W.; 30°07′36″N., 88°54′24″W.; 30°07′24″N., 88°54′48″W.

(ii) *Size:* 2.47 square nautical miles.
(iii) *Depth:* 9.1 meters.
(iv) *Primary use:* Dredged material.
(v) *Period of use:* Continuing use.
(vi) *Restriction:* Disposal shall be limited to materials which meet the Ocean Dumping Criteria.

(17) Gulfport, MS Dredged Material Disposal Site—Western Site.
(i) *Location:* 30°12′00″N., 89°00′30″W.; 30°12′00″N., 88°59′30″W.; 30°11′00″N., 89°00′00″W.; 30°07′00″N., 88°56′30″W.; 30°06′36″N., 88°57′00″W.; 30°10′30″N., 89°00′36″W.
(ii) *Size:* 5.2 square nautical miles.
(iii) *Depth:* 8.2 meters.
(iv) *Primary use:* Dredged material.
(v) *Period of use:* Continuing use.
(vi) Disposal shall be limited to dredged material which meets the Ocean Dumping Criteria.

(18) Tampa, Florida; Ocean Dredged Material Disposal Site _____ Region IV.
(i) Location: 27°32′27″N.; 83°06′02″W; 27°32′27″N.; 83°03′46″W.; 27°30′27″N.; 83°06′02″W.; 27°30′27″N.; 83°03′46″W.
(ii) Size: Approximately 4 square nautical miles.
(iii) Depth: Approximately 22 meters.
(iv) Primary use: Dredged material.
(v) Period of use: Continuing use.
(vi) Restriction: Disposal shall be limited to suitable dredged material from the greater Tampa, Florida vicinity. Disposal shall comply with conditions set forth in the most recent approved Site Management and Monitoring Plan.

(19) Miami, Florida; Ocean Dredged Material Disposal Site.
(i) Location: 25°45′30″N.; 80°03′54″W.; 25°45′30″N.; 80°02′50″W.; 25°44′30″N.; 80°03′54″W.; 25°44′30″N.; 80°02′50″W.

Center coordinates are 25°45′00″ N and 80°03′22″ W.

(ii) Size: Approximately 1 square nautical mile.
(iii) Depth: Ranges from 130 to 240 meters.
(iv) Primary use: Dredged material.
(v) Period of use: Continuing use.
(vi) Restriction: Disposal shall be limited to suitable dredged material from the greater Miami, Florida vicinity. Disposal shall comply with conditions set forth in the most recent approved Site Management and Monitoring Plan.

(i) Region IV Final Other Wastes Sites.
(1) No final sites.
(2) [Reserved]

(j) Region VI Final Dredged Material Sites.
(1) Mississippi River Gulf Outlet, LA.
(i) *Location:* 29°32′35″N., 89°12′38″W.; 29°29′21″N., 89°08′00″W.; 29°24′32″N., 88°59′23″W.; 29°24′28″N., 88°59′39″W.; 29°28′59″N., 89°08′19″W.; 29°32′15″N., 89°12′57″W.; thence to point of beginning.
(ii) *Size:* 6.03 square nautical miles.
(iii) *Depth:* Ranges from 20 to 40 feet.
(iv) *Primary use:* Dredged material.
(v) *Period of use:* Continuing use.
(vi) *Restrictions:* Disposal shall be limited to dredged material from the vicinity of Mississippi River Gulf Outlet.

(2) Southwest Pass—Mississippi River, LA.
(i) *Location:* 28°54′12″N., 89°27′15″W.; 28°54′12″N., 89°26′00″W.; 28°51′00″N., 89°27′15″W.; 28°51′00″N., 89°26′00″W.
(ii) *Size:* 3.44 square nautical miles.
(iii) *Depth:* Ranges from 2.7 to 32.2 meters.

(iv) *Primary use:* Dredged material.
(v) *Period of Use:* Continuing use.
(vi) *Restrictions:* Disposal shall be limited to dredged material from the vicinity of the Southwest Pass Channel.
(3) Barataria Bay Waterway, LA.
(i) *Location:* 29°16′10″N., 89°56′20″W.; 29°14′19″N., 89°53′16″W.; 29°14′00″N., 89°53′36″W.; 29°16′29″N., 89°55′59″W.
(ii) *Size:* 1.4 square nautical miles.
(iii) *Depth:* Ranges from 8–20 feet.
(iv) *Primary Use:* Dredged material.
(v) *Period of Use:* Continuing use.
(vi) *Restriction:* Disposal shall be limited to dredged material from the vicinity of Barataria Bay Waterway.
(4) Houma Navigation Canal, Louisiana.
(i) *Location:* 29°05′22.3″N., 90°34′43″W.; thence following a line 1000 feet west of the channel centerline to 29°02′17.8″N., 90°34′28.4″W.; thence to 29°02′12.6″N., 90°35′27.8″W.; thence to 29°05′30.8″N., 90°35′27.8″W.; thence to the point of beginning.
(ii) *Size:* 2.08 square nautical miles.
(iii) *Depth:* Ranges from 6 to 30 feet.
(iv) *Primary Use:* Dredged material.
(v) *Period of Use:* Continuing use.
(vi) *Restrictions:* Disposal shall be limited to dredged material from the vicinity of Cat Island Pass, Louisiana.
(5) Calcasieu, LA Dredged Material Site 1.
(i) *Location:* 29°45′39″N., 93°19′36″W.; 29°42′42″N., 93°19′06″W.; 29°42′36″N., 93°19′48″W.; 29°44′42″N., 93°20′12″W.; 29°44′42″N., 93°20′24″W.; 29°45′27″N., 93°20′33″W.
(ii) *Size:* 1.76 square nautical miles.
(iii) *Depth:* Ranges from 2 to 8 meters.
(iv) *Primary Use:* Dredged material.
(v) *Period of Use:* Continuing use.
(vi) *Restriction:* Disposal shall be limited to dredged material from the vicinity of the Calcasieu River and Pass Project.
(6) Calcasieu, LA Dredged Material Site 2.
(i) *Location:* 29°44′31″N., 93°20′43″W.; 29°39′45″N., 93°19′56″W.; 29°39′34″N., 93°20′46″W.; 29°44′25″N., 93°21′33″W.
(ii) *Size:* 3.53 square nautical miles.
(iii) *Depth:* Ranges from 2 to 11 meters.
(iv) *Primary Use:* Dredged material.
(v) *Period of Use:* Continuing use.
(vi) *Restriction:* Disposal shall be limited to dredged material from the vicinity of the Calcasieu River and Pass Project.
(7) Calcasieu, LA Dredged Material Site 3.
(i) *Location:* 29°37′50″N., 93°19′37″W.; 29°37′25″N., 93°19′33″W.; 29°33′55″N., 93°16′23″W.; 29°33′49″N., 93°16′5″W.; 29°30′59″N., 93°13′51″W.; 29°29′10″N., 93°13′49″W.; 29°29′05″N., 93°14′23″W.; 29°30′49″N., 93°14′25″W.; 29°37′26″N., 93°20′24″W.; 29°37′44″N., 93°20′27″W.
(ii) *Size:* 5.88 square nautical miles.
(iii) *Depth:* Ranges from 11 to 14 meters.
(iv) *Primary Use:* Dredged material.
(v) *Period of Use: Continuing use.*
(vi) *Restriction:* Disposal shall be limited to dredged material from the vicinity of the Calcasieu River and Pass Project.
(8) Sabine-Neches, TX Dredged Material Site 1.
(i) *Location:* 29°28′03″N., 93°41′14″W.; 29°26′11″N., 93°41′14″W.; 29°26′11″N., 93°44′11″W.
(ii) *Size:* 2.4 square nautical miles.
(iii) *Depth:* Ranges from 11–13 meters.
(iv) *Primary Use:* Dredged material.
(v) *Period of Use:* Continuing use.
(vi) *Restriction:* Disposal shall be limited to dredged material from the Sabine-Neches area.
(9) Sabine-Neches, TX Dredged Material Site 2.
(i) *Location:* 29°30′41″N., 93°43′49″W.; 29°28′42″N., 93°41′33″W.; 29°28′42″N., 93°44′49″W.; 29°30′08″N., 93°46′27″W.
(ii) *Size:* 4.2 square nautical miles.
(iii) *Depth:* Ranges from 9–13 meters.
(iv) *Primary Use:* Dredged material.
(v) *Period of Use: Continuing use.*
(vi) *Restriction:* Disposal shall be limited to dredged material from the Sabine-Neches area.
(10) Sabine-Neches, TX Dredged Material Site 3.
(i) *Location:* 29°34′24″N., 93°48′13″W.; 29°32′47″N., 93°46′16″W.; 29°32′06″N., 93°46′29″W.; 29°31′42″N., 93°48′16″W.; 29°32′59″N., 93°49′48″W.
(ii) *Size:* 4.7 square nautical miles.
(iii) *Depth:* 10 meters.
(iv) *Primary Use:* Dredged material.
(v) *Period of Use:* Continuing use.
(vi) *Restriction:* Disposal shall be limited to dredged material from the Sabine-Neches area.

(11) Sabine-Neches, TX, Dredged Material Site 4.

(i) *Location:* 29°38′09″N., 93°49′23″W.; 29°35′53″N., 93°48′18″W.; 29°35′06″N., 93°50′24″W.; 29°36′37″N., 93°51′09″W.; 29°37′00″N., 93°50′06″W.; 29°37′46″N., 93°50′26″W.

(ii) *Size:* 4.2 square nautical miles.

(iii) *Depth:* Ranges from 5–9 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Sabine-Neches area.

(12) Galveston, TX Dredged Material Site.

(i) *Location:* 29°18′00″N., 94°39′30″W; 29°15′54″N., 94°37′06″W.; 29°14′24″N., 94°3′8′42″W.; 29°16′54″N., 94°41′30″W.

(ii) *Size:* 6.6 square nautical miles.

(iii) *Depth:* Ranges from 10 to 15.5 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Galveston, Texas area.

(13) Freeport Harbor, TX, New Work (45 Foot Project).

(i) *Location:* 28°50″51″N., 95°13′54″W.; 28°51′44″N., 95°14′49″W.; 28°50′15″N., 95°16′40″W.; 28°49′22″N., 95°15′45″W.

(ii) *Size:* 2.64 square nautical miles.

(iii) *Depth:* 54 to 61 feet.

(iv) *Primary Use:* Construction (new work) dredged material.

(v) *Period of Use:* Indefinite period of time.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Freeport Harbor Entrance and Jetty Channels, Texas.

(14) Freeport Harbor, TX, Maintenance (45 Foot Project).

(i) *Location:* 28°54′00″N., 95°15′49″W.; 28°53′28″N., 95°15′16″W.; 28°52′00″N., 95°16′59″W.; 28°52′32″N., 95°17′32″W.

(ii) *Size:* 1.53 square nautical miles.

(iii) *Depth:* 31 to 38 feet.

(iv) *Primary use:* Maintenance dredged material.

(v) *Period of Use:* Indefinite period of time.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Freeport Harbor Entrance and Jetty Channels, Texas.

(15) Matagorda Ship Channel, TX.

(i) *Location:* 28°23′48″N., 96°18′00″W.; 28°23′21″N., 96°18′31″W.; 28°22′43″N., 96°17′52″W.; 28°23′11″N., 96°17′22″W.

(ii) *Size:* 0.56 square nautical mile.

(iii) *Depth:* Ranges from 25–40 feet.

(iv) *Primary Use:* Dredged Material.

(v) *Period of Use:* Indefinite period of time.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Matagorda Ship Channel, Texas.

(16) Homeport Project, Port Aransas, TX.

(i) *Location:* 27°47′42″ N., 97°00′12″ W.; 27°47′15″ N., 96°59′25″ W.; 27°46′17″ N., 97°01′12″ W.; 27°45′49″ N., 97°00′25″ W.

(ii) *Size:* 1.4 square miles.

(iii) *Depth:* Ranges from 45–55 feet.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* 50 years.

(vi) *Restriction:* Disposal shall be limited to dredged material from the U.S. Navy Homeport Project, Corpus Christi/Ingleside, TX.

(17) Corpus Christi Ship Channel, TX.

(i) *Location:* 27°49′10″N., 97°01′09″W.; 27°48′42″N., 97°00′21″W.; 27°48′06″N., 97°00′48″W.; 27°48′33″N., 97°01′36″W.

(ii) *Size:* 0.63 square nautical mile.

(iii) *Depth:* Ranges from 35 to 50 feet.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Indefinite period of time.

(vi) *Restrictions:* Disposal shall be limited to dredged material from the Corpus Christi Ship Channel, Texas.

(18) Port Mansfield, TX.

(i) *Location:* 26°34′24″N., 97°15′15″W.; 26°34′26″N., 97°14′17″W.; 26°33′57″N., 97°14′17″W.; 26°33′55″N., 97°15′15″W.

(ii) *Size:* 0.42 Square nautical miles.

(iii) *Depth:* Ranges from 35–50 feet.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Indefinite period of time.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Port Mansfield Entrance Channel, Texas.

(19) Brazos Island Harbor, TX.

(i) *Location:* 26°04′32″ N., 97°07′26″ W.; 26°04′32″ N., 97°06′30″ W.; 26°04′02″ N., 97°06′30″ W.; 26°04′02″ N., 97°07′26″ W.

(ii) *Size:* 0.42 square nautical miles.

(iii) *Depth:* Ranges from 55 to 65 feet.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Indefinite period of time.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Brazos Island Harbor Entrance Channel, Texas.

(20) Brazos Island Harbor (42-Foot Project), TX.

(i) *Location:* 26°04′47″ N., 97°05′07″ W.; 26°05′16″ N., 97°05′04″ W.; 26°05′10″ N., 97°04′06″ W.; 26°04′42″ N., 97°04′09″ W.

(ii) *Size:* 0.42 square nautical miles.

(iii) *Depth: Ranges from 60–67 feet.*

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Indefinite period of time.

(vi) *Restrictions:* Disposal shall be limited to construction material dredged from the Brazos Island Harbor Entrance Channel, Texas.

(21) Atchafalaya River and Bayous Chene, Boeuf, and Black, LA

(i) *Location:* 29E20′59.92″ N, 91E 23′ 33.23″ W; 29E20′43.94″ N, 91E23′09.73″ W; 29E08′15.46″ N, 91E34′51.02″ W; and 29E07′59.43″ N, 91E34′27.51″ W.

(ii) *Size:* 9.14 square miles.

(iii) *Depth:* Average water depth of 16 feet.

(iv) *Primary Use:* Dredge material.

(v) *Period of Use:* Indefinite period of time.

(vi) *Restriction:* Disposal shall be limited to dredged material from the bar channel of the Atchafalaya River and Bayous Chene, Boeuf, and Black, Louisiana.

(k) Region VI Final Other Wastes Sites.

(1) No final sites.

(2) [Reserved]

(l) Region IX Final Dredged Material Sites.

(1) San Diego, CA (LA–5).

(i) *Location:* Center coordinates of the site are: 32°36.83′ North Latitude and 117°20.67′ West Latitude (North American Datum from 1927), with a radius of 3,000 feet (910 meters).

(ii) *Size:* 0.77 square nautical miles.

(iii) *Depth:* 460 to 660 feet (145 to 200 meters).

(iv) *Primary Use:* Ocean dredged material disposal.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged materials that comply with EPA's Ocean Dumping Regulations and Corps Permitting Regulations.

(2) Los Angeles/Long Beach, CA (LA–2).

(i) *Location:* 33°37.10′ North Latitude by 118°17.40′ West Longitude (North American Datum from 1983), with a radius of 3,000 feet (910 meters).

(ii) *Size:* 0.77 square nautical miles.

(iii) *Depth:* 380 to 1060 feet (110 to 320 meters).

(iv) *Primary use:* Ocean dredged material disposal.

(v) *Period of use:* Continuing use, subject to submission of a revised Consistency Determination to the California Coastal Commission after 5 years of site management and monitoring.

(vi) *Restrictions:* Disposal shall be limited to dredged sediments that comply with EPA's Ocean Dumping Regulations.

(3) San Francisco Deepwater Ocean Site (SF–DODS) Ocean Dredged Material Disposal Site—Region IX.

(i) *Location:* Center coordinates of the oval-shaped site are: 37°39.0′ North latitude by 123°29.0′ West longitude (North American Datum from 1983), with length (north-south axis) and width (west-east axis) dimensions of approximately 4 nautical miles (7.5 kilometers) and 2.5 nautical miles (4.5 kilometers), respectively.

(ii) *Size:* 6.5 square nautical miles (22 square kilometers).

(iii) *Depth:* 8,200 to 9,840 feet (2,500 to 3,000 meters).

(iv) *Use Restricted to Disposal of:* Dredged materials.

(v) *Period of Use:* Continuing use over 50 years from date of site designation, subject to restrictions and provisions set forth below.

(vi) *Restrictions/provisions:* The remainder of this §228.15(l)(3) (hereinafter referred to as ''this section'') constitutes the required Site Management and Monitoring Plan (SMMP) for the SF–DODS. This SMMP shall be supplemented by a Site Management and Monitoring Plan Implementation Manual (SMMP Implementation Manual) containing more detailed operational guidance. The SMMP Implementation Manual may be periodically revised as necessary; proposed revisions to the SMMP Implementation Manual shall be made following opportunity for public review and comment. Adherence to the provisions of the most current

SMMP Implementation Manual, including mandatory permit conditions, site monitoring activities, and any other condition(s) EPA or the Corps have required as part of the project authorization or permit, is a requirement for use of the SF–DODS. SF–DODS use shall be subject to the following restrictions and provisions:

(vii) *Type and capacity of disposed materials.* Site disposal capacity is 4.8 million cubic yards of suitable dredged material per year for the remaining period of site designation. This limit is based on considerations in the regional Long Term Management Strategy for the placement of dredged material within the San Francisco Bay region, and on monitoring of site use since the SF–DODS was designated in 1994.

(viii) *Permit/project conditions.* Paragraph (l)(3)(viii)(A) of this section sets forth requirements for inclusion in permits to use the SF–DODS, and in all Army Corps of Engineers federal project authorizations. Paragraph (l)(3)(viii)(B) of this section describes additional project-specific conditions that will be required of disposal permits and operations as appropriate. Paragraph (l)(3)(viii)(C) of this section describes how alternative permit conditions may be authorized by EPA and the Corps of Engineers. All references to ''permittees'' shall be deemed to include the Army Corps of Engineers when implementing a federal dredging project.

(A) *Mandatory conditions.* All permits or federal project authorizations authorizing use of the SF–DODS shall include the following conditions, unless approval for an alternative permit condition is sought and granted pursuant to paragraph (l)(3)(viii)(C) of this section:

(*1*) Transportation of dredged material to the SF–DODS shall only be allowed when weather and sea state conditions will not interfere with safe transportation and will not create risk of spillage, leak or other loss of dredged material in transit to the SF–DODS. No disposal trips shall be initiated when the National Weather Service has issued a gale warning for local waters during the time period necessary to complete dumping operations, or when wave heights are 16 feet or greater. The permittee must consult the most current version of the SMMP Implementation Manual for additional restrictions and/or clarifications regarding other sea state parameters, including, but not limited to wave period.

(*2*) All vessels used for dredged material transportation and disposal must be loaded to no more than 80 percent by volume of the vessel. Before any disposal vessel departs for the SF–DODS, an independent quality control inspector must certify in writing that the vessel meets the conditions and requirements of a certification checklist that contains all of the substantive elements found in the example contained in the most current SMMP Implementation Manual. For the purposes of paragraph (l)(3)(viii) of this section, ''independent'' means not an employee of the permittee or dredging contractor; however, the Corps of Engineers may provide inspectors for Corps of Engineers dredged material disposal projects.

(3) Dredged material shall not be leaked or spilled from disposal vessels during transit to the SF–DODS.

(*4*) Disposal vessels in transit to and from the SF–DODS should remain at least three nautical miles from the Farallon Islands whenever possible. Closer approaches should occur only in situations where the designated vessel traffic lane enters the area encompassed by the 3-mile limit, and where safety may be compromised by staying outside of the 3-mile limit. In no case may disposal vessels leave the designated vessel traffic lane.

(*5*) When dredged material is discharged within the SF–DODS, no portion of the vessel from which the materials are to be released (*e.g.*, hopper dredge or towed barge) can be further than 1,900 feet (600 meters) from the center of the target area at 37°39′ N, 123°29′ W.

(6) No more than one disposal vessel may be present within the permissible dumping target area referred to in paragraph (l)(3)(viii)(A)(5) of this section at any time.

(*7*) Disposal vessels shall use an appropriate navigation system capable of indicating the position of the vessel

carrying dredged material (for example, a hopper dredged vessel or towed barge) with a minimum accuracy and precision of 100 feet during all disposal operations. The system must also indicate the opening and closing of the doors of the vessel carrying the dredged material. If the positioning system fails, all disposal operations must cease until the navigational capabilities are restored. The back-up navigation system, with all the capabilities listed in this condition, must be in place on the vessel carrying the dredged material.

(8) The permittee shall maintain daily records of the amount of material dredged and loaded into barges for disposal, the times that disposal vessel depart for, arrive at and return from the SF–DODS, the exact locations and times of disposal, and the volumes of material disposed at the SF–DODS during each vessel trip. The permittee shall further record wind and sea state observations at intervals to be established in the permit.

(9) For each disposal vessel trip, the permittee shall maintain a computer printout from a Global Positioning System or other acceptable navigation system showing transit routes and disposal coordinates, including the time and position of the disposal vessel when dumping was commenced and completed.

(10) An independent quality control inspector (as defined in paragraph (l)(3)(viii)(A)(*2*)) of this section shall observe all dredging and disposal operations. The inspector shall verify the information required in paragraphs (l)(3)(viii)(A)(*8*) and (*9*) of this section. The inspector shall promptly inform permittees of any inaccuracies or discrepancies concerning this information and shall prepare summary reports, which summarize all such inaccuracies and discrepancies, from time to time as shall be specified in permits. Such summary reports shall be sent by the permittee to the District Engineer and the Regional Administrator within a time interval that shall be specified in the permit.

(*11*) The permittee shall report any anticipated or actual permit violations to the District Engineer and the Regional Administrator within 24 hours of discovering such violation. If any anticipated or actual permit violations occur within the Gulf of the Farallones or the Monterey Bay National Marine Sanctuaries, the permittee must also report any such violation to the respective Sanctuary Manager within 24 hours. In addition, the permittee shall prepare and submit reports, certified accurate by the independent quality control inspector, on a frequency that shall be specified in permits, to the District Engineer and the Regional Administrator setting forth the information required by Mandatory Conditions in paragraphs (l)(3)(viii)(A)(*8*) and (*9*) of this section.

(*12*) Permittees, and the Corps in its Civil Works projects, must make arrangements for independent observers to be present on disposal vessels for the purpose of conducting shipboard surveys of seabirds and marine mammals. Observers shall employ standardized monitoring protocols, as referenced in the most current SMMP Implementation Manual. At a minimum, permittees shall ensure that independent observers are present on at least one disposal trip during each calendar month that disposal occurs, AND on average at least once every 25 vessel trips to the SF–DODS.

(*13*) At the completion of short-term dredging projects, at least annually for ongoing projects, and at any other time or interval requested by the District Engineer or Regional Administrator, permittees shall prepare and submit to the District Engineer and Regional Administrator a report that includes complete records of all dredging, transport and disposal activities, such as navigation logs, disposal coordinates, scow certification checklists, and other information required by permit conditions. Electronic data submittals may be required to conform to a format specified by the agencies. Permittees shall include a report indicating whether any dredged material was dredged outside the areas authorized for dredging or was dredged deeper than authorized for dredging by their permits.

(B) *Project-specific conditions.* Permits or federal project authorizations authorizing use of the SF–DODS may include the following conditions, if EPA

determines these conditions are necessary to facilitate safe use of the SF–DODS, the prevention of potential harm to the environment or accurate monitoring of site use:

(1) Permittees may be required to limit the speed of disposal vessels in transit to the SF-DODS to a rate that is safe under the circumstances and will prevent the spillage of dredged materials.

(2) Permittees may be required to use automated data logging systems for recording navigation and disposal coordinates and/or load levels throughout disposal trips when such systems are feasible and represent an improvement over manual recording methodologies.

(3) Any other conditions that EPA or the Corps of Engineers determine to be necessary or appropriate to facilitate compliance with the requirements of the MPRSA and this section may be included in site use permits.

(C) *Alternative permit/project conditions.* Alternatives to the permit conditions specified in paragraph (l)(3)(viii) of this section in a permit or federal project authorization may be authorized if the permittee demonstrates to the District Engineer and the Regional Administrator that the alternative conditions are sufficient to accomplish the specific intended purpose of the permit condition in issue and further demonstrates that the waiver will not increase the risk of harm to the environment, the health or safety of persons, nor will impede monitoring of compliance with the MPRSA, regulations promulgated under the MPRSA, or any permit issued under the MPRSA.

(ix) *Site monitoring.* Data shall be collected in accordance with a three-tiered site monitoring program which consists of three interdependent types of monitoring for each tier: Physical, chemical and biological. In addition, periodic confirmatory monitoring concerning potential site contamination shall be performed. Specific guidance for site monitoring tasks required by this paragraph shall be described in a Site Management and Monitoring Implementation Manual (SMMP Implementation Manual) developed by EPA. The SMMP Implementation Manual shall be reviewed periodically and any necessary revisions to the Manual will be issued for public review under an EPA Public Notice.

(A) *Tier 1 monitoring activities.* Tier 1 monitoring activities shall consist of the following:

(1) Physical monitoring. Tier 1 Physical Monitoring shall consist of a physical survey to map the area on the seafloor within and in the vicinity of the disposal site where dredged material has been deposited (the footprint). Such a survey shall use appropriate technology (for example, sediment profile photography) to determine the areal extent and thickness of the disposed dredged material, and to determine if any dredged material has deposited outside of the disposal site boundary.

(2) Chemical monitoring. Tier 1 Chemical Monitoring shall consist of collecting, processing, and preserving boxcore samples of sediments so that such sediments could be subjected to sediment chemistry analysis in the appropriate tier. Samples shall be collected within the dredged material footprint, outside of the dredged material footprint, and outside of the disposal site boundaries. Samples within the footprint shall be subjected to chemical analysis in annual Tier 1 activity. Samples from outside of the footprint and outside of the disposal site boundaries shall be archived and analyzed only when the criteria requiring Tier 2 as specified in paragraph (l)(3)(x) of this section are met. A sufficient number of samples shall be collected so that the potential for adverse impacts due to elevated chemistry can be assessed with an appropriate time-series or ordinal technique.

(3) Biological monitoring. Tier 1 Biological Monitoring shall have two components: Monitoring of pelagic communities and monitoring of benthic communities.

(i) Pelagic communities. Tier 1 Biological Monitoring shall include regional surveys of seabirds, marine mammals and mid-water column fish populations appropriate for evaluating how these populations might be affected by disposal site use. A combination of annual regional and periodic (random) shipboard surveys of seabirds and marine mammals will be used. The regional

survey designs for each category of biota shall be similar to that used for the regional characterization studies referenced in the Final Environmental Impact Statement for Designation of a Deep Water Ocean Dredged Material Disposal Site off San Francisco, California (August 1993) with appropriate realignments to accommodate transects within and in the vicinity of the SF–DODS. The periodic shipboard surveys shall be performed from vessels involved in dredged material disposal operations at the SF–DODS as specified in permit conditions imposed pursuant to paragraph (l)(3)(viii)(A)(12) of this section. The minimum number of surveys must be sufficient to characterize the disposal operations for each project, and, as practicable, provide seasonal data for an assessment of the potential for adverse impacts for the one-year period. An appropriate time-series (ordinal), and community analysis shall be performed using data collected during the current year and previous years.

(ii) Benthic communities. Tier 1 Biological Monitoring shall include collection and preservation of boxcore samples of benthic communities so that such samples could be analyzed as a Tier 2 activity.

(4) Annual reporting. The results of the annual Tier 1 studies shall be compiled in an annual report which will be available for public review.

(B) Tier 2 monitoring activities. Tier 2 monitoring activities shall consist of the following:

(1) Physical monitoring. Tier 2 Physical Monitoring shall consist of oceanographic studies conducted to validate and/or improve the models used to predict the dispersion in the water column and deposition of dredged material on the seafloor at the SF–DODS. The appropriate physical oceanographic studies may include: The collection of additional current meter data, deployment of sediment traps, and deployment of surface and subsurface drifters.

(2) Chemical monitoring. Tier 2 Chemical Monitoring shall consist of performing sediment chemistry analysis on samples collected and preserved in Tier 1 from outside of the footprint and outside of the disposal site boundaries.

(3) Biological monitoring. Tier 2 Biological Monitoring shall involve monitoring of pelagic communities and monitoring of benthic communities.

(i) Pelagic communities. Tier 2 Biological Monitoring for pelagic communities shall include supplemental surveys of similar type to those in Tier 1, or other surveys as appropriate.

(ii) Benthic communities. Tier 2 Biological Monitoring for benthic communities shall include a comparison of the benthic community within the dredged material footprint to benthic communities in adjacent areas outside of the dredged material footprint. An appropriate time-series (ordinal) and community analysis shall be performed using data collected during the current year and previous years to determine whether there are adverse changes in the benthic populations outside of the disposal site which may endanger the marine environment.

(4) Annual reporting. The results of any required Tier 2 studies shall be compiled in an annual report which will be available for public review.

(C) *Tier 3 monitoring activities.* Tier 3 monitoring activities shall consist of the following:

(1) Physical monitoring. Tier 3 physical monitoring shall consist of advanced oceanographic studies to study the dispersion of dredged material in the water column and the deposition of dredged material on the seafloor in the vicinity of the SF-DODS. Such physical monitoring may include additional, intensified studies involving the collection of additional current meter data, deployment of sediment traps, and deployment of surface and subsurface drifters. Such studies may include additional sampling stations, greater frequency of sampling, more advanced sampling methodologies or equipment, or other additional increased study measures compared to similar studies conducted in Tier 1 or 2.

(2) Chemical monitoring. Tier 3 Chemical Monitoring shall consist of analysis of tissues of appropriate field-collected benthic and/or epifaunal organisms to determine bioaccumulation of contaminants that may be associated with dredged materials deposited at the SF-DODS. Sampling and analysis shall be designed and implemented to

determine whether the SF-DODS is a source of adverse bioaccumulation in the tissues of benthic species collected at or outside the SF-DODS, compared to adjacent unimpacted areas, which may endanger the marine environment. Appropriate sampling methodologies for these tests will be determined and the appropriate analyses will involve the assessment of benthic body burdens of contaminants and correlation with comparison of the benthic communities inside and outside of the sediment footprint.

(3) Biological monitoring. Tier 3 biological monitoring shall have two components: monitoring of pelagic communities and monitoring of benthic communities.

(i) Pelagic communities. Tier 3 Biological Monitoring shall include advanced studies of seabirds, marine mammals and mid-water column fish to evaluate how these populations might be affected by disposal site use. Such studies may include additional sampling stations, greater frequency of sampling, more advanced sampling methodologies or equipment, or other additional increased study measures compared to similar studies conducted in Tier 1 or 2. Studies may include evaluation of sub-lethal changes in the health of pelagic organisms, such as the development of lesions, tumors, developmental abnormality, decreased fecundity or other adverse sub-lethal effect.

(*ii*) *Benthic communities.* Tier 3 Biological Monitoring shall include advanced studies of benthic communities to evaluate how these populations might be affected by disposal site use. Such studies may include additional sampling stations, greater frequency of sampling, more advanced sampling methodologies or equipment, or other additional increased study measures compared to similar studies conducted in Tier 2. Studies may include evaluation of sub-lethal changes in the health of benthic organisms, such as the development of lesions, tumors, developmental abnormality, decreased fecundity or other adverse sub-lethal effect.

(*4*) *Reporting.* The results of any required Tier 3 studies shall be compiled in a report which will be available for public review.

(D) *Periodic confirmatory monitoring.* At least once every three years, the following confirmatory monitoring activities will be conducted and results compiled in a report which will be available for public review: Samples of sediments taken from the dredged material footprint shall be subjected to bioassay testing using one or more appropriate sensitive marine species consistent with applicable ocean disposal testing guidance (''Green Book'' or related Regional Implementation Agreements), as determined by the Regional Administrator, to confirm whether contaminated sediments are being deposited at the SF–DODS despite extensive pre-disposal testing. In addition, near-surface arrays of appropriate filter-feeding organisms (such as mussels) shall be deployed in at least three locations in and around the disposal site for at least one month during active site use, to confirm whether substantial bioaccumulation of contaminants may be associated with exposure to suspended sediment plumes from multiple disposal events. One array must be deployed outside the influence of any expected plumes to serve as a baseline reference.

(x) *Site management actions.* Once disposal operations at the site begin, the three-tier monitoring program described in paragraphs (l)(3)(ix) (A) through (C) of this section shall be implemented on an annual basis, through December 31, 1998, independent of the actual volumes disposed at the site. Thereafter, the Regional Administrator may establish a minimum annual disposal volume (not to exceed 10 percent of the designated site capacity at any time) below which this monitoring program need not be fully implemented. The Regional Administrator shall promptly review monitoring reports for the SF–DODS along with any other information available to the Regional Administrator concerning site monitoring activities. If the information gathered from monitoring at a given monitoring tier is not sufficient for the Regional Administrator to base reasonable conclusions as to whether disposal at the SF–DODS

might be endangering the marine ecosystem, then the Regional Administrator shall require intensified monitoring at a higher tier. If monitoring at a given tier establishes that disposal at the SF–DODS is endangering the marine ecosystem, then the Regional Administrator shall require modification, suspension or termination of site use.

(A) *Selection of site monitoring tiers*—(*1*) *Physical monitoring.* Physical monitoring shall remain limited to Tier 1 monitoring when Tier 1 monitoring establishes that no significant amount of dredged material has been deposited or transported outside of the site boundaries. Tier 2 monitoring shall be employed when Tier 1 monitoring is insufficient to conclude that a significant amount of dredged material as defined in paragraph (l)(3)(x)(A)*(4)* of this section has not been deposited or transported outside of the site boundaries.

(*2*) *Chemical monitoring.* (*i*) Chemical monitoring shall remain limited to Tier 1 Chemical Monitoring when the results of Physical Monitoring indicate that a significant amount of dredged material as defined in paragraph (l)(3)(x)(A)*(4)* of this section has not been deposited or transported off-site, and Tier 1 Chemical Monitoring establishes that dredged sediments deposited at the disposal site do not contain levels of chemical contaminants that are significantly elevated above the range of chemical contaminant levels in dredged sediments that the Regional Administrator and the District Engineer found to be suitable for disposal at the SF–DODS pursuant to 40 CFR part 227.

(*ii*) Tier 2 monitoring shall be employed when the results of Physical Monitoring indicate that a significant amount of dredged material as defined in paragraph (l)(3)(x)(A)*(4)* of this section has been deposited off-site, and Tier 1 Chemical Monitoring is insufficient to establish that dredged sediments deposited at the disposal site do not contain levels of chemical contaminants that are significantly elevated above the range of chemical contaminant levels in dredged sediments that the Regional Administrator and the District Engineer found to be suitable for disposal at the SF–DODS pursuant to 40 CFR part 227.

The Regional Administrator may employ Tier 2 monitoring when available evidence indicates that a significant amount of dredged material as defined in paragraph (l)(3)(x)(A)*(4)* of this section has been deposited near the SF–DODS site boundary.

(*iii*) Tier 3 monitoring shall be employed within and outside the dredged material footprint when Tier 2 Chemical Monitoring is insufficient to establish that dredged sediments deposited at the disposal site do not contain levels of chemical contaminants that are significantly elevated above the range of chemical contaminant levels in dredged sediments that the Regional Administrator and the District Engineer found to be suitable for disposal at the SF–DODS pursuant to 40 CFR part 227.

(*3*) *Biological monitoring.* (*i*) *Pelagic communities.* Biological monitoring for pelagic communities shall remain limited to Tier 1 monitoring when Tier 1 monitoring establishes that disposal at the SF–DODS has not endangered the monitored pelagic communities. When Tier 1 monitoring is insufficient to make reasonable conclusions whether disposal at the site has endangered the monitored pelagic communities, then Tier 2 monitoring of pelagic communities shall be employed. When Tier 2 monitoring is insufficient to make reasonable conclusions whether disposal at the site has endangered the monitored pelagic communities, then Tier 3 monitoring of pelagic communities shall be employed.

(*ii*) *Benthic communities.* Biological monitoring for benthic communities shall remain limited to Tier 1 monitoring when physical monitoring establishes that a significant amount of dredged material has not been deposited outside of the site boundaries. If physical monitoring indicates that a significant amount of dredged material has been deposited or transported outside of the site boundaries, then Tier 2 analysis of benthic communities shall be performed. If Chemical Monitoring establishes that there is significant bioaccumulation of contaminants in organisms sampled from within or outside the dredged material footprint, then Tier 3 Biological Monitoring of the disposal site shall be employed.

Tier 3 Biological Monitoring may replace Tier 3 Chemical Monitoring if observed biological effects are established as surrogate indicators for bioaccumulation of chemical contaminants in sampled organisms.

(*4*) *Definition of significant dredged material accumulation.* For purposes of this paragraph (l)(3)(x)(A) of this section, dredged material accumulation on the ocean bottom to a thickness of five centimeters shall be considered to be a significant amount of dredged material. The Regional Administrator may determine that a lesser amount of accumulation is significant if available evidence indicates that a lesser amount of off-site accumulation could endanger marine resources.

(B) *Modification, suspension or termination of site use. (1)* If the results of site monitoring or other information indicate that any of the following are occurring as a result of disposal at the SF–DODS, then the Regional Administrator shall modify, suspend, or terminate site use overall, or for individual projects as appropriate:

(*i*) Exceedance of Federal marine water quality criteria within the SF–DODS following initial mixing as defined in 40 CFR 227.29(a) or beyond the site boundary at any time;

(*ii*) Placement or movement of significant quantities of disposed material outside of site boundaries near or toward significant biological resource areas or marine sanctuaries;

(*iii*) Endangerment of the marine environment related to potentially significant adverse changes in the structure of the benthic community outside the disposal site boundary;

(*iv*) Endangerment to the health, welfare, or livelihood of persons or to the environment related to potentially significant adverse bioaccumulation in organisms collected from the disposal site or areas adjacent to the site boundary compared to the reference site;

(*v*) Endangerment to the health, welfare, or livelihood of persons related to potentially significant adverse impacts upon commercial or recreational fisheries resources near the site; or

(*vi*) Endangerment to the health, welfare, or livelihood of persons or to the environment related to any other potentially significant adverse environmental impacts.

(*2*) The Regional Administrator shall modify site use, rather than suspend or terminate site use, when site use modification will be sufficient to eliminate the adverse environmental impacts referred to in paragraphs (l)(3)(x)(B)*(1) (i)* or *(ii)* of this section or the endangerment to human health, welfare or livelihood to the environment referred to in paragraphs (l)(3)(x)(B)*(1) (iii)* through (*vi*) of this section. Notwithstanding the provisions of any permit or federal project authorization authorizing site use, the Regional Administrator shall order, following opportunity for public comment, any of the following modifications to site use that he or she deems necessary to eliminate the adverse environmental effect or endangerment to human health, welfare, or livelihood or to the environment:

(*i*) Change or additional restrictions upon the permissible times, rates and total volume of disposal of dredged material at the SF–DODS;

(*ii*) Change or additional restrictions upon the method of disposal or transportation of dredged materials for disposal; or

(*iii*) Change or additional limitations upon the type or quality of dredged materials according to chemical, physical, bioassay toxicity, or bioaccumulation characteristics.

(*3*) The Regional Administrator shall suspend site use when site use suspension is both necessary and sufficient to eliminate any adverse environmental effect or endangerment to human health, welfare, or livelihood or to the environment referred to in paragraph (l)(3)(x)(B)*(1)* of this section. Notwithstanding the provisions of any permit or federal project authorization authorizing site use, the Regional Administrator shall order, following opportunity for public comment, site use suspension until an appropriate management action is identified or for a time period that will eliminate the adverse environmental effect or endangerment to human health, welfare, or livelihood or to the environment.

(*4*) Notwithstanding the provisions of any permit or federal project authorization authorizing site use, the Regional Administrator shall order, following opportunity for public comment, site use permanently terminated if this is the only means for eliminating the adverse environmental impacts referred to in paragraphs (l)(3)(x)(B)*(1) (i)* or *(ii)* of this section or the endangerment to human health, welfare or livelihood to the environment referred to in paragraphs (l)(3)(x)(B)*(1) (iii)* through *(vi)* of this section.

(4) Channel Bar Site, San Francisco, CA (SF–8).

(i) *Location:* 37°44′55″N., 122°37′18″W; 37°45′45″N., 122°34′24″W.; 37°44′24″N., 122°37′06″W.; 37°45′15″N., 122°34′12″W.

(ii) *Size:* 4,572 x 914 meters.

(iii) *Depth:* Ranges from 11 to 14.3 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to material from required dredging operations at the entrance of the San Francisco main ship channel which is composed primarily of sand having grain sizes compatible with naturally occurring sediments at the disposal site and containing approximately 5 percent of particles having grain sizes finer than that normally attributed to very fine sand (.075 millimeters). Other dredged materials meeting the requirements of 40 CFR 227.13 but having smaller grain sizes may be dumped at this site only upon completion of an appropriate case-by-case evaluation of the impact of such material on the site which demonstrates that such impact will be acceptable.

(5) Hilo, HI.

(i) *Location:* (center point): Latitude—19°48′30″N.; Longitude—154°58′30″W.

(ii) *Size:* Circular with a radius of 920 meters.

(iii) *Depth:* Ranges from 330 to 340 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material.

(6) Kahului, HI.

(i) *Location:* (center point): Latitude—21°04′42″N.; Longitude—156°29′00″W.

(ii) *Size:* Circular with a radius of 920 meters.

(iii) *Depth:* Ranges from 345 to 365 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material.

(7) South Oahu, HI.

(i) *Location:* (center point): Latitude—21°15′10″ N.; Longitude—157°56′50″ W.

(ii) *Size:* 2 kilometers wide and 2.6 kilometers long.

(iii) *Depth:* Ranges from 400 to 475 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material.

(8) Nawiliwili, HI.

(i) *Location:* (centerpoint): Latitude—21°55′00″ N. Longitude—159°17′00″ W.

(ii) *Size:* Circular with a radius of 920 meters.

(iii) *Depth:* Ranges from 840 to 1,120 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material.

(9) Port Allen, HI.

(i) *Location:* (center point) Latitude—21°50′00″ N. Longitude—159°35′00″ W.

(ii) *Size:* Circular with a radius of 920 meters.

(iii) *Depth:* Ranges from 1,460 to 1,610 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material.

(10) Humboldt Open Ocean Disposal Site (HOODS) Ocean Dredged Material Disposal Site—Region IX.

(i) Location: The coordinates of the corners of the square site are: 40°48′25″ North latitude (N) by 124°16′22″ West longitude (W); 40°49′03″ N by 124°17′22″ W; 40°47′38″ N by 124°17′22″ N; and 40°48′17″ N by 124°18′12″ W (North American Datum from 1983).

(ii) Size: 1 square nautical mile (3 square kilometers).

(iii) Depth: Water depths within the area range between approximately 160 to 180 feet (49 to 55 meters).

(iv) Use Restricted to Disposal of: Dredged materials.

(v) Period of Use: Continuing use over 50 years from date of site designation, subject to restrictions and provisions set forth in paragraph (l)(10)(vi) of this section.

(vi) Restrictions/Provisions: Site management and monitoring activities shall be implemented during the period of site use and in accordance with the Site Management and Monitoring Plan (SMMP) for the HOODS as incorporated in the Final EIS, and summarized in Section D of this final rule. All disposal activities shall be terminated if monitoring, as described in the SMMP, is not implemented. The SMMP may be periodically revised as necessary; proposed substantive revisions to the SMMP shall be made following opportunity for public review and comment.

(m) Region IX Final Other Wastes Sites.

(1) Fish Processing Waste Disposal Site, American Samoa.

(i) *Location:* 14°24.00′ South latitude by 170°38.30′ West longitude (1.5 nautical mile radius).

(ii) *Size:* 7.07 square nautical miles.

(iii) *Depth:* 1,502 fathoms (2,746 meters or 9,012 feet).

(iv) *Primary Use:* Disposal of fish processing wastes.

(v) *Period of Use:* Continued use.

(vi) *Restriction:* Disposal shall be limited to dissolved air flotation (DAF) sludge, presswater, and precooker water produced as a result of fish processing operations at fish canneries generated in American Samoa.

(2) [Reserved]

(n) Region X Final Dredged Material Sites.

(1) Chetco, OR, Dredged Material Site.

(i) *Location:* 42°01′55″ N., 124°16′37″ W.; 42°01′55″ N., 124°16′13″ W.; 42°01′37″ N., 124°16′13″ W.; and 42°01′37″ N., 124°16′37″ W. (NAD83)

(ii) *Size:* 0.09 square nautical mile.

(iii) *Depth:* 21 meters (average).

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material determined to be suitable for unconfined disposal from the Chetco Estuary and River and adjacent areas.

(2) Coos Bay, OR Dredged Material Site E.

(i) *Location:* 43°21′59″ N., 124°22′45″ W.;43°21′48″ N., 124°21′59″ W.; 43°21′35″ N., 124°22′05″ W.; 43°21′46″ N., 124°22′51″ W.

(ii) *Size:* 0.13 square nautical mile.

(iii) *Depth:* Averages 17 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material in the Coos Bay area of type 1, as defined in the site designation final EIS.

(3) Coos Bay, OR Dredged Material Site F.

(i) *Location:* 43°22′44″ N., 124°22′18″ W.; 43°22′29″ N., 124°21′34″ W.; 43°22′16″ N., 124°21′42″ W.; 43°22′31″ N., 124°22′26″ W.

(ii) *Size:* 0.13 square nautical mile.

(iii) *Depth:* Averages 24 meters.

(iv) *Primary Use:* Dredged material.

(v) *Period of Use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material in the Coos Bay area of type 1, as defined in the site designation final EIS.

(4) Coos Bay, OR Dredged Material Site H.

(i) *Location:* 43°23′53″ N., 124°22′48″ W.; 43°23′42″ N., 124°23′01″ W.; 43°24′16″ N., 124°23′26″ W.; 43°24′05″ N., 124°23′38″ W.

(ii) *Size:* 0.13 square nautical mile.

(iii) *Depth:* Averages 55 meters.

(iv) *Primary Use:* Dredged material.

(v) Period of Use: Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material in the Coos Bay area of type 2 and 3, as defined in the site designation final EIS.

(5) Coquille River Entrance, OR.

(i) *Location:* 43°08′26″ N., 124°26′44″ W.; 43°08′3″ N., 124°26′08″ W.; 43°08′13″ N., 124°27′00″ W.; 43°07′50″ N., 124°26′23″ W.

Centroid: 43°08′08″ N., 124°26′34″ W.

(ii) *Size:* 0.17 square nautical miles.

(iii) *Depth:* 18.3 meters.

(iv) *Period of Use:* Continuing use.

(v) *Restrictions:* Disposal shall be limited to dredged material from the Coquille Estuary and River and adjacent areas.

(6) Mouth of Columbia River, OR/WA Dredged Material Site A.

(i) *Location:* 46°13′03″ N., 124°06′17″ W.; 46°12′50″ N., 124°05′55″ W.; 46°12′13″ N., 124°06′43″ W.; 46°12′26″ N., 124°07′05″ W.

(ii) *Size:* 0.27 square nautical mile.

(iii) *Depth:* Ranges from 14–25 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Columbia River entrance channel and adjacent areas.

(7) Mouth of Columbia River, OR/WA Dredged Material Site B.

(i) *Location:* 46°14′37″ N., 124°10′34″ W.; 46°13′53″ N., 124°10′01″ W.; 46°13′43″ N., 124°10′26″ W.; 46°14′28″ N., 124°10′59″ W.

(ii) *Size:* 0.25 square nautical mile.

(iii) *Depth:* Ranges from 24–39 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Columbia River entrance channel and adjacent areas.

(8) Mouth of Columbia River, OR/WA Dredged Material Site E.

(i) *Location:* 46°15′43″ N., 124°05′21″ W.; 46°15′36″ N., 124°05′11″ W.; 46°15′11″ N., 124°05′53″ W.; 46°15′18″ N., 124°06′03″W.

(ii) *Size:* 0.08 square nautical mile.

(iii) *Depth:* Ranges from 16–21 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Columbia River entrance channel and adjacent areas.

(9) Mouth of Columbia River, OR/WA Dredged Material Site F.

(i) *Location:* 46°12′12″ N., 124°09′00″ W.; 46°12′00″ N., 124°08′42″ W.; 46°11′48″ N., 124°09′00″ W.; 46°12′00″ N., 124°09′18″ W.

(ii) *Size:* 0.08 square nautical mile.

(iii) *Depth:* Ranges from 38–42 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restriction:* Disposal shall be limited to dredged material from the Columbia River entrance channel and adjacent areas.

(10) Grays Harbor Eight Mile Site.

(i) *Location:* Circle with a 0.40 mile radius around a central coordinate at 46°57′ N., 124°20.06′ W.

(ii) *Size:* 0.5 square nautical miles.

(iii) *Depth:* 42–49 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of Use:* One time use over multiple years. Designation of the site is anticipated within five years following completion of disposal and monitoring activities.

(vi) *Restrictions:* Disposal shall be limited to dredged material from initial construction of the Grays Harbor navigation project. Post-disposal monitoring will determine the need and extent of closure requirements.

(11) Grays Harbor Southwest Navigation Site.

(i) *Location:* 46°52.94′ N., 124°13.81′ W; 46°52.17′ N., 124°12.96′ W.; 46°51.15′ N., 124°14.19′ W.; 46°51.92′ N., 124°14.95′ W.

(ii) *Size:* 1.25 square nautical miles.

(iii) *Depth:* 30–37 meters (average).

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material determined to be suitable for unconfined disposal from Grays Harbor estuary and adjacent areas. Additional discharge restrictions will be contained in the EPA/Corps management plan for the site.

(12) Nome, AK—East Site.

(i) *Location:* 64°29′54″N., 165°24′41″W.; 64°29′45″N., 165°23′27″W.; 64°28′57″N., 165°23′29″W.; 64°29′07″N., 165°24′25″.

(ii) *Size:* 0.37 square nautical mile.

(iii) *Depth:* Ranges from 1 to 12 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Nome, Alaska, and adjacent areas. Use will be coordinated with the City of Nome prior to dredging.

(13) Nome, AK—West Site.

(i) *Location:* 64°30′04″N., 165°25′52″W.; 64°29′18″N., 165°26′04″W.; 64°29′13″N., 165°25′22″W.; 64°29′54″N., 165°24′45″W.

(ii) *Size:* 0.30 nautical miles.

(iii) *Depth:* Ranges from 1 to 11 meters.

(iv) *Primary use:* Dredged material.

(v) *Period of use:* Continuing use.

(vi) *Restrictions:* Disposal shall be limited to dredged material from Nome, Alaska, and adjacent areas. Use will be coordinated with the City of Nome prior to dredging. Preference will be given to placing any material in the inner third of the site to supplement littoral drift, as needed.

(o) Region X Final Other Wastes Sites.

(1) No final sites.

(2) [Reserved]

[59 FR 61130, Nov. 29, 1994, as amended at 60 FR 2699, Jan. 11, 1995; 60 FR 25148, May 11, 1995; 60 FR 49230, Sept. 22, 1995; 60 FR 50114, Sept. 28, 1995; 61 FR 2946, Jan. 30, 1996; 61 FR 68970, Dec. 30, 1996; 62 FR 46149, Aug. 29, 1997; 64 FR 39933, July 23, 1999; 65 FR 31497, May 18, 2000]

PART 229—GENERAL PERMITS

Sec.
229.1 Burial at sea.
229.2 Transport of target vessels.
229.3 Transportation and disposal of vessels.

AUTHORITY: 33 U.S.C. 1412 and 1418.

SOURCE: 42 FR 2489, Jan. 11, 1977, unless otherwise noted.

§ 229.1 Burial at sea.

(a) All persons subject to title I of the Act are hereby granted a general permit to transport human remains from the United States and all persons owning or operating a vessel or aircraft registered in the United States or flying the United States flag and all departments, agencies, or instrumentalities of the United States are hereby granted a general permit to transport human remains from any location for the purpose of burial at sea and to bury such remains at sea subject to the following conditions:

(1) Except as herein otherwise provided, human remains shall be prepared for burial at sea and shall be buried in accordance with accepted practices and requirements as may be deemed appropriate and desirable by the United States Navy, United States Coast Guard, or civil authority charged with the responsibility for making such arrangements;

(2) Burial at sea of human remains which are not cremated shall take place no closer than 3 nautical miles from land and in water no less than one hundred fathoms (six hundred feet) deep and in no less than three hundred fathoms (eighteen hundred feet) from (i) 27°30′00″ to 31°00′00″ North Latitude off St. Augustine and Cape Canaveral, Florida; (ii) 82°20′00″ to 84°00′00″ West Longitude off Dry Tortugas, Florida; and (iii) 87°15′00″ to 89°50′00″ West Longitude off the Mississippi River Delta, Louisiana, to Pensacola, Florida. All necessary measures shall be taken to ensure that the remains sink to the bottom rapidly and permanently; and

(3) Cremated remains shall be buried in or on ocean waters without regard to the depth limitations specified in paragraph (a)(2) of this section provided that such burial shall take place no closer than 3 nautical miles from land.

(b) For purposes of this section and §§ 229.2 and 229.3, *land* means that portion of the baseline from which the territorial sea is measured, as provided for in the Convention on the Territorial Sea and the Contiguous Zone, which is in closest proximity to the proposed disposal site.

(c) Flowers and wreaths consisting of materials which are readily decomposable in the marine environment may be disposed of under the general permit set forth in this section at the site at which disposal of human remains is authorized.

(d) All burials conducted under this general permit shall be reported within 30 days to the Regional Administrator of the Region from which the vessel carrying the remains departed.

§ 229.2 Transport of target vessels.

(a) The U.S. Navy is hereby granted a general permit to transport vessels from the United States or from any other location for the purpose of sinking such vessels in ocean waters in testing ordnance and providing related data subject to the following conditions:

(1) Such vessels may be sunk at times determined by the appropriate Navy official;

(2) Necessary measures shall be taken to insure that the vessel sinks to the bottom rapidly and permanently, and that marine navigation is not otherwise impaired by the sunk vessel;

(3) All such vessel sinkings shall be conducted in water at least 1,000 fathoms (6,000 feet) deep and at least 50 nautical miles from land, as defined in § 229.1(b); and

(4) Before sinking, appropriate measures shall be taken by qualified personnel at a Navy or other certified facility to remove to the maximum extent practicable all materials which may degrade the marine environment, including without limitation (i)