REGULATED'S PERSPECTIVE — THE PORT AUTHORITY OF NEW YORK & NEW JERSEY

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Abstract

This paper outlines the experience of The Port Authority of New York and New Jersey as a result of its application for a federal dredging and ocean disposal of dredged materials permit between 1990 and 1993. This case clearly illustrates that the federal environmental regulatory process—as it relates to dredging permit reviews—is characterized by a lack of policy direction which can lead to delays, confusion, contradictory pronouncements from two or more federal agencies, and ultimately a loss of business for ports. The Port Authority's case also raises several important issues about the nature of dredged materials disposal and environmental regulation, including the need to assess the risk of disposing material with low-level contaminants in the ocean vs. the loss of harbor infrastructure which is critical to both deep-sea maritime commerce and military ocean traffic. Above all, the case testifies to the need for a national policy on dredging and dredged materials disposal.

Introduction

The Port Authority of New York and New Jersey is a bi-state authority of the states of New York and New Jersey. It is a financially self-supporting agency which has responsibility for operating and maintaining a wide range of transportation and trade infrastructure in the New York/New Jersey metropolitan region. This includes several major port facilities throughout New York Harbor, the largest of which is the Port Newark and Elizabeth-Port Authority Marine Terminal complex located on the shores of Newark Bay in New Jersey.

As a public agency, our responsibility is not only to develop, maintain, and promote the maritime commerce of the entire harbor in the interest of the New York/New Jersey region, but also to do so in a way that is environmentally responsible. A port, by its very definition, operates in the environmentally sensitive region where land and sea meet. Accordingly, we advocate an environmental policy that seeks to integrate the protection of valuable resources, recognizing that in some cases they are used to enhance the economic vitality of the region (commercial fishing, tourism, recreation, and deep-water maritime commerce) and the protection of the economic activity which sustains and enhances human society.

In 1990, The Port Authority applied for permission to maintenance dredge our berths at Port Newark/ Elizabeth to 40 feet for a three-year permit period. Although the material contained trace materials of a contaminant, dioxin, it did not contain levels that were toxic or hazardous under federal Environmental Protection Agency (EPA) criteria. Ocean disposal of this material—the only federally approved disposal option open to the Port Authority—was requested and appeared to be clearly allowable given the federal and international guidelines in force at the time. The Port Authority met the conditions and performed all the tests as required by the regulatory process.

However, upon reading the attachment to this case (detailing the chronology of the permit) one can see that the process was unrealistically drawn out by the regulatory gatekeepers, who were operating without the requisite policy guidance to allow them to make decisions on a permit that involved the disposal of sediments that contained dioxin (for which at the time of its detection there were no ocean disposal criteria)—however small the concentration.

Our experience with this permit application clearly indicates that, despite good intentions, the federal regulatory process does not work well, from either the applicants' or opponents' viewpoint. The review of this permit application was characterized by a lack of timely decision making, a tendency for regulators to deal with issues one at a time rather than as a whole, insufficient coordination between overlapping jurisdictions, changing or additional requirements imposed regardless of the process status of the application, poor communication, and a fear of negative press.

These problems stem from several structural factors that are built into the process:

- Federal and state agencies have differing statutory responsibilities.
- Each of the governmental agencies involved in the process has a different perspective on the government's responsibility. For example, National

Marine Fisheries, Fish and Wildlife, the Environmental Protection Agency and the states approach the permit from the perspective of protecting natural resources. The Army Corps of Engineers' perspective involves both regulation and protection of commercial public works.

- There is little or no advocacy, however, for business interests in the environmental regulatory process—as a result, economic considerations of regulatory impacts are given less weight than they deserve.
- There are not requirements to achieve resolution—no process in place which seeks to join all parties to accomplish a solution in a viable, "win-win" fashion, either through consensus building or conflict resolution.
- The technical ability to detect problems has increased (essentially thwarting the applicants' ability to proceed) without a corresponding imperative or availability of appropriate, scientifically approved technical solutions to these problems.

In fact, conduct of the process demonstrates a basic lack of several essential characteristics that would make it work more efficiently, including:

- Consistency and coordination among the various agencies;
- Executive (administrative or legal) underpinnings properly in place;
- Forthrightness in data sharing or responsiveness and timeliness; and
- Sensitivity to the financial implications of both their delays in decision making and the additional requirements that they impose on the applicant.

In our case, the cost of the permit application was escalated not only by the unreasonable length of the process itself, but also by the multiple testing requirements imposed during the process. The cost of the actual dredging project was further escalated, from $1 million to perhaps as high as $17 million, by the additional operational requirements imposed on the project in conjunction with the issuance of the permit. (The additional requirements included capping the dredged material -- characterized as Category 1 -- with clean sand to eliminate any possible negative effect on marine life.)

Our case also demonstrated a tendency by regulators to seek to use the process as a test lab by asking us to try out unproven solutions, even though neither the regulators nor the applicant fully understood the consequences. (Examples : no barge overflow; methods of capping)

The prolonged decision making that characterized the federal review of this permit application played into the hands of some environmental advocacy groups who wished to stop all ocean disposal of dredged material. For many of these groups delays in permit approval equated with victory in a zero sum game.

Ultimately, this seeming indecision led to litigation which resulted in court-management of the process—which is costly and time consuming.

The most significant impact of this process was the loss of port business. A port is a significant economic generator for any city or region. In ours, the inability to ensure ocean access to the Port of New York and New Jersey led to some ship diversion before the dredging project was completed. This was borne out in a loss in labor hours at the port reported by the International Longshoremen's Association—a loss of 100,000 labor hours between the last three months of 1992 and the first three months of 1993.

Background

The Port of New York and New Jersey is located in the Hudson/Raritan Estuary. Without dredging, the controlling depth of the harbor would be approximately 19 feet—clearly insufficient for the modern deep-draft vessels that call at the port which require up to 40 feet of water. Regular maintenance dredging of federal channels and the marine terminal berths is performed in order to protect the maritime commerce which plays such a significant role in the regional economy and the international trade which helps sustain the living standards of the people of New York and New Jersey.

The Port Newark/Elizabeth complex is situated on 2,100 acres along the western shore of Newark Bay. From the north, the Hackensack and Passaic rivers feed into the bay. The bay empties into the Kill van Kull and the Arthur Kill at the south. Tidal changes within the harbor range approximately 5.5 feet. Sediments move both up and down the estuary system and deposit in shoaling areas.

As a result, maintenance dredging of the berths at Port Newark/Elizabeth is a operational necessity. Prior to 1990, the Port Authority dredged berths at a volume of approximately 200,000 cubic yards per year. Selected berths were dredged, at least once and sometimes twice per year, on an as needed basis. The material was disposed at the Mud Dump, a federally monitored and regulated ocean disposal site approximately six miles east of Sandy Hook, N.J.

In the late 1980s, it was suspected that dioxin was present in the harbor although the concentrations in the berths were unknown. Until 1990, the Port Authority had performed maintenance dredging at Port Newark/ Elizabeth under permits that had not required testing for dioxin. The Port Authority's permit for ocean disposal of dredged materials for the Port Newark/Elizabeth berths expired in May 1990. Based on the published guidelines for the review of a permit application and the experience of past applications, the Port Authority initiated discussions with the Army Corps of Engineers in early 1990 for the filing of a new permit. The expectation was that a new permit would be issued in a timely manner (within six months to a year) and there would be little or no disruption of shipping activity.

Sampling that was performed as part of the permitting process in 1990 revealed that the sediments at the Port Newark/ Elizabeth berths contained trace levels of dioxin. This was the first time that the Army Corps had required dioxin tests for the sediments at Port Newark/Elizabeth.

It is important to point out that this contamination was the result of non-point source pollution elsewhere in the estuary. There may have been several sources of dioxin in the harbor, but the primary dioxin source for Port Newark/Elizabeth was most likely the now defunct Diamond Alkalai plant on the Passaic River in the Ironbound section of Newark, which produced Agent Orange for several years during the 1970s.

This discovery of trace levels of dioxin in the sediments changed everything. Because there was no policy guiding decision making on sediments containing dioxin or assessment of acceptable risks of ocean disposal of this material, the Port Authority's permit application became something of a test case in the federal regulatory process. Regulators, both unsure of the ground on which they stood and pressed by environmental advocacy groups, often chose delay over decision. Instead of due process, the Port Authority faced a process in which the policies and rules changed from one minute to the next.

Port Newark/Elizabeth Permit Review

The Army Corps of Engineers New York District Harbor Corps regulates dredging and ocean disposal of dredged materials for the Port of New York and New Jersey under Section 10 of the Rivers and Harbors Act of 1899, Section 404 of the Clean Water Act and Section 103 of the Marine Protection, Research and Sanctuaries Act of 1972. In evaluating a permit application, the Corps must apply criteria developed by the EPA. Additionally, the applicant must submit to the Corps a State Water Quality Certification and a Coastal Zone Consistency determination prior to the issuance of a federal permit.

Under the Corps of Engineers' formal procedures for review of a permit like the Port Authority's, the review process should have taken a approximately six months—about three months for sampling of the sediments and marine organisms, three weeks for Corps/EPA review and publication of a public notice on the permit, one month for public comment, and one month for findings and a decision. The Port Authority formally applied for a permit on April 11, 1990. The permit was issued on Jan. 6, 1993—almost three years later—and was suspended by the Corps eight days later. After further review and testing, the Corps reissued the permit on May 26, 1993, more than 37 months after the original application was filed. (See Attachment A — Chronology of Permit Process)

In April 1990, the Port Authority received a sampling plan and test protocols from the Corps which included the requirement for dioxin testing. The Port Authority proceeded with the testing and, as expected, low levels of dioxin were found. The Port Authority proceeded to undertake a 28-day bioaccumulation test as required by the EPA/Corps. Throughout the three-year process, we were asked to perform a total of four such tests, when in the past only one was sufficient. It became clear that despite the ability to detect such small amounts of dioxin in the sediment, there was and is no federal standard upon which to assess the impact of dioxin in the food chain and eventually on humans at these levels.

The Port Authority independently undertook such a study. Retaining a world renowned expert, Dr. Richard Peddicord of EA Engineering, Science & Technology, the Port Authority commissioned a risk assessment—the only one that has been ever performed—of the ocean placement of dredged material containing trace-level dioxin. The findings concluded that the material we were seeking to dispose in the ocean could safely be done so. The study showed that the material would have almost no perceptible impact either on the food chain or, eventually, on humans. These results were obtained for material disposed in the ocean "uncapped." The study further showed that capping—covering the disposed material with a layer of clean sand—further reduced the risk. When the Port Authority ultimately was granted a permit, it was required to cap the dredged material with three feet of clean material—the cost of which exceeded the dredging itself.

Of course, if there were a viable alternative to ocean disposal of this material, the Port Authority would have

sought to use it. However, there are no approved alternatives, even after a federal Long Term Management Strategy program sought to explore alternative solutions. The project took more than 10 years and cost more than $20 million. This LTMS report was issued in 1989 and so far the only federal follow-up has been the issuance of a draft Environmental Impact Statement on one option, the use of borrow pits—holes in the ocean floor, created by sand mining, in which certain contaminated dredged materials could be placed and capped with clean material.

So, the Port Authority faced a situation in which it must dispose of dredged materials in the ocean or not dredge at all.

This dilemma points out another problem with the regulatory process. Dating back to 1986, federal legislation has directed the EPA report to Congress with an evaluation of the dioxin contamination in the Passaic River and the designation of alternatives to the Mud Dump. To the best of our knowledge, this has not been done.

In the meantime, the Port Authority actively worked to deal with some of the root causes of the dredging crisis in the harbor. It funded the Institute of Marine and Coastal Science at Rutgers University to assess remediation technology. The Port Authority also funded a program, sponsored by the Marine Sciences Consortium, to discuss strategies to deal with non point source pollution. The authority participated in a federal long-term management strategy program that discusses a range of dredged material disposal options.

The Port Authority's permit application went to public hearing in February 1992. As a matter of policy, any application for disposal of dredged material that does not meet federal criteria, would never reach the public notice phase of the process. The Port Authority's application did.

After the public hearing, given the volume of comments, the public comment period was extended, resulting a further delay. This was compounded by the time the Authority needed to reply to each of the comments.

Nevertheless, during the first week of January 1993, the Corps issued the permit. Within days, the EPA, after having written letters of concurrence with criteria and permit conditions, reversed its position and withdrew its concurrence with the permit. The EPA cited concerns about the nature and volume of the material that had silted into the berths during the protracted permit approval process. This compelled the Corps to suspend the permit.

Additionally, after the permit was suspended, the National Marine Fisheries Service decided to re-examine Endangered Species Act issues some of which had been raised at the public hearing nearly a year earlier.

At this point, the Port Authority's need to dredge some of the Port Newark/Elizabeth berths had reached a critical stage. It was becoming clear that the Port was losing business as a result of the lack of adequate depth at some berths. Shipping lines were diverting cargo to other ports and ships were changing their sailing schedules to avoid calling at the port fully laden.

Against the backdrop of this growing urgency, at the 11th hour, several different regulatory agencies had either reversed their position or raised totally new concerns. These agencies—the Corps, EPA, NMFS, and the Fish and Wildlife Service rely on a set of complex memoranda of agreement to address their concerns. In this process, they tend to address issues one at a time. This linear form of decision making further drew out the process at this critical juncture in the late winter and spring of 1993.

The permit was ultimately reissued, but with stringent conditions which significantly raised the operational costs of the project -- including a requirement to dredge all the berths, not just those that needed dredging, and the capping requirement. Dredging commenced in June 1993, was completed in July, and the majority of the capping was finished in September with fill in capping completed in December after two separate reviews.

Issues

Our experience offers many lessons for all of us concerned with the environment and with the viability of maritime commerce and raises several issues which we must address as a society:

1. *How Clean Is Clean?* As we develop the capability to test lower and lower concentrations of a substance, we have to have an ability to evaluate the meaning of the results. The existence of dioxin in the Port Newark/Elizabeth sediments at trace levels signifies little to any of us unless we can evaluate its impact on the environment. We have to determine what level of a particular substance constitutes an environmental threat and assess the relative impacts of the threat at various concentrations. The Port Authority Assessment of the ocean disposal of sediments indicated that the disposal of trace level sediments posed no significant environmental threat.

2. *Need to Define Acceptable Risk.* If we do not establish reasonable risk levels for environmental

protection, economic development can no longer occur. Quite simply, if the federal government adopts a zero risk posture in relation to the ocean disposal of dredged material, then port activity will be severely diminished and, overall, the United States will be at a competitive disadvantage in the world of international trade. The alternative is for policy makers to set reasonable and supportable risk levels for dioxin and other substances that can be found in harbor sediments and to manage ocean disposal under clear policy guidelines.

3. *Weaving Environmental and Economic Needs Into a Responsible Solution*. Too often, environmental issues have been addressed in an "all or nothing" framework. This has been evident over the years on both sides of the environment vs. commerce debate. Clearly, a new understanding must be developed. If we insist on the supremacy of commerce over the environment on all issues, we know that we can do irreparable harm to the earth and its resources. Similarly, if we insist on environmental supremacy on these issues, we can destroy industries, kill jobs, and lower living standards. Our public policies on these matters should seek balance/integration.

4. *Non-Point Source Pollution and Remediation*. Ports and harbors throughout the nation and throughout the world are likely to experience more low-level contamination of their sediments. We need to find ways to stop the upstream pollution that is precipitating the dredging crisis and develop resources for the clean-up of harbor sediments.

5. *The Need to Develop a National Dredging Policy*. A clear federal policy is needed now to enable dredging and material management to be conducted without sacrificing the safeguards that are designed into our environmental laws. This means that the regulatory agencies should be given time frames in which to act and standards against which to evaluate an application. We need clarification, through legislation, of the roles and responsibilities of the agencies in the process (including litigation).

6. *The Need to Weigh Business Concerns in the Approval Process*. We need assurance that the viewpoints of all the parties to the process -- including the business and infrastructure interests -- are heard and that their needs are factored into the decision making.

7. *Recognition of the Government's Dual Role*. This policy should also reflect the reality that the federal government has a dual responsibility: to enforce environmental laws by regulating dredging and dredged materials disposal; and to protect the commerce of the United States and our nation's competitiveness in the international economy.

The regulatory process should be characterized by due process. Applicants and the public need to know the rules of the game so that judgements are rendered in a timely manner and are based on scientific and legal justifications. The Port Authority's experience was not satisfactory in this regard during our three-year effort to secure maintenance dredging permits for Port Newark/Elizabeth.

The infrastructure of our nation's ports is key to the United State's participation in international trade. The port industry is committed to a responsible environmental policy that balances these infrastructure imperatives with the need to protect the earth for future generations.