MEMORANDUM

TO:       Senator Edmund S. Muskie

FROM:     Leon G. Billings

SUBJECT:  Thermal Pollution Regulations

The purpose of this memorandum is to provide the legislative and policy background for the letter to Russell Train on thermal pollution regulations. That letter criticizes the adequacy of two proposed EPA regulations:

A. Effluent limitations for the Steam Electric Power Generating Point Source Category; and

B. Procedures for the Imposition of Alternative Effluent Limitations.

This memorandum includes two parts. Part A will discuss the legislative basis for the proposed effluent limitations for the Steam Electric Power Industry and Part B will discuss the basis for the proposed procedures for the Imposition of Alternative Effluent Limitations.

Part A. EFFLUENT LIMITATIONS FOR THE STEAM ELECTRIC GENERATING PLANT SOURCE CATEGORIES

Summary: At issue in these regulations is the extent to which effluent guidelines for "best practicable control technology currently available" (section 301) should take into account whether or not those effluent reduction can be achieved by 1977.

The legislative history of the Act is void of any instruction to the Administrator to use "installation time" in determining what is practicable technology. While other factors are identified in the Act and the legislative history for determining what is practicable technology, installation time or any factor similar to it are not identified or discussed.
The Congress intended that the 1977 deadline serve as the only time element that the Administrator should consider.

More important than Congressional intent and the strong basis for questioning this policy is EPA's practice not to include "installation time" in defining "practicability" for all of the other industrial effluent guidelines issued to date.

"Installation time" was included in thermal effluent limitations because of the pressure exerted by the utility industry to weaken the guidelines and because of an admitted concern on the part of EPA's staff as to the adverse political impact of getting tough with the electric utilities. The Administrator is without authority to postpone deadlines through the mechanism of "installation time".

Legislative History

1. Effluent Limitations (Section 301(b))

The Federal Water Pollution Control Act Amendments of 1972 requires that the Administrator of the Environmental Protection Agency set effluent limitations (Section 301(b)) for point sources of pollution. The Act establishes a two-phase program for the application and enforcement of effluent limitations. The first phase requires point sources to achieve that level of effluent reduction identified as "...best practicable control technology currently available" as defined by the Administrator..." no later than July 1, 1977.

In the debate of the Conference Report in both the Senate and House, it is interesting to note that the Conferences explained this phrase by focusing separately on two subphrases, i.e., "best practicable" and "currently available".

In the Senate, you stated that:

"...In defining best 'practicable' for any given industrial category, the Committee expects the Administrator to take a number of factors into account. These factors should include the age of the plants, their size, the unit processes involved, and the cost of applying such controls."

Your position during the House debate was essentially restated.

The Senate debate provided no explanation of the term "currently available", while the House debate provided the following:
"By the term 'currently available' the managers mean the control technology, which, by demonstration projects, pilot plans, or general use, has demonstrated a reasonable level of engineering and economic confidence in the viability of the process at the time of commencement of actual construction of the control facilities."

Note that nowhere in this explanation is there a consideration given to "installation time". "Currently available" focuses on the viability, efficiency, and effectiveness of the processes—not how soon it can be installed—Congress mandated "installation time" by setting deadlines.

2. Guidelines for Determining Practicability (Section 304(b))

The Act also provides guidelines intended to clarify what Congress meant by the term "practicable" (Section 304(b)(1)(B)). These are:

-- the age of the equipment and facilities involved;

-- the process employed;

-- the engineering aspects of the application of various types of control techniques;

-- process changes;

-- non-water quality environmental impact (including energy requirements); and

-- such other factors as the Administrator deems appropriate.

Note that installation time is not specifically identified as a factor to be considered.

3. Balancing Test (Section 304(b))

This section also provides, as you noted in the Senate debate on the Conference Report, a "...balancing test between total cost and effluent reduction benefits which is intended to limit the application of technology only where the additional degree of effluent reduction is wholly out of proportion to the costs of achieving such marginal level of reduction for any class or category of sources."

Nowhere in the legislative history of the Conference agreement is there any indication that "installation time" should be considered in terms of a cost to be factored into this balancing test.
4. Senate Report of Effluent Limitations (301 of S. 2770)

To amplify these comments, the discussion of effluent limitations in the Senate report on S. 2770 is included below:

"The deadlines established to achieve effluent limitations are strict. Time will be required to achieve effluent limitations established. Sources of pollution, whether they are cities or industries, must know what the requirements are in order to proceed on schedule with their construction program. In the case of cities, this should not be difficult, because of the existing requirement that a minimum of secondary treatment is maintained for Phase I. Many communities have begun to construct these needed facilities. Others are in the process. Of course other must act quickly to begin construction if they are to meet the deadlines required in the legislation."

"Unfortunately, as noted above, little has been done to identify for industry the exact meaning, on a plant-by-plant basis, of the equivalent of secondary treatment. Through the permit program established under section 402, with the help of those States which have effective programs, the Administrator and the States can and should, by mid-1973, be able to apply specific effluent limitations for each industrial source. Application of limitation by that date would provide thirty months for achievement of required levels of reduction."

"While some may suggest that this is too short a period, many industries have known that they are expected to achieve the equivalent of secondary treatment and should be in the process of applying control techniques."

"In some cases, where industries have done nothing, their capacity to comply may be stretched to the limit. The Committee recognizes this, and suggests that to provide opportunity for further delay would only reward polluters who ignored the requirements of the 1965 Act and penalize those discharge sources who moved quickly to comply."

Part B. THERMAL DISCHARGES (Section 316(a))

Summary

Section 316(a) of the Act requires that thermal pollutants will be regulated as any other pollutant unless an owner or operator of a point source of thermal pollutants can prove that a modified thermal limitation
can be applied which will assure "protection and propagation of a balanced indigenous population of fish, shellfish, and wildlife."

Section 306(a) was intended to provide point sources containing heat discharges with a limited alternative to meeting the thermal discharge limitations as set forth in the Effluent Limitation section (301) and the National Standards of Performance section (306). This section was developed in conference as a compromise to a House provision which almost totally relieved the electric power industry from meeting the uniform effluent limitations. It is the only point source discharge which is afforded an alternative.

Despite the intent of the Conferences to narrow such special treatment, the EPA has promulgated proposed regulations which broaden significantly the requirements of section 316(a). These regulations translate a limited exception into a gaping loophole through which not only the power industry but other thermal dischargers may escape effluent limitations. EPA will be overwhelmed with applications for exemption and clean-up schedules for thermal and other pollutants will be delayed pending a decision on modification.

The legislative history supports narrow interpretation of this provision. The original House bill excluded heat from the definition of pollutants. The Conference Committee rejected this approach. The Conference compromise was to a modification of effluent standards for point sources of heat discharges if and only if the owner can prove an alternative effluent limitation will assure protection and propagation of fish, etc. The Conference Committee did not, however, intend for that alternative mechanism to be a simple or easy out. A heavy burden of proof was to be imposed on polluters — a burden necessitated both by the need to avoid excessive applicants and because only "heat" was singled out for special treatment.

Legislative History

Neither the House nor Senate bills contained provisions similar to section 316(a) of the Act. The Senate bill had no similar section, since heat discharges were treated in the same manner as all other pollutant discharges. The House bill excluded "heat" from the general regulatory process and added a separate section which required the Administrator to issue proposed regulations to control thermal discharges within one year of enactment of the Act. (See Appendix A for full text.)

Section 316(a) of the Act was developed in the Conference Committee as a compromise between the House and the Senate positions over the issue of whether heat discharges would be treated on a water quality or effluent control basis. The Conference Committee adopted the position that heat would be treated as a pollutant subject to effluent controls, but in so doing, wrote section 316(a) to permit modification of uniform effluent limits for thermal discharges if such source could demonstrate to the
satisfaction of the Administrator that a modified effluent standard would assure "the protection and propagation of shellfish, fish, and wildlife in and on the body of water, etc." Because section 316(a) was developed in conference, its legislative history is limited to the conference report and the remarks made in the Senate and House consideration of the conference bill.

1. Conference Report

The Conference Report provides no insight into the intent behind development of section 316(a) but rather paraphrases the language of section 316(a).

2. Senate debate of Conference Report

The Senate's discussion of section 316(a) is contained entirely in your comments on the Conference Report. The most relevant portion of those comments follow (the entire comments on section 316(a) appear in Appendix B).

"It is not the intent of this provision to permit modification of effluent limits required pursuant to Section 301 or Section 306 where existing or past pollution has eliminated or altered what would otherwise be an indigenous fish, shellfish, and wildlife population. The owner or operator must show, to the satisfaction of the Administrator, that a 'balanced indigenous population of fish, shellfish and wildlife' could exist even with a modified 301 or 306 effluent limit. Additionally, such owner or operator would have to show that elements of the aquatic ecosystems which are essential to support a 'balanced indigenous population of fish, shellfish, and wildlife' would be protected."

3. House Debate of Conference Report

On the House side, debate of the Conference Report on section 316(a) was longer and more comprehensive. Two House Conferences made legislative history.

Representative Don Clausen (California):

"Section 316(a) modifies the requirements of both sections 301 and 306 as they pertain to the thermal components of discharges from point sources, and authorizes the imposition of less stringent effluent limitations than would otherwise be imposed. These limitations will apply
whenever the owner or operator can satisfy the appropriate certifying or permitting agency that they will assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife in and on the body of water into which the discharge is to be made. It is intended that the certifying or permitting agency, in applying this test on a case-by-case basis, shall take into account the nature, physical characteristics, and dissipative capacities of the receiving water.

"Section 316(a) in effect recognizes the temporary localized effects a thermal component may have as well as the potential beneficial effects. It encourages the consideration of alternative methods of control, including mixing zones so long as the controls assure the protection and propagation of a balanced indigenous population of shellfish, fish, and wildlife.

"It is intended that in making such determinations, the certifying or permitting agency shall employ recognized and accepted measurement techniques. It is further intended that in making such determinations, 'balanced' shall be interpreted to mean a reasonable maintenance of aquatic biology and not the demonstration of enhancement thereof. 'Indigenous' shall be interpreted to mean growing or living in the body or stretch of water at the time such determination is made."

Representative Harold Johnson (California)

"The Administrator—or, if appropriate, the State—shall consider all alternatives for dissipating heat, including once-through cooling and mixing zones, so long as the protection of fish can be assured. This agreement recognizes that heat is different from solid or suspended pollutants because of its temporary and localized nature, and permits consideration of the dissipating capacities of the receiving waters, on a case-by-case basis."

These statements appear to be efforts to preserve the positions which were expressly rejected in the Conference Committee. Their inclusion in the House debate on the Conference Report not only misrepresents the Conference agreement, but has provided the EPA with a basis, albeit an extremely weak one, upon which to base their arguments for their construction of section 316(a) and the proposed regulations implementing that section.
Legislative History of Section 316(a) Issues in the Train Letter

1. Burden of Proof

The formal legislative history of section 316(a) is limited to language paraphrasing the requirements of that section which clearly places the burden of proof on the source.

2. Alternative Tests for Section 316(a)

On the issue of what tests EPA may use to ensure the protection and propagation of fish, shellfish, and wildlife, the legislative history in the Senate differs considerably from that in the House.

First, the Conference specifically rejected the concept, as urged by the House, that the assimilative capacity of the receiving water should be considered when determining how much heat a point source could discharge. The first sentence of Section 316(b) of the House bill (H.R. 11896) provided for the following:

"Such proposed regulations [the Administrator's proposed regulations on thermal discharges] shall recognize that the optimum method of control of any thermal discharge may depend upon local conditions, including the type and size of the receiving body." [Underlining added.]

The Conference rejected all of section 316 of the House bill, including section 316(b) and in so doing laid to rest the issue of whether or not the assimilative or alternatively the dissipative capacity of a body of water should be considered.

Despite this, Representative Don Clausen of California, supported by Representative Johnson also of California, contended in House debate of the Conference Report that the tests to be used in implementing section 316(a) of the Act should be applied on a case-by-case basis and should "take into account the nature, physical, characteristics, and dissipative capacities of the receiving water." [Underlining added.]

Second, Representative Clausen also posited definitions in the House debate which attempted to weaken the requirements of section 316(a). He first defined the term "balanced" by stating that it "...shall be interpreted to mean a reasonable maintenance of aquatic biology and not the demonstration of enhancement thereof." He also defined the term "indigenous" by stating that it "shall be interpreted to mean growing or living in the body or stretch of water at the time such determination is made."
These two definitions essentially allow point sources containing heat discharges to avoid stringent effluent limitations by simply showing that the discharges will not further deteriorate the existing quality of the receiving water—no matter how polluted it may be. Such a position is contrary to the basic thrust of the Act and more particularly the effluent guidelines to improve and enhance the quality of the Nation's waters. It also contradicts your description of the Conference agreement described in the Senate debate of the Conference Report: "See page 6 of this memorandum." Finally, the position was rejected by EPA in its rulemaking.

3. Mixing Zones

Representative Johnson, supported by Representative Clausen, attempted to reintroduce the position that mixing zones could be considered in formulating the alternative tests of section 316(a) by placing in the House debate of the Conference Report the following language:

"The Administrator...shall consider all alternatives for dissipating heat, including once-through cooling and mixing zones, so long as the protection of fish can be assured."

This concept was specifically rejected by the Conference Committee when it declined to accept section 316 of H.R. 11896 including section 316(b) which provided in part:

The regulation shall require any persons proposing to make such a discharge to consider all alternative methods for controlling such a discharge including, but not limited to (1) utilization of available water bodies or cooling devices, including once-through cooling, mixing zones, cooling ponds, spray ponds, evaporative, or non-evaporative cooling towers.

The Conference agreement also specifically rejected pollution dilution as an alternative to waste treatment. In the Senate debate of the Conference Report you stated the following:

"The Conference agreement specifically bans pollution dilution as an alternative to waste treatment."

Since the Act requires heat to be treated as a pollutant and since mixing zones is a dilution process for heat, the Conference agreement prohibits mixing zones as an alternative to waste treatment.
April 3, 1974

MEMORANDUM

TO : Senator Edmund S. Muskie 
FROM : Karl Braithwaite

SUBJECT: NEPA/EPA: Proposal for a Meeting With McGee and Staff

Recent developments indicate further trouble with Russell Train and Whitten on NEPA/EPA. Train testified before Whitten's Subcommittee April 2 and 3, and promised by May 1 to publish final regulations outlining the areas in which EPA will submit impact statements. When further pressed by Whitten, Train said that actual impact statements could be written and available in some areas by October of this year.

At no time has Train presented any rebuttal to Whitten on NEPA/EPA. Nor has he pointed out that this may lead to delays in certifying pesticides, delay the publication of noise regulations that truckers and RE's want to protest them from local ordinances, etc. Whitten began the hearing April 2 with slides from the Army Corps of Engineers on the Mississippi River flooding of 1973 and then a film on the Tussock Moth. He then said that more dams possibly could have been built for flood control if EPA hadn't held these up through its impact statements. Train was puzzled and one hour later when discussing pesticides did try to say that EPA does not write other agencies' impact statements, but didn't ever address the question of dams.

Train has not told Whitten that his plan for filing impact statements only applies to a limited range of EPA activities.

Senator McGee held his appropriation hearings Monday, April 1. McGee questioned him on the lack of an impact statement on the EPA decision to allow the limited use of a poison for predator control. McGee said this poison might have many environmental impacts and he thought we ought to know such impacts before the decision is made. McGee also pointed out that the Clean Air Act had been exempted from NEPA by the legislative history and court decisions.

On Wednesday, March 27, I met with Senator McGee's Appropriations Subcommittee staff man, Dudley Miles, for approximately one hour. We discussed a number of items relating to EPA's budget, but the most important message came in the NEPA/EPA controversy.
I recommend a meeting of you, Senator McGee, Leon, and Dudley Miles to discuss this issue. As a result of the conversation I had with Dudley, I think it is important that Leon and Dudley be in attendance. NEPA/EPA is not a high priority issue for Senator McGee. To the extent that your discussions alone with him may stimulate his interest in this issue, he will then turn to Dudley Miles rather than focusing on it himself.

Dudley is simply not convinced that EPA should be shielded from NEPA. He has read many of the court cases and the background material that Leon gave him last year. Dudley recognizes that the Clean Air Act has been exempted by the legislative history and the court cases from any NEPA activities (but Whitten does not!). When I told him that Whitten, at his first Subcommittee hearing on EPA two weeks ago, cited many Clean Air Act examples of EPA actions he wanted covered through NEPA, he did not know how to react.

Dudley does not buy our "foot in the door" argument. He thinks there are areas where EPA ought to file impact statements. He gave as an example EPA's recent decision to allow use of some poisons on Federal land for predator control. He thought that the environment might be better protected if EPA were required to file an impact statement on this action. (This one gets close to home for Senator McGee, because in 1970 or 1971 he held hearings in the Agriculture Appropriations Subcommittee on the killing of eagles by such poisons.)

I short, Senator McGee will have his hands full with Whitten even if he and his staff agree with us all the way. Right now, they definitely do not.

Shall we set up a meeting?
February 22, 1974

MEMORANDUM

TO: Senator Edmund S. Muskie

FROM: Leon G. Billings

SUBJECT: Application of NEPA to EPA

As you will recall, last year Representative James Whitten included in the EPA Appropriation bill a requirement that EPA file environmental impact statements on Agency actions. You established legislative history during Senate consideration of the Conference Report with Senator McGee (copy attached) which established that an appropriation bill could not extend NEPA to the Clean Air Act in light of the existing statutory and judicial bar to such application.

I understand from Administrator Train's office that EPA is about to agree, under pressure from Representative Whitten, to file environmental impact statements on Clean Air Act regulatory activities. I am further advised that EPA's lawyers are satisfied that this agreement cannot be used as a basis for legal challenge on past Clean Air Act activities (such as air quality standards, implementation plans, new source performance standards and so on) to go back and file environmental impact statements.

In my opinion this is a determination by counsel to support a political decision not a determination by counsel which is legally supportable. Once EPA admits to a requirement to file environmental impact statements on future Clean Air Act activities there is no reason to believe the courts won't hold that past activities are subject to the same requirements. This will put all air quality standards and new source performance standards, implementation plans and so on in limbo.

Administrator Train feels that he must agree to file impact statements on Clean Air Act programs because of the pressure from Rep. Whitten. Rep. Whitten insists that the money appropriated last year be spent for this purpose and Train feels he has no alternative.

This issue should be raised publicly during the March 1 oversight hearings. Train must be made aware of the strong interest you and other members of the Committee have on this issue. Also, Train wants to meet with you and Senator Baker next week to discuss this problem.
I have indicated to Train's people that this kind of cave-in to Whitten blackmail would be another nail in the NEPA coffin which I assume is not their purpose. I have also indicated you feel very strongly about this issue or you would not have raised it in the Senate. And finally I have indicated your deep concern with the impact of this policy on Clean Air Act programs.

Attached to this memo are various items relating to the NEPA-EPA controversy. I am attempting to set up a meeting with Baker and Train on February 28. (Senator Buckley does not believe EPA should be exempted from NEPA.)