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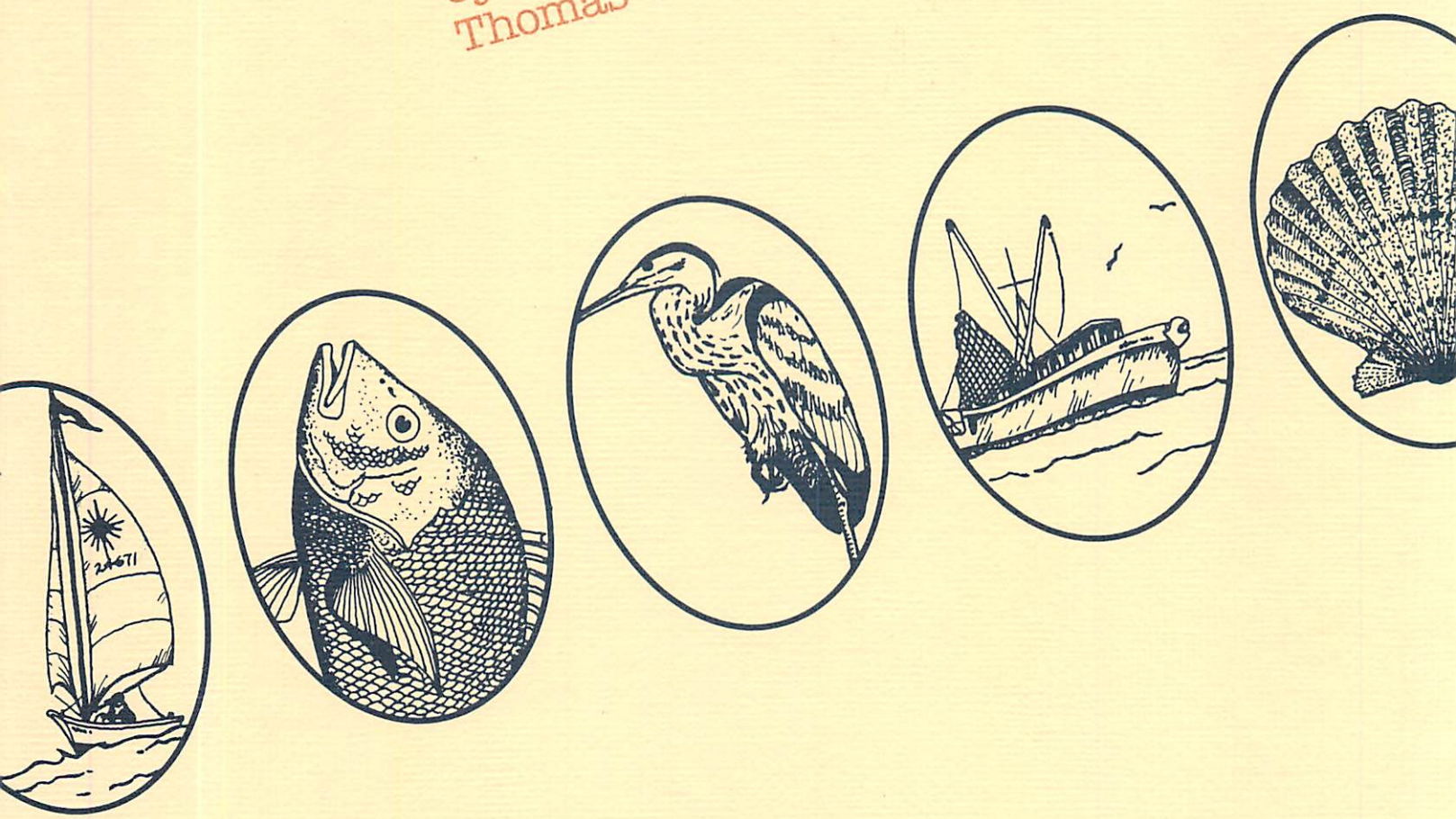

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A STUDY OF FEDERAL AND STATE LEGISLATION CONCERNING THE CONSTRUCTION OF PROPOSED OIL REFINERIES

By

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I. INTRODUCTION

In July 1979, an oil well blow-out in the Gulf of Mexico released millions of gallons of crude that coated miles of Texas beaches and shoreline property. The previous month, the Carribean Isles were coated by thousands of gallons of oil spilled by the collision of two tankers. A few years ago, the oil tanker Amoco Cadiz broke up while passing through the English Channel, spewing crude oil onto the beaches of central France. Moreover, Americans will not soon forget the darkening of Santa Barbara's beaches from the oil well blow-out in the 1960's.

There is a potential for disaster where oil refineries, oil wells, and routes of oil transportation are located, regardless of whether there are collisions of oil tankers, ruptures of pipelines, or well blow-outs. Major oil spills have closed tourist beaches, eliminated commercial and sport fishing areas, and killed various species of wildlife, especially shore birds. Moreover, local economies have been devastated by an oil spill.

The problems that have plagued other parts of the world are now closer to North Carolina. Two oil refineries are proposed for construction in Brunswick and Carteret counties. The economic benefits to the coastal area will be substantial. These benefits are welcome by county officials, chamber of commerce members, and state government officials. Yet, environmentalists, citizens, and state officials wish to insure that the operations are as safe as possible. To assist in shedding some light on the possible problems, this study will examine how effectively federal and state regulations relative to the construction and operation of oil refineries, will assess and alleviate any possible adverse impacts. Any deficiencies in the regulations are identified and possible solutions are discussed.

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II. DESCRIPTION OF PROPOSED FACILITIES

The Carolina Refinery and Distributing Company (CRDC) and the Brunswick Energy Company (BECO) are proposing to construct an oil refinery in Carteret and Brunswick Counties, North Carolina, respectively.

The CRDC proposes to construct a facility on a 100-acre tract located north of Newport River, between Oyster and Core creeks. The refinery will have a processing capacity of approximately 30,000 barrels of oil per day with the capability of producing lead-free gasoline, jet fuel, high priority coke, and elemental sulfur. CRDC's plans are to deliver crude or partially refined oil to the state port in Morehead City, where there are existing oil terminals. Crude oil will be temporarily stored in tanks at the port and transported to the refinery via underground/underwater pipeline. The preferred pipelines route is north from Morehead City through Crab Point thoroughfare, across Newport River to land just west of Atlantic Intracoastal Waterway. CRDC proposes to install two 12-inch pipes and one 4-inch pipe six feet below the ground. The refined products are to be shipped directly from the refinery or returned to the port to be shipped by tank truck, rail, pipeline, barge or tanker. The construction of the refinery and related facilities is expected to span approximately one year and to furnish employment over that period for a work force of about 50 persons. Refinery operations will require a permanent work force of about 125 persons. The preliminary estimated cost to complete construction of the project is $92 million in 1979 dollars.

BECO proposes to construct its facility on a 1,700-acre tract located just west of the Brunswick River, adjacent to the river's mouth. (See Map B-1). The refinery will have a processing capacity of 150,000 barrels per day, with the capability of producing lead-free gasoline and No. 2 and No. 6 fuel oils. Present plans are to deliver imported crude oil to the plant site by pipeline from tankers to be docked in the nearby Brunswick and Cape Fear Rivers. Studies are underway to determine the optimum type and location of delivery berthing and unloading facilities at the site. Four alternative methods of berthing the vessels and unloading the crude oil are being considered. The first alternative is to place the BECO refinery's pipeline or pipelines under the Brunswick River and across Eagle Island, and to construct a dock off the channel of the Cape Fear River. (See Map B-1). The second alternative is to place a pipeline or pipelines from the refinery to property located south of the refinery, and to construct a dock off the channel of the Cape Fear River. (See Map B-2). The third alternative is to obtain property on the east side of the Cape Fear River, where crude oil can be unloaded and stored, and then to place a pipeline or pipelines under the Cape Fear River from this site to the refinery. (See Map B-3). The fourth alternative is to dredge the Brunswick River adjacent to BECO's property. (See Map B-4). Construction of the refinery and related facilities is expected to span approximately 24 to 30 months and to furnish employment over that period for an average work force of about 2,000 persons. Operation of the refinery will require a permanent work force of about 250 persons. The preliminary estimated cost to complete construction of the project is $250 million in 1979 dollars.

III. METHODOLOGY

A brief review of the above data, supplied by the Wilmington division of the U.S. Army Corp of Engineers (COE), ostensibly points to the possibility of various socio-economic benefits accruing from the construction and operation of the oil refineries. However, reversing the issue, many citizens question the possible adverse socio-economic and environmental impacts. (See COE's Scoping Report). On the benefit side, the refineries will provide increased tax bases, employment opportunities, and related service businesses, etc. Whereas, adversely, there are concerns with the possibility and consequences of air pollution, water pollution, oil spills, wildlife kills, detrimental socio-economic impacts, etc.

Thus, the government's ability to decide whether construction and operation of a refinery are in the best interests of its citizens is based upon the government's ability to adequately identify, address, and balance the possible benefits and detriments. The authority by which the government officials, primarily federal and state, receive the power to make this decision is by various enabling legislation as administered through respective regulations. These regulations are usually applied by requiring the facilities to acquire a series of permits prior to construction or operation. These permits create a procedural application of regulations relative to various facets of an oil refinery, e.g., air emissions, wastewater discharge, and construction methods. Theoretically, this procedure enables government officials to acquire the necessary information on which to make the best possible decisions. Moreover, the procedure allows officials to impose conditions and standards upon the facility, thus alleviating or reducing the number of adverse impacts.

The purpose of this study will be to examine how effectively the government regulations, as administered through the permit process, address and alleviate possible adverse impacts. Possible solutions will be discussed for certain inadequacies or "loopholes" in a permit's regulatory authority. For purpose of this study, adverse impacts are grouped into four broad categories; air quality, water quality, oil spills, and socio-economic impacts. Under each category will be a discussion of the government legislation relative to the particular category. Impacts on wildlife, fisheries, land use, and historic preservation will be incorporated under the four categories. Certain government regulations which are applicable to almost any form of major construction, not having a significant unique effect upon an oil refinery, will not be discussed in this study.

IV. AIR QUALITY

In accordance with the Clean Air Act of 1970, the Environmental Protection Agency (EPA) declared National Ambient Air Quality Standards (NAAQS) --primary standards to protect public health and secondary standards to protect public welfare. Limitations were established in micrograms per cubic meter, and averaged over various time intervals for six pollutants: particulates, sulfur dioxide, carbon monoxide, hydrocarbons, oxidants, and nitrogen oxide. The 1977 amendments to the Clean Air Act require a revision that would prevent a significant deterioration (PSD) of air quality in areas cleaner than required by NAAQS.

To insure compliance with the PSD amendment, the federal government set forth regulations which required that a permit must be issued by the EPA prior to construction of a new major emitting facility if it was either (1) listed among the 28 categories of sources outlined in the Clean Air Act Amendments and has the potential to emit more than 250 tons per year of any air pollutant. A preconstruction review of EPA and the state division of Environmental Management (DEM) has determined that both proposed facilities require acquisition of a PSD permit because each facility comes under the purview of the first criterion. Moreover, the second criterion applies to the Carteret facility because DEM has determined that this facility has the potential to emit over 250 tons per year of hydrocarbons, sulfur dioxide, and nitrous oxide. DEM anticipates that the Brunswick facility will also have the same emitting potential once all data is gathered.

Prior to applying for the PSD permit, a determination is made whether the ambient air quality in the area is "attainment" or "non-attainment." An explanation of these terms, as provided by DEM, is as follows:

> The State (and EPA) has established certain minimum standards (i.e., specific concentrations of pollutants for example, 80 micrograms per cubic meter annual arithmetic mean for sulphur dioxide) for five (5) air quality parameters (particulates, nitrogen oxides, sulphur dioxide, carbon monoxide) considered desirable for the preservation and enhancement of the quality of the state's air resources. The DEM has located air monitoring devices at various locations around the state. These monitors provide data which enable the state to determine the status of air quality in the area of the monitor. If, for example, a particular monitor shows concentration below the standard, then that area is said to be "attainment for particulate." If the monitor instead showed concentration in excess of the standard, that area would be "non-attainment for particulate." It is therefore possible for an area to be "attainment" for one pollutant and "non-attainment" for another pollutant. Those areas for which there is

insufficient data to make a determination as to "attainment" or "non-attainment" are called unclassified.

The Brunswick area is currently unclassified relative to ozone and carbon monoxide and is attainment for particulates, sulphur dioxide, and nitrogen oxides. Thus, approximately one year of monitoring is needed in this area prior to determining ozone and carbon monoxide standards. The DEM is approximately five months into the monitoring process; a determination should be made by mid-May 1980. Ken Shuster, an official in the air quality section of DEM, is certain that the Brunswick area will be classified as an attainment. Monitoring in the Carteret area is complete and is classified as attainment.

After classification of the areas as attainment, the oil refineries will file an application for a PSD permit, which requires a two-step review procedure between DEM and EPA. The DEM initially processes the application. It reviews plans and specifications, conducts public hearings, solicits comments from certain state agencies, submits a preliminary draft of findings to EPA for comments, and makes a final determination of whether to grant a permit. Upon a favorable review, the companies will probably be issued a conditional permit. Simultaneously, DEM will submit a final draft to EPA to be utilized in its review. The EPA will conduct a review similar to DEM's, minus a public hearing, and make a determination of grant or denial. If EPA denies issuance of a permit, the project cannot be undertaken regardless of DEM's prior decision. However, EPA can veto a denial by DEM.

This federal regulation adequately meets the objective for which it was designed; (1) ambient air quality will not be deteriorated below a certain level, and (2) particular pollutants may not be emitted beyond a certain standard. An example of the latter occurs if DEM determines during the PSD permit review procedure, that an allowable emission will exceed 50 tons per year, federal regulations require that the Best Available Control Technology (BACT) be utilized to reduce the emissions to certain standards. These standards, entitled New Source Performance Standards, as set forth in 40 C.F.R. 60, were established by the 1970 Clean Air Act to control the amount of pollutants emitted from new stationary sources. Although EPA may not require any particular technological system of control (except under conditions where it is not feasible to prescribe or enforce a standard), EPA may promulgate a design or work practice which reflects the best technological system of continuous emission reduction.

From the above discussion one discovers that administration of the PSD permit is a detailed, highly technical procedure. For clarification of many of these technical points, Mr. Ken Shuster, who is in charge of the PSD permit process for DEM, was interviewed. From these interviews it was learned that the PSD standards and technologies for new facilities is preventing many of the air pollution problems that plagued the nation in the past. Mr. Shuster is confident that the PSD process, when applied to the proposed refineries, will insure that air quality standards in the surrounding areas are not contravened.

Air Pollution Control Abatement Facilities/Emission Sources

The North Carolina Air Pollution Control Act, N.C. Gen. Stat. § 43-215.106 et. seq., is a comprehensive statute with the purpose of promoting the health, safety, and welfare of the state's citizens by protecting the state's air resources from pollution by certain emissions. Under the authority of this act, the N.C. Environmental Management Commission has established air quality standards, emission control standards, and classifications for a containment source to prohibit, abate, or control air pollution. (See 15 NCAE 2d.). To insure compliance, the Environmental Management Commission is authorized to require the issuance of permits to all sources of air pollution that are likely to contravene the standards by certain activities as set forth in N.C. Gen. Stat. § 143-215.108. The oil refineries are such a source. In order for the commission to make a decision on whether to issue a permit, it must review the refineries' plans and specifications, setting forth all data and information necessary to determine compliance with standards. If a permit is issued, the Water and Air Quality Reporting Act, N.C. Gen. Stat. § 143-215.63, requires the facilities to install air monitoring systems and report the data obtained periodically to DEM. Enforcement of the act is vested in the commission. It may assess a civil penalty or penalties, pursue other civil or criminal sanctions or impose both means of enforcement for violation of the statute.

Oil Refining Facility Permit[1]

The North Carolina Oil Pollution Control Act, N.C. Gen. Stat. § 143-215.75, sets forth provisions for the permitting of oil refining facilities prior to construction. The provisions create authority for the secretary of Natural Resources and Community Development to issue the permits, to write conditions into the permit to effect the act's purpose, and to require installation of oil spill prevention devices. The secretary is authorized to base permit decisions upon the facilities' impact upon public parks, forest, recreational areas, wildlife and fishes, and air and water quality. The enforcement authority is vested in the commission.

The application for permits is required to contain information assessing and identifying any potential or substantial adverse effects and violations of air and water quality standards through the "early warning device" of an assessment addressing issues within the scope of the Act. The assessment must address the items set out in the statute to the extent required by the proposed rules for the facility. The assessment is considered part of the application, and to the extent it is determined to be inadequate by the secretary, the application is incomplete. Alternative site comparisons are required in the assessment where the permit applicant plans to build the oil refining facility in a location designated by the Coastal Resources Commission as an area of environmental concern or on a barrier beach. Both proposed oil facility sites are in an area of environmental concern. (See CAMA discussion infra).

Adverse effects and air and water quality violations required to be identified by the assessment include those that would occur on the site and

in proximity to the site which reasonably might be expected to occur as a result of construction or operation. If the effect or violation is not identified in the assessment, it later may be identified in the review by government agencies, and by the public at the public hearings. If the secretary finds that assessment should further address the identified effect or violation, he may request that the applicant rewrite the assessment. The rewritten part of the assessment would then follow the circulation and comment process that the original application followed. The adequacy of the assessment cannot be challenged by any person other than the secretary. The assessment is not an environmental impact statement, since it is not prepared by the state.

Circulation of applications for permits would be required to include agencies in the department having jurisdiction over public parks, forest, recreation areas, wildlife, fisheries, and water and air resources. The application would also be given to the board of county commissioners in Brunswick and Carteret counties. All these agencies are expected to comment on the applications. The applications and comments would then be subject to public comment and hearings. The secretary will make his final decision to grant or deny any permit based upon facts and information obtained from the applicant, comments from reviewing agencies, and facts obtained through the public hearings.

There are two minor objections with the act. First, the authority to issue or deny permits is given to the secretary, but enforcement authority is vested in the commission. The reasoning underlying this wording of the act is unexplainable. In order to insure more effective permit coordination and direct action, the secretary should be empowered to enforce the permit program. Second, the act authorized issuance of a "groundbreaking" rather than an "operational" permit. This means that once a permit is issued for construction of a refining facility, the act's authority over a facility is terminated. It is recommended that the permit be revised so that the secretary has continuous authority over a facility's operations. Nevertheless, the process established for obtaining comments from reviewing agencies has the effect of coordinating decision-making in the department relative to facilities for which permits are required. Such coordinated decision-making is an attempt to assure that correct and consistent decisions, based on relevant statutory and regulatory criteria, will be made by the department, its agencies, and the secretary with regard to oil refineries.

Summary

Government regulations do adequately address the probable adverse impacts of the proposed oil refineries on the state's ambient air quality in several ways. First, the Federal PSD permit procedure, which coordinates the effects of EPA and DEM, insures that (1) the ambient air quality in the surrounding areas is not deteriorated below established standards safe for the state's citizens, and (2) the amount of particular pollutants is not emitted beyond a specific limit (New Source Performance Standards) by requiring proposed refineries to use the best available control technology. Second, the Air Pollution Control Abatement Facilities/Emission Sources Permit provides that a

government close to the source, the state, has a direct function in controlling the source of emission by requiring the proposed refineries to meet and continuously comply with state standards for certain pollutants. Third, the Oil Refining Facilities Permit, acting as a fail-safe procedure, buttresses the state's authority by requiring oil refineries specifically to meet state established standards.

V. WATER QUALITY

Section 404/10 Permits

The only activities performed solely by the federal government in permit letting is through the issuance of two permits. One is issued pursuant to section 404 of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1344) (hereafter referred to as Section 404). It is required to authorize the discharge of dredge or fill material into waters of the United States. The other permit is issued pursuant to Section 10 of the River and Harbor Act of 1899 (33 U.S.C. 403) (hereafter referred to as Section 10). The Army Corps of Engineers administers the issuance of both permits. The two permits are similar, yet quite distinct. Often the discharge of dredged or fill material occurs in a navigable water from construction being undertaken in that water, requiring the issuance of both permits. However, Section 404 is quite narrow in application since major construction may take place in the U.S. waters without the discharge of dredged or fill material. Whereas, prior to any construction activity in navigable U.S. waters issuance of a Section 10 permit is required.

Before construction of the proposed refineries, at least one or both permits is required. CRDC has applied for Sections 404 and 10 permits to install pipelines in the Newport River and for construction near the confluence of the Newport River and Core Creek near Morehead City. Whereas, BECO has made application for a Section 10 permit only, for the dredging and construction near the confluence of the Brunswick River and the Cape Fear River in Wilmington Harbor. There has been no indication from BECO that there will be any discharge of dredged or fill material into any waters.

For two reasons, the application requirements and review procedure of both permits are the most significant features of the overall permit-letting process. First, the general evaluation policy or criteria is extremely broad, virtually all encompassing. (See 33 C.F.R. 302.4). For example, not only is permit evaluation based on the primary impact of the proposed activity, but on an entire facility's impact on the public interest. Factors that are considered under the public interest review range from economics and aesthetics to safety and food products. In essence, the review entails the general needs and welfare of people even remotely affected. Such a broad view is unique to federal permits, for state permit evaluations are limited to the primary impact of the proposed activity relative to the specific purpose of the permit. Second, 102(2)(c) of the National Policy Act of 1969 (NEPA) requires all federal agencies with respect to major federal actions significantly affecting the quality of the human environment to submit to the President's Council on Environmental Quality (CEQ) a detailed Environmental Impact Statement (EIS). The Wilmington District Corps of Engineers has determined that sections 404 and 10 permits, if approved, would constitute a "major federal action having a significant effect on the quality of the human environment." Thus, submission of an EIS is required of both CRDC and BECO. This factor is also unique to federal permits in that the State Environmental Policy Act (SEPA), N.C. Gen. Stat. § 113 A-1, has been interpreted to only affect projects which originate from a state expenditure of funds. This act of permitting by the state of private projects, such as the two proposed facilities, would not require an EIS.

Recent regulations of the CEQ provide for " . . . an early and open process for determining the scope of issues to be addressed in an EIS and for identifying the significant issues related to the proposed action. . . ." (See 40 C.F.R. 1501.7). This process is entitled scoping and entails the participation of affected federal, state, and local agencies, and all interested persons. One public meeting is held to solicit public and agency comments on the merits of the project. These comments are entered in the administrative record of the permit application. A draft of the scoping report is forwarded to various federal and state agencies for interjection of comments that can be used in developing issues to be addressed by the applicant in the EIS.

Section 404 and 10 permits, especially with possible interpretations under NEPA, present an umbrella evaluation process which ensures that environmental, social, and economic issues are at least considered by a regulatory agency. Understandably, no permit process will alleviate all adverse impacts. However, this process will balance the benefits which may reasonably be expected to occur against reasonably foreseeable detriments. Thus, the decision whether to authorize issuance of a permit is determined by the outcome of this balancing process, with no permits being granted unless their issuance is found to be in the public interest.

The major concern identified with both federal permits is their classification as groundbreaking. Once the permit is issued, the facility constructed, and operation begins, the federal government's regulatory authority through these permits terminates. A process is set forth in 33 C.F.R. 3257, whereby permits may be modified, suspended, or revoked if such action would be in the general public interest. However, a factor that must be considered under the federal code before revocation or suspension can be invoked, is the extent to which such action would affect plans, investment and actions the permittee has reasonably made or taken in reliance on the permit. According to Mr. Charles Hollis of the Wilmington Division of the Army Corps of Engineers, it is highly improbable that facilities such as the oil refineries, which will expend a considerable amount of funds, will have their permit suspended or revoked. Thus, the federal government will not have authority over the facility once operations begin, except through administration of air quality standards.

401 Certification

Section 401 of the Federal Water Pollution Control Act Amendments of 1972 (33 U.S.C. 1341), (hereafter referred to as Section 410 Certification), requires any non-federal applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification from the state in which the discharge originates or will originate, to insure that the discharge will comply with the applicable effluent limitations and water quality standards. Therefore, prior to acquisition of Section 404 and 10 permits, the proposed oil refineries are required to receive certification from DEM stating effluent limitations and federal and state water quality standards as set forth in 33 U.S.C. 1311, 1312, 1316, and N.C. Gen. Stat. § 143.215.1. The processing procedure entails a public hearing and review of specifications and plans for the reduction and treatment of discharge. Section 401 certifications are usually not denied; any discovered problems are included in the certification as conditions which must be resolved prior to operation.

National Pollutant Discharge Elimination Systems (NPDES)

The North Carolina Water Pollution Control Act, N.C. Gen. Stat. § 143-41, is a comprehensive statute with the purpose of conserving water resources by protecting human health, preventing injury to plant and animal life, and preventing damage to public and private property. Under the authority of the act, the state Environmental Management Commission has established water quality standards and adopted federal effluent limitations to prohibit, abate, or control water pollution. The federal government insures compliance with these standards and limitations by authorizing the state to issue NDPES permits for discharge from an outlet, point source, or disposal system into the surface waters of the state.

CRDC's facility is designed to discharge approximately 0.75 million gallons per day of treatment waste effluent into Newport River, requiring a NPDES permit. However, BECO's facility is designed to operate with little or no discharge of water or liquid waste, probably not requiring a NPDES permit.

The application process requires that CRDC submit descriptions of the composition of waste prior to treatment, along with detailed specifications and plans of the treatment facility. Then the discharge after treatment must be described and the point of discharge on the river identified. DEM will then evaluate the application and supporting data against water quality standards for Newport River and the federal guidelines for oil refineries facilities that reflect the best treatment technology regardless of the river's susceptibility to pollution. If the permit is issued, the facility is required to abide by a set of monitoring requirements issued by DEM. These requirements identify parameters to be tested, frequency of testing, methodology by which the system is to be operated and the reporting frequency. DEM requires monthly reporting, with the division conducting test bi-annually to ensure continuous compliance.

Coastal Area Management

In 1972 Congress passed the Federal Coastal Zone Management Act, 16 U.S.C. 1451 et. seq., that provides federal assistance and coordination to the states to develop and implement management programs to preserve and develop the resources of the coastal zones. Under authority of the federal act, North Carolina passed the Coastal Area Management Act of 1974 (CAMA) which initiated a comprehensive program for the management of the land and water resources of the coastal zones.

The policies of the CAMA are to provide for orderly development of improved transportation, housing and industries, commercial and recreational facilities, while simultaneously preserving and managing the natural ecological conditions of the estuarine system. Thus, any development is to proceed in a manner consistent with the capability of the land and water for development, use, or preservation based on ecological considerations. To ensure compliance with these policies, the CAMA instituted comprehensive land and water use planning for the coastal area. Each coastal county was required to adopt a land-use plan subject to state approval and guidelines. If the county failed to act, the state would prepare the plan.

The act created a new state agency, the Coastal Resources Commission (CRC), which has the responsibility for coastal zone regulations. The CRC developed state guidelines consisting of objectives, policies, and standards for the public and private use of land and water within the coastal zone. One of the major functions of the CRC is the designation of certain coastal areas as "areas of environmental concern" (AEC). Areas that may be declared to be within this category by the CRC include coastal wetlands; estuarine lands and waters; renewable resource areas such as state parks and forests, scenic rivers; stream segments classified for scientific or research uses; wildlife areas; areas to which the public may have special rights under the public trust doctrine; areas prone to hurricanes, or floods; and areas subject to secondary developmental pressures because of key facilities, such as highways and airports or facilities relative to energy development, generation, and transmission.

The central mechanism for implementation of the management program established by CAMA is the permit process which concerns only lands and waters designated as areas of environmental concern. No person can undertake any development in an area of environmental concern without a permit. Permits for major development, which is defined as development that presently requires a license or approval by a state agency or that accompany more than 20 acres or that consist of a structure in excess of 60,000 square feet, must be obtained from the CRC. When a state special permit is applicable, CAMA defines the development as major no matter what number of acres or square feet are involved, i.e., any development involving a discharge into surface water or dredge or filling estuarine waters or marshland is a major development. All permit applications under CAMA are required to be filed with the secretary of NRCD. The public must be informed of permit applications through newspaper publication and through direct mailing to any citizen or group that has filed a request to be notified.

In the case of a major development, the CRC must approve or deny the permit within 90 days. A hearing open to the public must be held at which the burden of proof is on the permit applicant. The permit is to be denied by the CRC only upon certain specifically enumerated findings, as listed in N.C. Gen. Stat. § 113A-120, but granting of a permit may be conditioned on compliance with reasonable conditions necessary to protect the public interest.

The CAMA major development permit is the most effective tool possessed by the state to regulate the construction of the oil refineries for two reasons. First, the CAMA permit process entails the most extensive criteria upon which to deny or grant a permit. This enables the reviewing agency to consider a broad range of environmental impacts prior to issuance of the permit. Second, CAMA provides for coordination between federal agencies having responsibility for the coastal zone. Prior to issuance of any federal permit, the state must acknowledge that the proposed construction is consistent with the management program.

Summary

Government regulations do adequately address the probable adverse impacts of the proposed oil refineries on the state's water quality in several

ways. First, the federal permits section 404/10 provide not only a mechanism by which water quality standards will be strictly enforced, but its broad based review criteria and EIS requirement insures government assessment of all major probable impacts. Second, the NPDES permit enables state officials to directly regulate the construction and operation of the treatment facilities, which will insure continued compliance with state water standards. Third, the CAMA major development permit provides the cohesiveness which loosely links all permits, affording state officials an avenue through which to control the entire permit process.

VI. OIL SPILLS

Presently, the major concern surrounding the proposed facilities is whether the federal and state governments have the authority and capability to adequately address the issue of oil spills, i.e., prevention, containment, collection, assignment of responsibility, etc. The federal and state governments do have regulations and procedures which address the issue prior to and after occurrence. However, an examination of these regulations and procedures identify certain deficiencies that should be strongly considered.

Federal Water Pollution Control Act

Section 311 of the Federal Water Pollution Control Act, 33 U.S.C. 1321, states that "there shall be no discharge of oil or hazardous substance into or upon the waters of the contiguous zone, or which may affect natural resources belonging to, appertaining to, or under the exclusive management authority of the United States." Under authority of this act, regulations were established by the EPA and Coast Guard for prevention and removal of discharged oil. This study will not provide a detailed discussion of these regulations, except to point up the fact that they set forth strict and detailed standards and guidelines to which a facility must adhere for the prevention and removal of oil spills. The regulations also outline each agency's role in ensuring compliance with such standards and guidelines.

The act also authorizes the President's Council on Environmental Quality (CEQ) to establish a National Oil and Hazardous Substance Pollution Contingency Plan for the coordination of all federal departments' and certain agencies' responses to the scene of an unplanned or sudden and unusual accidental discharge of oil. The plan outlines the duties of each federal department and establishes a National Response Team (NRT) consisting of representatives from all federal departments and specified agencies. The NRT serves as the national body for plans and preparedness actions prior to a pollution discharge and for coordination and advice during a pollution emergency. The plan outlines five distinct phases of actions for response to a discharge, which are: Phase I -- Discovery and Notification, Phase II -- Evaluation and Initiation of Action; Phase III -- Containment and Counter Measures; Phase IV -- Removal, Mitigation and Disposal; and Phase V -- Documentation and Cost Recovery.

For a more localized effort, a Regional Contingency Plan, based upon the national plan, is prepared for designated regions of the nation, e.g., southeastern, northeastern, etc. The regional plan divides the responsibility for spills in inland waters and coastal waters between EPA and the Coast Guard. Implementation of the plan is performed by a regional response team comprised of department representatives and liaisons from each state within the region. Coordination and direction of the respective plans at the scene of a discharge or potential discharge is accomplished by regional plans. The OCS will determine the pertinent facts about potential impacts of the particular discharge, subsequently calling upon and directing the development of needed resources in accordance with the regional plan.

N.C. Oil Pollution and Hazardous Substance Control Act of 1978[2]

The North Carolina Oil Pollution and Hazardous Substance Control Act of 1978, N.C. Gen. Stat. § 143-215.75, which amends the Oil Pollution Control Act of 1973, N.C. Gen. Stat. § 143-215.75 et. seq., is a comprehensive statute with the purpose of promoting the health, safety and welfare of the state's citizens by protecting the state's air, waters and other resources from pollution by oil, oil products, oil by-products, and other hazardous substances. The act makes unlawful the discharge of oil to tidal flats, beaches, waters of this state and on lands within such proximity to state waters that oil is reasonably likely to reach such waters, regardless of the fault of the person in control of the substance, and regardless of whether the discharge was the result of intentional or negligent conduct or other cause. Discharges authorized by the commission and discharges caused by an act of God, war, sabotage, negligence on the part of the U.S. government, acts or omissions of third parties, and acts or omissions by and at the direction of a law enforcement officer or fireman are all exempted from this prohibition.

Persons discharging oil in violation of the act are placed under a duty to collect and remove or to contain, treat, or disperse the discharge. The department also may utilize any resources at its disposal to investigate, collect, contain, treat, or remove and discharge or contract for such services. However, any project and activity undertaken by the department must be designed to protect the public interest or public property. Persons discharging oil are required to notify the department of the nature, location, and time of the discharge as well as containment and removal measures being taken, unless such discharge is pursuant to permit or rules. In addition, a discharge of oil to lands not in proximity to state waters must be reported if it is knowing or wilful.

The Environmental Management Commission is authorized to request from the board of transportation, the North Carolina Wildlife Resources Commission, and any other state or local agency, personnel, equipment, and material to be utilized in containment, collection, dispersal or removal of discharged oil. The expense incurred by such agency or government may be reimbursed from the Oil Pollution Protection Fund. The fund, established to defray the expense of any project or program for the containment, collection, dispersal, or removal of the discharged oil is maintained by general assembly appropriations, fees, charges, or civil penalties paid to or recovered by the department.

The act establishes two provisions of liability. First, a liability to the state is established for discharges to natural resources resulting from unlawful oil discharges or from violation of rules promulgated pursuant to the act, from failure to perform duties imposed by the act, from violations of commission orders on determinations made under the act, or from violation of any provision of any permit for discharge of waste issued under N.C. Gen. Stat. § 143-215 et. seq. This liability entails the payment of damages to the state in an amount equal to the sum of money necessary to restock waters, replenish resources, or otherwise restore the rivers, streams, bays, tidal

flats, estuaries, or coastal waters and public land to their condition prior to discharge. Second, a strict liability, regardless of fault, is established for unlawful discharge which enters the waters of the state causing damage to person or property, public or private. This liability entails the payment of damage in an amount determined by negotiations or a court of law.

Civil penalties not to exceed $5,000 are provided for unlawful, intentional, or negligent discharge of oil, and for failure to report oil discharges. Criminal penalties include fines not to exceed $10,000 for intentional or willful discharge of oil in violation of the act of causing or permitting discharges of oil in violation of the act.

The only concern to be identified is with regard to the strict liability provisions of the act. (See N.C. Gen. Stat. § 143-215.93). Even though the oil refineries will be strictly liable for damages caused to private property or individuals because of an unlawful discharge of oil, proving the measure of damages may be extremely difficult for certain individuals. For example, if a spill were to occur which would adversely impact the beaches at Morehead City, causing a sharp reduction in tourism for a summer season, numerous business establishments would suffer a substantial financial loss. The businesses directly impacted, e.g., beach hotels, owners of beach property, etc., would probably be able to recoup a significant portion of their loss by simply filing a claim with the refinery's insurance company. However, there are many other businesses which would not be directly impacted by the spill, but would suffer a tremendous financial loss also. Businesses such as restaurants, bait and tackle shops, service stations, etc., which may be located as far away as Havelock or Kinston, but depend on the tourist trade traveling through their area for a substantial portion of their earnings. These businesses would be hard pressed to prove that they were damaged or should recover the amount of damages to which they are entitled.

Governmental Oil Spill Procedure[3]

When a spill occurs the discharger is under a legal obligation to report the spill to the state coordinator in charge of oil spills or an appropriate state representative and the EPA or Coast Guard, depending on whether the spill is inland or coastal. The state coordinator will collect all pertinent information concerning the spill, e.g., quantity, time, location, action being taken, etc. and report this information to the director of the appropriate state regional field office. The director or his designee will investigate the scene and obtain all necessary information. This person will contact the the discharger, if known, and inform him of his responsibility to contain, control and collect or disperse the spill. If the discharger does not desire to handle the spill or if the discharger is unknown, the state will utilize all necessary resources at its disposal to eliminate the spill and bill the discharger, if known, for the cost. Normally, the services of the department of transportation are used to dispose of the spill. According to the State Coordinator, Vance Holt, the state has the capability of handling a spill on its own as large as 10,000 gallons.

If EPA or the Coast Guard is on the scene, it will be the lead agency in charge of the spill. The state will provide any needed supoort. The EPA

usually will not respond to a spill unless it is of such magnitude that the state does not have the capabilities to adequately handle it. The Coast Guard will usually respond to all coastal spills, regardless of size. The Coast Guard upon learning of a spill will conduct an investigation and attempt to locate the discharger in order to inform him of his responsibilities. If the discharger does not take measures to collect or disperse the spill or if the discharger is unknown, the Coast Guard will obtain the services of a local contractor. The Coast Guard will utilize its equipment to control the spill prior to arrival of the contractor. The Coast Guard normally, however, will not become involved in the collection of the spill unless it is necessary to prevent injury to the public or natural resources. If the discharger is known, the Coast Guard will assess a fine and require that he incur the cost of the contractor's service.

It is questionable whether the oil spill response procedure relative to the proposed refineries is sufficient to prevent damage from occurring, especially with regard to the Carteret facility. For example, Newport River and immediate areas contain numerous oyster leases (See Map C), a variety of sport fish, and is one of the better commercial shipping areas in North Carolina. Moreover, the ebb and flow of the tide within the river is usually strong. Taking these factors into consideration, it is questionable whether (1) the state or Coast Guard can respond to a large spill soon enough to prevent injury to aquatic life and, (2) operation of the containment and collection process will be effective in the strong tide.

Summary

From an examination of the above government legislations, regulations, and procedure, it appears that the possibility of the occurrence of an oil spill or damage from an oil spill is minimal. However, many unforeseen factors may arise when attempting to prevent or control an oil spill, e.g., human error or forces of nature, which cannot be realistically addressed through legislation or procedure. Thus, it is the recommendation of this author that government officials thoroughly examine and analyze the Environmental Impact Statement relative to the government's capability to adequately prevent any damage from occurring, because there are certain injuries which may result from an oil spill which cannot be cured by monetary means.

VII. SOCIO-ECONOMIC IMPACTS

The construction and operation of an oil refinery has various socio-economic impacts upon citizens. Not surprisingly, the majority of the state officials interviewed were more concerned with this issue than any other. The reason for this is that state officials have little or no authority to regulate or even consider the socio-economic impacts of an oil refinery under existing state regulatory procedure.

As discussed previously, the National Environmental Policy Act of 1969 (NEPA) requires submittal of a detailed EIS--which includes discussion of socio-economic issues--by an industry prior to any construction requiring major federal action. The issuance of sections 404/10 permits has been determined to constitute major federal action, thus the two proposed refining facilities are required to submit a detailed EIS (see previous discussion of Section 404/10). However, if the proposed facilities were constructed in such a manner as not to require sections 404/10 permits or any other major federal permit, the facilities would not be required to submit an Environmental Impact Statement, or any information relative to their socio-economic impact. Thus, this section will examine several possible avenues which the state may pursue to fill this gap in the regulation.

State Environmental Policy Act

The State Environmental Policy Act, N.C. Gen. Stat. § 113A-1 et. seq., states in pertinent part, "any State agency shall include in every recommendation or report or proposal for legislation and actions involving expenditure of public money for projects and programs significantly affecting the quality of the environment of this State, a detailed statement by the responsible official. . . ." The detailed statement would be an Environmental Assessment (EA). This act as it now reads, however, only applies to projects which originate from state expenditure of funds. State permitting of private projects, such as the two proposed facilities, does not require an EIS or EA under this act. A reinterpretation or amendment of the act, causing it to have the same effect as NEPA, would provide a solution to the problem. But, if this alternative is taken, a substantial state financial expenditure would be required to operate the expanded permit process. It is questionable whether the General Assembly will commit the needed funds.

Oil Refining Facilities Permit

Another possible alternative is the amending of the Oil Refining Facilities Permit to include adverse socio-economic impacts as a grounds for denial. However, it was learned that this category was included in the 1972 version of the regulation, but deleted by the 1975 General Assembly. The reasoning underlying the deletion was not discovered. The legislature may have assumed that in every instance a major federal permit would be required, causing this category of the refining permit to be redundant. Such reasoning places the state in a very vulnerable position. If this was the thinking of the General Assembly, the legislation could be rewritten to only apply when no federal

permit required an EIS. Amending this legislation offers the most logical solution for ensuring that socio-economic impacts of oil refineries statewide are addressed.

CAMA--Key Facitity-Designation

Existing legislation under the CAMA affords a solution to the problem in coastal areas. N.C. Gen. Stat. § 113A-103 defines key facilities, among other things, as "major facilities on non-federal lands for the development, generation, and transmission." Ostensibly, under this definition, an oil refinery can be designated a key facility. By so designating, the areas impacted by the oil refineries will be an Area of Environmental Concern (AEC), according to N.C. Gen. Stat. § 113A-113(7). As previously stated, major development in an AEC requires a CAMA permit, which would require all refineries constructed in a CAMA county to acquire a major development permit regardless of its location. Moreover, N.C. Gen. Stat. § 113A-120 states that a permit may be denied upon finding "in the case of areas which are or may be impacted by a key facility, that the development is inconsistent with the State Guidelines. . . ." State guidelines under N.C. Gen. Stat § 113A-107 state "such guidelines shall be consistent with the goals of the coastal area management system as set forth in N.C. Gen. Stat. § 113A-102." By referring to N.C. Gen. Stat. § 113A-102(4), the goals of the CAMA, in pertinent part, are "to establish policies, guidelines, and standards for: (b) the economic development of the coastal areas, including but not limited to construction, location and design of industries, port facilities, commercial establishments, and other developments; (g) any other purpose deemed necessary or appropriate to effectuate the policy of this article." A reading of these various parts of the CAMA points up the fact that an EIS or EA, which addresses socio-economic impacts, could be required of all oil refineries located in coastal counties.

The more significant possibility of key facility designation is the establishment of regulatory controls not provided by other regulatory programs. These are two distinct methods by which other governmental regulatory "loopholes" can be plugged. First, the AEC definition, as previously discussed, is the "area impacted by key facilities." Under this definition, the CAMA can require designation of an entire area impacted by the refinery, possibly entailing many miles. Thus, the CRC has the authority to designate an AEC as large as necessary to insure adequate consideration of significant potential impacts. Second, under the AEC definition, the CAMA gives the CRC the authority to regulate development around the refinery. For example, the CRC could zone the immediate surrounding area as a buffer zone, to keep out commercial development. At any rate, regulating oil refineries and surrounding areas in these manners requires significant increased involvement by the CRC and an increased commitment of funds and manpower. (For a more detailed discussion of key facility designation and its implications, see Notes on Key Facility Designation--Oil Refineries, prepared by Attorney Glenn Dunn, Coastal Resources Division/NRCD.)

Summary

The most feasible solution for insuring that socio-economic impacts are addressed on a statewide basis is to amend the Oil Refining Facilities Permit

legislation. For the coastal area, designating oil refineries as key facilities would insure an assessment of socio-economic impacts and other government regulatory loopholes. The remainder of the state would need to rely on local government planning and zoning until the General Assembly addresses the matter.

CONCLUSION

If the governmental regulatory programs presently at the state's disposal are fully utilized, especially the CAMA, any area of concern with regard to the actual construction of the proposed refineries would be addressed. However, there are two major loopholes within the state's regulatory process to which attention should be given. First, there presently exists no regulation or group of regulations which would provide sufficient control over every major facet of ecological concern once the refineries begin operation. Second, the state possesses no means of assessing the socio-economic impacts of a future refinery construction which does not require a federal Environmental Impact Statement or CAMA Major Development Permit.

The solution to both of these problems is not to enact any new legislation, but expand upon that which presently exists. It is the recommendation of this author that present legislation specifically tailored for oil refineries, Oil Refining Facilities Permit, be amended to contain a broad-based review criteria, including socio-economic assessments and provisions which insure compliance during operation. In the interim, a key-facility designation under the CAMA will provide for the assessment of socio-economic impacts in the coastal counties.

FOOTNOTES

[1]Commentary on Proposed Oil Refining Facility Permits Rules, prepared for the State of North Carolina.

[2]As taken from Legislation Affecting Toxic Substances and Oil Pollution Control Authority, prepared for the State of North Carolina by Ed Gavin.

[3]Interview with Vance Holt, State Coordinator for Oil Spills, on August 6, 1979.

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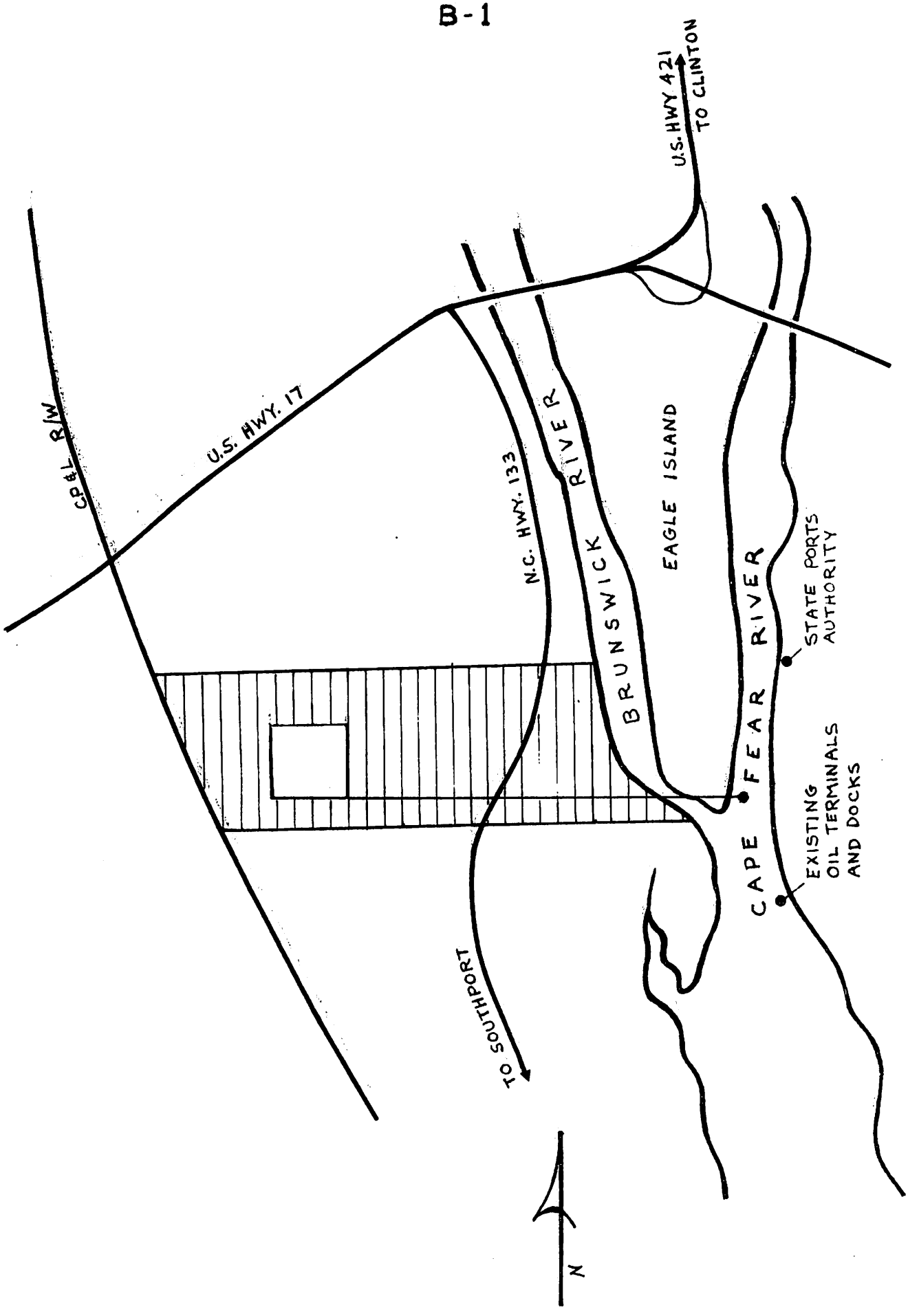
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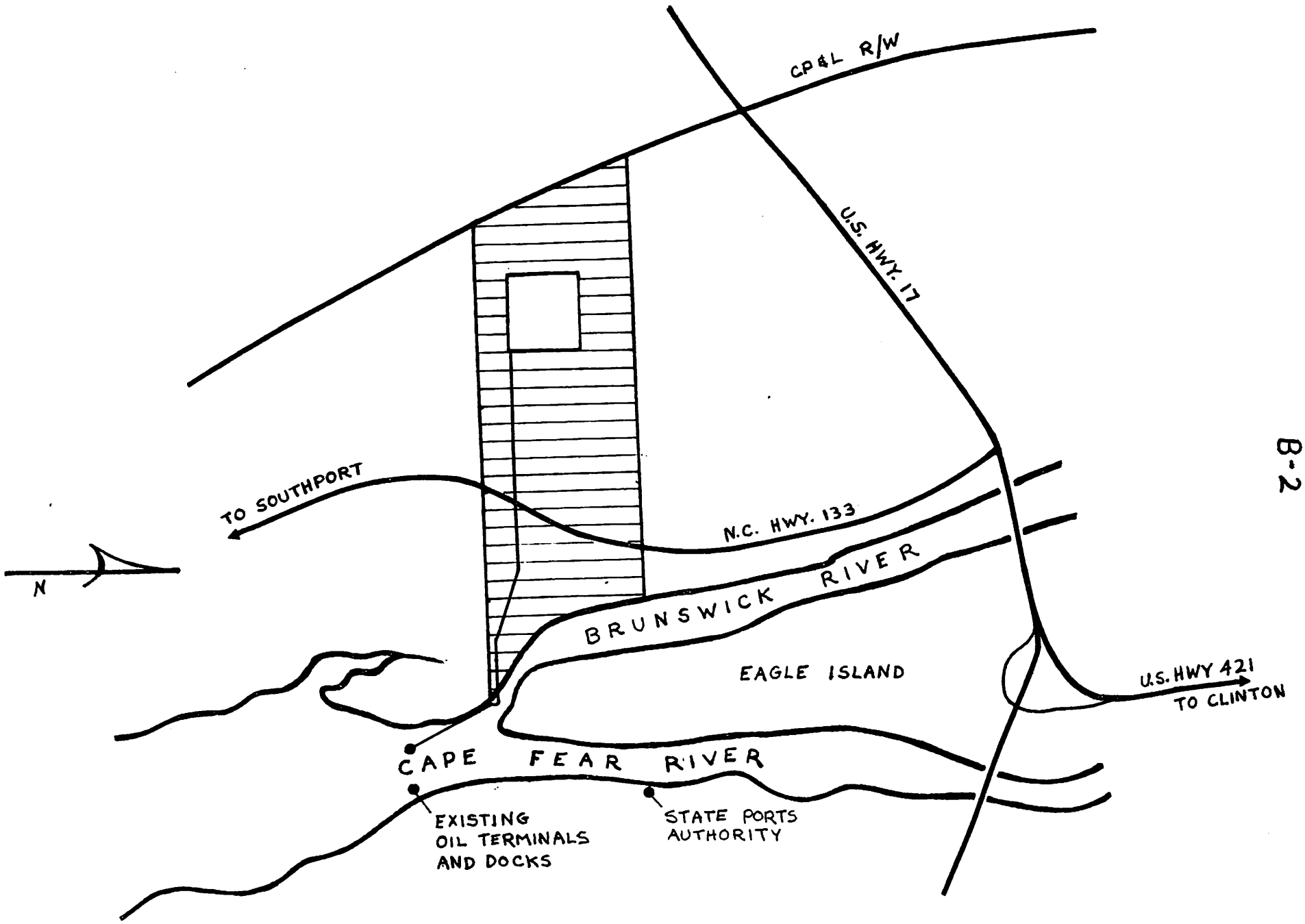
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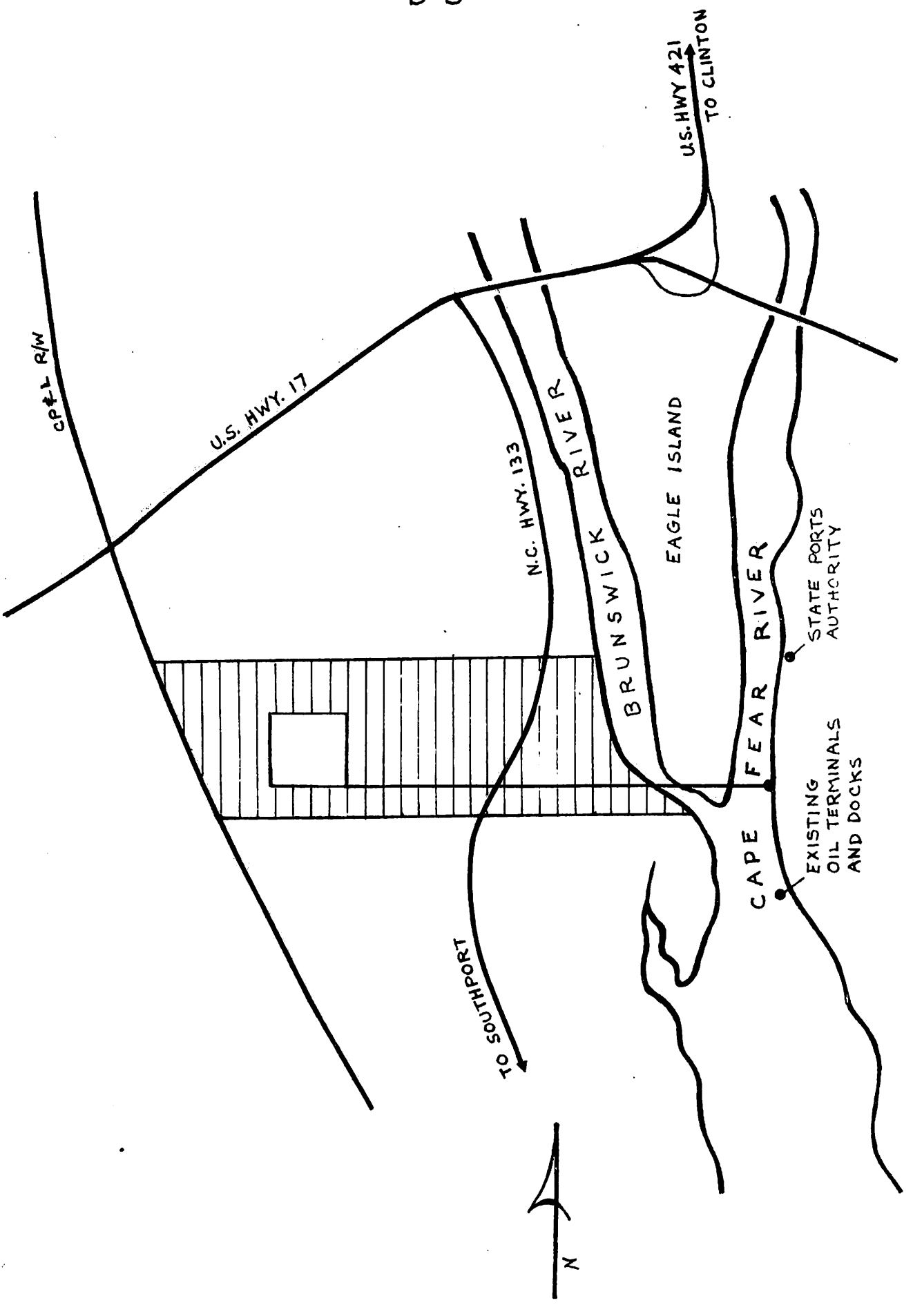
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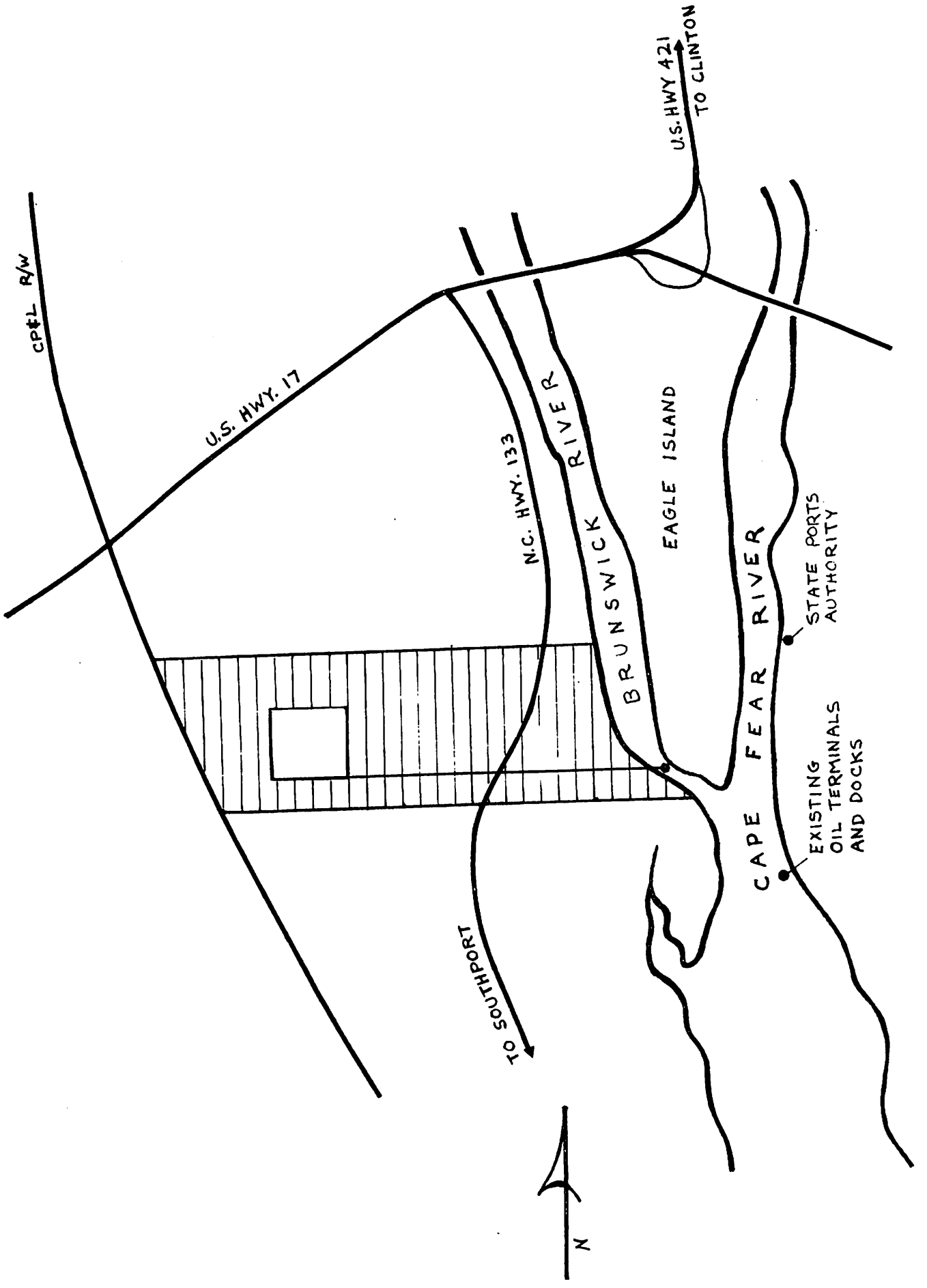
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