



How Best To Promote Industrial Pollution Prevention Through The Effluent Guidelines Process

Recommendations of the Industrial
Pollution Prevention Project (IP3)
Focus Group

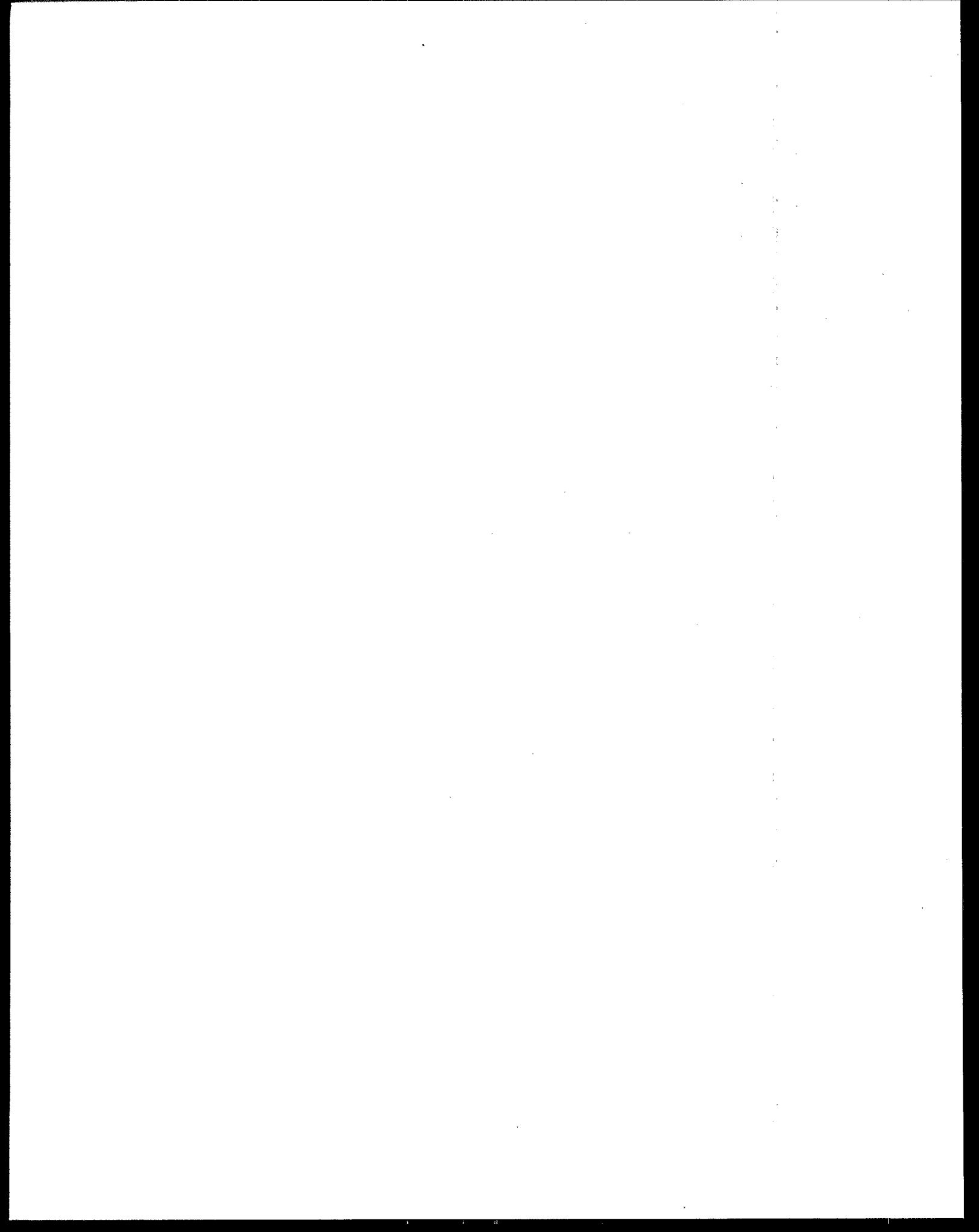
Technology Innovation and
Economics Committee

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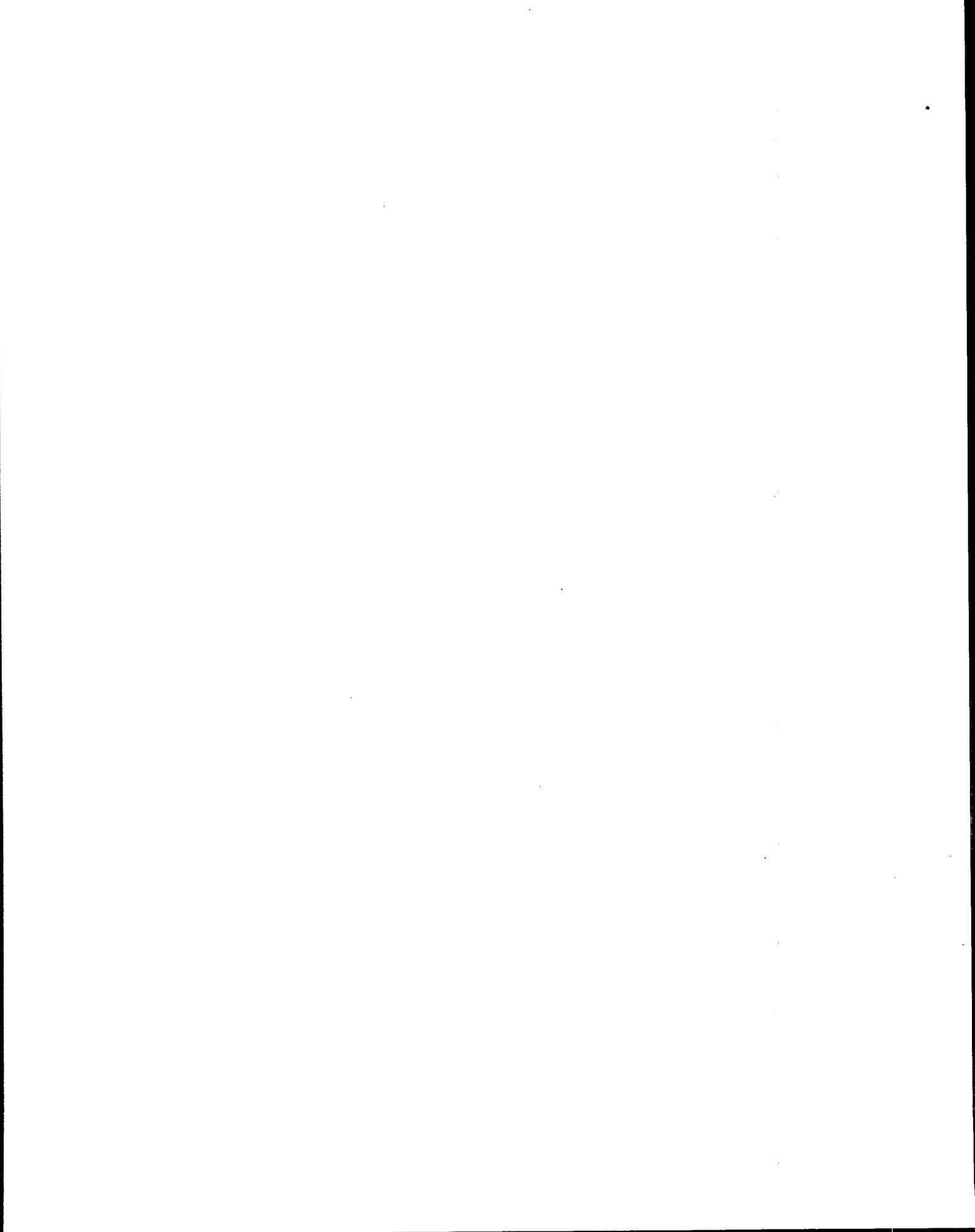


**REPORT OF THE
INDUSTRIAL POLLUTION PREVENTION PROJECT (IP3)
FOCUS GROUP

OF THE
TECHNOLOGY INNOVATION AND ECONOMICS COMMITTEE
OF THE
NATIONAL ADVISORY COUNCIL FOR
ENVIRONMENTAL POLICY AND TECHNOLOGY**

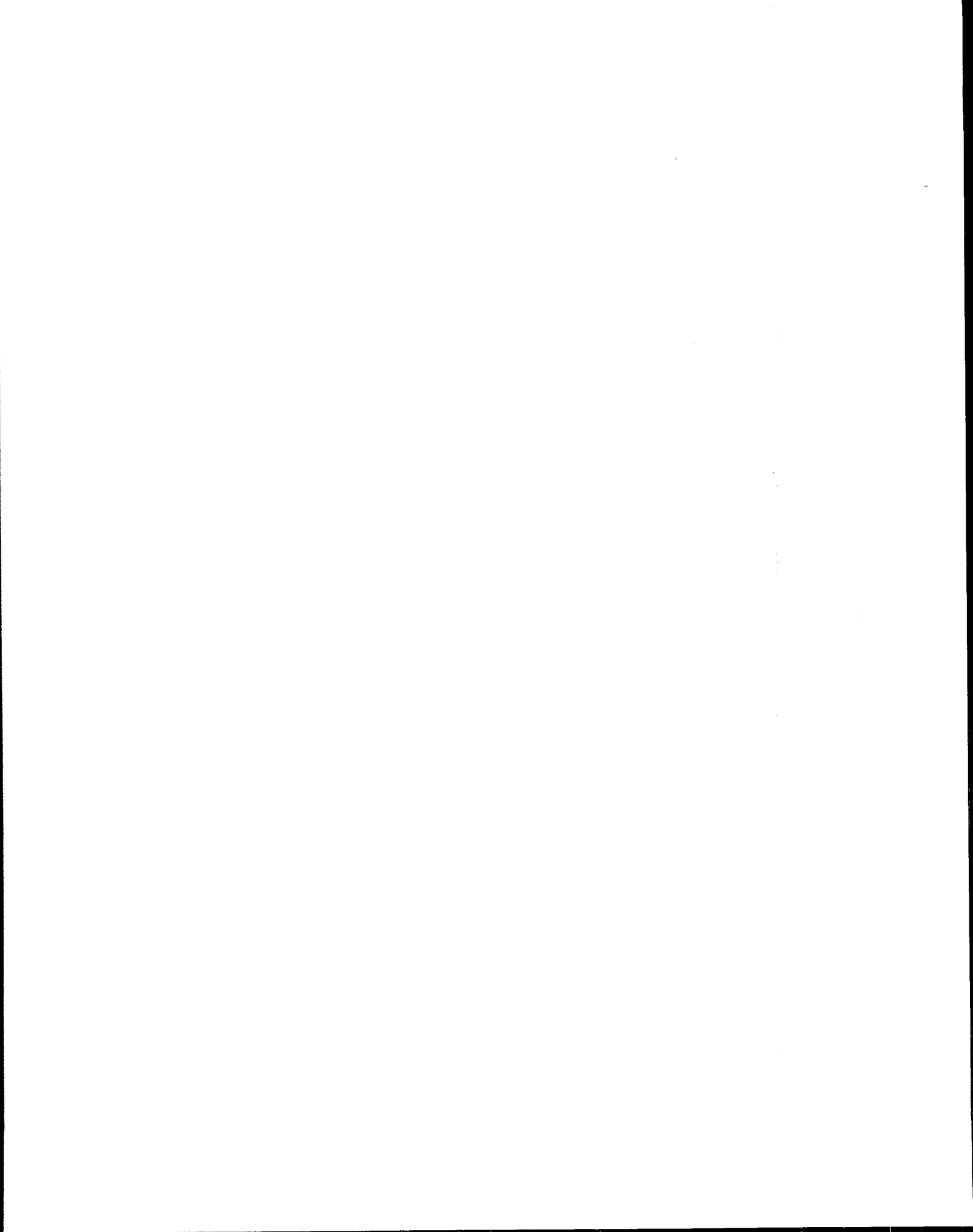
**"HOW BEST TO PROMOTE INDUSTRIAL POLLUTION PREVENTION
THROUGH THE EFFLUENT GUIDELINES PROCESS"**

February 1993



NOTICE

The following report and its recommendations have been written in conjunction with the activities of the National Advisory Council for Environmental Policy and Technology (NACEPT), a public advisory committee providing extramural policy information and advice to the Administrator and other officials of the Environmental Protection Agency (EPA). The Council is structured to provide balanced, expert assessment of policy matters related to the effectiveness of the environmental programs of the United States. This report has not been reviewed for approval by the EPA. Hence, the contents of this report and recommendations do not necessarily represent the views and policies of the EPA, nor of other agencies in the Executive Branch of the federal government.

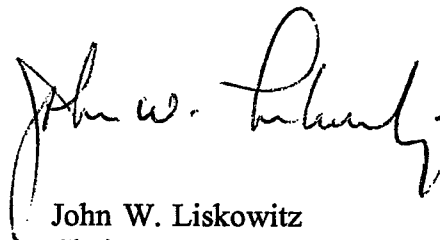


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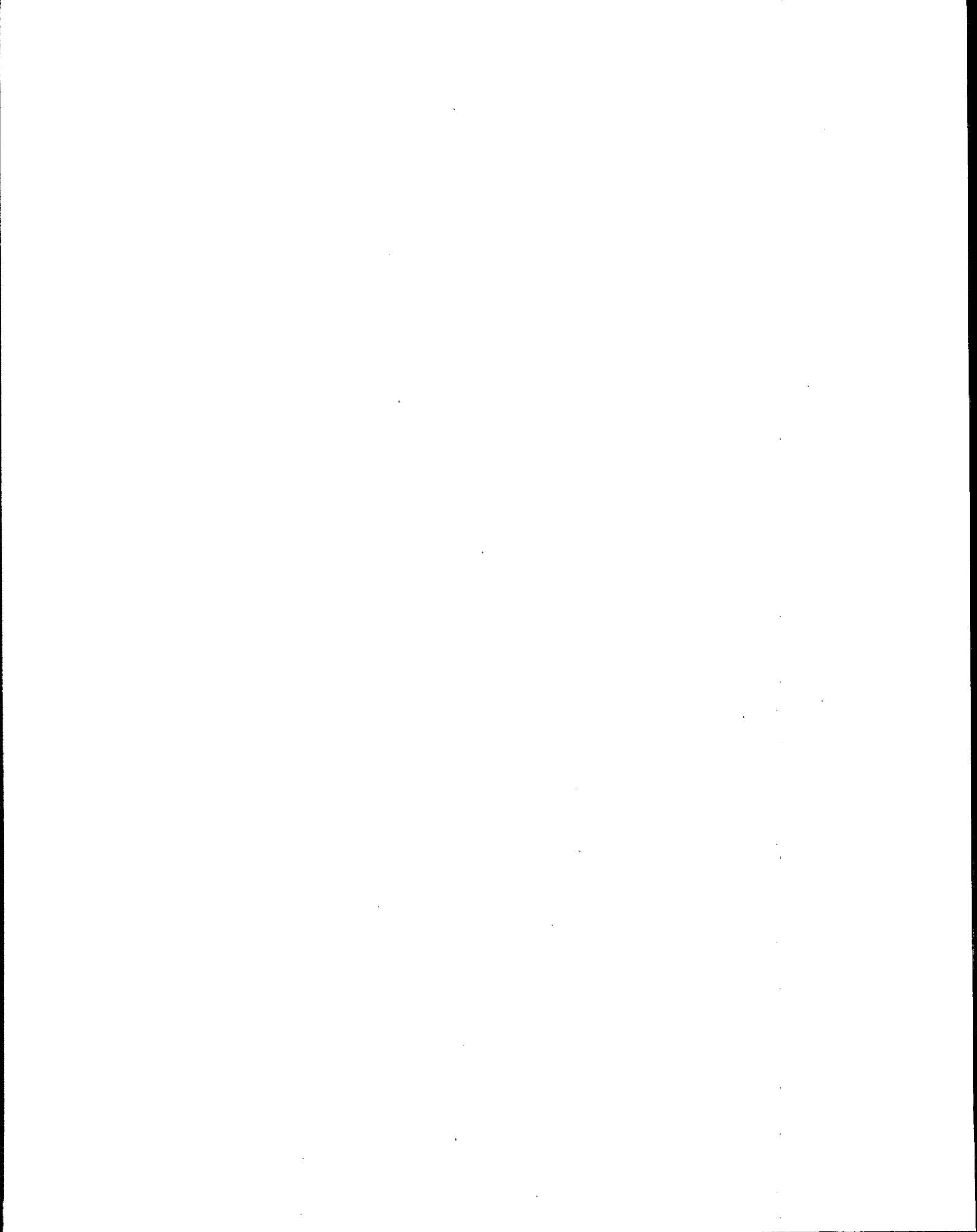
To the Reader:

This report contains stimulating ideas that break new ground. It suggests a creative, new approach for encouraging industrial pollution prevention -- within the context of EPA's regulatory framework.

It is hoped that this report will be read with interest and serve as a catalyst for change.

A handwritten signature in black ink, appearing to read "John W. Liskowitz". The signature is fluid and cursive, with a large initial "J" and a stylized "L" at the end.

John W. Liskowitz
Chairman
IP3 Focus Group



EXECUTIVE SUMMARY

The Industrial Pollution Prevention Project (IP3) Focus Group was requested by EPA to provide specific recommendations on how best to promote industrial pollution prevention through the effluent guidelines process. In response to that request, the Group makes the following recommendations to EPA:

Introductory Consensus Statement

To promote more industrial pollution prevention, the effluent guidelines process must (1) be more flexible, (2) address all media, and (3) impart a pollution prevention mindset to everyone throughout the effluent guidelines process. To accomplish this, EPA should adopt a specific new approach to the development and achievement of Best Available Technology (BAT) limits.

Recommendation 1

To encourage industry to do more pollution prevention, EPA should provide industry with an alternative approach that is more flexible than the strict requirement to attain a single Best Available Technology (BAT) effluent limit.

Industry should be permitted to achieve a level of effluent reduction different from the single BAT limit -- provided the facility will implement pollution prevention measures that will substantially reduce total emissions (all media considered) below an EPA-established emissions reduction threshold.

This new approach would not constitute a relaxation of BAT. It would apply to new and revised effluent guidelines, and the effluent limit achieved would still be a BAT limit (because the Clean Water Act allows for a BAT limit to be established based on multi-media tradeoff considerations). It just would not be the "normal" single BAT limit, which is established without allowing for multi-media tradeoffs.

The alternative approach must -- in EPA's (and the State's or POTW's) opinion -- be clearly a better environmental choice than simply meeting the single BAT limit. Otherwise, the alternative approach must not be granted.

To encourage an industrial facility to choose the alternative approach and implement multi-media pollution prevention measures reducing total emissions (all media considered), EPA should offer -- along with the alternative approach -- incentives on a case-by-case basis depending on the situation.

Some examples of such incentives are the following:

- technical assistance (for implementing pollution prevention measures)
- extended permit length
- extended compliance schedules
- "soft landings"
- forgiveness of "brief" excursions
- awards
- choice of mass or concentration limits
- allowance for R&D in permits
- provision of an ultimate limit to plan toward.

However, no incentive should be offered that would increase harm to human health or the environment.

Recommendation 2

EPA should offer incentives to industry to implement pollution prevention measures that reduce pollution beyond the traditional single BAT limit.

Possible incentives would be the same as those suggested in Recommendation 1. (However, multi-media tradeoffs -- an inherent incentive in Recommendation 1 -- are not included in Recommendation 2.) As in Recommendation 1, **no incentive should be offered that would increase harm to human health or the environment.**

Recommendation 3

To further the incorporation of pollution prevention into the existing effluent guidelines development process, **EPA should:**

- **Encourage pollution prevention actively in all parts of all of the Agency's programs.**
 - **Make the development of every effluent guideline multi-media (i.e., always address all impacts in all media with each effluent guideline and also try to have, with the different media, concurrent rule development).**
 - **Tell the public and industry what EPA's pollution prevention philosophy and agenda are, and elicit comments.**
 - **Gather input on pollution prevention from co-regulators early in the regulatory development process.**
 - **Negotiate more leeway from agencies with relevant regulatory authority regarding the definition of "process modification."**
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- **Coordinate more with the Occupational Safety and Health Administration regarding the effluent guideline limits and possible issues with worker health and safety.**
- **Conduct more dialogue with industry during process modification/treatability studies and site reports.**
- **Continue to explore pollution prevention technology used overseas. (Realize that some is government supported; factor this into the economic analysis.)**
- **Use the pollution prevention information clearinghouse (PPIC) in conjunction with the effluent guideline Development Document.**
- **Initiate discussion with industry groups about market protection and any associated product standards.**
- **Start with the more homogeneous industrial categories where data are plentiful, in piloting the incorporation of pollution prevention into effluent guidelines.**

In addition, to get industries to do more pollution prevention through the existing process, EPA should:

- **Look for and find ways to develop and promulgate effluent guidelines more quickly so that more industries can be covered by effluent guidelines.**
- **Make sure that enforcement personnel and policies do not simply promote the adoption of a BAT control technology but instead support pollution prevention.**

(NOTE: Recommendations 2 and 3 above were unanimously agreed upon by all 23 members of the Group (see Appendix B for a list of all 23 members). Twenty-one members agreed on Recommendation 1. Two members proposed an alternative to Recommendation 1; their minority view is contained in the Report in the discussion section under Recommendation 1. It should be noted here that the minority view on Recommendation 1 proposes some of the same innovative concepts as in Recommendation 1 presented above; the difference is that the minority view applies those concepts at a different point in the effluent guidelines process.)

REPORT OF THE IP3 FOCUS GROUP

BACKGROUND In 1989, as part of a new EPA emphasis on pollution prevention, the Agency decided to set aside 2% of its FY91 and FY92 contract budgets for new pollution prevention initiatives. One of these initiatives was the Industrial Pollution Prevention Project (IP3). The IP3 was developed and established in 1990, and implementation began in 1991.

As part of the IP3, the IP3 Focus Group -- comprised of representatives from industry, labor, environmental groups, academia, and all levels of government -- was established in 1991 to provide advice on all aspects of EPA's Industrial Pollution Prevention Project. At its first meeting in September 1991, the Group was also tasked to give EPA some specific recommendations on how best to promote industrial pollution prevention through the effluent guidelines process.

At the Group's second meeting in December 1991, the Group was asked to tell EPA -- from the Group Members' perspectives -- "what is working" to foster pollution prevention and "what is not working" to foster pollution prevention in the effluent guidelines program. The Group discussed this question in segregated breakout groups (i.e., a separate group for industry, for government, for public interest groups, etc.). When the breakout groups reported back to the full group, it was discovered that there were three key areas where all groups agreed the effluent guidelines process needed improvement in order to foster more industrial pollution prevention. Those three areas can be summarized as follows:

To promote more industrial pollution prevention, the effluent guidelines process must (1) be more flexible, (2) address all media, and (3) impart a pollution prevention mindset to everyone throughout the effluent guidelines process.

At the Group's third meeting in March 1992, Group Members presented their specific ideas and suggestions on how the effluent guidelines process could be improved in the three areas identified in the December 1991 meeting.

At the Group's fourth meeting in July 1992, the Group discussed selected ideas that had been presented in the March meeting, developed them further, and began the process of reaching closure on some of the ideas.

At the Group's fifth meeting in November 1992, the Group reached closure on those ideas and drafted Group recommendations to EPA. The draft recommendations were then put into final form and approved at the Group's sixth and final meeting in February 1993.

THE RECOMMENDATIONS The Industrial Pollution Prevention Project (IP3) Focus Group was requested by EPA to provide specific recommendations on how best to promote industrial pollution prevention through the effluent guidelines process. The Group makes the following recommendations to EPA:

Introductory Consensus Statement

To promote more industrial pollution prevention, the effluent guidelines process must (1) be more flexible, (2) address all media, and (3) impart a pollution prevention mindset to everyone throughout the effluent guidelines process. To accomplish this, EPA should adopt a new approach to the development and achievement of Best Available Technology (BAT) limits.

(NOTE: Recommendations 2 and 3 below were unanimously agreed upon by all 23 members of the Group (see Appendix B for a list of all 23 members). Twenty-one members agreed on Recommendation 1. Two members proposed an alternative to Recommendation 1; their minority view is contained in the discussion section of Recommendation 1.)

Recommendation 1

To encourage industry to do more pollution prevention, EPA should provide industry with an alternative approach that is more flexible than the strict requirement to attain a single Best Available Technology (BAT) effluent limit.

Industry should be permitted to achieve a level of effluent reduction different from the single BAT limit -- provided the facility will implement pollution prevention measures that will substantially reduce total emissions (all media considered) below an EPA-established emissions reduction threshold.

This new approach would not constitute a relaxation of BAT. It would apply to new and revised effluent guidelines, and the effluent limit achieved would still be a BAT limit (because the Clean Water Act allows for a BAT limit to be established based on multi-media tradeoff considerations). It just would not be the "normal" single BAT limit, which is established without allowing for multi-media tradeoffs.

The way this alternative approach would work is that an industrial facility would have the choice of either meeting the traditional single BAT limit or achieving a different effluent reduction through the implementation of multi-media pollution prevention measures. However, any facility selecting to implement the multi-media pollution prevention measures would have to show convincingly (to EPA's satisfaction) how the pollution prevention measures will produce a better environmental outcome than meeting the single BAT limit.

Specifically, the multi-media pollution prevention measures, if they fail to meet the single BAT limit, must fall short of it by only a small margin. The achieved effluent reduction would be considered to fulfill the BAT requirement, provided it also results in reducing the total mass of emissions (all media considered) below an EPA-established emissions reduction threshold.

The emissions reduction threshold could be established by EPA by specifying a "multiplier" (which need not be a whole number) as in the following conceptual example:

Example

If the alternative approach would result in an emission to water that is 5 lbs/day more than the normal BAT limit, then the total emissions to all media must be reduced by "M" times 5 lbs/day -- where "M" is the EPA-established "multiplier."

Only if the facility can convincingly show that all of the above conditions will be met, should the alternative multi-media approach be granted.

In short, the alternative approach must -- in EPA's (and the State's or POTW's) opinion -- be clearly a better environmental choice than simply meeting the traditional single BAT limit. Otherwise, the alternative approach must not be granted.

Furthermore, for the alternative approach to be allowed, the promised emissions reductions in all media must be conditions in the permit (or other legal mechanism) and there must be enforcement assurances, including adequate compliance monitoring, in all media to verify the desired pollution prevention results.

The alternative approach provides flexibility not only to industry but also to the permitting authority. Many permitting authorities will welcome being given this increased flexibility for writing permits. But some permitting authorities, for one reason or another, may not be equipped to deal with this alternative approach. Therefore, the alternative approach should be offered at the discretion of the permitting authority (or POTW). A permitting authority (or POTW) that is not able to handle the alternative approach should not be required to offer it.

Finally, to encourage an industrial facility to choose the alternative approach and implement pollution prevention measures reducing total emissions (all media considered), EPA should offer -- along with the alternative approach -- incentives on a case-by-case basis depending on the situation.

Some examples of such incentives are the following:

- technical assistance (for implementing pollution prevention measures)
- extended permit length
- extended compliance schedules
- "soft landings"
- forgiveness of "brief" excursions
- awards
- choice of mass or concentration limits
- allowance for R&D in permits
- provision of an ultimate limit to plan toward.

EPA should not be limited to any one list of incentives. All possible incentives should be considered, because unique situations may call for unique incentives. However, no incentive should be offered that would increase harm to human health or the environment.

The "soft landings" incentive, listed in the examples above, is deliberately not defined. It, however, refers generally to the idea of not heavily penalizing a facility for making a good faith effort to try an innovative pollution prevention technology that unexpectedly fails to meet the BAT limit. But what the "soft landings" incentive would actually turn out to be is left for EPA or others to decide in the actual implementation of this recommendation.

The technical assistance incentive, listed in the examples above, refers primarily to making available assistance and information that is user-friendly, through vehicles such as the pollution prevention clearinghouses. It does not necessarily mean on-site technical assistance. However, the Group also notes the importance of on-site technical assistance and makes a broader "policy" recommendation:

"EPA should devote increased attention and resources to train-the-trainer training (e.g., for State permit writers and for industrial facility managers) and on-site technical assistance programs, as well as to information dissemination and technology transfer."

DISCUSSION

All 23 Focus Group Members unanimously agree that there should be increased flexibility and a broadening of BAT to include greater consideration of all media. All members also unanimously agree that there is merit in adopting a new approach to calculating BAT, including determining emissions to all media, for the purpose of encouraging pollution prevention.

Where dissent arises is that two members do not agree with the Group majority on how this new approach and broadening of BAT should be structured. The Majority View (which supports Recommendation 1) and the Minority View (which proposes an alternative to Recommendation 1) are as follows:

Majority View: (held by 21 of the 23 members)

An alternative approach is needed.

- Pollution prevention is a highly desirable goal. For many industrial categories, however, it is difficult to incorporate significant pollution prevention into the traditional single BAT limit. Therefore, there needs to be a different approach.
-

- EPA's effluent guidelines process needs to address an important distinction between control technology and pollution prevention. Whereas control technology can expressly meet a performance standard universally, pollution prevention is fundamentally different and usually varies from facility to facility.
- Therefore, even though incorporating pollution prevention along with control technology is possible with the single BAT limit and even though industries can and will do some pollution prevention without an alternative BAT approach, the pollution prevention that industries will be able to implement will generally be only the relatively small amount that can be prescribed indirectly through nationally-applicable single BAT limits, plus any site-specific pollution prevention that is straight-forward and easy to do.
- With the current approach and without an alternative approach, companies can be neither driven nor enticed to try new technologies or to take other bold steps to further pollution prevention.
- EPA needs to create an atmosphere of stepping into the beyond and affording industry the opportunity to make great strides in pollution prevention.
- To foster more pollution prevention and to encourage industry to make the more difficult commitments to pollution prevention (those that can really make a difference), the alternative approach of Recommendation 1 -- with its flexibility and multi-media orientation -- is needed.

The approach will not harm the environment.

- A clearly expressed stipulation of the alternative approach is that it should never be allowed unless, in the opinion of EPA and the regulating community, it will clearly produce a better environmental outcome than meeting the single BAT limit.
 - The multi-media emissions reduction threshold requirement of the alternative approach will be established by EPA and will be as stringent as EPA decides it should be. It can be reasonably assumed that EPA will take into account possible margins of error and set the requirement sufficiently stringent to ensure that no harm to the environment will result
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- The alternative approach also stipulates that the promised emissions reductions in all media must be conditions in the permit (or other legal mechanism); and there must be enforcement assurances, including adequate compliance monitoring, in all media to verify the desired pollution prevention results. This is an integral part of Recommendation 1 to ensure that the promised benefits to the environment will be realized and that environmental harm will not result.
- Also, water quality standards would always be met with the alternative approach.
- Finally, any postulation that "BAT may not be attained" would be wrong. The alternative effluent reduction would itself be a BAT limit. BAT is not relaxed but broadened. The achieved effluent reduction in the alternative approach would be an alternative determination of BAT with external multi-media factors taken into account. The Clean Water Act allows for this type of broadening to more than one BAT limit.

The approach will clearly benefit the environment.

- Consider the following example:

A facility can apply a technology which will meet the "normal" single BAT limit. But doing so will result in air pollution and substantial hazardous waste. The facility can alternatively make a process change that will come close to meeting the "normal" single BAT limit but will significantly reduce the air pollution and the hazardous waste -- more than would otherwise be required under the respective environmental statutes. Furthermore, it is unquestionably clear to the State and to EPA that the process change alternative is vastly more beneficial for the environment. But, without the alternative approach, simply meeting the single BAT limit is the only possibility open to the permit writer. The facility will have to meet the single BAT limit and is not allowed to make the process change. And the environment suffers.

- In cases like the example above, offering industry the alternative approach of Recommendation 1 can bring about results clearly more beneficial to the environment than simply meeting the single BAT limit can.
-

The alternative approach can fill some needed roles.

- To build pollution prevention into a single BAT limit, to the extent desired, may not be possible for many categories of industries, because any given pollution prevention measures may not be broadly applicable enough to be the basis for a single national limit. A single BAT limit can perhaps be based on easy, straight-forward, or well established pollution prevention measures -- but not on the most effective measures. The most effective pollution prevention measures tend to be site-specific for many industries. Therefore, for many industries, the desired extent of pollution prevention -- even though it would be possible for some facilities within an industry -- cannot be incorporated in setting the single BAT limit for that industry and therefore that pollution prevention simply will not happen -- even at those facilities that can do it -- unless the alternative approach is offered.
 - In addition, even though the traditional single BAT limit can drive the diffusion and adoption of existing and proven prevention technologies, it does not tend to encourage new prevention-technology development and innovation. The alternative approach is needed to drive innovation.
 - In summary, the alternative approach would not only bring about pollution prevention when the normal BAT cannot, but it would also bring about a type of pollution prevention that the normal BAT does not.
 - A separate consideration is that the alternative approach involves a degree of industry participation and "buy-in" that does not exist with strict application of a single BAT limit. The cooperative spirit of the alternative approach may help assure timely compliance. It may also reduce litigation -- cutting the time and cost of the regulatory process and speeding up the realization of environmental gains.
 - Finally, the alternative approach, with its incentives, would also encourage continuous improvement in pollution prevention during the interim between effluent guidelines revisions.
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The alternative approach will not always be the best choice.

- The alternative approach is not the only way to obtain pollution prevention and is not always the best way. There is a role for both the single BAT limit and the alternative approach. Their respective roles need to be clear.
- Meeting the single BAT limit is the primary approach. The alternative approach only has a role where implementation of the alternative approach clearly and unquestionably leads to enhanced -- not relaxed -- protection of human health and the environment and where it would produce a clearly better environmental outcome than meeting the single BAT limit.

The regulating community too should have an option.

- Many permitting authorities (and POTWs with pretreatment program requirements and enforcement/compliance responsibilities) need and want to exercise the flexibility and incentives of the alternative approach. However, any permitting authority (or POTW) that -- for whatever reason -- chooses not to handle the alternative approach should not be required to offer it.

In summary, providing flexibility and encouraging greater consideration of all media are very important for the adoption of more pollution prevention by industry.

While the traditional single BAT limit by itself may be able to take us a long way toward our pollution prevention goals, there are situations where the alternative approach can foster more pollution prevention and bring about results more beneficial to the environment than meeting a single BAT limit can.

Both the single BAT limit and the alternative approach have merit. Meeting the single BAT limit should remain the primary regulatory approach. The alternative approach (offering incentives and achieving multi-media pollution prevention) has a role only where it can provide a clearly better environmental outcome.

In Recommendation 1, the current single BAT limit approach is not denigrated but preserved. A facility can still choose to meet the single BAT limit and do so any way it chooses. But by also offering the alternative approach, the important pollution prevention factors of increased flexibility and greater consideration of all media are added -- providing industry the opportunity to use its creativity to make greater strides in implementing pollution prevention.

Finally, this Recommendation 1 is a suggestion to EPA from the Focus Group. As such, it is guidance from the Focus Group, binds no one, and should not be considered to be the last word or "chiseled in stone." Instead, it is offered so that it can be studied and debated by EPA and other concerned parties in the normal course of reviewing and further developing the effluent guidelines regulatory process.

Minority view: (held by 2 members: Ms. Cameron and Mr. Roy)

Introductory Statement

- Pollution prevention (i.e., "source reduction" as defined by the Pollution Prevention Act of 1990) is a highly desirable goal. EPA is required by a number of statutes, including the Clean Water Act as well as the Pollution Prevention Act, to strive towards reduction and elimination of discharges of pollutants to the environment, particularly toxic pollutants. The effluent guidelines process under the Clean Water Act is perhaps EPA's most effective pollution prevention opportunity, especially if EPA incorporates more prevention-based approaches into the guidelines process. But we believe that this means focusing change on the "front end" of the process (i.e., setting effluent guidelines) -- not the "back end" (i.e., applying effluent guidelines).
 - Although there is a need for some flexibility in both the setting of effluent guidelines themselves and in the application of the guidelines to individual plant sites, such flexibility does not extend to the legal requirement, incumbent upon all permittees, to comply with BAT. To enable permit writers and facilities to backslide on BAT in the name of "multi-media flexibility" -- which we believe Recommendation 1 does -- is counter to the letter and the intent of the Clean Water Act and to the general goal of prevention policy to achieve reductions in emissions to all media.
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Multi-Media Considerations Within the Guidelines Process.

- Multi-media standard setting should not be a haphazard process, suggested by the concept of flexibility in trading one medium's standards against another's. Recommendation 1 assumes that water can "take a hit" (i.e., receive greater discharges than allowed by the normal BAT) in the name of reductions to other media. We believe that Recommendation 1 is wrong on two counts: (1) the most effective setting for considering non-water quality impacts is in the establishment of the effluent guidelines themselves, not in the writing of individual permits; and (2) even for site-specific approaches to prevention, assuming that water can "take a hit" ignores -- and indeed removes the incentive for using -- the many possibilities for toxic use reduction and source reduction of other pollutants that will reduce emissions to all media, including water.

A Multi-Media Decision Protocol In the Setting of BAT.

- In setting standards intended to protect human health and the environment regardless of media of pollutant transport, EPA should use the same decision rules it uses to set standards for the many pollutants that may be covered by the effluent guideline for one industrial category. When EPA sets an effluent guideline for the several pollutants that may be found in one wastewater stream, EPA is making the same type of decision it must make to set an all-media standard: e.g., determining the best available technology that is best for all pollutants (regardless of media); or, if two competing technologies perform differently with respect to different pollutants (perhaps in different media), weighing the relative importance of those pollutants (perhaps in different media).
 - As the members of the IP3 Focus Group are aware, Section 304(b)(2)(B) of the Clean Water Act requires EPA to include non-water quality impacts among the factors it must consider when setting BAT. Unfortunately, EPA's current methodology for complying with Section 304(b)(2)(B) is inadequate. (A full discussion of the case examples in EPA's application of Section 304(b)(2)(B) is beyond the scope of this statement.) The members of the IP3 Focus Group were unanimous in recognizing the need for EPA to improve its consideration of multi-media impacts when regulating industrial discharges to water.
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- A standard decision protocol is needed to guide EPA in considering non-water quality impacts when setting BAT. Such a protocol would consider three basic scenarios, which may arise in the setting of a single BAT guideline for a single industrial category. This standard protocol could be as follows:

When considering, and attempting to minimize or reduce, non-water quality impacts, apply one of the following three rules:

- 1) increases in discharges to water, relative to those discharges yielded by a reference technology, are never allowed.
- 2) "de minimus" increases in discharges to water, relative to those discharges yielded by a reference technology, are allowed under certain conditions.
- 3) increases in discharges to water, relative to those discharges yielded by a reference technology, are allowed according to a set formula (e.g., a 5% increase in water discharges is allowed if it achieves no less than a corresponding 50% decrease in discharges to air). Certain other conditions must also be attached, including rulemaking coordination with the relevant media offices, enforcement provisions, etc.

As the IP3 Focus Group members are aware, such multi-media considerations, and inter-office coordination, are being developed and tested by EPA in its evolution of an effluent guideline for the Pulp and Paper industry. A standard protocol, such as suggested above, would help EPA to streamline its rulemaking, account for multi-media considerations, and avoid an appearance of being arbitrary and capricious when setting guidelines that take non-water quality impacts into account.

Guidance for Site-Specific Permits Promoting Prevention.

- We underscore our support for source reduction programs at the site level that do better than (go beyond) BAT in achieving greater reductions in releases to water, as well as to other media. We also underscore our opposition to a lax BPJ (i.e., Best Professional Judgment) approach that would allow permit writers to backslide on BAT in setting site-specific permit limits that allow more water pollution to occur in the name of "flexibility" and "multi-media considerations."
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- A true multi-media approach to environmental protection should not burden the permit writer with the responsibility of making unguided trade-offs between different media. Instead, EPA should provide information and training to help permit writers identify and encourage use of those site-specific prevention and control methods found to be more protective of water resources in particular, and human health and the environment in general, than the traditional, end-of-pipe BAT reference technologies. The basis on which the permit writer decides which methods are more protective of human health and the environment should be established by the BAT guidance, while always maintaining the BAT limits as the inviolate bottom line which every permit writer must establish and every facility must meet.

Category-Wide Versus Facility-Specific Approach.

- EPA's effluent guidelines process needs to make a distinction between those technologies which can be used universally across facilities in the industry category and those whose application varies facility by facility. Pollution prevention and pollution control methods can both fall in either the universal or the site-specific category. Pollution prevention and pollution control methods that can be used universally across facilities in the industry category should be used as the reference technologies for the BAT. (EPA is starting to do this through its Source Reduction Review Project.)
 - Incorporating site-specific prevention or control methods is possible without adopting Recommendation 1; industries can and will use site-specific methods along with category-wide methods, without any change to the current BAT methodology. But we believe that the approach most likely to maximize pollution prevention is to require BAT as a minimum and to combine that with site-specific strategies (as in Recommendation 2) that enable a facility --through pollution prevention measures -- to surpass BAT (i.e., do better than BAT in reducing emissions to water, as well as to other media). Therefore, we believe that EPA's best way to promote site-specific pollution prevention is through Recommendation 2 rather than Recommendation 1.
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Chairman's Note:

The following briefly sorts out some of the main points distinguishing the Minority and Majority Views:

The Minority View believes that Recommendation 1 represents "backsliding" on BAT limits. The Majority View maintains that Recommendation 1 applies to new and revised effluent guidelines and that the limits that would derive from Recommendation 1 would, by statute, be BAT limits; so, by definition, there would be no backsliding on BAT.

The Minority View believes that, to improve the incorporation of pollution prevention into the effluent guidelines process, the focus should be on the "front end" (i.e., how to establish more pollution prevention within the effluent guidelines themselves). The Majority View believes that focusing on the "back end" (i.e., how to establish more pollution prevention in the implementation of effluent guidelines) would be more productive.

The Minority View sees the site-specific flexibility of Recommendation 1 as haphazard, arbitrary, and a burden to permit writers; the Minority View proposes providing established guidance to permit writers, while requiring that the single BAT limit be the permit writers' inviolate bottom line. The Majority View points out that the approach of Recommendation 1 is optional for regulators and permit programs, not mandatory, and believes that regulators and permit writers need the site-specific flexibility of Recommendation 1 to bring about greater pollution prevention and maximize environmental benefits.

The Minority View believes that site-specific incentives should be oriented toward encouraging industry to go beyond BAT and, therefore, supports Recommendation 2 instead of Recommendation 1. The Majority View likewise supports Recommendation 2 but also believes that site-specific incentives should also be offered to encourage industries to achieve the environmental benefits that would result from Recommendation 1.

Both the Minority View and the Majority View agree on the need for more flexibility and multi-media orientation in the effluent guidelines process. In fact, the standard multi-media decision protocol (proposed in the Minority View) and Recommendation 1 (supported by the Majority View) share some of the same key flexibility and multi-media concepts.

All 23 members of the Focus Group unanimously support the following Recommendations 2 and 3.

Recommendation 2

EPA should offer incentives to industry to implement pollution prevention measures that reduce pollution beyond the traditional single BAT limit.

Possible incentives would be the same as those suggested in Recommendation 1. (However, multimedia tradeoffs -- an inherent incentive in Recommendation 1 -- are not included in Recommendation 2.) As in Recommendation 1, **no incentive should be offered that would increase harm to human health or the environment.**

DISCUSSION

This Recommendation 2, which is unanimously supported by all 23 of the Focus Group Members, is like Recommendation 1 except that it only addresses going beyond the single BAT limit.

The Focus Group believes that EPA should (1) give guidance to permit writers to promote pollution prevention that goes beyond the single BAT limit and (2) offer incentives to industry to encourage industry to implement pollution prevention that goes beyond that limit.

This Recommendation 2 would clearly benefit the environment and would apply in situations like the following:

A facility is in an industrial subcategory where the single BAT limit -- because of the nature of the majority of the facilities in that subcategory -- had to be based on a control technology. This facility, however, is more advanced than most and could put in pollution prevention technology that would do better than the single BAT limit. But it would be less costly to put in the control technology and simply meet the limit. Without the availability of the incentives of Recommendation 2, the facility will simply meet the limit. And the environment suffers. With the incentives of Recommendation 2, the facility may choose to go beyond the single BAT limit. And the environment benefits.

Recommendation 3

To further the incorporation of pollution prevention into the existing effluent guidelines development process, EPA should:

- **Encourage pollution prevention actively in all parts of all of the Agency's programs.**
 - **Make the development of every effluent guideline multi-media (i.e., always address all impacts in all media with each effluent guideline and also try to have, with the different media, concurrent rule development).**
 - **Tell the public and industry what EPA's pollution prevention philosophy and agenda are, and elicit comments.**
 - **Gather input on pollution prevention from co-regulators early in the regulatory development process.**
 - **Negotiate more leeway from agencies with relevant regulatory authority regarding the definition of "process modification."**
 - **Coordinate more with the Occupational Safety and Health Administration regarding the effluent guideline limits and possible issues with worker health and safety.**
 - **Conduct more dialogue with industry during process modification/treatability studies and site reports.**
 - **Continue to explore pollution prevention technology used overseas. (Realize that some is government supported; factor this into the economic analysis.)**
 - **Use the pollution prevention information clearinghouse (PPIC) in conjunction with the effluent guideline Development Document.**
-

- **Initiate discussion with industry groups about market protection and any associated product standards.**
- **Start with the more homogeneous industrial categories where data are plentiful, in piloting the incorporation of pollution prevention into effluent guidelines.**

In addition, to get industries to do more pollution prevention through the existing process, EPA should:

- **Look for and find ways to develop and promulgate effluent guidelines more quickly so that more industries can be covered by effluent guidelines.**
- **Make sure that enforcement personnel and policies do not simply promote the adoption of a BAT control technology but instead support pollution prevention.**

DISCUSSION

EPA is already incorporating pollution prevention into its development of effluent guidelines. (See Appendix A.)

However, the Focus Group split in half when it tried for consensus to endorse how EPA is now incorporating pollution prevention into the effluent guidelines development process. Half of the Group felt EPA is doing it very well. The other half felt that pollution prevention should not be included at all in the development of the basic BAT limit and therefore could not endorse what EPA is doing.

Those Group members who could not endorse basing the BAT limit on pollution prevention believe that pollution prevention is best implemented creatively. To put it into the determination of the basic BAT limit makes it too prescriptive and stifles the creativity which should characterize pollution prevention implementation. Basing BAT on a prevention technology can successfully diffuse that technology, but it discourages innovation.

Another concern is that, even if it might be okay to include easy, housekeeping pollution prevention measures in the basis for the BAT limit, it is not appropriate to incorporate process changes. For EPA to be dictating industrial processes and therefore possibly an industry's products is not the way for the effluent guidelines program to go.

Therefore, the Group lacked a consensus to endorse EPA's including pollution prevention in the development of the basic BAT limit. But, believing that EPA will continue to do it anyway, all 23 of the Focus Group Members agreed on the thirteen suggestions above on how EPA can do the pollution prevention incorporation better.

The next to last of the thirteen suggestions above recommends that EPA look for and find ways to get more effluent guidelines out more quickly. The Focus Group realizes that the effluent guidelines process in the past has been greatly encumbered in many ways. The Group recognizes these difficulties and understands why it has not been possible up to this point to do more guidelines more quickly.

The Group also knows that this issue is the focus of EPA's Effluent Guidelines Task Force and hopes that the task force will be able to develop the needed solutions. The Group believes that this would promote pollution prevention because, if more effluent guidelines are developed and their promulgation is speeded up, this will bring more industries "to the table" and enable EPA to promote pollution prevention to a wider audience.

The last of the thirteen suggestions is based on the recognition that it is not enough simply to promote pollution prevention through the development of the technology-based standards of the effluent guidelines. The promotion of pollution prevention needs to extend all the way -- through permits, compliance, and enforcement.

The last suggestion focuses on enforcement practices and policies because the Focus Group believes that mindset changes -- in this area especially -- are key to successful implementation of industrial pollution prevention throughout the whole effluent guidelines process.

It is the Focus Group's observation that a present-day reality is that enforcement personnel and policies tend to cause industry to implement a control technology rather than pollution prevention. When enforcement personnel look for compliance, the result often is that they look for the prescribed control technology; pollution prevention measures often seem not to be an option. Part of this is due to the fact that the effluent guideline Development Documents, used by enforcement personnel, typically have contained control technologies and not prevention technologies. The Focus Group's fourth suggestion above addresses this part of the problem. But the other part of the problem is that EPA's policies promoting pollution prevention, it seems, are not being communicated effectively from EPA Headquarters to all Regional and State enforcement programs.

Consequently, the perception continues to persist that an effluent guideline simply determines a specific control technology. Because this perception exists, the program is viewed as an obstacle to pollution prevention. If pollution prevention is to be encouraged, this perception needs to be eliminated. EPA needs to find ways to communicate to enforcement personnel and others that there is more to the effluent guidelines process than simply implementing a prescribed control technology -- that industry can, and often should, implement something else, such as pollution prevention.

If EPA is going to be successful in encouraging pollution prevention through an effluent guideline, that success has to continue through that guideline's implementation. As EPA strives to promote pollution prevention in its effluent guidelines standards-setting process, that same emphasis on pollution prevention needs to be promoted all the way through permits, compliance, and enforcement.

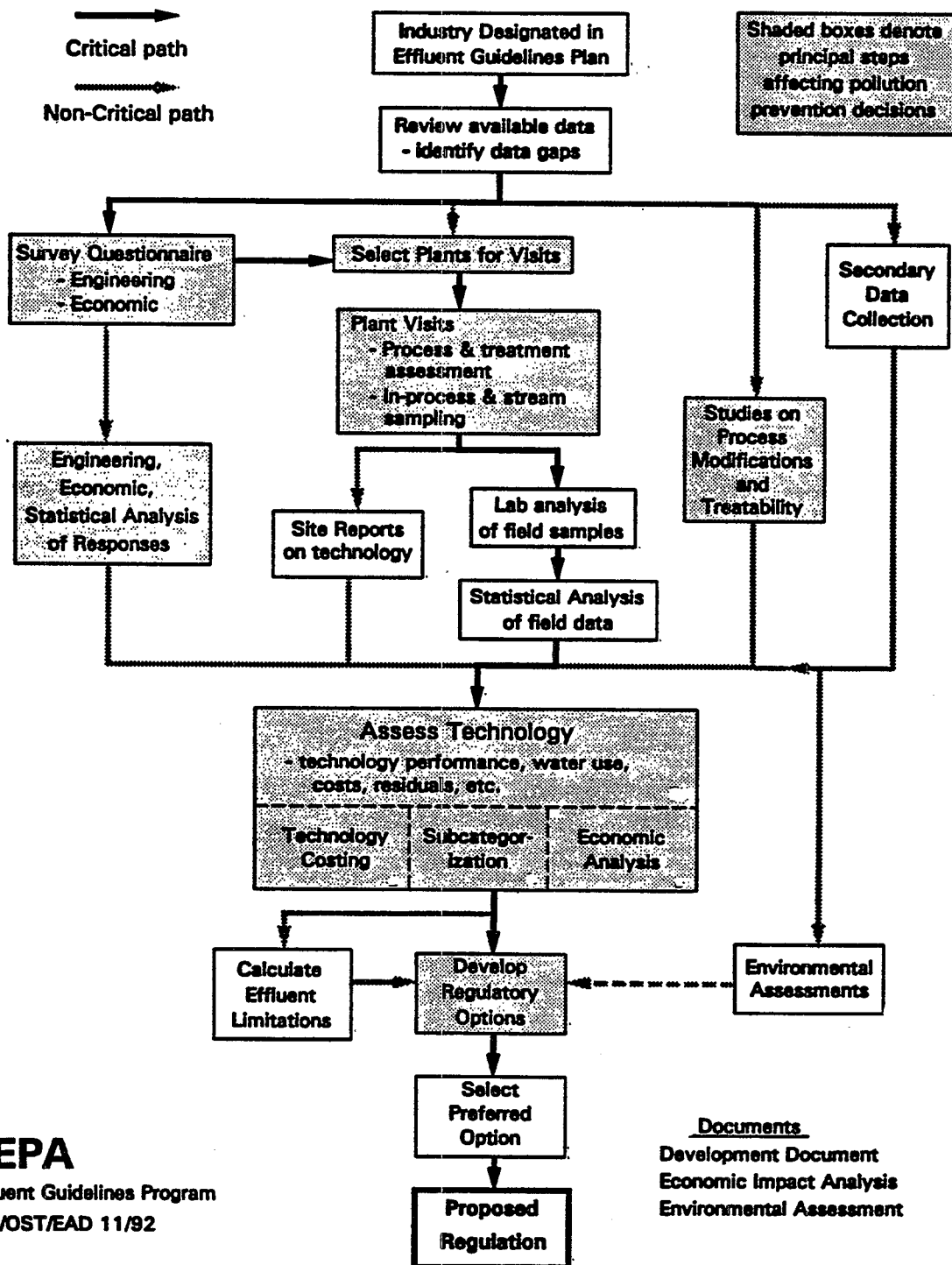
AN UNRESOLVED ISSUE

While all of the above recommendations of the IP3 Focus Group are about pollution prevention, it is important to note that the Focus Group could not agree on how "pollution prevention" should be defined. The Group calls to EPA's attention that how "pollution prevention" is defined is very important.

Some Group members strongly believe that "pollution prevention" should be defined exactly the way EPA defines it. Other Group members believe just as strongly that "pollution prevention" should be more inclusive than EPA's definition and should include out-of-process recycling and reuse.

Appendix A

Effluent Guidelines Flowchart REGULATION DEVELOPMENT PROCESS



Effluent Guidelines Program
OW/OST/EAD 11/92

Appendix B

Technology Innovation and Economics
Committee of NACEPTINDUSTRIAL POLLUTION PREVENTION PROJECT
FOCUS GROUP

Chairman:

John W. Liskowitz
Executive Director
Hazardous Waste Institute
New Jersey Institute of Technology
Newark, NJ

Members:

Steven Anderson
Office of Pollution Prevention
New Jersey Dept. of Environmental
Protection and Energy
Trenton, NJ

Richard Brownell
Malcolm-Pirnie, Inc.
Mahwah, NJ

Diana Cameron
Natural Resources Defense Council
Washington, DC

Bruce Cranford
U.S. Department of Energy
Washington, DC

Steve Dishion
Procter and Gamble Cellulose
Memphis, TN

Theresa Dodge
County Sanitation Districts of
Los Angeles
Whittier, CA

Milton Gordon
Naples, FL

William Haney, III
Molten Metal Technology
Cambridge, MA

William Holman
Conservation Council of
North Carolina
Sierra Club, North Carolina
Chapter
Raleigh, NC

Richard Jacobs
PPG Industries
Pittsburgh, PA

Richard Lanyon
Metropolitan Water Reclamation
District of Greater Chicago
Chicago, IL

Cynthia McManus
Du Pont
Newark, DE

Michael Overcash
Pollution Prevention
Research Center
North Carolina State University
Raleigh, NC

Bruce Piasecki
Center for Science and
Technology Policy
Rensselaer Polytechnic Institute
Troy, NY

Adriana Renescu
County Sanitation Districts of
Orange County
Fountain Valley, CA

Manik Roy
Environmental Defense Fund
Washington, DC

William Sonntag
National Association of
Metal Finishers
Washington, DC

Don Walter
U.S. Department of Energy
Washington, DC

Dan Watts
Hazardous Substance Management
Research Center
New Jersey Institute of Technology
Newark, NJ

Keith Williams
United Steelworkers of America
Buffalo, NY

Azita Yazdani
Pollution Prevention International
Brea, CA

Tom Zosel
3M Corporation
St. Paul, MN