

to the 106-Mile Site would; not be expected to result in any significant or long-term adverse impacts to the ecosystem because of rapid initial dilution followed by extensive dispersion. Thus, temporary perturbations in water quality can be expected to return to ambient levels before reaching any shoreline or beach.

Comment: The limiting permissible concentration (LPC) for suspended particulates and solid phases is not influenced by the choice of disposal site; can the LPC be met at the 106-Mile Site?

*Response—*EPA believes that the LPC can be met at the 106-Mile Site. The 106-Mile Site allows for rapid dispersion of municipal sludge. This rate of dispersion affects whether disposal of the sludge will comply with the LPC, since that measurement applies within the disposal site only after four hours have elapsed from the dumping (40 CFR 227.29). In addition, EPA does not believe that the municipal sludge contains a solid phase. However, even if it did, the zone of impact at the 106-Mile Site would differ from that at the 12-Mile Site, resulting in different concentrations of pollutants in the sediment. Moreover, EPA will not issue a permit for the disposal of municipal sludge which would fail the LPC unless the permit application can make a clear showing that ocean disposal is environmentally preferable to all other practicable waste management alternatives.

Comment: Before full-scale dumping is authorized at the site; an experimental test dumping program should be implemented, a model of sludge dumping at the site should be completed and a risk assessment undertaken.

*Response—*EPA believes that it has adequate data and analysis to conclude that municipal sewage sludge disposal at the 106-Mile Site will not adversely affect the marine environment. Predictive models of sludge disposal at a Deepwater Site have been analyzed. EPA and NOAA will closely monitor sludge disposal at the site to ensure that no unreasonable degradation of the marine environment will occur.

VIII. 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 only provides sites for the disposal of municipal and industrial wastes. It does not permit the use of the site. Use of the site is controlled under a separate regulatory process. 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 Executive Order as a "major" rule. Consequently, this rule does not necessitate preparation of a Regulatory Impact Analysis.

This rule does not contain any information collection requirements subject to OMB 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.

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

Dated: April 26, 1984.

Jack E. Ravan,
Assistant Administrator for Water.

PART 228—[AMENDED]

In consideration of the foregoing, Subchapter H of Chapter I of Title 40 is amended by removing the Region II Industrial Waste Dump Site located at 38°40'00"N to 39°00'00"N, 72°00'00"W to 72°30'00"W from § 228.12(a) and adding to §228.12(b) two ocean dumping sites for Region II as follows:

§ 228.12 Delegation of Management authority for ocean dumping sites.

* * * * *

(b) * * *

(17) Deepwater Industrial Wastes Dump Site—Region II
Location (center point): Latitude—38°45'00"N. Longitude—72°20'00"W.

Size: Circular with a radius of 3.0 nautical miles—28.3 square nautical miles.

Depth: Ranges from 2,250 to 2,750 meters.

Use Restricted To: Aqueous industrial materials.

Period of Use: Continuing use.

Definition: Aqueous industrial materials are defined as those wastes generated by a manufacturing or processing plant (i) with solid concentrations sufficiently low so that waste material is dispersed within the upper water column; or (ii) neutrally buoyant or slightly denser than seawater, such that, upon mixing with seawater, the material does not float.

(18) Deepwater Municipal Sludge Dump Site—Region II

Location:

Latitude—38°40'00" to 39°00'00"N;

Longitude—72°00'00" to 72°05'00"W.

Size: 100 square nautical miles.

Depth: Ranges from 2,250 to 2,750 meters.

Use Restricted To: Municipal sewage treatment sludge.

Period of Use: Five years after commencement of dumping of municipal sewage treatment sludge at the site.
Restriction: Municipal sludges generated at Publicly Owned or Operated Treatment Works (POTW's). Biologically treated industrial waste sludges are to be excluded.

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40 CFR Part 228

[OW-FRL 2581-4]

Ocean Dumping; Final Designation of Site

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA today designates the New York Bight Dredged Material Disposal Site (Mud Dump Site) in the New York Bight Apex, North Atlantic Ocean, for the disposal of dredged materials generated within the Port of New York and New Jersey. This action is necessary to provide a suitable ocean dumping site for the current and future disposal of these materials. This site designation does not authorize any actual dumping of dredged material. Authorization to ocean dump dredged material at the site is granted only by permit and other administrative proceedings conducted by the U.S. Army Corps of Engineers.

DATE: This designation shall become effective June 4, 1984.

ADDRESSES: The record supporting this action may be examined at the following locations:

EPA Public Information Reference Unit (PIRU), Room 2904 (rear), 401 M Street Southwest, Washington, DC
EPA Region II Library, Room 1002, 28 Federal Plaza, New York, NY.

FOR FURTHER INFORMATION CONTACT: Mr. T. A. Wastler, Chief, Marine Protection Branch (WH-585), EPA, Washington, DC 20460, 202/755-0358.

SUPPLEMENTARY INFORMATION:

I. Background

The Port of New York and New Jersey is the leading port in the United States. In 1978, approximately 187 million short tons of cargo passed through the Port, including 37.3 percent of the nation's general cargo export commodities and 46.3 percent of the import commodities. The Port of New York and New Jersey is important as a prime generator of jobs, and serves as a commercial lifeline for the region. The Port is responsible for over 15,000 waterfront jobs, over 100,000

maritime commerce dependent jobs, and over 400,000 indirectly related jobs.

The economic viability of the Port depends on the maintenance dredging of Federal and non-Federal navigation channels and berthing areas. Many shipping channels in New York Harbor are in areas where the natural water depth would prevent passage of modern, deep-draft vessels. Dredging is required to maintain sufficient operating depths for the traffic. At present, navigational channels for ocean-going vessels are maintained at depths of 35-48 feet. In addition, new-work dredging may be necessary to maintain the Port's future economic viability.

Approximately 8-10 million cubic yards of material are dredged annually in the Port of New York and New Jersey and ocean dumped at the Mud Dump Site. It received an annual average of 8.1 million cubic yards from 1973 to 1982.

II. Statute and Regulations

Title I of the Marine Protection, Research, and Sanctuaries Act (MPRSA), authorizes the Administrator of EPA (Section 102) and the Secretary of the Army, acting through the Corps of Engineers (Section 103), to establish ocean disposal permit programs for non-dredged and dredged materials, respectively. Title I also requires EPA to establish criteria, based on factors listed in Section 102(a), for the review and evaluation of permits under the EPA and the Corps permit programs. In addition, Section 102(c) authorizes EPA, considering criteria established pursuant to Section 102(a), to designate recommended ocean disposal sites or times for dumping.

Section 103 requires the Corps to consider in its evaluation of Federal projects and non-Federal permit applications, the effects of the ocean disposal of dredged materials on human health, welfare, or amenities, or the marine environment, ecological systems, or economic potentialities. In authorizing the disposal of dredged material, the Corps must utilize, to the extent feasible, ocean disposal sites designated by EPA pursuant to Section 102(c).

On September 19, 1980, the Administrator delegated authority to designate ocean dumping sites to the Assistant Administrator for Water and Waste Management, now the Assistant Administrator for Water.

Pursuant to provisions of the MPRSA, EPA promulgated implementing regulations which provide for the designation and management of approved sites for ocean dumping (40 CFR Part 228). The criteria for the selection of dumping sites are set out in

40 CFR 228.5 and 228.6. Generally, these criteria provide that disposal sites will be selected so as to minimize interference with other activities in the marine environment, particularly commercial and recreational fishing and navigation.

The Mud Dump Site has been used since 1914 for the ocean dumping of dredged materials. The location of the site is approximately 5.3 nautical miles east of Highlands, New Jersey, and 9.6 nautical miles south of Rockaway, Long Island, positioned in a rectangle bounded by Latitudes 40°21'48" to 40°23'48" N. and Longitudes 73°50'00" to 73°51'28" W. The site occupies an area of 2.2 square nautical miles with water depths ranging between 15.8 and 28.8 meters. In 1973 (subsequent to enactment of the MPRSA), EPA designated this area as an "interim site" (38 FR 12875). The interim designation was last extended on February 7, 1983 (48 FR 5557). A site is designated as "interim" when environmental studies necessary to determine whether it should be designated for continuing use have not been completed.

Interim dredged material sites are used by the Corps or Corps permittees after a case-by-case review of each project has established that the proposed ocean disposal of dredged material is in compliance with the criteria and requirements of EPA and Corps regulations (40 CFR Parts 220-229 and 33 CFR Parts 320-327).

The interim designation of the Mud Dump Site expired on January 31, 1984 (48 FR 5557).

III. Environmental Impact Statements

EPA has prepared an Environmental Impact Statement (EIS) in accordance with EPA's Statement of Policy for Voluntary Preparation of EIS's (39 FR 16186, May 7, 1974; 39 FR 37119, October 21, 1974). Notice of availability of a draft EIS was published February 19, 1982 (47 FR 7488), and notice of availability of the final EIS was published on September 3, 1982 (47 FR 38983). The final EIS includes the Agency's assessment of the comments received on the draft EIS. Comments correcting facts were incorporated in the text, and specific comments which could not be appropriately treated as text changes were responded to in Appendix E of the final EIS.

The Corps prepared an EIS titled "Disposal of Dredged Material From the Port of New York and New Jersey." The draft EIS and the final EIS were published in June 1982 and March 1983, respectively. This EIS reviews current practices regarding disposal of dredged materials from the Port of New York and

New Jersey and alternative disposal options. These alternatives are analyzed to determine their feasibility, probable environmental impacts, and ability to fulfill the dredging needs of the Port.

The EIS's are available for inspection at the addresses given above.

IV. Proposed Site Designation

On August 3, 1983 (48 FR 35147), EPA proposed to designate the Mud Dump Site as an approved ocean dumping site for the authorized disposal of dredged materials. The comment period ended on September 15, 1983. On August 23, 1983, a public hearing was held at Monmouth College in West Long Branch, New Jersey, to receive comments concerning the proposed action. On August 25, 1983, a second public hearing was held at the College of Staten Island on Staten Island, New York. Transcripts of the public hearings and comments received on the proposed site designation are available for public inspection at the address given above.

V. Final Site Designation

This notice announces the designation of the Mud Dump Site as an approved site for the authorized disposal of dredged material generated from the Port of New York and New Jersey. Use of the site is restricted to the authorized disposal of dredged material from projects originating within the Port of New York and New Jersey and nearby harbors; use of the northwest quadrant of the site is limited due to mounding, and use of the southeast quadrant is limited to special studies necessary for evaluating new technologies for disposal.

At current rates of disposal, the remaining capacity of the site is approximately 100 million cubic yards. After receiving that volume, there is a potential for future mounding at the site, posing a hazard to navigation. In addition, because of the site's relatively small size in relation to the expected volume of material dumped, the leading edge of the dredged material mound may threaten to exceed the site boundaries. A mound already has built up in the northwest quadrant of the site due to previous dumping activities and has resulted in the closure of this area to dumping. Also, the southeast quadrant is utilized for research purposes and is not available for routine dumping. Because of these factors, EPA is restricting the amount of dredged materials which may be dumped at the site in the future to 100 million cubic yards. Should monitoring indicate significant adverse effects, appropriate measures to mitigate those effects or to

modify or withdraw the site designation will be taken by the Agency. Also, during this time, EPA and the Corps will evaluate alternative ocean sites for possible future use.

VI. Evaluation of Site Selection Criteria

Pursuant to provisions of the MPRSA, EPA has promulgated implementing regulations which provide criteria both for the designation and management of approved sites for the ocean disposal of wastes. These criteria are found at 40 CFR Part 228. Section 228.5 includes the general criteria. Section 228.6 includes 11 specific factors to be considered for use in site designation. The evaluation of the Mud Dump Site in terms of the five general criteria is summarized in the following paragraphs and treated in greater detail in the discussion of the 11 specific factors in this notice and in the EIS.

General Criteria

Five general criteria are used in the selection and approval for continuing use of ocean disposal sites. 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 the site cause unacceptable adverse impacts, further use of the site can be restricted or terminated.

The existing Mud Dump Site satisfies the five general criteria for continuing use at the present time, even though it is clear that the capacity of the site will be reached in the foreseeable future and that an alternate site will have to be found if ocean disposal of dredged material from the New York Harbor area is to continue.

The Mud Dump Site is located in an area of heavy commercial and recreational navigation. However, there have been no documented instances over the past 70 years in which its use for waste disposal has interfered with such navigation. The site is located in existing fishery and shellfishery areas. However, the EIS's conclude that the dredged materials dumped at the site have largely remained within the site itself, and thus have not affected shorelines, beaches, or other uses of the ocean outside the disposal site.

The site is close to shore and is readily amenable to surveillance of dumping operations and monitoring of effects on the marine environment at and near the site.

The site is not located off the Continental Shelf; however, it is an historically used site, and data have shown that the site contains approximately 85 percent of the dredged material dumped there. It is not feasible or desirable to use a site off the Continental Shelf at the present time because of (1) uncertainty as to the environmental effects of dumping dredged materials at the site, (2) difficulty of monitoring the impacts of such disposal, (3) present limitations of the dredging fleet, and (4) economic costs of using such a site.

Monitoring data collected in the New York Bight Apex, as discussed in the EIS, show that the benthic impact of dredged material dumping is primarily restricted to the Mud Dump Site itself. As the site continues to be used for this purpose, its capacity to receive dredged material without significant adverse impacts outside the site boundaries will be reached and, at some point, its use will have to be terminated. During the period of its designation under this rulemaking, conditions at and near the site will be monitored by EPA and the Corps of Engineers and a new disposal site will be selected for use when the Mud Dump Site becomes unacceptable either because of adverse environmental impacts associated with disposal at the site or because the volumetric capacity of the site has been reached.

The specific criteria considered in site designation are discussed below.

Factor 1—Geographical position, depth of water, bottom topography and distance from coast.

- The site is located on the Continental Shelf in the New York Bight Apex.

- The nearest point of land in New Jersey is approximately 5.3 nautical miles from the site and on Long Island, 9.6 nautical miles.

- The site occupies an area of about 2.2 square nautical miles with coordinates of 40°21'48" to 40°23'48" N latitude and 73°50'00" to 73°51'28" W longitude.

- Water depths within this area range from 15.8 to 28.8 meters.

- Bottom topography is relatively flat, except that the accumulation of dredged material from previous dumping has caused shoaling within the northwest corner of the site which may become a potential hazard to navigation.

- Disposal operations at the site began in 1914. Other ocean sites closer to New York Harbor were used between 1888 and 1914.

Factor 2—Location in relation to breeding, spawning, nursery, feeding or passage areas of living resources in adult or juvenile phases.

- There are substantial living marine resources associated with the site and areas adjacent to the site. These resources are heavily utilized by commercial and recreational fishermen.

- The adjacent Hudson Shelf Valley is an important passage area for crustaceans and finfish entering the Apex from offshore.

- The site is located within an area in which shell-fishing is prohibited by the Food and Drug Administration due to bacterial contamination.

- The area is utilized by fish and shellfish for breeding, spawning, nursery, feeding, and passage in both juvenile and adult phases.

- Approximately 30 species of whales, seals, and dolphins are observed in the mid-Atlantic area in the course of their migration, although infrequently in the dump site area.

- Three endangered and two threatened species of sea turtles are found in the mid-Atlantic. Two of the five, Atlantic ridley and loggerhead turtles, are known to occur nearshore.

- Fin and right whales occur in both nearshore and offshore waters. The humpback whale prefers shallow (less than 200 meters) coastal waters.

- Several species of seabirds breed in the middle Atlantic states, with New Jersey and Long Island harboring the largest nesting areas. Of particular concern are the least tern, roseate tern, and the black skimmer, as the present populations of these species are greatly reduced over historic population sizes.

- The site lies within the Atlantic Flyway through which over three million migratory waterfowl travel annually.

- Although all of these biological activities occur in and near the site, no feature of the life history of valuable organisms is known to be unique to the area. While the disposal of dredged material at the site will restrict use of the site by these organisms, they are generally of such wide-ranging nature that the small geographic area which they may avoid because of dredged material disposal will have no significant impact on the life patterns of these organisms.

- Endangered and threatened species will not be adversely affected by dredged material disposal operations.

Factor 3—Location in relation to beaches and other amenity areas.

- The site is near coastal beaches, resorts, state and Federal parks, and other amenity areas in New Jersey and Long Island. The nearest point of land is approximately 5.3 nautical miles in New Jersey and 9.6 nautical miles on Long Island.

- Since virtually all dredged materials settle to the bottom near the release point, it is not anticipated that any released material would adversely affect the nearby shoreline.

Factor 4—Types and quantities of wastes proposed to be disposed of, and proposed methods of release.

- The expected volume of dredged material to be dumped at the site is 8–10 million cubic yards per year.

- The material is generated in the maintenance and development of navigation channels and berthing areas in the Port of New York and New Jersey.

- All dredged materials would be transported by dump scow or hopper dredge.

- None of the materials will be containerized or packaged in any manner.

- All dredged material permitted to be disposed of at the site must satisfy the criteria specified in EPA's ocean dumping regulations (40 CFR Part 227). In all cases, a need for ocean disposal must be established before issuance of a disposal permit.

- Sediments dredged from the Port of New York and New Jersey are predominantly sand, silt, and clays.

Factor 5—Feasibility of surveillance and monitoring.

- Surveillance of the site can be easily accomplished by patrol boat, aircraft, or shiprider, or by remote observation such as radar or satellite.

- The site can be monitored by ocean-going vessels.

- EPA, the Corps, NOAA, and others have conducted extensive monitoring/research activities in and near the site.

Factor 6—Dispersal, horizontal transport and vertical mixing characteristics of the area, including prevalent current direction and velocity.

- The mixing of waters at the Mud Dump Site is quite complex. Surface waters are derived from two different water masses: Shelf water and Hudson estuary water, each with distinctive physical, chemical, and biological characteristics. Estuarine water normally occupies the site.

- A thermal stratification exists in the Apex between depths of 5 and 23 meters during June through September. In winter, the Apex is characterized by well mixed conditions; however, a weak residual stratification may exist. Spring and fall are transitional periods.

- Circulation patterns at the site are variable and complex. The average surface currents at the site are south-southwesterly, roughly paralleling the New Jersey coastline. Net bottom currents in the Apex, including the dump site area, are to the west. Mean surface currents at the site are 5 centimeters per

second; mean bottom currents are 2 centimeters per second. The greatest net movement of water and sediment takes place during storm periods.

- The dispersal, horizontal transport, and vertical mixing characteristics of the site are such that dredged material of the type dredged from the New York Harbor is nearly all confined at the site. Studies show that about 85 percent of the dredged material dumped at the site since 1914 is still there.

- When dumped at the site, most dredged materials form clods which descend through the water column and reach the bottom in 20–35 seconds in the water depths at the site. There is little horizontal deflection or separation of various grain size of the dumped materials due to ocean currents at the site because of the shallow depths. A bottom surge is created when this material is deflected by the bottom. The material associated with this surge travels outward about 300 meters from the impact zone. Some fine-grained materials are dispersed upward and travel along the bottom layer of the thermal stratification layer for up to 1000 meters. However, most particles in the bottom surge settle rapidly in a thin layer around the impact zone.

Factor 7—Existence and effects of current and previous discharge and dumping in the area (including cumulative effects).

- Active sewage sludge, cellar dirt, and acid waste dump sites are located in the Bight Apex; and inactive derelict vessel dump site also is located in the Apex.

- Quantities of municipal sludges dumped in the Bight have increased from about 4.6 million wet tons in 1973 to over 7.6 million wet tons in 1982. Quantities of dredged material dumped averaged 8.2 million tons from 1973 to 1982. Acid wastes dumped decreased from about 2.7 million wet tons in 1973 to 0.8 million wet tons in 1982. Cellar dirt decreased from 900 thousand tons in 1973 to 89 thousand tons in 1980; no cellar dirt was dumped in 1981 and 1982.

- Ecological effects attributed, wholly or in part, to the ocean dumping of waste materials into the Bight Apex include: closure of shellfish beds; introduction of viral, bacterial, fungal and protozoan pathogens into the Apex; elevated levels of heavy metals and toxic organic compounds (e.g., PCB's) in bottom sediments; reduced bottom dissolved oxygen levels; reduced catches of bony fishes; alternations in the benthic biological community, particularly the proliferation of stress-tolerant polychaete worms; observed sublethal effects in organisms, including reduction of reproductive functions,

increased incidences of fin rot and black gill, mutation of fish larvae, and decreased survival of offspring; and introduction of carbon and nutrients, which contribute to planktonic blooms and anaerobiosis.

- Immediate, short-term impacts of dumping activities of dredged materials include burial of the benthic organisms and physical accumulation of dredged material on the bottom.

- Impacts of dredged material dumping are generally restricted to the bottom.

- Long-term impacts of dredge material disposal are difficult to quantify due to the other major sources of contaminants to the Apex.

- Historically, dumping activity has been concentrated in the northwestern quadrant of the site where shoaling has been found to occur.

- Since 1978, dumpers have been directed to use the northeastern quadrant of the site.

- The site itself is nearly devoid of benthic infauna, probably due to repeated dumping operations.

- Currently, 200 million gallons of raw, 133 million gallons of primary treated, and 1,833 million gallons of secondary treated wastes are discharged daily to the Hudson estuary from municipal treatment plants and ultimately enter the Bight Apex. Approximately 275 million gallons per day of industrial wastes (excluding cooling waters) also are discharged directly to the estuary.

- Monitoring by EPAS, NOAA, and others has indicated that the Bight Apex is significantly degraded.

- The relative mass loading of the different contaminant inputs to the Apex varies considerably. The largest contributions, by weight, are those associated with discharges in the Hudson estuary (including municipal and industrial discharges); the next largest are those associated with the ocean dumping of municipal sludges, dredged materials, and industrial wastes. The relative environmental impact of these contaminant inputs varies considerably, independent of mass load contribution. For example, while sewage sludge is only two to ten percent of the total contaminant input to the Bight Apex, its widespread dispersion enhances its bioavailability. In contrast, as discussed in EPA's EIS on the Mud Dump Site, when dredged material is ocean dumped, much of the mass load of contaminants is sequestered in a mound where it is dumped and thus is not readily available to the biota.

Factor 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.

- The site is located in the heavily trafficked entrance to New York Harbor. It is within the precautionary zone established by the U.S. Coast Guard for commercial and recreational ship traffic. However, there are no reported incidents of interference with navigational traffic related to the actual dumping activities, which generally take place in less than half an hour.

- Valuable living marine resources associated with the site and adjacent areas are substantial and heavily utilized by commercial and recreational fishing industries and the public. The ability by the Bight Apex to sustain living resources harvested by man has been generally impaired by the total waste inputs it receives. Many fish avoid unfavorable conditions, such as turbidity plumes. However, continued use of this particular site is not expected to affect commercial or recreational fishing adversely outside the site boundaries since the bulk of the dredged material remains at the site. Most fishing activity occurs outside the boundaries of the Mud Dump Site, and studies of the fishery resources of the Bight have not shown that dredged material disposal at the Mud Dump Site has had an adverse effect on these resources.

- The site is within the shellfish closure zone and away from concentrations of commercially important shellfishing areas.

- Sizeable numbers of crabs and lobsters are found at and near the site. Shellfishing has been closed due to bacteriological contamination. However, terminating use of this site would not result in the area being reopened to shellfishing, since most of the bacterial contamination in the vicinity of the site is brought in through the Hudson-Raritan River discharge plume.

- Neither desalination nor fish and shellfish culture occurs near the Mud Dump Site.

- Mineral extraction (i.e., sand) is technically feasible in coastal waters, but is presently restricted to the lower Hudson estuary bay.

- Sand mining in the vicinity of the Mud Dump Site is impractical due to past dumping activities which have changed the characteristics of the bottom.

- The Mud Dump Site does not represent a uniquely important area for scientific study although the southeast quadrant lends itself to research on the release of trace contaminants. This

quadrant of the site has been used since 1980 to conduct capping experiments by the Corps. Capping involves the covering of dredged material contaminated with one or more pollutants with other sediments that are judged to be relatively harmless to the totality of the marine environment.

Factor 9—The existing water quality and ecology of the site as determined by available data or by trend assessment or baseline surveys.

- Ecological effects attributed at least in part to the ocean dumping of dredged materials include closure of shellfish beds due to elevated bacteria levels partly attributable to dredged material; elevated levels of heavy metals and toxic organic compounds (e.g., PCB's) in bottom sediments; alterations in the benthic community; and introduction of carbon and nutrients which contribute to planktonic blooms and anaerobiosis.

- The Mud Dump Site itself has been extensively modified by previous disposal activities.

- Density of benthic organisms is low, probably resulting from the effects of repeated burial.

- Apex waters are stressed by various sources of contaminants, including raw and treated sewage effluents, contaminants transported by the Hudson-Raritan estuary discharge, and dumping activities.

- Elevated levels of heavy metals, including cadmium, mercury, lead, copper, and chromium, have been found in and adjacent to the site and in the Christiaensen Basin and the Hudson Shelf Valley. Coprostanol, a fecal steroid, and *Clostridium perfringens*, a spore-forming bacteria species, which are associated with human wastes are found in the same areas.

- Depressed bottom dissolved oxygen levels are found in the Bight Apex, particularly in the late summer. This represents an additional stress on the benthic fauna.

Factor 10—Potentiality for the development or recruitment of nuisance species in the disposal site.

- Dredged material contains a number of contaminants including bacteria which potentially may contribute to the recruitment or development of nuisance species.

- Dredged material also contains nutrients such as nitrogen and phosphorus, and organic material which could contribute to development of nuisance species; however, other sources represent greater inputs of these materials.

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

- The site is located in close proximity to Gateway National Recreational Area and a number of important Federal, state, and local parks, including Fire Island National Seashore and Jones Beach State Park on Long Island, and Island Beach State Park in New Jersey.

- Due to its proximity to the metropolitan area, the site is in close proximity to various features of historical importance, including the Marconi Twin Lights, various forts, and Liberty Island.

- However, dredged material dumped at the Mud Dump Site has not been found to affect state or national parks, beaches, or features of historical importance.

Conclusion—Based on EPA's analysis of the EPA and Corps EIS's and comments thereon, public hearing records, and public comments on the proposed site designation, EPA has come to the following conclusions:

The major advantage of using the Mud Dump Site is that dredged material from the New York-New Jersey area historically dumped at the site is in large part contained at the site or in its immediate vicinity. When dredged materials are dumped at this site, approximately 85 percent of the sediment is transferred to the bottom as a cohesive unit as evidenced by the mound that has developed from previous dumping activities in the northwest quadrant of the site. Dumping the material in this site will cause repeated burial and covering of the disposed dredged material to occur. This process of repeated covering will sequester most contaminants from becoming bioavailable to most marine organisms, thus limiting the further contamination of the New York Bight outside the disposal site. In addition, the Agency is reluctant to subject a site which has not been used for the disposal of dredged material to such disposal. The Mud Dump Site is both feasible and available for large volumes of material and involves lower transport costs than other potential disposal sites because of its close proximity to shore.

However, the Agency recognizes that use of the Mud Dump Site cannot continue indefinitely. Because of this, EPA plans, in cooperation with the Corps and others, to continue investigations into other suitable alternative sites for possible future dredged material disposal.

While the Agency has determined that the Mud Dump Site should be designated, we recognize that continued use of this site has the following negative aspects:

- Physical burial of benthic organisms, habitat destruction, and sediment type alteration;
- Short-term water quality perturbation following dumping;
- Possible long-term chemical contamination of the disposal site;
- The site is adjacent to recreational and commercial fishing and shellfishing grounds;
- Accumulation of dredged material from previous dumping activities precludes further use of the northwestern quadrant of the site for further dumping except for research and final capping;
- There is limited ability to assess the impact of dredged material dumping due to the impacts of other contaminant inputs; and
- The site is located within the Coast Guard precautionary zone.

However, moving to an alternate site on the Continental Shelf would not mitigate these aspects to any appreciable extent. Nor would designation of a deepwater dump site be preferable because of (1) uncertainty as to the environmental effects of dumping dredged materials at the site, (2) difficulty of monitoring the impacts of such disposal, (3) present limitations of the dredging fleet, and (4) economic costs of using such a site.

As noted by EPA in its submittal during the 1976 joint hearings before the House Committee on Merchant Marine and Fisheries:

With regard to impact categories, since the dredged material dump site is located within 12 nautical miles of the nearest shoreline * then under the proposed new regulations (228.10(c)(1)(i)) this site would be classified under Impact Category I. (Joint Hearings on Ocean Dumping, July 24, 1976, September 30, 1976, p. 132.)

The regulations specify that limitations on usage of a site must be made upon its classification as an Impact Category I site.

The Agency's decision to designate the Mud Dump Site is conditioned upon the following restrictions, limitations, and other factors:

Dumping activities in the northwest corner of the site will be restricted to specific projects, such as research or final capping. This limitation reflects the mounding presently existing in this area of the site and the potential for hazards to navigation if unrestricted use were continued.

Dumping activities in the southeast quadrant of the site cannot be authorized except as needed to support the present capping research project, or until such research is fully completed.

Future dumping activities at the site are restricted to an additional 100

million cubic yards. The Agency in conjunction with the Corps of Engineers will continue to monitor disposal at this site in order to determine its continuing ability to meet the site designation criteria found at 40 CFR 228.5 and 228.6. This will be accomplished by periodically monitoring the effects of dumping, measuring the rates of disposal, and estimating the extent of continued dumping at the site. Because the best approximation of the remaining capacity of the site indicates that at least an additional 100 million cubic yards of material can be safely disposed of there, the Corps' monitoring will become more frequent as that projected level is approached. A site management plan, which includes monitoring requirements and protocols, was developed by the Corps, EPA, NOAA, the U.S. Fish and Wildlife Service, and the States of New York and New Jersey. The plan, which was reviewed by a public advisory group, is available for public inspection at the addresses noted above. Information developed under this site management plan will be available to the public. Should monitoring show significant adverse effects, appropriate measures to mitigate such impact or to modify or withdraw the site designation will be taken by the Agency.

Management control is delegated to EPA Region II.

VII. Response to Comments

EPA received a substantial number of comments, both on the proposed designation of and at the public hearings on the Mud Dump Site as an approved site for the continued disposal of dredged materials. While it is impossible to answer each comment individually, major areas of concern were identified and one or more representative comments synthesized on each area of concern. These synthesized comments are summarized below, along with EPA's responses. Additional technical information can be found in the site designation EIS referenced above.

Comment—Short-term site use limitation is undesirable because the Mud Dump Site has an estimated capacity of 30 years (before interfering with navigation).

Response—EPA disagrees that the Mud Dump Site has an estimated life expectancy of 30 years. At current rates of disposal, the capacity of the site is approximately 100 million cubic yards (based on Corps estimates) and thereafter become a potential hazard to navigation and show significant impacts outside the site. Therefore, EPA is placing a volumetric limit on the future use of the site. During this time EPA and

the Corps plan to evaluate alternative ocean disposal sites for possible future use.

In addition to restricting the amount of dredged material which may be dumped, dumping within the northwest and southeast quadrants of the site will be limited to specific projects, such as research or capping experiments.

Comment—The Corps wishes a role in dump site management. It should not solely be delegated to EPA Region II.

Response—EPA agrees that the Corps has considerable expertise regarding dredged material dump site management. EPA plans to request significant involvement by the Corps through development of a Memorandum of Agreement between Region II and the Corps' New York District. However, ultimate responsibility for site management must remain with EPA.

Comment—EPA should look into alternative disposal sites such as non-ocean disposal (including upland), dumping farther (20-70 miles) offshore, or dumping at the 106-Mile Site (off the Shelf).

Response—The Corps' New York District, with the cooperation of EPA, is actively investigating non-ocean alternatives to the disposal of dredged material through its "Incremental Implementation Plan for the Disposal of Dredged Material within New York District." The Plan includes the evaluation of such alternatives as sanitary landfill cover, upland disposal, wetlands creation, beach nourishment, disposal in sub-aqueous borrow pits, and containment islands.

Alternate ocean sites were evaluated in the EIS and not recommended for present use. Areas outside of the New York Bight Apex and areas off the Continental Shelf were considered as possible alternative sites. However, these areas were rejected because of possible conflicts with fish and shellfish resources on and off the Shelf, mineral resource exploitation such as oil and gas development, the unknown environmental effects of dumping dredged materials at deep-ocean sites, the difficulty of monitoring, and economic and logistical feasibility.

Three sites on the Shelf were evaluated in detail: the Mud Dump Site, the Christiaensen Basin Site, and the Outer Apex Site. The latter site was proposed by the New Jersey Department of Environmental Protection but was determined to be the least preferable of these three sites because it is outside the present shellfish closure zone, so an additional area might be affected if dumping were to occur there. The exact environmental consequences of dumping

there would require further research and consideration. The Christiaensen Basin Site is presently impacted by sewage sludge dumping at a nearby site. Use of this site for dredged material dumping would impact the area from two different types of wastes with unpredictable results. Therefore, the Christiaensen Basin Site was rejected in preference to the existing site.

However, recognizing the limitations associated with the long-term use of the Mud Dump Site, EPA plans to continue its evaluation of suitable dump sites farther offshore. A designated site should be available for future use, if non-ocean disposal alternatives are not found. However, EPA plans to focus its investigation of alternative dredged material disposal sites for the New York area on areas on the Continental Shelf. The primary reason for this is that present research and monitoring clearly show that, in most cases, establishment of ocean disposal sites on the Shelf for dredged materials is environmentally preferable to deeper water alternatives. Dredging operations essentially involve the transfer of naturally occurring sediments from areas where their deposition presents a hazard or obstacle to navigation, to another area. These sediments are similar to those naturally occurring in the nearshore area and usually represent only a small percentage of the total sediment addition into the nearshore zone from adjacent inland waters. Dredged materials are quite dense in relation to seawater and generally reach the bottom rapidly after disposal in contrast to highly organic and less dense material such as sewage sludge. Therefore, benthic impacts of dredged material disposal are of primary concern.

The nearshore benthic biota are highly adapted to periodic and often quite severe natural stresses from storm event, wind and wave action, longshore sediment transport, and flood runoff from rivers and estuaries. The nearshore biota are, in many cases, much more resilient through natural adaptations to periodic perturbations from dredged material disposal than are deep water biota, which are not adapted to periodic physical stress from outside influences.

Dredged material dumped at a deepwater location would affect a larger area in most case than material dumped at the Mud Dump Site. In addition, deepwater disposal of dredged material could disrupt the benthic ecosystem in such a way that it would take a very long time for the system to return to normal. Furthermore, effective monitoring of the impacts of such

disposal would be difficult, even if technically feasible. EPA is concentrating its efforts on locating and designating ocean dredged material disposal sites on the Continental Shelf in areas that do not contain unique resources due to the above cited reasons. Finally, from an operational standpoint, it is important that distance to the disposal site be minimized to insure timely and economical removal of dredged material, in order to minimize disruptions to essential navigation.

Comment—The "Interim Guidance Matrices" (i.e., for PCB, Hg, Cd, and DDT) used by EPA and the Corps to evaluate bioaccumulation potential should be updated and put out for peer and public review.

Response—EPA, in cooperation with the Corps of Engineers and other Federal agencies, is committed to review and update the "Interim Guidance Matrices" with the goal of developing values that will result in an improvement of the environmental quality of the New York Bight Apex, as opposed to the "anti-degradation" values now in use. Once developed, the proposed evaluation criteria will undergo both peer and public review. In addition, the Corps and EPA are engaged in ongoing research to develop improved testing procedures and site management techniques, as well as developing a monitoring strategy for implementation at individual disposal sites. These procedures and evaluation criteria will be published as part of the supplementary guidance for implementation of the revised ocean dumping regulations currently under development by EPA.

Comment—The dumping of "PCB-Laden" dredged materials is contaminating the area's fisheries.

Response—Before any dredged materials are authorized by the Corps to be ocean dumped, the applicant must demonstrate that the material complies with EPA's ocean dumping regulations found at 40 CFR Part 227. These criteria include an evaluation of the potential for bioaccumulation of toxic substances (including PCB's) in fish and shellfish. In addition, since EPA's regulations implementing the London Dumping Convention prohibit the dumping of PCB's unless present as a trace contaminant or if rapidly rendered harmless by physical, chemical, or biological processes in the sea (40 CFR 227.6), the applicant must demonstrate that this prohibition does not apply prior to permit issuance.

Comment—Amendments to the MPRSA require the cessation of all ocean dumping by the end of 1981.

Response—the MPRSA calls for the cessation of the ocean dumping of materials which may cause unreasonable degradation to the marine environment. It does not prohibit all dumping. Unreasonable degradation is defined in the statute in terms of nine factors. These include need for dumping, availability and environmental impact of alternative disposal methods and sites, and environmental impact of the proposed dumping. The evaluation criteria used in the determination of unreasonable degradation at a dumpsite are found in EPA's ocean dumping regulations (40 CFR Part 228).

Comment—The Port of New York and New Jersey needs to have a permanently designated dredged material dump site for planning purposes, so that Port interest groups can assure their customers that there will be uninterrupted safe navigation and safe berthing in the future.

Response—The Port's need is recognized. The EPA-approved designation of the Mud Dump Site reflects this need. However, there is also a need to plan for the future by considering both non-ocean alternatives and alternate ocean sites. EPA will continue to work closely with Corps and Port interests to meet these future needs.

Question—What is the fate of dredged materials dumped at the Mud Dump Site? How does this prediction compare to that at alternative sites?

Response—The fate of dredged materials dumped at the Mud Dump Site is discussed in Section VI of this Preamble. Dredged material normally reaches the bottom as cohesive clods and is not initially dispersed over a wide area. The difference in sizes of dredged material particles will cause the dredged material to fractionate on settling. However, all observations and predictions agree that most of the material will remain within 200 to 300 meters from the point of impact.

The fate at other sites would vary primarily on depth and currents. In general, sites located farther offshore in the New York Bight exhibit increased dispersive characteristics (i.e., the area influenced by dumping activities would increase in size). A predictive model can be used to estimate the actual area of influence.

Question—How long will the Mud Dump Site be available, assuming the current accumulation rate of heavy metals and chemical pollutants within dredged materials?

Response—As indicated in Section VI above, the historical dumping of materials at the Mud Dump Site has

resulted, at least in part, in certain ecological effects in and adjacent to the site. Continuation of monitoring of dumping impacts by the Corps, EPA and others is embodied in this decision, as well. Should this monitoring show significant adverse effects, appropriate measures to limit dumping and modify or withdraw site designation are available to the agency.

Question—What effect could bacterial pathogens have on shellfishing or nearby beaches? Have viral pathogens been considered in determining potential effects?

Response—Bacterial contamination due to dumping activities has resulted, at least in part, in the closure of certain areas of the Bight Apex to shellfishing. Cessation of dumping at the site is not expected to result in a reopening of the area of shellfishing because of other bacterial inputs to the area by other sources (e.g., Hudson Estuary plume). EPA and others have monitored bacteria and viral levels in water and sediments in the Apex. These studies do not indicate public health impacts on nearby beaches due to dredged material disposal activities. These monitoring activities are scheduled to continue.

VIII. 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 action 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 action does not necessitate preparation of a Regulatory Impact Analysis.

This action does not contain any information collection requirements subject to OMB 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.
 Authority: 33 U.S.C. 1412 and 1418.

Dated: April 26, 1984.
 Jack E. Ravan,
 Assistant Administrator for Water.

PART 228—[AMENDED]

In consideration of the foregoing, Subchapter H of Chapter I of Title 40 is amended by removing paragraph (B), the New York Mud Dump site, from paragraph (a)(1)(i) of § 228.12 and adding to § 228.12(b) an ocean dumping site for Region II as follows:

§ 228.12 Delegation of management authority for ocean dumping sites.

* * * * *

(15) New York Bight Dredged Material Disposal Site—Region II.

Location: 40°23'48" N., 73°51'28" W., 40°21'48" N., 73°50'00" W., 40°21'48" N., 73°51'28" W., 40°23'48" N., 73°50'00" W.

Size: 2.2 square nautical miles.
 Depth: Ranges from 18 to 29 meters.
 Use Restricted to Disposal of: Dredged materials.

Period of Use: Continuing use, subject to volumetric restriction as noted below.

Restriction: Disposal shall be limited to 100 million cubic yards of dredged materials generated in the Port of New York and New Jersey and nearby harbors. Dumping within the area described by the following coordinates shall be limited to projects determined by the Corps and EPA to demonstrate a specific need, such as research or final capping. 40°23'48" N., 73°51'28" W., 40°23'23" N., 73°51'28" W., 40°23'23" N., 73°51'06" W., 40°23'48" N., 73°51'06" W. Dumping in the southeast quadrant of the site shall not be authorized except as part of a research project on capping.

[FR Doc. 84-12063 Filed 5-3-84; 8:45 am]
 BILLING CODE 6560-50-M

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 73

[BC Docket No.79-219; RM-3099; RM-3273; FCC 84-67]

Deregulation of Radio

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: The Commission resolved an issue raised in a *Further Notice of Proposed Rule Making* in BC Docket No. 79-219. It ruled that commercial radio licensees must prepare and make available to the public on a quarterly basis an issues/programs list exemplifying their issue-responsive programming. The Commission also removes the existing limitation on the number of issues that a licensee might document in any given issues/programs

list. This approach will provide adequate documentation of licensees' issue-based programming and enable the public and the Commission to better evaluate a radio broadcaster's public service record than the former rule which required only an annual issues/programs list and included a 10 issue limitation. A quarterly requirement, with no issue limit, will greatly increase the quantity of program-related information available to the Commission and the public and should satisfy the court's concerns, expressed in its remand of this proceeding, over the adequacy of such data. In reviewing the issues/programs list requirement, the Commission also determines that requiring a radio licensee to describe in that list how it determined each issue to be one facing its community was unwarranted in view of our prior actions eliminating all ascertainment obligations. Accordingly, this aspect of the issues/programs list requirement is deleted.

EFFECTIVE DATE: June 4, 1984.

ADDRESS: Federal Communications Commission, Washington, D.C. 20554.

FOR FURTHER INFORMATION CONTACT: Freda Lippert Thyden, Mass Media Bureau, (202) 632-7792.

List of Subjects in 47 CFR Part 73

Radio broadcasting.

Second Report and Order; Proceeding Terminated

In the matter of Deregulation of Radio; BC Docket No. 79-219, RM-3099, RM-3273.

Adopted: March 1, 1984.

Released: April 27, 1984.

By the Commission: Commissioner Rivera issuing a separate statement at a later date.

Introduction

1. Now before the Commission for consideration are comments filed in response to the *Further Notice of Proposed Rule Making* ("Further Notice") in the above-captioned proceeding.¹ The *Further Notice* was issued in response to the partial remand by the United States Court of Appeals for the District of Columbia Circuit of our initial decision in the radio deregulation proceeding and was strictly limited in its scope to the issues raised by the court.² Specifically, the *Further*

¹ *Further Notice of Proposed Rule Making* in BC Docket No. 79-219, 48 FR 33499, published July 22, 1983.

² *Office of Communication of the United Church of Christ v. FCC*, 707 F.2d 1413 (D.C. Cir. 1983).