



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I

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SUBJECT: Policy Statement on Refineries and Deepwater Ports in New England
FROM: *John A.S. McGlynn*
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US Environmental Protection Agency
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Last December I appointed a Task Force which was directed to draft a report outlining Regional policy and advice on the subject of the location, construction, and operation of refinery - deepwater port complexes in New England.

Attached is a copy of the policy statement prepared by this Task Force. This statement is designed to promote the orderly development of petroleum related facilities in New England.

The statement is not intended to impede the development of these facilities. But it does recognize the importance of taking into consideration the long range land-use impact and the effect that such facilities could have on our environment.

We welcome your comments on our statement. They should be sent directly to Wally Stickney, Director of our Environmental Impact Office and Chairman of the Task Force.

EPA REGION I POLICY STATEMENT ON
REFINERIES AND DEEPWATER PORTS
IN NEW ENGLAND

PURPOSE

EPA has broad responsibilities regarding the protection of public health and the enhancement of our environment. Additionally, the Congress, through passage of the National Environmental Policy Act of 1969, declared "a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man to enrich the understanding of the ecological systems and natural resources important to the Nation". In accordance with this policy, the National Environmental Policy Act instructs all agencies of the Federal government to, "initiate and utilize ecological information in the planning and development of resource-oriented projects".

At this time the location, design, construction and operation of refinery systems is one of the most significant environmental issues facing New England. Although the energy crisis is national in scope, in many respects the issues facing New England are unique to our region. We have more difficulty obtaining adequate fuel supplies at reasonable cost than any other section of the country. For the first time in our history, pressures are building to develop a major refinery capability in several locations throughout the region. New England has a unique environmental heritage which is also one of our most important economic assets.

EPA, Region I, recognizes its responsibility to provide environmental advice as early as possible in the formulation of projects. The purpose of this statement, therefore, is to establish EPA, Region I, policy and advice on the subject of the location, construction, and operation of refinery-deepwater port complexes in New England.

THE ISSUE

a. All New Englanders have become painfully aware that there are limits to the quantity of energy available and that we must adopt a conservation ethic for energy use. Without question, the protection of New England's unique environmental assets requires that energy conservation become a way of life. However, it is apparent that in spite

of an aggressive program to reduce energy demand, a greater assurance of supply is needed. Several proposals have been advanced to provide this assurance through refinery construction. Additionally, the changing world market and supply situation is creating substantial economic pressures to establish refinery capacity in New England. This is a time of decision. If carefully considered and thoughtful actions are taken at this time, we can preserve our unique environmental assets, protect the public health, and still establish this capacity. On the other hand, hasty and ill-advised actions may result in irreversible damage to our environment.

b. Because of our limited land area and the great magnitude of deepwater port-refinery product distribution-petrochemical complex systems, the environmental effects may not be confined to a single state. Several Federal agencies including EPA, the Corps of Engineers, the Department of the Interior and the Department of Transportation, as well as state, Regional, and local governments, will have review and approval responsibilities. However, in many instances, this review is fragmented. All citizens of New England have a vested interest in the decisions involving these systems, and they have the right to participate and be heard as the decisions are made.

c. At this time, our petroleum supplies arrive as refined products transported in relatively small tankers and barges. These vessels unload at ports located in or near metropolitan areas. Further distribution is mainly handled by trucks although some limited pipeline systems are in use. Proposals have been advanced to establish deepwater ports offshore which would receive crude oil from supertankers and feed onshore refineries via pipelines. There are environmental advantages to these deepwater port systems; however, if refined products are pumped back offshore, loaded into small tankers and barges, and distributed much the same as they are now, there is no overall environmental benefit to be derived from the system.

d. Refinery systems may have significant water supply and pollution impacts. EPA has published standards of performance for refineries which limit discharges to levels which reflect the greatest degree of effluent reduction determined by the Administrator, to be achievable through the application of the best available demonstrated control technology, processes, or other alternatives. The effects of these discharges on our water resources at any particular location, however, must be carefully evaluated. Water supply needs of a refinery may require a significant commitment of a region's water resources at the expense of all other uses.

e. Historically, refineries have been associated with air pollution problems. Ambient air quality standards have been set for particulate matter, sulfur oxides, carbon monoxide, nitrogen oxides, photochemical oxidants and hydrocarbons. The hydrocarbons standard is for use as a guide in devising implementation plans to achieve oxidant standards. Hydrocarbons are important in that they may combine with oxidants and sunlight in a photochemical reaction process to produce photochemical oxidants. The technological tools do not exist at the present time to assess the level of photochemical oxidants caused by a major new point source of hydrocarbons such as a refinery. EPA, the state, and the developers must formulate and implement the necessary methodology to provide assurance that the hydrocarbon emissions from any project will not result in a violation of the photochemical oxidant standard.

f. Proper solid waste disposal is already a problem in many areas in New England. Removal of pollutants from the air and water discharges from refinery systems will result in additional solid or semi-solid waste products, some of which may be classified as hazardous. Oil spill cleanup operations can also generate large quantities of solid wastes. Some areas have already found difficulty in disposing of solid wastes generated from oil spill cleanup operations.

g. Extensive land use impacts are associated with refinery systems. Refineries require large land areas and buffer zones to control noise and odors, to dispose of solid wastes and debris and to provide for aesthetics. Expanded transportation systems and attracted petrochemical industries will contribute to extensive land use impacts during both construction and operation. The environmental effects of these and other associated secondary developments must be evaluated.

POLICY

a. Refineries, offshore ports, crude supply and refined product distribution networks and secondary industrial development are interrelated. In addition to the individual impacts, the synergistic effects of these systems must be evaluated. All portions of these systems must be sited carefully, balancing short-term benefits against long-term consequences. All logical alternatives must be investigated, including the no-build alternative.

b. EPA will coordinate closely with other involved agencies to ensure a coordinated review focused on the issues and accomplished without bureaucratic delay. We will supply technical assistance and advice to the extent our resources allow. Because of the New England-wide nature of

the problem, we will support regional solutions wherever possible.

c. EPA will make public hearings on our review mandatory. We also expect that local hearings will be held so that there is a complete and thorough examination of the proposal. In addition to formal hearings, our review and decision-making processes will be completely open with every possible opportunity for public participation. We expect refinery developers and their engineering and environmental consultants to be completely open in their study and design processes to provide every possible opportunity for public participation.

d. EPA will require that accurate assessments of environmental risks (including potential accidents) is undertaken, and that realistic decisions are made based on these assessments. This approach is also required by the National Environmental Policy Act. The resulting environmental impact statement provides the best vehicle we have to bring all the expertise of our Federal, state, Regional, and local governments, as well as the public to bear on the problem.

e. EPA will not permit the construction of a refinery that violates Federal air and water quality standards. We will use our permitting and enforcement authorities to ensure that these standards are maintained. Therefore, refineries or other large stationary sources cannot be developed in areas where the standards for emitted pollutants are being violated or would be violated after construction. Furthermore, it is our opinion that refineries should not be situated in areas with unique and critical environmental assets such as along our valuable and limited coastlines or in wetlands.

f. EPA will require particularly extensive studies of potential hydrocarbon and oxidant problems, their solutions, and their potential effects on urban and urbanizing areas.

g. Port facilities should be located some distance from the coast -- between 10 and 25 miles -- and in areas assuring freedom from navigational hazards, protection of unique environmental values, and having the capability to absorb or contain oil spills. We favor a monobuoy type system where tankers could unload crude oil offshore and have it piped underground to refineries onshore. Spill control systems, provisions for disposing of oil contaminated wastes resulting from spills, and the most advanced navigation systems must be included.

h. Crude supply and product distribution systems should, insofar as possible, utilize pipelines placed on

existing rights-of-way in order to minimize environmental impacts.

i. Assertions of environmental compatibility of proposals must be substantiated by hard scientific fact and substantial data before construction begins. Baseline studies will be necessary. These studies must be comprehensive and conducted over a sufficient period of time to clearly establish ambient conditions. Control techniques and technology must be clearly detailed and sufficient backup equipment provided to preserve environmental control at all times.

j. The refinery process should be designed to control accidental environmental discharges at the earliest instant in order to assure compliance with standards. In all cases, the probability of process problems, equipment malfunction and accidents must be predetermined along with the potential environmental damage that could occur during these periods.

k. All reviews and advice will be premised on the knowledge that over the long-term, the most significant impacts may be on land use. The irreversible commitment to changes in land use patterns which the approval of a refinery system or a portion of the system represents must be clearly addressed. The limits of the carrying capacity of our resources to sustain continuous demands of population, industry and a healthy and inspiring outdoor environment must also be clearly recognized and accepted. Our long-term policy and goal shall be high quality livability including the social and economic improvement of our citizens. Refinery development should be accomplished in consonance with this policy.

IMPLEMENTATION

a. We will apply this policy to the extent of our authorities in administering permitting and regulatory programs, in providing technical assistance and advice, and all reviews required by the National Environmental Policy Act.

b. We will actively seek to develop agreements and common procedures with other involved Federal agencies to ensure a coordinated Federal response to proposals with a minimum of procedural delays.

c. We will continue our intensive study of this matter. We solicit the views of all interested parties relative to this policy and will carefully evaluate and consider all comments and advice received.