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ANALYZE STATE PLANS RELATED TO CCS ACTIVITIES

OCS Task 4.2

Prepared by

New York State Department of Environmental Conservation
Division of Land Resources and Forest Management
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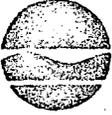
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New York State Department of Environmental Conservation

M E M O R A N D U M

TO: Greg Sovas, Chief, OCS Section
 FROM: Henry Skoburn, Senior Planner
 SUBJECT: Task 4.2 Analyze State Plans

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DATE: August 11, 1977

In accordance with the work schedule, I have reviewed the following documents.

1. New York City Metropolitan Area Air Quality Implementation Plan.
2. New York City Metropolitan Area Transportation Controls and Amendment.
3. Water Quality Management Plan, Atlantic Ocean - Long Island Sound.
4. New York State Comprehensive Planning Assistance Program.
5. New York Coastal Region Multi-Agency Oil and Hazardous Materials Pollution Contingency Plan (As Revised August 1971).
6. An investigation of the Federal, State and Local Oil Spill Contingency Plans for the Long Island Sound Area.
7. Statewide Master Plan for Transportation.
8. State Comprehensive Outdoor Recreation Plan.
9. Report of Member Electric Systems of the New York Power Pool, 1977.

Because of the rather general treatment of the plans, the anticipated impact of OCS activities cannot be ascertained.

However, the increases of OCS activities are expected to be minimal compared to the present infrastructure of the Port of New York and Long Island. Only support base activities are anticipated at present.

There is nothing in the aforementioned plans that are inconsistent with the goals and objectives of the States' OCS program.

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New York City Metropolitan Area
Air Quality Implementation Plan

The New York City Metropolitan Area Air Quality Implementation Plan proposes control strategies to meet national air quality standards for particulates, sulfur dioxide, carbon monoxide, nitrogen dioxide, hydrocarbons and petrochemical oxidants. Current revision of this plan is in the draft stage.

In 1970 the Clean Air Act Amendments established priority classifications with accompanying air contaminant concentration values for sulfur oxides and particulates. Highest concentrations were assigned first priorities. Remaining contaminants were promulgated in a similar manner, so that a region may have different priorities for air pollution control depending on the contaminant in question. The New York Metro region has been assigned first priority for its entire air pollution problem.

The legal authority to regulate stationary sources to achieve national air quality standards can be found in the following: Section 1271 article 12A of the Public Health Law, regulates emission standards and limitations. To implement the statutory authority, Part 176 of the Air Pollution Control rules requires the Department of Environmental Conservation approval of new sources and modifications to existing sources. It also requires all sources to receive a certificate to operate every three years. Construction or modification of a source can be halted by injunction, pursuant to section 1287 of the Public Health Law.

Section 1277 provides the Commissioner of the Department of Environmental Conservation power of inspection where air pollution may exist or be suspected, or for purposes of determining compliance with rules, regulations and codes.

Section 1284 provides emergency abatement action for air pollution deleterious to health. Also, authority can be found in article 12A and sections 2, 4, and 16, Chapter 140 of the Laws of New York, 1971. The Commissioner under the above authorities has the power to limit the consumption of fuels and use of vehicles, to curtail or require cessation of incineration during an air pollution emergency.

Part 185 of the NYS Air Pollution rules and regulations outlines procedures that will be taken during the different stages of an air pollution episode in controlling emissions. Significant emission sources have been defined to include:

- stationary combustion installations rated at more than 200 million BTU/hr.
- processes emitting more than 100 lb/hr or 100 tons per year of particulates.
- processes emitting more than 10 lb/hr of sulfur dioxide.
- any other source designated by the Commissioner of the Department of Environmental Conservation.

Initial source control review of stationary contamination sources is handled through a permit system. In 1962, "Rules to Prevent New Air Pollution" went into effect in New York State. These rules required approval of plans for construction of any new sources or modification of any existing source which could emit contaminants to the outer air. Additional rules have modified and expanded these procedures, which now cover most sources. Within 90 days after completion of construction, a certificate to operate is issued, providing the installation passes inspection or testing. Both surveillance and review of all major, existing stationary sources -- industrial processes, large fuel-burning installations, incinerators and bulk-storage facilities -- are covered in the certificate to operate requirement.

Such certificates are renewable every three years.

Air quality rules and regulations which could pertain to Outer Continental Shelf plans and facilities include the following:

Part 176: permits and certificates to operate for all air pollution sources in the State.

Part 185: control measures for air pollution episodes.

Part 191: smoke; applies to any combustion installation and provides emission standards.

Part 196: asbestos-containing surface coating materials; spraying of such materials is prohibited.

Part 200: fuel composition and use in the New York Metro; allowable concentrations of sulfur have been reduced to 0.3%, and distillate oil concentrations have been reduced to 0.1% sulfur.

The major areas for possible emission of pollutants from OCS activities will be in the construction of service bases, uses at marine terminals, partial processing facilities, gas processing and treatment plants, platform fabrication yards and pipe-coating yards. Helicopter noise could be substantial and could impact highly populated areas.

While each type of facility is typically equipped with pollution and noise prevention equipment, air emissions occur. Air borne emissions at OCS facilities include sulfur oxides and hydrocarbons from compressors fueled by natural gas, evaporation from storage tanks and transfer of oil and fuel, accidental spills, combustion emissions from process machinery and mobile sources, leakage from valves and seals, flaring at gas plants, particulates from construction, refining, etc., painting and sand blasting

platforms and pipelines, and shot blasting in pipe coating operations. Noise emissions from helicopters, pneumatic tools, vehicles, machinery, generators, etc., will affect neighboring areas, especially if buffer zones and sound controls are not used.

In areas where ambient air concentrations approach the maximum standard concentrations, sufficient emissions from OCS related facilities could be added to the air resulting in the limitation of further industrial growth in an area. In addition, emissions approaching maximum concentrations may limit the ability of a region to reach or maintain allowable concentration standards. There will not be growth of this magnitude to affect the allowable concentration.

The revised May 1972 Air Quality Implementation Plan does not encompass OCS-related activity, in terms of major onshore impacts, should New York State become a major service base area. Because of the increasing federal emission requirements, however, controlling factors do exist. Several areas of concern may include spraying of paint or fire preventive coatings on pipes, platforms and major equipment. For example, asbestos-containing surface coating materials cannot be sprayed on surfaces in New York State (Part 196 of New York Air Quality Rules and Regulations).

New York City Metropolitan Area Transportation Controls and Amendment

The Transportation Control Plan suggests strategies for mobile source pollutants in the New York Metropolitan Area. The plan concentrates on controls to 1975; however, a new control plan updating information and strategies is in the draft stage. Information is available, at present, only from the April 1973 plan and its subsequent October 1974 amendment.

Mobile air pollutant sources in the metropolitan area have accounted for roughly 95 percent of the carbon monoxide emissions, 65 percent of hydrocarbons, 40 percent of nitrogen oxides, 15 percent of suspended particulates and 50 percent of photochemical smog formed by atmospheric reaction of hydrocarbons and nitrogen oxides. Unhealthy ambient concentrations of the above pollutants are directly linked to transportation patterns in the region. Minimum standards for new vehicles as defined in Section 202 of the Clean Air Act are expected to lower air emissions, but not enough to meet air quality standards. Thus additional controls are necessary for older vehicles, patterns and modes of transportation, and movement of goods and materials.

Heavy duty gasoline vehicles (above 3 tons) have not been subject to as stringent federal emissions standards as have automobiles and light-duty vehicles. Trucks, however, account for a large share of vehicle miles traveled in the New York City area.

Based upon test situations, there is an assumption that an average reduction of 60 percent could be achieved on heavy-duty vehicles in carbon monoxide and hydrocarbon emissions from pre-1974 model trucks through a retrofit and inspection (twice yearly) program.

The Control Plan concentrates, almost exclusively, on Manhattan. Traffic is described going into and exiting from the Central Business District. Little information is given for the New York Metro Area, except that suburban drivers use personal transportation over public transportation and vehicle miles traveled are excessive. The plan does not describe various high transportation use industries except delivery to Manhattan businesses and industries. There is no discussion of truck traffic at the Port of New York or in the surrounding metropolitan areas. OCS activities can be expected to generate traffic such as workers to service bases and other OCS facilities, heavy-duty and light-duty truck traffic for such purposes as construction, goods shipment, gas and oil transfer, and machinery transport although the increase will be extremely minimal.

Some regulations exist which will be useful in protecting the coastline from OCS impacts; for example, Part 203 of the New York Code of Rules and Regulations requires a person to acquire a permit before beginning construction or modification of an indirect source of air contamination or associated parking area. This regulation impacts OCS facilities because its restrictions include parking facilities, parking areas, airports with an increase of 50,000 or more aircraft operations per year over existing volume, the construction of a road or highway section which may increase the annual average of daily traffic volume within 10 years of completion of construction to 20,000 or more vehicles, and the modification of a road or highway which may increase annual average of daily traffic volume within 10 years of completion of modification to 10,000 or more vehicles.

The Transportation Control Plan is general and does not assess the implications of plans and programs existing or projected, such as the Outer Continental Shelf.

Water Quality Management Plan, Atlantic Ocean - Long Island Sound

The plan for pollution abatement in the Atlantic Ocean-Long Island Sound planning area is one part of a Statewide water quality plan being prepared pursuant to Section 303 (e) of the Federal Water Pollution Control Act Amendments of 1972 (P.L. 92-500). Four steps are involved in the plan formulation process. These include identification of water quality problems in physical, chemical, biological and qualitative terms; identification of existing and proposed classifications and standards for water bodies; identification of significant industrial, municipal and non-point sources of pollution and wastewater characteristics; and issuance of effluent limitations abatement schedules, remedial solutions and priorities for each discharge.

Section 303 (e) basin plans constitute the overall framework within which local level plans and strategies are developed pursuant to Section 208 of P.L. 92-500. The objective of Section 208 plans is to meet the 1983 goal of swimmable-fishable waters.

In the marine waters of the port of New York and Nassau and Suffolk Counties, wastewater and water quality problems have been identified. Major concerns include nutrient enrichment and closing of beaches and shellfishing areas due to bacterial contamination.

The Atlantic Ocean-Long Island Sound plan does not detail the possible effects on water quality from OCS facilities and operations. These effects can be significant, however, and should be detailed. The basin plan briefly mentions the possible consequences of oil slicks from accidental spills. Such spills, can affect beaches, birds, oxygen levels in water, insects and wetlands. Detailed discussion is needed, however, on the impacts of an outer continental shelf program on the billion dollar annual contribution made by the tourist and recreation industries on Long Island and the commercial and

recreational fishing and shellfish industries.

The use of high quantities of fresh water also produces wastewater which can be a potential source of harmful discharge into receiving waters, especially in areas where water quality is already near restrictive limitations. Wastewater is produced in many forms at various OCS facilities. Service bases produce four sources of waste water, namely, sewage, bilge water, ballast water and cooling water. Platform fabrication yards produce wastewater in the form of cooling and process water and sewage. The dissolved components of the types of wastewater listed above can be taken up by plants and animals in the receiving waters with lethal or sublethal effects, or concentrated within tissues of organisms which use the contaminated food sources.

Federal regulations, which should be identified in the basin plan, require treatment before disposal of ballast water containing high concentrations of fecal bacteria. Likewise discharges such as ammonia, heavy metals, suspended solids, oil, grease, phenol and lead are regulated through the National Pollution Discharge Elimination System and the New York State Pollution Discharge Elimination System (NPDES/SPDES). Discharges such as cadmium, mercury and cyanide which are present in OCS support facilities effluent also are not discussed as such in the basin plan.

New York State Comprehensive Planning Assistance Program

Federal requirements under Section 701 of the Federal Housing Act of 1954, as amended, require the preparation of the State Land Use Element and the State Housing Element by the State before grants may be made to recipients of comprehensive planning assistance funds.

1. There are four interim technical reports for the State Housing Element and nine technical reports for the State Land Use Element. State Housing Element reports include citizen participation, emerging housing issues, initial recommendations for housing implementation and an annotated housing bibliography.

The State Housing Elements reports have little or no relevance to OCS development. In Technical Report No. 1: Citizen Participation, an outline of the State's approach to citizen participation is described, including mechanisms such as intergovernmental coordination, a state Citizens Advisory Committee, an interagency advisory committee and regional offices throughout the State. These are existing tools encouraging citizen participation and feedback. Proposed mechanisms include a State panel of local elected officials and a State panel of federal agency representatives.

Technical Report No. 2: Emerging Housing Issues, identified an important aspect of land development in New York State. Location and development of housing should consider factors including environmental and geographical concerns, the federal and state regulations all of which delimit the land potential.

2. The State Land Use Element reports include methodology, review of State and regional plans; identification, classification and summary of State and regional land use goals and objectives; identification and description of State and regional existing land use information; a bibliography of land use planning in New York State; a summary overview of existing and projected land use needs at State and regional levels; growth policy evaluation of existing long and short term policies and criteria for determining land use guidelines; and statewide land use issues.

While these technical reports do not specifically identify on-shore impacts of the Outer Continental Shelf Program, certain land use policies discussed do have bearing on the coastal area of Long Island and New York City and, thus, on on-shore OCS impacts.

Technical Report No. 7: Summary Overview of Existing and Potential Land Use Needs at State and Regional Levels does not discuss OCS on-shore needs in particular, but does describe land use needs. The land use needs are categorized as quantitative needs-amount of land needed, facility needs-capital improvements to support land uses, qualitative needs - deficiencies in the value of the land which fail to meet objectives, demands-actions responding to the deficiencies, and principles - site guidelines for land use development. Because there is no procedure used by State agencies to determine land use needs, the above categorization of needs could be utilized in determining OCS land use impacts.

In Technical Report No. 8: Growth Policy Evaluation of Existing
Long and Short Term Policies and Criteria for Determining Land Use
and Growth Policy Guidelines, identification and classification of

growth policies are made. There is no comprehensive growth policy in effect for coastal management and on-shore OCS impacts both of which affect a major portion of the population of the State.

However, less area specific criteria to assess the significance of coastal management and OCS impacts describe pertinent areas of concern. Criteria to assess the significance of various land uses include policy duration, geographic area affected by a policy, character of affected area, official basis of policy, implementation status and policy impact on development patterns, economic development, and environmental and historic resources. As in the use of needs categories in Report No. 7, above, the use of the criteria above can be beneficial in defining a growth policy in terms of the significance of on-shore OCS impacts and coastal management.

New York Coastal Region Multi-Agency Oil and Hazardous Materials Pollution Contingency Plan (As Revised August 1971)

The National Oil and Hazardous Substances Pollution Contingency Plan was developed in compliance with the Federal Water Pollution Control Act, as amended. It provides a coordinated response by federal departments to protect the environment from the effects of oil spills. The plan assigns responsibilities, establishes emergency strike forces, provides a system of notification, surveillance and reporting, establishes a national center to coordinate operations, schedules the dispersing of chemicals to treat spills, enforces procedures to be followed, and issues instructions covering on-scene coordination.

The plan reviews the functions and duties of the various federal agencies involved in assisting in critical pollution spills. Responsible agencies include the Department of Commerce, Council on Environmental Quality, Department of Interior, Department of Transportation, the Environmental Protection Agency, Department of Justice, Office of Emergency Preparedness and Department of State.

Responsible agencies appoint representatives to the National Response Team (NRT) which plans and prepares actions prior to a spill. It also acts as an emergency response team to coordinate actions of regions, other than those affected, to supply equipment, personnel or technical advice and to act as the central information source.

On-scene coordination is the responsibility of the federal On-Scene Coordinator (OSC) who reports to and receives advice from a Regional Response Team. The OSC coordinates and directs pollution control activities in each

area of a region. Considerations include impact on human health, size of spill, direction of spill movement and priorities for protection of resources. The Regional Response Team (RRT) is the emergency response team which acts within the region much as the NRT responds outside the affected region.

Action taken to respond to a spill is described in five phases. These phases are not necessarily distinct processes in a time frame, and one phase may occur concurrently with others. Phase one is discovery and notification of a spill; phase two is the use of actions to contain the spread of the pollutant; phase three includes cleanup and disposal actions in the water and onshore; phase four includes assessment of damage and actions to restore the environment to pre-spill conditions; phase five includes recovery of costs from damage to federal, state or local government property and investigation into the spill violation.

The contingency plan outlines an approach the federal government has proposed to take if a spill should occur in the New York Coastal Region. While the plan outlines who is responsible, for what areas they are responsible, and what coordination is necessary to effectively carry out pollution prevention controls in case of a spill, it does not accurately account for the great time span involved between the notification of a spill, decision of whose jurisdiction the responsibility of the spill lies, deployment of clean-up crews and eventual containment of the spill.

The plan does not detail how state and local governments fit into the overall control scheme. Even the Regional Response Team consists only of federal agency representatives. Coordination between levels of government seems to be a suggestion rather than a workable process.

The contingency plan was drafted in 1971. The increase in Outer Continental Shelf interest and activity between 1971 and 1977 has been sufficient enough to warrant a restudy or redrafting of a contingency plan. A restudy should be related directly to off-shore spills, near-shore facility discharges, local concerns for a fragile Long Island eco-system and a coordinated approach for all levels of government toward containment of a spill and restoration of the affected environment.

An Investigation of the Federal, State and Local Oil Spill Contingency Plans
for the Long Island Sound Area

This report by Seth Thomas Low of the Marine Sciences Research Center, State University of New York at Stony Brook, investigates aspects of local oil spill contingency plans for the Long Island Sound Area. Included are items on the legal authority for the establishment of each plan, operational procedures for dealing with oil spills, and the interaction of one contingency plan with another. The report was prepared originally for the New York State Assembly Scientific Staff to determine areas where the State Legislature could act to improve the effectiveness of contingency plans.

Biological effects of oil pollution are described. Emphasis is placed on the toxicity of oil. For instance, it is believed that oil floating on the surface of water would lose toxic fractions by either evaporation or natural degradation. However, toxic fractions have recently been discovered to be water soluble and thus mix in the water column. Another example is the contamination of shellfish from oil. Oil fractions, which supposedly flush out from the shellfish, were found to be incorporated into the lipid material of the species without any identifiable smell.

Discussion on oil spill pollution control and disposal techniques illustrates the technicological capability available during an oil spill incident. The report also identifies the local, state and federal response to spills, and the absence of a coordinated approach to clean-up operations from the various pollution control teams.

National and Federal Regional for Long Island Sound contingency plans, proposed State, county and local contingency plans and industrial oil spill contingency plans are reviewed. Possible areas for legislation to coordinate

sub-state, state and interstate contingency plans are suggested.

This report adequately reviews the impact of oil spills on the Long Island Sound area and describes existing and proposed oil spill contingency plans. It suggests that there is a need for coordination among the various governments and industries involved, if the land and water resources in the Long Island-New York area are to be protected from adverse OCS impacts. The possibility of an oil spill endangering Long Island as a result of indecision on who is responsible points out the need for new legislation to protect the New York coastline.

The suggested areas for legislative action in the report includes the following:

1. If the formation of local oil spill contingency plans is desirable, the State may want to coordinate their formation so as to insure their uniformity in operational procedures.
2. If the formation of local oil spill contingency plans is desirable, the State may wish to consider possible funding for their operation.
3. Since the Federal response to oil pollution will normally be instituted for major or medium spills, the State may desire to concentrate its pollution response efforts for minor spills and those areas of the State not covered by the National plan.
4. Firm cooperation agreements and procedures between the State and Federal contingency plans, as well as with local contingency plans, may be desirable to insure effective joint pollution control activities.

5. Because an oil pollution incident in Long Island Sound may involve the response activities of both the State of New York and the State of Connecticut, interstate cooperation agreements and procedures may be desirable.

Statewide Master Plan For Transportation

Written as a guideline for transportation facilities and services development in New York State, the Statewide Transportation Plan describes types and locations of highway, public transit, air, rail, bus, and freight elements the State transportation system should contain. The plan is general in nature, not specifying programs for the various regions in the State. In an addendum to the April 1973 plan, mention is made of a second volume of more specific regional information, however this second volume has not been produced as a public document.

Some discussion is made about environmental conflicts which are inherent in the building and use of a transportation system. Air pollution, impact on land use, and construction affect people and property. Freight transportation is supplied to the State through unregulated private companies. The Plan calls for policies on regulatory reform tax revisions and use change revisions, and direct and indirect public assistance. These policy decisions affect, in general, what will be required for OCS onshore transportation needs.

Considering the potential impact on communities affected by onshore activities of the OCS Program, policies generated by the Transportation Plan should respond to the expected critical events the community can expect. The Plan points out, for example, that there is a need for the examination of trucking as part of urban area transportation. If problems such as transportation patterns, type of vehicles, etc., can be worked out in conjunction with community concern then disruption to the community can remain limited and the economics of the transportation mode will not be greatly affected.

Rail transport of goods and materials are to be considered in OCS development. While the mode itself is a logical one to use for OCS facilities, economic costs of operating railroads, constraints in dealing with railroads because of the way each State is affected by the constraints of other States, taxes on railroad properties, etc., make branch line service more and more difficult.

A third important transit mode necessary to the OCS Program is water-oriented transportation. An important product carried through New York waters and using port facilities is petroleum. With the increased probability of using the New York Port, Long Island harbors and shipping lanes for gas and oil transport from OCS sites, and the potentially extensive use of pipelines from drill sites, reexamination of existing and proposed facilities, access sites and port development should be made to accommodate OCS impact. While the Transportation Plan does not discuss OCS transportation impacts in particular, its overview of freight transportation does provoke numerous questions and potential problems as discussed above.

State Comprehensive Outdoor Recreation Plan

The Outdoor Recreation Plan describes the recreation and open space needs of the people of the State. In addition, projected costs of capital programs for recreational needs are included. This Recreation Plan does not stray much from its objective of informing the public of the types of recreational services and facilities available or needed as projected into the next several decades. It discusses the protection of natural and historic areas, the preservation and development of ports and open space and the enhancement of water recreation ways. The plan does not, however, describe programs which may impede the recreational potential of an area. It does not examine programs to protect Long Island beaches and recreational harbors from impacts caused by development, as may occur through Outer Continental Shelf development. Its significance or relevance to OCS-related impacts is negligible, except by the inferences which could be made on the effects that oil spills or leaks, increased shipping traffic, port development, and other related impacts may make on the recreational activities along the Atlantic Coast of New York State.

There does not appear to be any conflicts between the recreation industry and the oil & gas industry in the competing uses onshore for ports and harbors for example. No such competition is expected in the Long Island area.

Report of Member Electric Systems of the New York Power Pool, 1977

The New York Power Pool annual report is required pursuant to Section 149-b, Article VIII of the Public Service Law of New York State. The 1977 report covers some three volumes of information including long range electric generation to 1992, long range electric transmission data to 1992, environmental considerations in electrical generation and reports on research and development of member electric systems.

Although the report covers electrical generation and transmission in New York State, it does not direct its attention to securing fuel from the potential Atlantic oil and gas finds. Little information is available on the potential amounts of oil and gas off New York State, nor are there any decisions on what percentage of the fuels will be available to New York State. It is therefore, obvious that the report would have little, if anything, to say about onshore or offshore Outer Continental Shelf activities.



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