RULES and REGULATIONS

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 228

[OW-6-FRL-3257-9]

Ocean Dumping; Designation of Sites

Thursday, September 10, 1987

***34218** AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA today designates four existing dredged material disposal sites ("the Sabine-Neches sites") located in the Gulf of Mexico offshore of Texas Point and Louisiana Point for the continued disposal of dredged material removed from the Sabine-Neches Waterway. This action is necessary to provide acceptable ocean dumping sites for the current and future disposal of this material. This final site designation is for an indefinite period of time but is subject to continued monitoring in order to insure that unacceptable adverse environmental impacts do not occur.

DATE: This designation shall become effective October 13, 1987.

ADDRESSES: The file supporting this designation is available for public ***34219** inspection at the following locations: U.S. EPA, Region VI (6E-FF), 1445 Ross Avenue, 10th Floor, Dallas, Texas 72202-2733, Corps of Engineers, Galveston District, 444 Barracuda Avenue, Galveston, Texas 77550.

FOR FURTHER INFORMATION CONTACT: Norm Thomas (214) 655-2260 or (FTS) 255-2260.

SUPPLEMENTARY INFORMATION:

A. Background

Section 102(c) of the Marine Protection, Research, and Sanctuaries Act of 1972, as amended, 33 U.S.C. 1401 et seq. ("the Act"), gives the Administrator of EPA the authority to designate sites where ocean dumping may be permitted. On December 23, 1986, the Administrator delegated the authority to designate ocean dumping sites to the Regional Administrator of the Region in which the site is located. This site designation is being made pursuant to that authority.

The EPA Ocean Dumping Regulations (40 CFR Chapter I, Subchapter H, Section 228.4) state that ocean dumping sites will be designated by publication in Part 228. A list of "Approved Interim and Final Ocean Dumping Sites" was published on January 11, 1977 (42 FR 2461 et seq.) and was extended on August 19, 1985 (50 FR 33338). That list established the four Sabine-Neches sites as interim sites.

B. EIS Development

Section 102(2)(c) of the National Environmental Policy Act of 1969, 42 U.S.C. 4321 et seq., ("NEPA") requires that Federal agencies prepare an Environmental Impact Statement (EIS) on proposals for major Federal actions significantly affecting the quality of the human environment. While NEPA does not apply to EPA activities of this type, EPA has voluntarily committed to prepare EISs in connection with ocean dumping site designations such as this (39 FR 16186, May 7, 1974).

EPA has prepared a Draft and Final Environmental Impact Statement entitled "Environmental Impact Statement (EIS) for the Sabine-Neches, Texas Dredged Material Ocean Disposal Site Designation."On August 20, 1982, a notice of availability of the Draft EIS for public review and comment was published in the Federal Register (47 FR 36468). The public comment period on this Draft EIS closed October 4, 1982. The Agency received 11 comments on the Draft EIS and responded to them in the Final EIS. Editorial or factual corrections required by the comments were incorporated in the text and noted in the Agency's response. Comments which could not be appropriately treated as text changes were addressed point by point in the Final EIS, following the letters of comment. On April 1, 1983, a notice of availability of the Final EIS for public review and comment was published in the Federal Register (48 FR 14037). The public comment period on the Final EIS closed on May 9, 1983. One comment was received on the Final EIS which favored final designation of the existing sites. The EIS is available for review at the addresses given above.

The action discussed in the EIS is designation for continuing use of ocean disposal sites for dredged material. The purpose of the designation is to provide an environmentally acceptable location for ocean disposal. The appropriateness of ocean disposal is determined on a case-by-case basis as part of the process of issuing permits for ocean disposal.

The EIS discussed the need for the action and examined ocean disposal sites and alternatives to the proposed action. Land based disposal alternatives were examined in a previously published EIS and the analysis was updated in a memorandum to the Record (March 18, 1987) by the Corps of Engineers. The nearest available land disposal area is 600 acres in size and is located 6 miles away from the shoreward end of the project and over 23 miles from the seaward end. Because of the high costs of transport as well as the limited capacity of the area, this alternative is not feasible. Also since the surrounding land areas are wetlands, development and use of a suitably sized replacement area would result in a significant loss of quality wetlands.

Three ocean disposal alternatives—a shallow water area (including the proposed sites), a mid-shelf area and a deepwater area—were evaluated. The mid-shelf area contained numerous fixed structures (e.g., oil platforms) presenting navigational hazards to the hopper dredge used and increasing the possibility of collisions and oil spills. Both the mid-shelf and deepwater areas involved increased transportation costs. Because of safety and economic disadvantages and due to a lack of environmental benefit, the mid-shelf area and the deepwater area were eliminated from further consideration.

The EIS evaluates the suitability of ocean disposal areas for final designation and is based on a disposal site environmental study. The study and final designation process are being conducted in accordance with the Act, the Ocean Dumping Regulations, and other applicable Federal environmental legislation.

In accordance with the requirements of Section 7 of the Endangered Species Act, EPA requested a list of species that may be affected from the U.S. Fish and Wildlife (FWS) and the National Marine Fisheries Service (NMFS). The FWS documented that there were no endangered or threatened species in the project area under their juris-

diction. The NMFS provided a list of five species of sea turtles that may be affected by the proposed site designation. EPA prepared a biological assessment of the effects of disposal of dredged material on the green, hawksbill, loggerhead, leatherback, and Kemp's ridley sea turtles. Based on this assessment, EPA determined that the proposed action does not constitute an adverse effect on the five listed species.

EPA has completed coordination with the State of Louisiana, Department of Natural Resources concerning consistency with the Louisiana Coastal Resource Program. The State indicated by letter dated May 14, 1987, that the project was found to be consistent with their coastal zone program.

This final rulemaking notice serves the same purpose as the Record of Decision required under regulations promulgated by the Council on Environmental Quality for agencies subject to NEPA.

C. Site Designation

On June 11, 1987 (52 FR 22352), EPA proposed designation of these sites for the continuing disposal of dredged material from the Sabine-Neches Waterway. The public comment period on this proposed action closed July 27, 1987. Three comment letters were received on the proposed rule. A private citizen requested that no dumping of dredged material be allowed stating that ocean disposal would be harmful to shrimp reproduction and would interfere with fishing, shipping and recreation. The U.S. Department of Interior (DOI) expressed concern about impacts to fishery resources, including shrimp, from contaminated sediment and recommended a specific monitoring program be established for sites 3 and 4. Tenneco Oil Company provided information on oil production activities near disposal site 2 and requested that consideration be given to limiting disposal to the southern third of the site.

In response to each of these comments, EPA offers the following. Interference with shipping, fishing and recreation from dredged material disposal has been evaluated. EPA has concluded that site designation will not adversely affect the referenced uses. Regarding the concern for impacts to fishery resources, water, sediment and elutriate data as well as bioassays and ***34220** bioaccumulation assessments conducted to date at the disposal areas and in the channels indicate no adverse impacts to the aquatic environment from the dredging and disposal operations. Based on this historic data, EPA believes that an intense monitoring program is not warranted. However, in order to provide adequate warning of environmental harm, a monitoring program for all four sites is proposed. The program will consist of the following: (1) Assessment of channel sediment quality (i.e., sediment and elutriate chemistry and bioassays and bioaccumulation studies) to determine if polluted material will be discharged; (2) assessment of water column and sediment quality of the disposal sites (i.e., sediment and elutriate chemistry and grain-size analysis) to determine if the quality of water and sediment is deteriorating with time; (3) assessment of the health of the biological communities of the sites and down current from the sites; and (4) macrobenthic infauna sampling. The proposed monitoring program will be specified in a site management and monitoring plan to be developed between EPA and the Galveston District, Corps of Engineers. Tenneco's request for limiting disposal in site 2 will be considered in development of this plan.

All four sites are located along the west side of the Sabine Bank Channel and fairway in depths ranging from five to 13 meters. These sites receive dredged material from the channel, and the dredged material is dumped at the site closest to the point of dredging. All dredging is done by hopper dredge. Four sites are used in order to minimize the length of time the dredges are present in the shipping channel and the potential hazard to navigation.

Site 1 is located approximately 16 nautical miles from shore, is triangular in shape and occupies an area of ap-

proximately 2.4 square nautical miles. Water depths within the area average 12 meters. The corner coordinates are as follows: 29°28'03" N., 93°41'14" W.; 29°26'‘11" N., 93°41'14" W.; 29°26'11" N., 93°44'11" W.

Site 2 is located approximately 11.8 nautical miles from shore, is trapezoidal in shape and occupies an area of approximately 4.2 square nautical miles. Water depths within the area range from 9 to 13 meters. The corner coordinates are as follows: 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.

Site 3 is located approximately 6.8 nautical miles from shore, is pentagonal in shape and occupies an area of approximately 4.7 square nautical miles. Water depths within the area average 10 meters. The corner coordinates are as follows: 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.

Site 4 is located approximately 2.7 nautical miles from shore, is hexagonal in shape and occupies an area of about 4.2 square nautical miles. Water depths within the area range from 5 to 9 meters. The corner coordinates are as follows: 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.

D. Regulatory Requirements

Five general criteria are used in the selection and approval of ocean disposal sites for continuing use. Sites are selected so as to minimize interference with other marine activities, to keep any temporary perturbations from the dumping from causing impacts outside the disposal site, and to permit effective monitoring to detect any adverse impacts at an early stage. Where feasible, locations off the Continental Shelf are chosen. If at any time disposal operations at a site cause unacceptable adverse impacts, further use of the site may be terminated or limitations placed on the use of the site to reduce the impacts to acceptable levels. The general criteria are given in § 228.5 of the EPA Ocean Dumping Regulations; § 228.6 lists eleven specific factors used in evaluating a proposed disposal site to assure that the general criteria are met.

EPA has determined, based on the completed EIS process, that the four existing sites are acceptable under the five general criteria. The Continental Shelf location is not feasible and no environmental benefit would be obtained by selecting such a site. Historical use of the existing four sites has not resulted in substantial adverse effects to living resources of the ocean or to other uses of the marine environment.

The characteristics of the proposed sites are reviewed below in terms of the eleven factors.

1. Geographical position, depth of water, bottom topography and distance from coast. (40 CFR 228.6(a)(1))

Geographical positions, average water depths, and distance from the coast for each existing site are given above. Bottom topography within each existing site is flat with no unique features or relief. Each site varies only in distance from shore and depth.

2. Location in relation to breeding, spawning, nursery, feeding, or passage areas of living resources in adult or juvenile phases. (40 CFR 228.6(a)(2))

The sites are between the shrimp spawning grounds of the mid-shelf and the important nursery area of Sabine Lake and therefore could be passageways of commercially valuable species. However, the sites represent only a minor portion of the entire range of shrimp along the Gulf Coast. Many commercially and recreationally import-

ant species of fish also occur in this region. However, most recognized breeding and spawning grounds occur in the productive marshes and estuaries of the coastal region or in the mid-water areas of the Gulf.

Studies summarized in the EIS have found that free-swimming animals (nekton) are generally not affected by the disposal of dredged material. Abundances of nekton, including shrimp, are only temporarily displaced after disposal operations, but abundances appeared to return to normal within one month. Some nekton indigenous to areas in the vicinity of the disposal site, including fish, may actually be attracted to the turbid waters which result from disposal activities to seek food or protection from predators. Fishery resources have not been shown to be adversely affected.

3. Location in relation to beaches and other amenity areas. (40 CFR 228.6(a)(3))

Activities in the vicinity of the sites include fishing and boating. Disposal of dredged material has not adversely affected these activities because effects were limited to a turbidity plume at the site which disperses through the settlement of the majority of particles within a few hours after disposal.

Of the four disposal sites, Site 4 (located closest to shore) is 2.7 nautical miles south of the nearest land (Texas Point) and thus would have the highest potential to affect beaches. However, the beaches there have not been adversely affected by disposal activities because a prevailing southwesterly current carries material away from shore.

4. Types and quantities of wastes proposed to be disposed of, and proposed methods of release, including methods of packing the wastes, if any. (40 CFR 228.6(a)(4))

Dredged material released at approved dredged material disposal sites must conform to the EPA criteria in the Ocean Dumping regulations (40 CFR Part 227). Sediments to be dumped at the sites result from the dredging of the Sabine-Neches entrance channels. Materials dredged from the entrance channels are dumped at the sites closest to the area of dredging. Existing Site 4 ***34221** has been in use since 1931 for the disposal of dredged material. Prior to 1960 dredging did not occur seaward of Existing Site 1 and the other three sites were not used prior to that time. The average annual amount dumped at all four sites from 1960 to 1979 was 4.5 million cubic yards.

Dredged sediments from the Sabine-Neches entrance channels are the only materials presently dumped at the four sites. The dredged materials are primarily silts and clays, which are suitable for ocean disposal. Although the natural sediment texture within and beyond the sites exhibits seasonal changes, it is similar to that of the dredged material disposed at the four sites. A hopper dredge has been used for the dredging of the Sabine-Neches entrance channels. The unpacked dredged material is released when the bottom doors on the hoppers are opened.

5. Feasibility of surveillance and monitoring. (40 CFR 228.6(a)(5))

Surveillance and monitoring at the existing sites is feasible considering transportation costs to and from the sites as well as costs associated with acquiring samples from the shallow water-depths. Based on historic data, an intense monitoring program is not warranted. However, in order to provide adequate warning of environmental harm, a monitoring program consisting of water, sediment and elutriate chemistry; bioassays; bioaccumulation studies; and benthic infaunal analyses is proposed.

6. Dispersal, horizontal transport and vertical mixing characteristics of the area, including prevailing current direction and velocity, if any. (40 CFR 228.6(a)(6))

In shallow-water areas of the existing disposal sites, most dredged material falls to the bottom immediately after dumping and only a small portion of the finer fraction is lost from the main settling surge. This small portion disperses as individual particles. Bottom currents measured 6.5 nautical miles (nmi) off Texas Point average 0.23 knots and flow in a south-southwesterly direction. These currents are capable of transporting the dispersed dredged material over a wide area; thus, no major sediment accumulation is expected.

Bottom currents become quite strong during storms, when powerful rip currents redistribute coarse sediments along the Texas-Louisiana coast. Periodically, hurricanes also produce currents strong enough to prevent any significant shoaling due to the accumulation of dredged material. Evidence of this is the lack of shoaling at any of the sites despite the approximately 88 million cubic yards of material that have been dumped in the past 50 years.

7. Existence and effects of current and previous discharges and dumping in the area (including cumulative effects). (40 CFR 228.6(a)(7))

No major changes in benthic diversity have occurred in the sites off Texas Point based on a comparison of 1974, 1979, and 1980 samples with samples taken from 1951 to 1954. However, minor reductions in abundances of benthic infauna are apparent. Studies have shown that the reduced populations are capable of recolonization within a few months. In addition, trawl data indicated that populations of free-swimming animals in the disposal area did not differ from animals occurring in adjacent unimpacted areas upcurrent of the disposal sites.

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. (40 CFR 228.6(a)(8))

Sites 2, 3, and 4 partially extend into the navigational safety fairway; however, they do not present hazards to shipping. Sediments dredged from the channel are dumped within site boundaries but outside the safety fairway. Fairways were “established to control the erection of structures therein to provide safe approaches through oil fields in the Gulf of Mexico to entrances to the major ports along the Gulf Coast.”(33 CFR 209.135)

Sites 1 and 2 are near Sabine Bank, a major commercial and recreational fishery area. Prevailing bottom currents may carry dumped material at Site 2 toward Sabine Bank, but the rise at the bottom edge of the Bank will cause the material to be transported along rather than over the central portion of the Bank.

Sites 1, 2, and 3 are in an area of important commercial shrimping (Grid Zone 17), which extends 60 nmi along the Texas-Louisiana coast, and from the shoreline to about 90 nmi offshore. The disposal sites are in waters 10 to 13 meters deep, a primary shrimping area of this zone. A 1977 study reported in the EIS showed that 25 percent of the catch effort for shrimp in zone 17 resulted in a catch of approximately 24 percent of the total shrimp catch for zone 17, an amount closely proportional to the catch effort. Thus, it does not appear that dredged material disposal operations at these sites during preceding years (1960-1976) significantly interfered with or altered the shrimping activities studied.

Oil and gas exploration and production could potentially be affected by disposal activities. Sites 2 and 3 are presently being leased for oil and gas exploration and already contain oil production platforms and pipelines. As long as the density of the platforms and pipelines and associated marine traffic in these areas remains low, no

major conflict between the two uses of the disposal area should occur. No areas of special scientific importance, aquaculture, or desalination activities are known to occur or are known to be planned in the vicinity of the existing sites.

9. The existing water quality and ecology of the site as determined by available data or by trend assessment or baseline surveys. (40 CFR 228.6(a)(9))

Phytoplankton and zooplankton studies conducted southwest of the sites revealed seasonal differences in species composition. Diatoms dominate the phytoplankton community and copepods dominate the zooplankton community. Fish and shrimp dominate the nekton community of the sites, and species are typical of those reported from western Gulf coastal waters. Several of these species are commercially and/or recreationally important, including croaker, spotted sea trout, menhaden, redfish, flounder, and brown shrimp. The benthic community of the sites is characteristic of sand and mud habitats and is dominated by worms, the most abundant of which are acorn and proboscis worms. Chemical constituents in the water at the sites are below EPA water quality criteria. Concentrations of all measured constituents in the water (except dissolved ammonia, nitrate, and organic nitrogen) are below analytical detection limits. These three exceptions occurred in relatively low concentrations; however, no appropriate water quality criteria apply to these constituents.

10. Potentiality for the development of recruitment or nuisance species in the disposal site. (40 CFR 228.6(a)(10))

No long-term changes in species composition at the site have resulted from disposal operations. Trawl and benthic data also indicated that the disposal area at the time of sampling did not differ from other adjacent unimpacted areas upcurrent of the disposal sites. Disposal of dredged material has contributed little to changing the character of the faunal communities in the vicinity of Sabine Pass. Previous surveys at the site did not detect the development or recruitment of nuisance species, and the similarity of the dredged material with the existing sediments suggests that the ***34222** development or recruitment of nuisance species is unlikely.

11. Existence at or in close proximity to the site of any significant natural or cultural features of historical importance. (40 CFR 228.6(a)(11))

Neither the Texas Historical Commission nor the Louisiana Division of Archaeology and Historic Preservation Office has found evidence of natural or cultural features of historic importance in the area, but they noted that unknown sunken prehistoric sites may exist. Sunken vessels which exist in or near the offshore disposal area should not be permanently affected by disposal operations.

E. Action

Based on the completed EIS process and available data, EPA concludes that the four Sabine-Neches sites may appropriately be designated for continuing use. The existing sites are compatible with the general criteria and specific factors used for site evaluation. The designation of the four Sabine-Neches sites as EPA approved Ocean Dumping Sites is being published as final rulemaking.

Before ocean dumping of dredged material at the site may occur, the Corps of Engineers must evaluate a permit application according to EPA's ocean dumping criteria. EPA has the authority to approve or to disapprove or to propose conditions upon dredged material permits for ocean dumping. While the Corps does not administratively issue itself a permit, the requirements that must be met before dredged material derived from Federal

projects can be discharged into ocean waters are the same as where a permit would be required.

F. Regulatory Assessments

Under the Regulatory Flexibility Act, EPA is required to perform a Regulatory Flexibility Analysis for all rules which may have a significant impact on a substantial number of small entities. EPA has determined that this action will not have a significant impact on small entities since the site designation will only have the effect of providing a disposal option for dredged material. Consequently, this rule does not necessitate preparation of a Regulatory Flexibility Analysis.

Under Executive Order 12291, EPA must judge whether a regulation is "major" and therefore subject to the requirement of a Regulatory Impact Analysis. This action will not result in an annual effect on the economy of $100 million or more or cause any of the other effects which would result in its being classified by the Executive Order as a "major" rule. Consequently, this rule does not necessitate preparation of a Regulatory Impact Analysis.

This Final Rule does not contain any information collection requirements subject to the Office of Management and Budget review under the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 et seq.

List of Subjects in 40 CFR Part 228

Water pollution control.

Dated: August 28, 1987.

Robert E. Layton, Jr.,

Regional Administrator of Region VI.

In consideration of the foregoing, Subchapter H of Chapter I of Title 40 is proposed to be amended as set forth below.

PART 228—[AMENDED]1. The authority citation for Part 228 continues to read as follows:

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

40 CFR § 228.12

2. Section 228.12 is amended by removing and reserving paragraphs (a)(1)(ii) (D) and (N) and adding paragraphs (b) (42), (43), (44), (45) for four ocean dumping sites to read as follows:

40 CFR § 228.12

§ 228.12 Delegation of management authority for ocean dumping sites.

* * * * *

(b) * * *

(42) Sabine-Neches Dredged Material Site 1—Region VI.

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.

Size: 2.4 square nautical miles.

Depth: Ranges from 11-13 meters.

Primary Use: Dredged material.

Period of Use: Continuing Use.

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

(43) Sabine-Neches Dredged Material Site 2—Region VI.

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.

Size: 4.2 square nautical miles.

Depth: Ranges from 9-13 meters.

Primary Use: Dredged material.

Period of Use: Continuing Use.

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

(44) Sabine-Neches Dredged Material Site 3—Region VI.

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.

Size: 4.7 square nautical miles.

Depth: 10 meters.

Primary Use: Dredged material.

Period of Use: Continuing Use.

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

(45) Sabine-Neches Dredged Material Site 4—Region VI.

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.

Size: 4.2 square nautical miles.

Depth: Ranges from 5-9 meters.

Primary Use: Dredged material.

Period of Use: Continuing Use.

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

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