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PUBLIC HEARING
before
SENATE ENERGY AND ENVIRONMENT COMMITTEE
SENATE BILL No. 3581
(The Pollution Prevention Act)

December 18, 1989
Room 407
State House Annex
Trenton, New Jersey

MEMBERS OF COMMITTEE PRESENT:

Senator Catherine A. Costa, Vice-Chairman
Senator William L. Gormley

ALSO PRESENT:

Mark T. Connelly
Office of Legislative Services
Aide, Senate Energy and Environment Committee

* * * * *

Hearing Recorded and Transcribed by
Office of Legislative Services
Public Information Office
Hearing Unit
State House Annex
CN 068
Trenton, New Jersey 08625



DANIEL J. DALTON

Chairman

CATHERINE A. COSTA

Vice-Chairman

JOHN D'AMICO

WILLIAM L. GORMLEY

LEE B. LASKIN

New Jersey State Legislature

SENATE ENERGY AND ENVIRONMENT COMMITTEE

STATE HOUSE ANNEX, CN-068

TRENTON, NEW JERSEY 08625

TELEPHONE: (609) 292-7676

NOTICE OF PUBLIC HEARING

The Senate Energy and Environment Committee will hold a public hearing on the following legislation:

S-3581

The "Pollution Prevention Act."

Dalton

The hearing will be held on Monday, December 18, 1989 at 10:00 a.m. in Room 407, State House Annex, Trenton.

The public may address comments and questions to Mark T. Connelly, Committee Aide and persons wishing to testify should contact his secretary, Carol Hendryx, at (609) 292-7676. Those persons presenting written testimony should provide 10 copies to the committee on the day of the hearing.

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[FIRST REPRINT]

SENATE COMMITTEE SUBSTITUTE FOR
SENATE, No. 2220 SCS
STATE OF NEW JERSEY

ADOPTED DECEMBER 3, 1990

Sponsored by Senators DALTON, COWAN, McNAMARA,
ORECHIO, FOY and LESNIAK

1 AN ACT concerning pollution prevention, amending P.L.1983,
2 c.315, and supplementing Title 13 of the Revised Statutes.

3
4 BE IT ENACTED *by the Senate and General Assembly of the*
5 *State of New Jersey:*

6 1. (New section) ¹[This] Sections 1 through 16 of this¹ act
7 shall be known, and may be cited, as the "Pollution Prevention
8 Act."

9 2. (New section) The Legislature finds and declares that
10 thousands of tons of a multitude of hazardous substances, the
11 environmental and health effects of which are largely unknown,
12 are discharged into the environment of the State each year; that
13 most of these hazardous substances are legally discharged under
14 the terms of air pollution, water pollution, and hazardous waste
15 management permits that allow discharges ¹of¹ up to certain
16 stipulated amounts; and that the discharge of these hazardous
17 substances into air and water, onto the land, and into the
18 workplaces and neighborhoods of the State constitutes an
19 unnecessary risk to the environment and to occupational and
20 public health.

21 The Legislature further finds and declares that for the past two
22 decades the State's major environmental regulatory efforts, to
23 wit, the air pollution, water pollution, and hazardous waste
24 management programs administered by the Department of
25 Environmental Protection as directed and mandated under federal
26 and State law, have focused on controlling or managing
27 discharges of hazardous substances through permit systems and
28 the installation of pollution control technologies; that the
29 traditional system of separately regulating air pollution, water
30 pollution, and hazardous waste management constitutes a
31 fragmented approach to environmental protection and potentially
32 allows pollution to be shifted from one environmental medium to
33 another; and that while the traditional system has produced
34 palpable improvements in the State's environmental quality, it
35 ¹[inadequately addresses] does not adequately address¹ the
36 impact of the use of hazardous substances upon occupational
37 health in pollution-generating industrial processes.

EXPLANATION—Matter enclosed in bold-faced brackets [thus] in the
above bill is not enacted and is intended to be omitted in the law.

Matter underlined thus is new matter.

Matter enclosed in superscript numerals has been adopted as follows:
¹ Assembly AAP committee amendments adopted June 13, 1991.

1 The Legislature further finds and declares that the inherent
2 limitations of the traditional system of pollution control should
3 be addressed by a new emphasis on pollution prevention, including
4 the¹ reduction in¹ of¹ the use of hazardous substances in
5 industrial and manufacturing processes; that a rigorous
6 accounting for¹ of¹ the use of hazardous substances, the
7 generation of hazardous substances as nonproduct output, and the
8 multimedia environmental release of hazardous substances at
9 each step of an industrial process will identify the points at
10 which, and the procedures by which, pollution can be prevented;
11 that pollution prevention can be achieved through a more
12 efficient and rational use of hazardous substances, or through the
13 use of less hazardous substitute substances or processes less
14 prone to produce pollution; and that a soundly planned pollution
15 prevention program can be implemented without adversely
16 affecting the State's economic health or the livelihood of those
17 employed by industries that use and discharge hazardous
18 substances.

19 The Legislature therefore determines that it is in the interest
20 of the environment and public and occupational health, and in the
21 general public interest of all residents of the State, to transform
22 the current system of pollution control to a system of pollution
23 prevention; that it is in the public interest to propose as a State
24 public policy goal a significant reduction over five years after the
25 preparation of the pollution prevention plans required by this act,
26 calculated on the basis of 1987 amounts, in the use of hazardous
27 substances at industrial facilities, and a 50% reduction over five
28 years after the preparation of the pollution prevention plans
29 required by this act, calculated on the basis of 1987 amounts, in
30 the generation of hazardous substances as nonproduct output;
31 that an Office of Pollution Prevention should be established in
32 the Department of Environmental Protection, charged with
33 implementing a comprehensive pollution prevention program and
34 integrating the air pollution, water pollution, and hazardous
35 waste management programs into the pollution prevention
36 program; and that certain industries or facilities¹ should be
37 required to prepare and implement pollution prevention plans
38 and¹ pollution prevention plan summaries¹, and pollution
39 prevention progress reports for the purpose of making pollution
40 prevention a primary technique in the control of hazardous
41 substances and their environmental and health effects¹.

42 3. (New section) As used in this act:

43 "Board" means the Pollution Prevention Advisory Board
44 established pursuant to section 5 of this act.

45 "Commissioner" means the Commissioner of the Department
46 of Environmental Protection.

47 "Consume" means to change or alter the molecular structure
48 of a hazardous substance within a production process.¹

49 "Department" means the Department of Environmental
50 Protection.

1 "Facility" means all buildings, equipment, structures, and other
2 property that are located on a single site or on contiguous or
3 adjacent sites and that are owned or operated by the same person.

4 "Facility-wide permit" means a single permit issued by the
5 department ¹[for an] to the owner or operator of a priority¹
6 industrial facility incorporating the permits, certificates,
7 registrations, or any other relevant department approvals
8 previously issued to the ¹owner or operator of the priority¹
9 industrial facility pursuant to P.L.1970, c.39 (C.13:1E-1 et seq.),
10 P.L.1977, c.74 (C.58:10A-1 et seq.), or P.L.1954, c.212
11 (C.26:2C-1 et seq.), and the appropriate provisions of the
12 pollution prevention plan prepared by the owner or operator of
13 the priority industrial facility pursuant to ¹[sections] section¹ 7
14 and section¹ 8 of this act.

15 "Hazardous substance" means any substance on the list
16 established by the United States Environmental Protection
17 Agency for reporting pursuant to 42 U.S.C. §11023, and any other
18 substance which the department, pursuant to the
19 ¹["Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1
20 et seq.)] provisions of subsection i. of section 8 of this act¹,
21 defines as a hazardous substance for the purposes of this act.

22 "Hazardous waste" means any solid waste defined as hazardous
23 waste by the department pursuant to P.L.1970, c.39 (C.13:1E-1
24 et seq.).

25 "Industrial facility" means any facility having a Standard
26 Industrial Classification, as designated in the Standard Industrial
27 Classification Manual prepared by the federal Office of
28 Management and Budget, within the Major Group Numbers, Group
29 Numbers, or Industry Numbers listed in subsection h. of section 3
30 of P.L.1983, c.315 (C.34:5A-3) and which is subject to the
31 regulatory requirements of P.L.1970, c.39 (C.13:1E-1 et seq.),
32 P.L.1977, c.74 (C.58:10A-1 et seq.), or P.L.1954, c.212
33 (C.26:2C-1 et seq.).

34 "Manufacture" means to produce, prepare, import, or
35 compound a hazardous substance.

36 "Multimedia release" means the release of a hazardous
37 substance to any environmental medium, ¹or any combination of
38 media,¹ including the air, water or land, and shall include any
39 release into workplaces.

40 "Nonproduct output" means all ¹[nonproduct multimedia
41 outputs of]¹ hazardous substances ¹or hazardous wastes¹ that are
42 generated ¹[at a source or, in instances where a more specific
43 source cannot be identified, at a production process, including
44 outputs that are destined for release to air or discharge to water
45 or any other waste streams]¹ prior to storage, recycling,
46 treatment ¹, control,¹ or disposal ¹and that are not intended for
47 use as a product¹.

48 "Office" means the Office of Pollution Prevention established
49 in the department pursuant to section 4 of this act.

50 "Operator" means any person in control of, or exercising

1 responsibility for, the daily operation of an industrial facility or a
2 priority industrial facility.

3 "Owner" means any person who owns an industrial facility or a
4 priority industrial facility.

5 "Person" means any individual, partnership, company,
6 corporation, society, firm, consortium, joint venture, ¹[political
7 subdivision of the State or any agency or instrumentality thereof,
8 Federal entities,]¹ or any commercial or other legal entity.

9 "Pilot facility" means a facility or designated area of a facility
10 used for pilot-scale development of products or processes.

11 "Pollution prevention" means: changes in production
12 technologies, raw materials or products, that result in the
13 reduction of the demand for hazardous substances per unit of
14 product manufactured and the creation of hazardous products ¹[,]
15 or¹ nonproduct outputs ¹[or destructive results]¹; or changes in
16 the use of raw materials, products, or production technologies
17 that result in the reduction of the input use of hazardous
18 substances and the creation of hazardous by-products or
19 destructive results; or on-site facility changes in production
20 processes, products, or the use of substitute raw materials that
21 result in the reduction of the amount of hazardous waste
22 generated and disposed of on the land or hazardous substances
23 discharged into the air or water per unit of product manufactured
24 prior to treatment, and that reduce or eliminate, without
25 shifting, the risks that the use of hazardous substances at an
26 industrial facility pose to employees, consumers, and the
27 environment ¹and human health¹. "Pollution prevention" shall
28 include, but need not be limited to, raw material substitution,
29 product reformulation, production process redesign or
30 modification, in-process recycling, and improved operation and
31 maintenance of production process equipment. "Pollution
32 prevention" shall not include any action or change entailing a
33 substitution of one hazardous substance, product or nonproduct
34 output for another that results in the creation of substantial new
35 risk, and shall not include treatment, increased pollution control,
36 out-of-process recycling, or incineration, except ¹[that the
37 department may allow an industrial facility to consider
38 out-of-process recycling in a pollution prevention plan and
39 pollution prevention plan summary prepared] as otherwise
40 provided¹ pursuant to subsection f. of section 7 of this act.

41 "Pollution prevention plan" means a plan required to be
42 prepared by an industrial facility pursuant to the provisions of
43 ¹section 7 of¹ this act.

44 ¹"Pollution prevention plan progress report" means a report
45 required to be submitted annually to the department by the owner
46 or operator of an industrial facility pursuant to the provisions of
47 section 7 of this act.¹

48 "Pollution prevention plan summary" means a summary of a
49 pollution prevention plan required to be prepared by an industrial
50 facility and submitted to the department pursuant to the

1 provisions of ¹section 7 of¹ this act.

2 "Priority industrial facility" means any industrial facility
3 required to prepare and submit a toxic chemical release form
4 pursuant to 42 U.S.C. §11023, or any other facility designated a
5 priority industrial facility pursuant to rules and regulations
6 adopted by the department pursuant to ¹[the "Administrative
7 Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.)] the
8 provisions of subsection h. of section 8 of this act¹.

9 "Process" means the preparation of a hazardous substance,
10 after its manufacture, for sale or use in the same form or
11 physical state, or in a different form or physical state, as that in
12 which it was received at the industrial facility where it is
13 processed, or as part of an article or product containing the
14 hazardous substance.

15 "Product" means a desired result of a production process that
16 is used as a commodity in trade in the channels of commerce by
17 the general public in the same form as it is produced.

18 "Production process" means a process, line, method, activity or
19 technique, or a series or combination of processes, lines, methods
20 or techniques used to produce a product or reach a planned result.

21 "Research and development laboratory" means a facility or a
22 specially designated area of a facility used primarily for
23 research, development, and testing activity, and not primarily
24 involved in the production of goods for commercial sale, in which
25 hazardous substances are used by, or under, the direct supervision
26 of a technically qualified person.

27 "Source" means a ¹[locational component of] point or location
28 in¹ a production process at which a nonproduct output is
29 generated or released ¹, provided, however, that similar, related,
30 or identical kinds of sources may be considered a single source
31 for the purposes of this act¹.

32 ¹"Targeted production process" means any production process
33 which significantly contributes to the use or release of hazardous
34 substances or the generation of hazardous waste or nonproduct
35 output, as determined by the owner or operator of an industrial
36 facility pursuant to criteria established by the department."

37 "Targeted source" means any source which significantly
38 contributes to the generation of nonproduct output, as
39 determined by the owner or operator of an industrial facility
40 pursuant to criteria established by the department."¹

41 "Use" means to process or otherwise use a hazardous substance.

42 "Violation of this act" means a violation of any provision of
43 this act, or any rule or regulation, administrative order, or
44 facility-wide permit adopted or issued pursuant thereto.

45 4. (New section) a. There is established in the Department of
46 Environmental Protection the Office of Pollution Prevention.
47 The office shall be under the immediate supervision of an
48 administrator appointed by the commissioner who shall report
49 directly to the commissioner. The administrator and all
50 managerial employees necessary to implement the provisions of

1 this act as determined by the commissioner may be members of
2 the unclassified service of the State. The office shall be
3 responsible for the implementation of the provisions of this act,
4 for the coordination of all pollution prevention policies within the
5 department, ¹[and]¹ for conducting an ongoing review of all
6 appropriate regulatory and enforcement policies to ensure that
7 these policies require or encourage pollution prevention to the
8 maximum extent practicable and feasible, and for performing any
9 other function that the commissioner may deem appropriate.

10 ¹[b. The department shall have the authority to review any
11 rule or regulation, administrative consent order, administrative
12 order, compliance schedule, permit, or license issued pursuant to
13 P.L.1970, c.33 (C.13:1D-1 et seq.), P.L.1970, c.39 (C.13:1E-1
14 et seq.), P.L.1977, c.74 (C.58:10A-1 et seq.), or P.L.1954, c.212
15 (C.26:2C-1 et seq.), to determine if the rule or regulation,
16 administrative consent order, administrative order, compliance
17 schedule, permit, or license encourages or requires pollution
18 prevention. The department may also conduct this review for the
19 purpose of determining if the terms of an administrative consent
20 order, administrative order, compliance schedule, permit, or
21 license issued to, or entered into with, an industrial facility
22 comply with the provisions of the pollution prevention plan or
23 pollution prevention plan summary, as appropriate, prepared by
24 the industrial facility pursuant to this act. If any rule or
25 regulation, administrative consent order, administrative order,
26 compliance schedule, permit, or license does not encourage or
27 require pollution prevention, the department may require that it
28 be changed to do so. The department shall have the authority to
29 require any changes it deems necessary in any administrative
30 consent order, administrative order, compliance schedule, permit,
31 or license issued to, or entered into with, the owner or operator
32 of a industrial facility, including the inclusion of the provisions of
33 the pollution prevention plan, or pollution prevention plan
34 summary, as appropriate, as a component of the administrative
35 consent order, administrative order, compliance schedule, permit,
36 or license.

37 c.] ¹b. ¹The department ¹[shall] may¹ establish an educational
38 and outreach program designed to explain and make available to
39 the ¹general¹ public all pollution prevention plan summaries ¹and
40 pollution prevention plan progress reports¹ submitted to the
41 department pursuant to ¹[sections 7 and 8 of]¹ this act, in
42 accordance with rules and regulations adopted by the department
43 to protect trade secret information.

44 ¹c. ¹Upon a written request by a member of the public for a
45 copy of a pollution prevention plan summary ¹or pollution
46 prevention plan progress report submitted to the department
47 pursuant to this act¹, the ¹[office] department¹ shall provide ¹[a
48 member of the public] that person¹ with a copy of any pollution
49 prevention plan summary ¹or pollution prevention plan progress
50 report¹ submitted to the department pursuant to this act within

1 30 days ¹of receipt of the request therefor¹ for a cost not to
2 exceed the cost of printing and postage.

3 5. (New section) a. There is established in the Department of
4 Environmental Protection the Pollution Prevention Advisory
5 Board. The board shall consist of the Administrator of the Office
6 of Pollution Prevention, the Executive Director of the Hazardous
7 Waste Facilities Siting Commission, and the Director of the State
8 Technical Assistance Program at the New Jersey Institute of
9 Technology, ¹[the three of whom] who¹ shall serve ex officio, and
10 12 public members appointed by the Governor with the advice and
11 consent of the Senate. Of the public members of the board, one
12 shall have experience or training in the field of environmental
13 compliance ¹[with] at¹ a large ¹[industry] industrial facility¹,
14 one shall have experience or training in the field of
15 environmental compliance ¹[with] at¹ a ¹[medium industry]
16 medium-sized industrial facility¹, one shall have experience or
17 training in the field of environmental compliance ¹[with] at¹ a
18 small ¹[industry] industrial facility¹, three shall be members of
19 recognized Statewide environmental organizations, one shall be a
20 person with academic training in the field of industrial processes,
21 one shall be a person with academic training in the field of
22 environmental economics, two shall be representatives of
23 organized labor and have training or experience in the field of
24 occupational diseases and health, one shall have experience in
25 local government, and one shall be a representative of the
26 general public. Each of the public members shall be appointed
27 for a term of three years, except that of the public members first
28 appointed by the Governor, four shall serve for terms of three
29 years, four shall serve for terms of two years, and four shall
30 serve for terms of one year.

31 b. A majority of the membership of the board shall constitute
32 a quorum for the transaction of board business. Action may be
33 taken and motions adopted by the board at any meeting thereof
34 by the affirmative vote of a majority of the members of the
35 board present and voting.

36 c. The Governor shall appoint a chairman and other officers as
37 may be necessary from among ¹[its] the¹ members ¹of the
38 board¹. Members of the board shall serve without compensation
39 but the board may, within the limits of funds appropriated or
40 otherwise made available to it for such purposes, reimburse its
41 members for ¹reasonable and¹ necessary expenses incurred in the
42 discharge of their official duties.

43 d. The board ¹[shall] may¹:

44 (1) Review any matters submitted to it by the department or
45 the office concerning any aspect of the provisions or
46 implementation of this act, and report its recommendations to
47 the department or office;

48 (2) Conduct an ongoing review of the implementation of this
49 act and submit any recommendations for administrative or
50 legislative changes it deems necessary to the department or the

1 office; ¹[and]¹

2 (3) Investigate techniques to develop standardized
3 classifications of production processes employed by industrial
4 facilities, and investigate the feasibility of ¹utilizing¹ such
5 techniques¹[.] in the development and implementation of
6 pollution prevention plans;¹

7 ¹[e. The board may:

8 (1)] (4)¹ Advise the office on the interpretation of information
9 submitted in pollution prevention plan summaries ¹and pollution
10 prevention plan progress reports¹ and on the content of pollution
11 prevention plans ¹, pollution prevention plan summaries, and
12 pollution prevention plan progress reports¹;

13 ¹[(2)] (5)¹ Review the scientific literature concerning the
14 occupational, public health, and environmental risks presented by
15 exposures to specific hazardous substances, evaluate scientific
16 interpretations of these risks, and assess the risks of the
17 discharge of these hazardous substances into different
18 environmental media;

19 ¹[(3)] (6)¹ Review and evaluate the impact of reductions in the
20 use or discharge of specific hazardous substances on employment
21 levels;

22 ¹[(4)] (7)¹ Conduct periodic reviews of the criteria adopted by
23 the department for the preparation of pollution prevention plans
24 ¹[and] ¹, pollution prevention plan summaries, ¹and pollution
25 prevention plan progress reports¹ and, if deemed necessary, make
26 recommendations ¹to the department¹ for administrative or
27 legislative changes;

28 ¹[(5)] (8)¹ Study and evaluate the practicability and feasibility
29 of achieving hazardous substance pollution prevention without
30 reductions in employment levels through the use of substitute
31 substances, alternative procedures or processes, or other means;
32 ¹[or

33 (6)] (9)¹ Conduct research or hold public hearings concerning
34 the continued use, production, manufacture, discharge, or
35 disposal of any hazardous substance in the State and the threat
36 that this use, production, manufacture, discharge, or disposal
37 poses to human health or the environment, and, if warranted,
38 make a written recommendation to the Governor and the
39 Legislature concerning the prohibition of, or restrictions on, the
40 continued use, production, manufacture, discharge, or disposal of
41 the hazardous substance in the State¹[.] except that the board
42 shall not conduct research or hold public hearings concerning the
43 siting of hazardous waste facilities; and

44 (10) Review the expenditure by the department of monies
45 deposited in the "Pollution Prevention Fund" established pursuant
46 to section 16 of this act.¹

47 6. (New section) a. Within 18 months of the effective date of
48 this act, the department shall adopt, pursuant to the
49 "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1
50 et seq.), rules and regulations necessary for the implementation

1 of this act.

2 b. Within 18 months of the effective date of this act the
3 department shall adopt, pursuant to the "Administrative
4 Procedure Act," rules and regulations ¹[establishing a document]¹
5 that ¹[outlines] outline¹ the ¹[specific] substantive¹ requirements
6 of pollution prevention plans ¹[and] ¹ pollution prevention plan
7 summaries, ¹and pollution prevention plan progress reports,¹ and
8 shall make ¹[this] a¹ document ¹setting forth these
9 requirements¹ available to owners and operators of priority
10 industrial facilities. ¹The rules and regulations adopted pursuant
11 to this subsection shall, to the maximum extent practicable and
12 feasible, require that information required for the preparation of
13 a pollution prevention plan, pollution prevention plan summary,
14 and a pollution prevention plan progress report be based on
15 information developed by the owner or operator of an industrial
16 facility for the purposes of compliance with 42 U.S.C. § 11023 and
17 P.L.1983, c.315 (C.34:5A-1 et al.). These rules and regulations
18 shall specify which information required in a pollution prevention
19 plan summary and pollution prevention plan progress report may
20 be reported to the department in an environmental survey
21 submitted pursuant to P.L. 1983, c. 315 instead of in a pollution
22 prevention plan summary or a pollution prevention plan progress
23 report. These regulations may require owners or operators of
24 industrial facilities to submit pollution prevention plan summaries
25 or pollution prevention plan progress reports in a form that is
26 compatible with the department's electronic information storage
27 and retrieval system.

28 c. Within 18 months of the effective date of this act the
29 department shall adopt, pursuant to the "Administrative
30 Procedure Act," rules and regulations establishing criteria
31 pursuant to which the department shall be authorized to issue a
32 directive requiring an industrial facility which is not a priority
33 industrial facility to prepare a pollution prevention plan, pollution
34 prevention plan summary, and a pollution prevention plan
35 progress report. These criteria shall include the toxicity and
36 volume of the hazardous substances or hazardous waste used,
37 generated or released at the industrial facility, and the history of
38 unpermitted releases at the industrial facility. These criteria
39 shall also include a requirement that the department, prior to
40 issuing a directive pursuant to this subsection, make a written
41 finding that, based on the past performance of the industrial
42 facility and the compliance of the industrial facility with the
43 terms of any permit, certificate, registration, or any other
44 relevant department approval issued to the owner or operator of
45 the industrial facility pursuant to P.L.1970, c.33 (C.13:1D-1 et
46 seq.), P.L.1970, c.39 (C.13:1E-1 et seq.), P.L.1977, c.74
47 (C.58:10A-1 et seq.), or P.L.1954, c.212 (C.26:2C-1 et seq.), and
48 the extent to which the industrial facility contributes to the total
49 amount of hazardous substances used, generated, or released in
50 the State or a region of the State, the preparation of a pollution

1 prevention plan, pollution prevention plan summary, and pollution
2 prevention plan progress report for the industrial facility could
3 result in a reduction in the use or release of hazardous substances
4 or the generation of hazardous waste or nonproduct output at the
5 industrial facility and a reduction in the threat posed to the
6 environment or public health by the use or release of hazardous
7 substances or the generation of hazardous waste or nonproduct
8 output at the industrial facility.¹

9 ¹[c.] d.¹ The department, pursuant to rules and regulations
10 adopted pursuant to the "Administrative Procedure Act," may
11 establish for any hazardous substance used or manufactured at an
12 industrial facility a facility-wide threshold quantity of up to
13 10,000 pounds below which the hazardous substance need not be
14 included in the pollution prevention plan ¹[or] ¹, ¹ pollution
15 prevention plan summary ¹or pollution prevention plan progress
16 report¹, or a 10-employee threshold below which an industrial
17 facility would not be required to prepare a pollution prevention
18 plan or submit a pollution prevention plan summary ¹and ¹
19 pollution prevention plan progress report¹.

20 ¹[d.] e.¹ An owner or operator of an industrial facility may
21 include in a pollution prevention plan ¹[and] ¹, ¹ pollution
22 prevention plan summary ¹, and pollution prevention plan
23 progress report¹ an input-use exemption list of any hazardous
24 substances used in a specific production process at the industrial
25 facility, the input-use of which he has determined through
26 pollution prevention planning cannot be reduced below the
27 current level. For each hazardous substance included on the
28 input-use exemption list, the owner or operator shall be required
29 to demonstrate, in writing, that there is no reasonably available
30 and economically viable alternative to the current level of
31 input-use of the hazardous substances in the specified production
32 process. ¹An owner or operator shall not be required to include
33 in a pollution prevention plan, pollution prevention plan summary,
34 or pollution prevention plan progress report a reduction in use for
35 any hazardous substance included on an input-use exemption list,
36 but shall be required to provide all other information concerning
37 such a hazardous substance required in a pollution prevention
38 plan, pollution prevention plan summary, and pollution prevention
39 plan progress report.¹ Notwithstanding the inclusion of a
40 hazardous substance on an input-use exemption list, the owner or
41 operator of an industrial facility shall be required to ¹[employ
42 other] consider¹ pollution prevention techniques ¹other than use
43 reduction¹ with regard to each hazardous substance on the
44 input-use exemption list.

45 ¹[e.] f.¹ An owner or operator of an industrial facility shall not
46 be required to include in a pollution prevention plan ¹[or] ¹, ¹
47 pollution prevention plan summary ¹or pollution prevention plan
48 progress report¹ information pertaining to improvements in
49 pollution prevention for a production process established after
50 January 1, ¹[1991] 1992¹ until the first five-year revision of the

1 pollution prevention plan and pollution prevention plan summary
2 prepared for the industrial facility at which the production
3 process is ¹[located] carried out¹ after the establishment of the
4 production process, or until five years after the establishment of
5 the production process, whichever occurs later. ¹Within 18
6 months of the effective date of this act, the department shall
7 adopt, pursuant to the "Administrative Procedure Act," rules and
8 regulations establishing criteria for the identification of
9 production processes subject to the provisions of this subsection.¹

10 7. (New section) a. The information required by the
11 department in a pollution prevention plan shall cover the previous
12 calendar year and be reported in two parts.

13 b. ¹Part I of a pollution prevention plan shall consist of a
14 comprehensive inventory and analysis of the use and release of
15 hazardous substances, and the generation of hazardous waste and
16 nonproduct output at an industrial facility.¹ The information
17 required by the department in Part I of a pollution prevention
18 plan ¹except as otherwise provided by the department in rules
19 and regulations adopted pursuant to section 6 of this act,¹ shall
20 include ¹[, but need not be limited to,]¹ the following information:

21 (1) A certification by the highest ranking corporate official
22 with direct operating responsibility ¹at the industrial facility¹
23 that he has read the pollution prevention plan and that the
24 pollution prevention plan is true, accurate, and complete to the
25 best of his knowledge, and a certification by the highest ranking
26 corporate official at the industrial facility that he is familiar
27 with the pollution prevention plan and that it is the corporate
28 policy of that industrial facility to achieve the goals of the
29 pollution prevention plan;

30 (2) The name and ¹business¹ telephone number of the owner or
31 operator of the industrial facility, and of the highest ranking
32 corporate official at the industrial facility, and the name and
33 ¹business¹ telephone number of a non-management employee
34 representative at the industrial facility;

35 (3) An identification of each production process using or
36 producing hazardous substances at the industrial facility, the
37 product produced in the production process, and the total units of
38 production produced in each production process during the year;

39 (4) The chemical identity and Chemical Abstract Service
40 (CAS) number of each hazardous substance manufactured ¹,
41 stored¹ or used ¹at the industrial facility¹ ;

42 (5) The amounts of each hazardous substance in pure form or
43 contained in a mixture in storage at the industrial facility on the
44 first and last days of the year, stored on an annual average at the
45 industrial facility, manufactured as a product at the industrial
46 facility, brought into the industrial facility, generated as
47 nonproduct output at the industrial facility, used at the industrial
48 facility, consumed at the industrial facility, and contained in the
49 product or products produced at the industrial facility;

50 (6) For each production process, the amounts of each

1 hazardous substance, either in pure form or contained in a
2 mixture, manufactured, used, consumed, contained in the product
3 or products produced, and generated as nonproduct output;

4 (7) The amounts of each hazardous waste ¹[and] generated,
5 and¹ hazardous substance ¹[as] released at each production
6 process at the industrial facility and the amount of¹ nonproduct
7 output generated at each source ¹[and production process]¹ at the
8 industrial facility;

9 (8) The address of each off-site treatment, disposal, or storage
10 facility to which hazardous waste generated at the industrial
11 facility is transported, and the type of treatment or disposal
12 method utilized at each off-site facility;

13 (9) For the industrial facility as a whole, the amounts of each
14 hazardous waste generated, recycled in-process, treated, stored,
15 disposed of or recycled outside of any production process on-site,
16 recycled outside of any production process off-site, and treated,
17 stored, or disposed of off-site;

18 (10) The amount of each hazardous substance in nonproduct
19 output recycled within each production process at the industrial
20 facility, recycled outside of any production process on-site and
21 recycled outside of any production process off-site;

22 (11) ¹[The sources and amounts of each hazardous substance
23 generated as nonproduct output;

24 (12)]¹ The ¹[sources and]¹ amounts of all hazardous substances
25 that are released into the air or discharged into the water or any
26 other waste stream following recycling, treatment, or any
27 combination thereof;

28 ¹[(13)] (12)¹ A ¹[full-cost accounting] comprehensive financial
29 analysis of the costs associated with the use, generation, release,
30 or discharge of hazardous substances which occur as a result of
31 current production processes at the industrial facility¹ , including
32 the ¹[economic benefits or increased costs associated with the
33 use of hazardous substances, the generation of hazardous
34 substances as nonproduct output, the release of hazardous
35 substances into the air, and the discharge of hazardous substances
36 into water and any other waste stream following recycling,
37 treatment, or any combination thereof, which occur as a result of
38 current production processes at the industrial facility] costs of
39 generation of non product output, the savings realized by
40 investments in pollution prevention and the more efficient use of
41 raw materials, the cost of the treatment and disposal of
42 hazardous waste, and the cost of liability insurance¹ ;

43 ¹[(14)] (13)¹ A calculation of the reduction or increase in the
44 use of each hazardous substance per ¹comparable¹ unit of
45 production in each ¹targeted¹ production process ¹, or any other
46 production process, as determined by the department,¹ in
47 comparison to the use of each hazardous substance per unit of
48 production in each production process reported in the pollution
49 prevention plan for the previous year, including an indication if
50 the calculation is an estimate;

1 ¹[(15)] (14)¹ A calculation of the reduction or increase in the
 2 amount of each hazardous substance generated as nonproduct
 3 output from each ¹targeted¹ source and ¹targeted¹ production
 4 process¹or any other production process or source, as determined
 5 by the department,¹ per ¹comparable¹ unit of product, and in
 6 the amount of each hazardous waste generated at each
 7 ¹targeted¹ source and ¹targeted¹ production process ¹, or any
 8 other production process or source, as determined by the
 9 department,¹ per unit of product, in comparison to the amounts
 10 reported in the pollution prevention plan for the previous year;

11 ¹[(16)] (15)¹ A calculation of the reduction or increase in the
 12 use of each hazardous substance by the entire industrial facility
 13 in comparison to the use of each hazardous substance by the
 14 entire industrial facility reported in the pollution prevention plan
 15 for the previous year, including an indication if the calculation is
 16 an estimate;

17 ¹[(17)] (16)¹ A calculation of the reduction or increase in the
 18 amount of each hazardous substance generated as nonproduct
 19 output by the entire industrial facility and in the amount of each
 20 hazardous waste generated by the entire industrial facility, in
 21 comparison to the amounts reported in the pollution prevention
 22 plan for the previous year; and

23 ¹[(18)] (17)¹ Indications of the methods, modifications, or
 24 procedures used to achieve each reduction reported pursuant to
 25 paragraphs ¹(13),¹ (14), (15), ¹and¹ (16) ¹[and (17)]¹ of this
 26 subsection, and the industrial facility's five-year goals for such
 27 reductions at each production process and on a facility-wide
 28 basis, except that ¹[a hazardous substance that is]¹ the product
 29 of a production process need not be included in the reduction goal
 30 ¹, and except that any hazardous substance listed on an input-use
 31 exemption list pursuant to subsection d. of section 6 of this act
 32 need not be included in the use reduction goal.

33 The information identified in paragraphs (13), (14), (15), and
 34 (16) of this subsection shall not be required for the first year
 35 covered by a pollution prevention plan prepared pursuant to this
 36 subsection¹.

37 c. The information required by the department in Part II of a
 38 pollution prevention plan ¹shall consist of information concerning
 39 targeted production processes and sources, and, except as
 40 otherwise provided by the department in rules and regulations
 41 adopted pursuant to section 6 of this act,¹ shall include ¹[, but
 42 need not be limited to,]¹ the following information:

43 (1) For the industrial facility, the industrial facility's
 44 five-year numeric goals for reducing the use of each hazardous
 45 substance and for reducing the generation as nonproduct output
 46 of each hazardous substance;

47 (2) For each ¹targeted¹ production process, the industrial
 48 facility's five-year numeric goals for reducing the use of each
 49 hazardous substance per unit of product in the ¹targeted¹
 50 production process, and for reducing the generation as nonproduct

1 output of each hazardous substance per unit of product in the
2 ¹targeted¹ production process;

3 ¹[(3)] (3)¹ A description, for each affected production process, of
4 techniques the owner or operator of the industrial facility intends
5 to undertake during the next five years to achieve its reduction
6 goals and a schedule for implementation of the techniques. The
7 techniques to be described shall include, but need not be limited
8 to, employee training, management policies, inventory control,
9 scheduling improvements, material handling improvements, spill
10 and leak prevention, water use and reuse practices, and waste
11 stream segregation;¹

12 ¹[(4)] (3)¹ A description ¹[, if appropriate,]¹ of each
13 ¹targeted¹ production process and ¹targeted¹ source ¹[identified
14 in subsection b. of section 7 of this act at the industrial facility
15 targeted for reduction based, in part, on toxicity, volume,
16 disposal costs, and liability costs]¹;

17 ¹[(5)] (4)¹ An ¹[assessment] identification¹ , for each
18 ¹targeted¹ production process and ¹targeted¹ source, of available
19 reduction options, including procedures, technologies and
20 equipment, that may substantially reduce the use and generation
21 of hazardous substances;

22 ¹[(6)] (5)¹ A feasibility analysis, for each ¹targeted¹
23 production process and ¹targeted¹ source, of reduction options
24 identified pursuant to paragraph ¹[(3)] (4)¹ of this subsection,
25 which shall include, but need not be limited to, a full-cost
26 accounting of the options, and any technological obstacles to
27 adopting the options;

28 ¹[(7)] A list of the options identified pursuant to paragraph (3)
29 of this subsection that the owner or operator of the industrial
30 facility intends to install or utilize based, in part, on the
31 feasibility analysis, and a time schedule for the implementation
32 of the options;]

33 (6) A description, for each targeted production process, of
34 options the owner or operator of the industrial facility intends to
35 undertake during the next five years to achieve its reduction
36 goals and a schedule for the implementation of the options. The
37 options to be described shall include, but need not be limited to,
38 employee training, management policies, inventory control,
39 scheduling improvements, material handling improvements, and
40 spill and leak prevention;¹

41 ¹[(8)] (7)¹ A description of the valuation methods used by the
42 owner or operator to determine not to install or utilize each
43 option identified pursuant to paragraph ¹[(3)] (6)¹ of this
44 subsection that would have resulted in a greater percentage
45 reduction in ¹the¹ use ¹of hazardous substances¹ or generation
46 ¹[as] of¹ nonproduct output ¹[of hazardous substances]¹ than the
47 option chosen;

48 ¹[(9)] (8)¹ An assessment and schedule for implementing
49 on-site out-of-process recycling with regard to industrial
50 facilities authorized by the department to include out-of-process

1 recycling in a pollution prevention plan; and

2 ¹[(10)] (9)¹ A quantitative description of the impact that
3 individual pollution prevention techniques have had on
4 post-treatment multimedia environmental releases of hazardous
5 substances, reported by medium.

6 d. ¹[For industrial facilities within individual four-digit
7 Standard Industrial Classification Industry Numbers, the
8 department may, pursuant to rules and regulations adopted
9 pursuant to the "Administrative Procedure Act," P.L.1968, c.410
10 (C.52:14B-1 et seq.) limit reporting of information required
11 pursuant to subsection c. of this section to specific chemicals,
12 processes, or multimedia waste streams based on their
13 contribution to the industrial facility's total use, release, or
14 generation as nonproduct output of a hazardous substance]
15 Within 18 months of the effective date of this act, the
16 department shall adopt, pursuant to the "Administrative
17 Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), rules and
18 regulations establishing criteria pursuant to which owners and
19 operators of industrial facilities may identify targeted production
20 processes and targeted sources for the purpose of focusing
21 pollution prevention strategies on these targeted production
22 sources and targeted sources. The criteria for the identification
23 of targeted production processes and targeted sources shall be
24 based on a consideration of the toxicity of specific hazardous
25 substances or hazardous wastes used, generated or released at the
26 targeted production process or targeted source, and shall require
27 that a targeted production process or targeted source be a
28 production process or source which makes a significant
29 contribution to the use and release of hazardous substances, the
30 generation of hazardous waste, and the generation of nonproduct
31 output, as appropriate, at the industrial facility.¹

32 e. ¹[In instances when the department limits reporting based on
33 production processes, the department may identify priority
34 production processes.] The owner or operator of an industrial
35 facility may include in a pollution prevention plan and pollution
36 prevention plan summary a description of any pollution
37 prevention strategies implemented at the industrial facility prior
38 to 1987.¹

39 f. The department may authorize an owner or operator of an
40 industrial facility to include out-of-process recycling in a
41 pollution prevention plan and a pollution prevention plan summary
42 if the department determines that ¹[other]¹ pollution prevention
43 strategies are not reasonably available to the owner or operator.

44 g. The information required by the department in a pollution
45 prevention plan ¹[summary] progress report, except as otherwise
46 provided by the department in rules and regulations adopted
47 pursuant to section 6 of this act,¹ shall include ¹[, but need not
48 be limited to,]¹ the following:

49 (1) ¹[Calculations] An identification of each production
50 process and targeted production process, and calculations¹, for

1 the industrial facility and for each ¹targeted¹ production process
2 ¹and any other production process required by the department¹ ,
3 of the reduction or increase in the use of ¹each¹ hazardous
4 ¹[substances] substance per unit of production¹ , in the
5 generation of ¹[hazardous substances as] each¹ nonproduct
6 ¹[outputs] output¹ per unit of production, and in multimedia
7 releases, by medium, following recycling and treatment of each
8 hazardous substance, in comparison to the previous year;

9 (2) An indication of the method used to achieve each reduction
10 listed pursuant to paragraph (1) of this subsection;

11 (3) A numerical statement demonstrating the industrial
12 facility's progress towards achieving ¹each of¹ its five-year
13 goals, including the most recent information required pursuant to
14 paragraphs (1) and (2) of subsection c. of this section;

15 (4) An explanation of why the industrial facility's annual
16 progress may be less than that anticipated in the pollution
17 prevention plan time schedule for implementation; ¹and¹

18 (5) A description of pollution prevention techniques that the
19 owner or operator of the industrial facility intends to undertake
20 during the forthcoming year at a ¹targeted¹ production process
21 level¹;

22 h. The information required by the department in a pollution
23 prevention plan summary, except as otherwise provided by the
24 department in rules and regulations adopted pursuant to section 6
25 of this act, shall contain the following:

26 (1) For the industrial facility, the industrial facility's
27 five-year numeric goal for reducing the use of each hazardous
28 substance, and for reducing the generation of each nonproduct
29 output;

30 (2) For each targeted production process, the industrial
31 facility's five year numeric goals for reducing the use of each
32 hazardous substance per unit of production, and for reducing the
33 generation of nonproduct output per unit of product in the
34 targeted production process;

35 (3) A description of each targeted production process and
36 targeted source;

37 (4) A description, for each targeted production process, of the
38 techniques the owner or operator of the industrial facility intends
39 to undertake during the next five years to achieve the industrial
40 facility's reduction goals, and a schedule for the implementation
41 of the techniques;

42 (5) An indication, for each hazardous substance used in a
43 targeted production process, of whether the hazardous substance
44 is used in an amount of 0 to 5,000 pounds, 5000 pounds to 10,000
45 pounds, or greater than 10,000 pounds;¹

46 (6) A written certification that the owner or operator of the
47 industrial facility has prepared a pollution prevention plan and
48 that the plan is available on site for the department's inspection;
49 ¹and¹

50 (7) ¹[A description, if appropriate, of each priority production

1 process and source identified at the industrial facility and
2 targeted for reduction, based in part on toxicity, volume, disposal
3 costs, and liability costs; and

4 (8)]¹ A list of all other permits, certificates, registrations, or
5 other approvals, or documents issued by the department for the
6 industrial facility.

7 ¹[h.] i.¹ The owner or operator of an industrial facility shall
8 not be required to include in a pollution prevention plan or
9 pollution prevention plan summary information concerning a
10 research and development laboratory located at the industrial
11 facility.

12 ¹[i.] j.¹ The owner ¹[of] or¹ operator of an industrial facility
13 shall not be required to prepare a pollution prevention plan ¹[or]
14 ¹ pollution prevention plan summary or pollution prevention
15 plan progress report¹ for a pilot facility ¹[at which less than
16 10,000 pounds of a hazardous substance is used or generated per
17 year.

18 j. To the maximum extent practicable and feasible, the
19 information required for the preparation of a pollution prevention
20 plan and a pollution prevention plan summary shall be based on
21 information developed by an owner or operator of an industrial
22 facility for the purposes of compliance with 42 U.S.C. §11023 and
23 P.L.1983, c.315 (C.34:5A-1 et al.).

24 k. The department shall have the authority to determine which
25 information required in a pollution prevention plan and pollution
26 prevention plan summary may be reported to the department in
27 an environmental survey submitted pursuant to P.L.1983, c.315
28 instead of in a pollution prevention plan or a pollution prevention
29 plan summary.

30 l. The department may require owners and operators of
31 industrial facilities to submit pollution prevention plan summaries
32 in a form that is compatible with the department's electronic
33 information storage and retrieval system]¹.

34 ¹k. The department shall adopt, pursuant to the
35 "Administrative Procedure Act," rules and regulations
36 establishing criteria under which the department shall consider
37 sources or production processes that use similar ingredients to
38 produce one or more similar products as a single source or
39 production process for the purposes of reporting information in a
40 pollution prevention plan, pollution prevention plan summary, or
41 pollution prevention plan progress report.

42 l. Nothing in this act shall be construed to authorize the
43 department to request or require the owner or operator of an
44 industrial facility to provide information concerning
45 non-hazardous substances or product formulas for mixtures that
46 include non-hazardous substances, or to require that such
47 information be included in a pollution prevention plan, pollution
48 prevention plan summary, or pollution prevention plan progress
49 report.¹

50 8. (New section) a. The owner or operator of each priority

1 industrial facility having a Standard Industrial Classification, as
2 designated by the federal Office of Management and Budget,
3 within Major Group Numbers 26, 28, 30, 33 and 34, shall prepare a
4 pollution prevention plan and submit a pollution prevention plan
5 summary to the department on or before July 1, ¹[1993] 1994¹.

6 b. The owner or operator of each priority industrial facility,
7 other than those priority industrial facilities enumerated in
8 subsection a. of this section, shall prepare a pollution prevention
9 plan and submit a pollution prevention plan summary to the
10 department on or before July 1, ¹[1995] 1996¹.

11 c. ¹[The owner or operator of each priority industrial facility
12 shall prepare and submit to the department an annual pollution
13 prevention plan progress report documenting the pollution
14 prevention progress made in the previous year. The owner or
15 operator of a priority industrial facility shall update the
16 information contained in Part I of a pollution prevention plan
17 annually and shall prepare a complete revision of a pollution
18 prevention plan every five years.

19 d.]¹ The owner or operator of a priority industrial facility shall
20 maintain a copy of the pollution prevention plan for the facility
21 at the facility, where it shall be available for inspection by the
22 department.

23 ¹[e. The owner or operator of an industrial facility may
24 prepare a pollution prevention plan, and submit a pollution
25 prevention plan summary to the department.

26 f. The department shall have the authority to: require the
27 owner or operator of a priority industrial facility or industrial
28 facility to prepare and submit a pollution prevention plan and
29 submit a pollution prevention plan summary to the department;
30 approve a pollution prevention plan or pollution prevention plan
31 summary; and require the owner or operator of a priority
32 industrial facility or industrial facility to make any revisions or
33 modifications in a pollution prevention plan or pollution
34 prevention plan summary necessary for compliance with the
35 provisions of this act as determined by the department.]

36 d. The owner or operator of a priority industrial facility shall
37 annually update the information required to be reported pursuant
38 to paragraphs (13) through (17) of subsection b of section 7 of this
39 act. The owner or operator of a priority industrial facility shall
40 update the information required to be reported in paragraphs (1)
41 through (12) of subsection b. of section 7 of this act, and pursuant
42 to subsection h. of section 7 of this act, if a significant change in
43 the operation of the priority industrial facility occurs, including
44 the cessation or major expansion of a produciton process, the
45 installation or removal of primary components of a produciton
46 process, or the use or release of a hazardous substance, or the
47 generation of a hazardous waste, which was not used, released, or
48 generated when the initial pollution prevention plan was
49 completed.

50 e. The owner or operator of a priority industrial facility shall

1 prepare a complete revision of a pollution prevention plan by July
2 1 of the fifth year after the year of the initial completion of the
3 pollution prevention plan, and by July 1 of each fifth year
4 thereafter.

5 f. The owner or operator of a priority industrial facility shall
6 prepare and submit to the department a complete revision of a
7 pollution prevention plan summary by July 1 of the fifth year
8 after the year of the initial completion of the pollution
9 prevention plan summary, and by July 1 of each fifth year
10 thereafter.

11 g. The owner or operator of a priority industrial facility shall
12 prepare and submit to the department, on July 1 of each year
13 after the year of the initial completion of a pollution prevention
14 plan or the year of a complete revision of the pollution
15 prevention plan, a pollution prevention plan progress report that
16 indicates the progress made in the previous year in complying
17 with the pollution prevention goals set forth in the initial
18 pollution prevention plan, or revised pollution prevention plan, as
19 appropriate.

20 h. After January 1, 1995, the department, pursuant to the
21 "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et
22 seq.), may adopt rules and regulations designating as priority
23 industrial facilities industrial facilities other than those
24 designated as priority industrial facilities pursuant to section 3 of
25 this act. At least one year prior to the final adoption of any rules
26 and regulations designating proposed priority industrial facilities
27 pursuant to this subsection, the department shall submit to the
28 Legislature a list of the proposed priority industrial facilities.

29 i. The department may adopt, pursuant to the "Administrative
30 Procedure Act," rules and regulations establishing criteria for the
31 inclusion of hazardous substances in pollution prevention plans,
32 pollution prevention plan summaries, and pollution prevention
33 plan progress reports other than the hazardous substances on the
34 list established pursuant to 42 U.S.C. § 11023, which criteria shall
35 include a consideration of the toxicity of a substance, evidence of
36 the production of the substance in commercial quantities, and
37 prior regulation as a hazardous substance pursuant to P.L.1976,
38 c.141 (C.58:10-23.11 et seq.), section 4 of P.L.1985, c.403
39 (C.13:1K-22), or 42 U.S.C. 9601.¹

40 ^{19. (New section)} a. The department shall have the authority
41 to require the owner or operator of a priority industrial facility
42 to prepare and submit a pollution prevention plan and submit a
43 pollution prevention plan summary and pollution prevention plan
44 progress report to the department.

45 b. The department shall have the authority to approve a
46 pollution prevention plan, pollution prevention plan summary, or
47 pollution prevention plan progress report prepared pursuant to
48 this act and require the owner or operator of a priority industrial
49 facility to make any revisions or modifications of a pollution
50 prevention plan, pollution prevention plan summary, or pollution

1 prevention plan progress report necessary for compliance with
2 the provisions of this act, as determined by the department
3 pursuant to rules and regulations adopted pursuant to section 6 of
4 this act. In reviewing a pollution prevention plan, pollution
5 prevention plan summary, or pollution prevention plan progress
6 report, the department shall have the authority to require an
7 owner or operator of a priority industrial facility to provide such
8 information as the department deems necessary to support the
9 owner or operator's identification of a targeted production
10 process or targeted source. If the department requires the owner
11 or operator of a priority industrial facility to make revisions or
12 modify a pollution prevention plan, pollution prevention plan
13 summary, or pollution prevention plan progress report, the
14 department shall consider the financial impact on the owner or
15 operator of the priority industrial facility of the changes or
16 modifications.

17 c. At the time of an initial application for, or renewal of, any
18 permit, certificate, registration, or any other relevant
19 department approval issued to the owner or operator of a priority
20 industrial facility pursuant to P.L.1970, c.33 (C.13:1D-1 et seq.),
21 P.L.1970, c.39 (C.13:1E-1 et seq.), P.L.1977, c.74 (C.58:10A-1 et
22 seq.), or P.L.1954, c.212 (C.26:2C-1 et seq.), the department may
23 require that the permit, certificate, registration or approval
24 include the pollution prevention strategies set forth in the
25 pollution prevention plan or pollution prevention plan summary
26 prepared for the priority industrial facility pursuant to this act,
27 or may require, as a condition of issuing a permit, certificate,
28 registration, or any other relevant department approval to the
29 owner or operator of a priority industrial facility pursuant to
30 P.L.1970, c.33 (C.13:1D-1 et seq.), P.L.1970, c.39 (C.13:1E-1 et
31 seq.), P.L.1977, c.74 (C.58:10A-1 et seq.), or P.L.1954, c.212
32 (C.26:2C-1 et seq.), that the owner or operator of the priority
33 industrial facility prepare a pollution prevention plan and submit
34 a pollution prevention plan summary to the department.

35 d. The department may revoke, issue, reissue, or modify any
36 permit, certificate, registration, or any other relevant approval
37 issued to the owner or operator of a priority industrial facility by
38 the department pursuant to P.L.1970, c.33 (C.13:1D-1 et seq.),
39 P.L.1970, c.39 (C.13:1E-1 et seq.), P.L.1977, c.74 (C.58:10A-1 et
40 seq.), or P.L.1954, c.212 (C.26:2C-1 et seq.) for the purpose of
41 issuing a facility-wide permit, or requiring more stringent
42 emission or effluent levels based on pollution prevention
43 strategies contained in the pollution prevention plan prepared by
44 the owner or operator of the priority industrial facility. Any
45 action taken by the department pursuant to this subsection to
46 revoke, issue, reissue, or modify any permit, certificate,
47 registration, or other departmental approval may be appealed
48 pursuant to the provisions of P.L.1970, c.33 (C.13:1D-1 et seq.),
49 P.L.1970, c.39 (C.13:1E-1 et seq.), P.L.1977, c.74 (C.58:10A-1 et
50 seq.), or P.L.1954, c.212 (C.26:2C-1 et seq.), as appropriate.¹

1 10. (New section) a. The department, pursuant to the
2 criteria established in rules and regulations adopted pursuant to
3 subsection c of section 6 of this act, may direct the owner or
4 operator of an industrial facility which is not designated a
5 priority industrial facility pursuant to section 3 or subsection h.
6 of section 8 of this act, to prepare a pollution prevention plan for
7 the industrial facility and to submit a pollution prevention plan
8 summary and pollution prevention plan progress report to the
9 department. An owner or operator of an industrial facility
10 directed to prepare a pollution prevention plan, pollution
11 prevention plan summary, and pollution prevention plan progress
12 report pursuant to this subsection shall prepare the pollution
13 prevention plan, submit the pollution prevention plan summary to
14 the department within 18 months of receipt of the department's
15 directive, and shall annually submit to the department a pollution
16 prevention plan progress report.

17 b. The department shall have the authority to approve a
18 pollution prevention plan, pollution prevention plan summary, or
19 pollution prevention plan progress report prepared pursuant to
20 this section, and to require the owner or operator of an industrial
21 facility to make any revisions or modifications in a pollution
22 prevention plan or pollution prevention plan summary necessary
23 for compliance with the provisions of this act, as determined by
24 the department pursuant to rules and regulations adopted
25 pursuant to section 6 of this act. In reviewing a pollution
26 prevention plan, pollution prevention plan summary, or pollution
27 prevention plan progress report, the department shall have the
28 authority to require an owner or operator of an industrial facility
29 to provide such information as the department deems necessary
30 to support the owner or operator's identification of a targeted
31 production process or targeted source. If the department requires
32 the owner or operator of an industrial facility to make revisions
33 or modify a pollution prevention plan, pollution prevention plan
34 summary, or pollution prevention plan progress report, the
35 department shall consider the financial impact on the owner or
36 operator of the industrial facility of the changes or modifications.

37 c. At the time of an initial application for, or an application
38 for the renewal of, any permit, certificate, registration, or any
39 other relevant approval issued by the department pursuant to
40 P.L.1970, c.33 (C.13:1D-1 et seq.), P.L.1970, c.39 (C.13:1E-1 et
41 seq.), P.L.1977, c.74 (C.58:10A-1 et seq.), or P.L.1954, c.212
42 (C.26:2C-1 et seq.) to the owner or operator of an industrial
43 facility that has been directed by the department to prepare a
44 pollution prevention plan and pollution prevention plan summary
45 pursuant to subsection a of this section, the department may
46 require that the permit, certificate, registration, or approval
47 include the pollution prevention strategies set forth in the
48 pollution prevention plan or pollution prevention plan summary
49 prepared for the industrial facility.

50 d. The department may revoke, issue, reissue, or modify any

1 permit, certificate, registration, or any other relevant approval
2 issued by the department pursuant to P.L.1970, c.33 (C.13:1D-1
3 et seq.), P.L.1970, c.39 (C.13:1E-1 et seq.), P.L.1977, c.74
4 (C.58:10A-1 et seq.), or P.L.1954, c.212 (C.26:2C-1 et seq.) to
5 the owner or operator of an industrial facility that has been
6 directed by the department to prepare a pollution prevention plan
7 and pollution prevention plan summary pursuant to subsection a
8 of this section for the purpose of including the pollution
9 prevention strategies set forth in the pollution prevention plan or
10 pollution prevention plan summary prepared for the industrial
11 facility. Any action taken by the department pursuant to this
12 subsection to revoke, issue, reissue, or modify any permit
13 certificate, registration, or other department approval may be
14 appealed pursuant to the provisions of P.L.1970, c.33 (C.13:1D-1
15 et seq.), P.L.1970, c.39 (C.13:1E-1 et seq.), P.L.1977, c.74
16 (C.58:10A-1 et seq.), or P.L.1954, c.212 (C.26:2C-1 et seq.), as
17 appropriate.¹

18 ¹[9.] 11.¹ (New section) The department shall conduct
19 research on pollution prevention trends within each of the
20 Standard Industrial Classification industry groups represented by
21 priority industrial facilities. This research shall include an
22 analysis of information contained in pollution prevention plan
23 summaries prepared and submitted to the department by owners
24 or operators of priority industrial facilities, and may include an
25 analysis of pollution prevention plans. ¹[The] Within five years of
26 the effective date of this act, the¹ department shall prepare and
27 submit to the Governor and the Legislature, and shall make
28 available to the public, a pollution prevention profile report for
29 each of the Standard Industrial Classification industry groups
30 represented by priority industrial facilities that summarizes the
31 department's research on each industry group, and, if warranted
32 by the research, that recommends any administrative or
33 legislative action necessary to increase pollution prevention
34 activities at priority industrial facilities.

35 ¹[10. a. (New section) The department may require that any
36 permit, certificate, registration, or any other relevant
37 department approval issued pursuant to P.L.1970, c.33 (C.13:1D-1
38 et seq.), P.L.1970, c.39 (C.13:1E-1 et seq.), P.L.1977, c.74
39 (C.58:10A-1 et seq.), or P.L.1954, c.212 (C.26:2C-1 et seq.)
40 include pollution prevention strategies, or may require as a
41 condition of issuing a permit, certificate, registration, or any
42 other relevant department approval pursuant to P.L.1970, c.33
43 (C.13:1D-1 et seq.), P.L.1970, c.39 (C.13:1E-1 et seq.), P.L.1977,
44 c.74 (C.58:10A-1 et seq.), or P.L.1954, c.212 (C.26:2C-1 et seq.),
45 that the owner or operator of an industrial facility prepare a
46 pollution prevention plan and submit a pollution prevention plan
47 summary to the department.

48 b. The department may revoke, issue, reissue, or modify any
49 permit, certificate, registration, or any other relevant
50 department approval issued by the department pursuant to

1 P.L.1970, c.33 (C.13:1D-1 et seq.), P.L.1970, c.39 (C.13:1E-1 et
2 seq.), P.L.1977, c.74 (C.58:10A-1 et seq.), or P.L.1954, c.212
3 (C.26:2C-1 et seq.) for the purpose of issuing a facility-wide
4 permit, requiring pollution prevention at any facility, or requiring
5 more stringent emission or effluent levels based on pollution
6 prevention strategies or technologies applicable to that facility
7 or a particular industry.

8 c.] 12. (New section)¹ The department may enter any
9 industrial facility for the purpose of obtaining information
10 concerning the industrial facility's pollution prevention
11 practices, reviewing a pollution prevention plan, ascertaining the
12 quality of any work performed in accordance with this act or
13 rules or regulations adopted pursuant thereto, or ascertaining
14 compliance with a facility-wide permit or the provisions of this
15 act or any rule or regulation adopted pursuant thereto. Any
16 information relating to a trade secret obtained in the course of
17 implementing or enforcing the provisions of this act shall be kept
18 confidential and shall be inadmissible as evidence in any court or
19 in any other proceeding in such a manner so as to protect the
20 confidentiality of the information.

21 ¹[11.] 13.¹ (New section) a. Any owner or operator of an
22 industrial facility required to prepare a pollution prevention plan
23 and submit to the department a pollution prevention plan
24 summary may omit from the pollution prevention plan or
25 pollution prevention plan summary the specific chemical identity
26 of a hazardous substance about which information is required, and
27 include instead the generic class or category of the hazardous
28 substance, or may omit any other information required to be
29 disclosed, if the owner or operator files with the department a
30 trade secret claim pursuant to this section.

31 b. Any owner or operator of an industrial facility omitting
32 information from a pollution prevention plan or pollution
33 prevention plan summary pursuant to this section shall submit to
34 the department, accompanied by the pollution prevention plan
35 summary, a trade secret claim in which the owner or operator of
36 the industrial facility provides the commissioner with the
37 information omitted, and a statement demonstrating that the
38 information omitted meets the criteria for a valid trade secret
39 established pursuant to subsection c. of this section. The trade
40 secret claim shall include the information omitted from the
41 pollution prevention plan or pollution prevention plan summary,
42 and the commissioner shall maintain this information on a
43 confidential basis. Any trade secret claim made pursuant to this
44 section which the department determines is false or frivolous
45 shall be considered a violation of this act.

46 c. No owner or operator of an industrial facility shall omit
47 information from a pollution prevention plan or pollution
48 prevention plan summary unless the owner or operator can
49 demonstrate that:

50 (1) The information has not been disclosed to any other person

1 other than to a person bound by a confidentiality agreement;

2 (2) The owner or operator has taken all reasonable measures
3 necessary to protect the secrecy of the information;

4 (3) The information is not required to be disclosed, or to be
5 otherwise made available, to the public pursuant to any other
6 federal or State law;

7 (4) Disclosure of the information would be likely to cause the
8 owner or operator substantial economic disadvantage or harm; and

9 (5) The information is not readily discoverable through reverse
10 engineering or other analytical techniques.

11 d. The department shall act to make a determination on the
12 validity of a trade secret claim when a request is made by any
13 person for the disclosure of the information for which the trade
14 secret claim was made, or at any time that the department
15 deems appropriate. Upon making a determination on the validity
16 of a trade secret claim, the department shall inform the owner or
17 operator of the affected industrial facility of the determination
18 by certified mail. If the department determines that the owner
19 or operator's trade secret claim is not valid, the owner or
20 operator shall have 45 days from the receipt of the department's
21 determination to file with the department a written request for
22 an administrative hearing on the determination. If the owner or
23 operator does not file such a request within 45 days, the
24 department shall take action to provide that the information for
25 which the trade secret claim was made be disclosed pursuant to
26 the provisions of this act. If an owner or operator requests an
27 administrative hearing pursuant to the provisions of this
28 subsection, the department shall refer the matter to the Office
29 of Administrative Law for a hearing thereon. At the hearing, the
30 owner or operator shall have the burden to show that the trade
31 secret claim is valid. Within 45 days of receipt of the
32 administrative law judge's recommendation, the department shall
33 affirm, reject, or modify the recommendation. The department's
34 action shall be considered the final agency action for the
35 purposes of the "Administrative Procedure Act," P.L.1968, c.410
36 (C.52:14B-1 et seq.), and shall be subject only to judicial review
37 as provided in the Rules of Court. The department shall inform
38 the owner or operator of its decision on the administrative law
39 judge's recommendation by certified mail. If the department
40 determines that the trade secret claim is not valid, the owner or
41 operator shall have 45 days to notify the department in writing
42 that he has filed an appeal of the department's decision in the
43 courts. If the owner or operator does not so notify the
44 department, the department shall take action to provide that the
45 information for which the trade secret claim was made be
46 disclosed pursuant to the provisions of this act.

47 e. The department shall provide any information for which a
48 trade secret claim is pending or has been approved pursuant to
49 this section to a physician or osteopath when such information is
50 needed for medical diagnosis or treatment. The department shall

1 require the physician or osteopath to sign an agreement
2 protecting the confidentiality of information disclosed pursuant
3 to this subsection.

4 f. Any pollution prevention plan summary containing
5 information for which a trade secret claim is pending or has been
6 approved shall be made available to the public with that
7 information omitted.

8 g. The subject of any trade secret claim pending or approved
9 shall be treated as confidential information. ¹Confidential
10 information shall be kept in a locked file within a locked room at
11 the department, and shall not be duplicated by any person,
12 including any employee of the department. The department shall
13 maintain a record of all persons obtaining access to the
14 confidential information, including the date and time of, and the
15 reasons for, the access.¹ Except as provided in subsection e. of
16 this section, the department shall not disclose any confidential
17 information to any person except an officer or employee of the
18 State in connection with the official duties of the officer or
19 employee under any law for the protection of public health, or to
20 the contractors of the State and their employees if, in the opinion
21 of the department, the disclosure is necessary for the completion
22 of any work contracted for in connection with the
23 implementation of this act. Any officer or employee of the
24 State, contractor of the State, physician, or osteopath who has
25 access to any confidential information, and who willingly and
26 knowingly discloses the confidential information to any person
27 not authorized to receive it, is guilty of a crime of the third
28 degree.

29 h. The commissioner shall not approve any trade secret claim
30 for any information which the Administrator of the United States
31 Environmental Protection Agency has determined is not a trade
32 secret pursuant to 42 U.S.C. §11042 or 42 U.S.C. §6921.

33 i. An owner or operator of an industrial facility may not claim
34 the following information as a trade secret:

35 (1) The chemical name, identity, and amounts of any hazardous
36 substance discharged into the air or the surface or ground waters
37 of the State or into a wastewater treatment system, the chemical
38 identity and amounts of hazardous waste generated, or the
39 location of a discharge or generation; or

40 (2) Hazards to health or the environment posed by any
41 hazardous substance at an industrial facility, and potential routes
42 of human exposure to a hazardous substance.

43 j. The information for which a trade secret claim is made
44 pursuant to this section may be used by the department in general
45 compilations of information based on industry groups or
46 classifications of hazardous substances, or for the conducting of
47 research and preparation of the reports required pursuant to
48 section 9 of this act if this use does not identify the specific
49 industrial facility or priority industrial facility for which the
50 information was reported.

1 ¹[12.] 14.¹ (New section) a. Within 18 months of adoption of
2 the rules and regulations ¹[and preparation of the document]
3 required¹ pursuant to section 6 of this act, the department shall
4 designate no fewer than 10 but not more than 15 individual
5 priority industrial facilities to each receive a facility-wide
6 permit on the basis of criteria adopted by the department. These
7 criteria shall include, but need not be limited to:

8 (1) The potential for a priority industrial facility to serve as a
9 State-wide model for multimedia pollution prevention programs;

10 (2) The potential for a priority industrial facility that does not
11 meet industry-wide pollution prevention goals to meet these
12 goals through a facility-wide permit; and

13 (3) The potential for a priority industrial facility that has not
14 met the pollution prevention goals set forth in its pollution
15 prevention plan to meet these goals through a facility-wide
16 permit.

17 ¹At the time of the designation of priority industrial facilities
18 pursuant to this subsection, the department shall prepare and
19 submit to the Legislature a report summarizing the designation
20 process and progress made to date in establishing a facility wide
21 permitting program.¹

22 b. Within 30 months of the adoption of the rules and
23 regulations ¹[and preparation of the document] required¹
24 pursuant to section 6 of this act, the department shall issue
25 facility-wide permits to the priority industrial facilities
26 designated pursuant to subsection a. of this section.

27 c. Within 36 months of the adoption of the rules and
28 regulations ¹[and preparation of the document] required¹
29 pursuant to section 6 of this act, the department shall prepare
30 and submit to the Governor and the Legislature a report
31 analyzing the facility-wide permit program, evaluating the
32 successes or shortcomings of the facility-wide permit program,
33 evaluating the ability of the department to conduct and expand
34 the facility-wide permit program, and proposing, if warranted, a
35 schedule to expand the applicability of the facility-wide permit
36 program. ¹The department shall not expand the facility-wide
37 permitting program beyond the number of priority industrial
38 facilities designated pursuant to subsection a. of this section
39 without authorization by law.¹

40 ¹[13.] 15.¹ (New section) a. Whenever, on the basis of
41 information available to the commissioner, the commissioner
42 finds that a person is in violation of this act, the commissioner
43 shall:

44 (1) Issue an order in accordance with subsection b. of this
45 section requiring the person to comply;

46 (2) Bring a civil action in accordance with subsection c. of this
47 section;

48 (3) Levy a civil administrative penalty in accordance with
49 subsection d. of this section; or

50 (4) Bring an action for a civil penalty in accordance with

1 subsection e. of this section.

2 The exercise of any of the remedies provided in this section
3 shall not preclude recourse to any other remedy so provided.

4 b. Whenever, on the basis of information available to the
5 commissioner, the commissioner finds that a person is in violation
6 of this act, the commissioner may issue an order (1) specifying
7 the provision or provisions of this act, or the rule or regulation
8 adopted pursuant thereto, of which the person is in violation; (2)
9 citing the action that caused the violation; (3) requiring
10 compliance with the provision of this act or the rule or regulation
11 adopted pursuant thereto of which the person is in violation; and
12 (4) giving notice to the person of his right to a hearing on the
13 matters contained in the order.

14 c. The commissioner is authorized to commence a civil action
15 in Superior Court for appropriate relief from a violation of this
16 act. This relief may include an assessment against the violator
17 for the costs of any investigation, inspection, or monitoring
18 survey that led to the discovery and establishment of the
19 violation, and for the reasonable costs of preparing and litigating
20 the case under this subsection.

21 d. (1) The commissioner is authorized to impose a civil
22 administrative penalty of not more than \$15,000 for each
23 violation, and each day during which each violation continues
24 shall constitute an additional, separate, and distinct offense. Any
25 amount imposed under this subsection shall be assessed pursuant
26 to rules and regulations adopted by the commissioner for
27 violations of similar type, seriousness, and duration. The
28 commissioner shall have the authority to assess penalties prior to
29 the establishment of rules and regulations governing penalties to
30 the extent that such penalties are reasonable and based on other
31 violations of a similar type, seriousness, and duration. No civil
32 administrative penalty shall be imposed until after the person has
33 been notified by certified mail or personal service. The notice
34 shall include: a reference to the section of the act, rule,
35 regulation, order, or permit violated; a concise statement of the
36 facts alleged to constitute a violation; a statement of the amount
37 of the civil administrative penalties to be imposed; and a
38 statement of the person's right to a hearing. The person shall
39 have 20 days from receipt of the notice within which to deliver to
40 the commissioner a written request for a hearing. Subsequent to
41 the hearing and upon finding that a violation has occurred, the
42 commissioner may issue a final order or civil administrative
43 penalty after imposing the amount of the fine specified in the
44 notice. If no hearing is requested, the notice shall become a final
45 order or a final civil administrative penalty upon the expiration
46 of the 20-day period. Payment of the penalty is due when a final
47 order is issued or when the notice becomes a final order or a final
48 civil administrative penalty. The authority to levy a civil
49 administrative penalty is in addition to all other enforcement
50 provisions in this act, and the payment of a civil administrative

1 penalty shall not be deemed to affect the availability of any
2 other enforcement provision in connection with the violation for
3 which the penalty is levied. A civil administrative penalty
4 imposed under this subsection may be compromised by the
5 commissioner upon the posting of a performance bond by the
6 violator, or upon terms and conditions the commissioner may
7 establish by rule or regulation.

8 (2) In addition to the assessment of a civil administrative
9 penalty, the commissioner may, by administrative order and upon
10 an appropriate finding, assess a violator for the reasonable costs
11 of any investigation, inspection, or monitoring survey which led
12 to the establishment of the violation.

13 e. Any person who violates this act, an order issued pursuant
14 to subsection b. of this section, or a court order issued pursuant
15 to subsection c. of this section, or who fails to pay in full a civil
16 administrative penalty levied pursuant to subsection d. of this
17 section, shall be subject, upon order of a court, to a civil penalty
18 not to exceed \$15,000 for each day during which the violation
19 continues. Any penalty imposed pursuant to this subsection may
20 be collected, and any costs incurred in connection therewith may
21 be recovered, in a summary proceeding pursuant to "the penalty
22 enforcement law," N.J.S.2A:58-1 et seq. The Superior Court and
23 the municipal court shall have jurisdiction to enforce "the
24 penalty enforcement law."

25 f. Any violation of a pollution`prevention condition of a
26 facility-wide permit issued pursuant to this act shall be
27 considered a violation of P.L.1970, c.33 (C.13:1D-1 et seq.),
28 P.L.1970, c.39 (C.13:1E-1 et seq.), P.L.1977, c.74 (C.58:10A-1
29 et seq.), or P.L.1954, c.212 (C.26:2C-1 et seq.), as the
30 department deems appropriate.

31 ¹[14.] 16.¹ (New section) There is established in the
32 department a nonlapsing fund to be known as the "Pollution
33 Prevention Fund," hereinafter referred to as "the fund." The
34 fund shall be credited with all fees imposed and collected by the
35 Department of Labor pursuant to paragraph (2) of subsection b. of
36 section 26 of P.L.1983, c.315 (C.34:5A-26), and with all penalties
37 collected for violations of this act, and with any other monies
38 that may be made available, or appropriated, to the department
39 for the implementation of this act. Monies in the fund shall be
40 used by ¹, and are hereby appropriated to,¹ the department solely
41 for the purpose of implementing the provisions of this act.

42 ¹[15.] 17.¹ Section 3 of P.L.1983, c.315 (C.34:5A-3) is
43 amended to read as follows:

44 3. As used in this act:

45 a. "Chemical Abstracts Service number" means the unique
46 identification number assigned by the Chemical Abstracts Service
47 to chemicals.

48 b. "Chemical name" means the scientific designation of a
49 chemical in accordance with the nomenclature system developed
50 by the International Union of Pure and Applied Chemistry or the

1 Chemical Abstracts Service rules of nomenclature.

2 c. "Common name" means any designation or identification
3 such as a code name, code number, trade name, brand name or
4 generic name used to identify a chemical other than by its
5 chemical name.

6 d. "Container" means a receptacle used to hold a liquid, solid,
7 or gaseous substance, including, but not limited to, bottles,
8 pipelines, bags, barrels, boxes, cans, cylinders, drums, cartons,
9 vessels, vats, and stationary or mobile storage tanks.
10 "Container" shall not include process containers.

11 e. "Council" means the Right to Know Advisory Council
12 created pursuant to section 18 of this act.

13 f. "County health department" means a county health agency
14 established pursuant to P.L.1975, c.329 (C.26:3A2-1 et seq.), or
15 the office of a county clerk in a county which has not established
16 a department.

17 g. "Employee representative" means a certified collective
18 bargaining agent or an attorney whom an employee authorizes to
19 exercise his rights to request information pursuant to the
20 provisions of this act, or a parent or legal guardian of a minor
21 employee.

22 h. "Employer" means any person or corporation in the State
23 engaged in business operations which has a Standard Industrial
24 Classification, as designated in the Standard Industrial
25 Classification Manual prepared by the federal Office of
26 Management and Budget, within the following Major Group
27 Numbers, Group Numbers, or Industry Numbers, as the case may
28 be: Major Group Number 07 (Agricultural Services), only Industry
29 Number 0782--Lawn and garden services; Major Group Numbers
30 20 through 39 inclusive (manufacturing industries); Major Group
31 Number 45 (Transportation by Air), only Industry Number
32 4511--Air Transportation, certified carriers, and Group Number
33 458--Air Transportation Services; Major Group Number 46
34 (Pipelines, Except Natural Gas); Major Group Number 47
35 (Transportation Services), only Group Numbers 471--Freight
36 Forwarding, 474--Rental of Railroad Cars, and
37 478--Miscellaneous Services Incidental to Transportation; Major
38 Group Number 48 (Communication), only Group Numbers
39 481--Telephone Communication, and 482--Telegraph
40 Communication; Major Group Number 49 (Electric, Gas and
41 Sanitary Services); Major Group Number 50 (Wholesale
42 Trade--Durable Goods), only Industry Numbers 5085--Industrial
43 Supplies, 5087--Service Establishment Equipment and Supplies,
44 and 5093--Scrap and Waste Materials; Major Group Number 51
45 (Wholesale trade, nondurable goods), only Group Numbers
46 512--Drugs, Drug Proprietaries and Druggist's Sundries,
47 516--Chemicals and Allied Products, 517--Petroleum and
48 petroleum products, 518--Beer, Wine and Distilled Alcoholic
49 Beverages, and 519--Miscellaneous Nondurable Goods; Major
50 Group Number 55 (Automobile Dealers and Gasoline Service

1 Stations), only Group Numbers 551--Motor Vehicle Dealers (New
2 and Used), 552--Motor Vehicle Dealers (Used only), and
3 554--Gasoline Service Stations; Major Group Number 72
4 (Personal Services), only Industry Numbers 7216--Dry Cleaning
5 Plants, Except Rug Cleaning, 7217--Carpet and Upholstery
6 Cleaning, and 7218--Industrial Launderers; Major Group Number
7 73 (Business Services), only Industry Number 7397 Commercial
8 testing laboratories; Major Group Number 75 (automotive repair,
9 services, and garages), only Group Number 753--Automotive
10 Repair Shops; Major Group Number 76 (miscellaneous repair
11 services), only Industry Number 7692--Welding Repair; Major
12 Group Number 80 (health services), only Group Number
13 806--Hospitals; and Major Group Number 82 (educational
14 services), only Group Numbers 821--Elementary and Secondary
15 Schools and 822--Colleges and Universities, and Industry Number
16 8249--Vocational Schools. Except for the purposes of section 26
17 of this act, "employer" means the State and local governments,
18 or any agency, authority, department, bureau, or instrumentality
19 thereof.

20 i. "Environmental hazardous substance" means any substance
21 on the environmental hazardous substance list.

22 j. "Environmental hazardous substance list" means the list of
23 environmental hazardous substances developed by the
24 Department of Environmental Protection pursuant to section 4 of
25 this act.

26 k. "Environmental survey" means a written form prepared by
27 the Department of Environmental Protection and transmitted to
28 an employer, on which the employer shall provide certain
29 information concerning each of the environmental hazardous
30 substances at his facility, including, but not limited to, the
31 following:

32 (1) The chemical name and Chemical Abstracts Service
33 number of the environmental hazardous substance;

34 (2) A description of the use of the environmental hazardous
35 substance at the facility;

36 (3) The quantity of the environmental hazardous substance
37 produced at the facility;

38 (4) The quantity of the environmental hazardous substance
39 brought into the facility;

40 (5) The quantity of the environmental hazardous substance
41 consumed at the facility;

42 (6) The quantity of the environmental hazardous substance
43 shipped out of the facility as or in products;

44 (7) The maximum inventory of the environmental hazardous
45 substance stored at the facility, the method of storage, and the
46 frequency and methods of transfer;

47 (8) The total stack or point-source emissions of the
48 environmental hazardous substance;

49 (9) The total estimated fugitive or nonpoint-source emissions
50 of the environmental hazardous substance;

1 (10) The total discharge of the environmental hazardous
2 substance into the surface or groundwater, the treatment
3 methods, and the raw wastewater volume and loadings;

4 (11) The total discharge of the environmental hazardous
5 substance into publicly owned treatment works;

6 (12) The quantity, and methods of disposal, of any wastes
7 containing an environmental hazardous substance, the method of
8 on-site storage of these wastes, the location or locations of the
9 final disposal site for these wastes, and the identity of the hauler
10 of the wastes;

11 (13) The total quantity of environmental hazardous substances
12 generated at the facility, including hazardous substances
13 generated as nonproduct output;

14 (14) The quantity of environmental hazardous substances
15 recycled on-site and off-site; and

16 (15) Information pertaining to pollution prevention activities
17 at the facility.

18 As used in this subsection, "pollution prevention" and
19 "nonproduct output" shall have the same meaning as set forth in
20 section 3 of P.L. , c. (C.) (pending in the Legislature as this
21 bill).

22 l. "Facility" means the building, equipment and contiguous
23 area at a single location used for the conduct of business. Except
24 for the purposes of subsection c. of section 13, section 14, and
25 subsection b. of section 25 of this act, "facility" shall not include
26 a research and development laboratory.

27 m. "Hazardous substance" means any substance, or substance
28 contained in a mixture, included on the workplace hazardous
29 substance list developed by the Department of Health pursuant to
30 section 5 of this act, introduced by an employer to be used,
31 studied, produced, or otherwise handled at a facility. "Hazardous
32 substance" shall not include:

33 (1) Any article containing a hazardous substance if the
34 hazardous substance is present in a solid form which does not
35 pose any acute or chronic health hazard to an employee exposed
36 to it;

37 (2) Any hazardous substance constituting less than 1% of a
38 mixture unless the hazardous substance is present in an aggregate
39 amount of 500 pounds or more at a facility;

40 (3) Any hazardous substance which is a special health hazard
41 substance constituting less than the threshold percentage
42 established by the Department of Health for that special health
43 hazard substance when present in a mixture; or

44 (4) Any hazardous substance present in the same form and
45 concentration as a product packaged for distribution and use by
46 the general public to which an employee's exposure during
47 handling is not significantly greater than a consumer's exposure
48 during the principal use of the toxic substance.

49 n. "Hazardous substance fact sheet" means a written
50 document prepared by the Department of Health for each

1 hazardous substance and transmitted by the department to
2 employers pursuant to the provisions of this act, which shall
3 include, but not be limited to, the following information:

4 (1) The chemical name, the Chemical Abstracts Service
5 number, the trade name, and common names of the hazardous
6 substance;

7 (2) A reference to all relevant information on the hazardous
8 substance from the most recent edition of the National Institute
9 for Occupational Safety and Health's Registry of Toxic Effects
10 of Chemical Substances;

11 (3) The hazardous substance's solubility in water, vapor
12 pressure at standard conditions of temperature and pressure, and
13 flash point;

14 (4) The hazard posed by the hazardous substance, including its
15 toxicity, carcinogenicity, mutagenicity, teratogenicity,
16 flammability, explosiveness, corrosivity and reactivity, including
17 specific information on its reactivity with water;

18 (5) A description, in nontechnical language, of the acute and
19 chronic health effects of exposure to the hazardous substance,
20 including the medical conditions that might be aggravated by
21 exposure, and any permissible exposure limits established by the
22 federal Occupational Safety and Health Administration;

23 (6) The potential routes and symptoms of exposure to the
24 hazardous substance;

25 (7) The proper precautions, practices, necessary personal
26 protective equipment, recommended engineering controls, and
27 any other necessary and appropriate measures for the safe
28 handling of the hazardous substance, including specific
29 information on how to extinguish or control a fire that involves
30 the hazardous substance; and

31 (8) The appropriate emergency and first aid procedures for
32 spills, fires, potential explosions, and accidental or unplanned
33 emissions involving the hazardous substance.

34 o. "Label" means a sign, emblem, sticker, or marker affixed to
35 or stenciled onto a container listing the information required
36 pursuant to section 14 of this act.

37 p. "Mixture" means a combination of two or more substances
38 not involving a chemical reaction.

39 q. "Process container" means a container, excluding a
40 pipeline, the content of which is changed frequently; a container
41 of 10 gallons or less in capacity, into which substances are
42 transferred from labeled containers, and which is intended only
43 for the immediate use of the employee who performs the
44 transfer; a container on which a label would be obscured by heat,
45 spillage or other factors; or a test tube, beaker, vial, or other
46 container which is routinely used and reused.

47 r. "Research and development laboratory" means a specially
48 designated area used primarily for research, development, and
49 testing activity, and not primarily involved in the production of
50 goods for commercial sale, in which hazardous substances or

1 environmental hazardous substances are used by or under the
2 direct supervision of a technically qualified person.

3 s. "Special health hazard substance" means any hazardous
4 substance on the special health hazard substance list.

5 t. "Special health hazard substance list" means the list of
6 special health hazard substances developed by the Department of
7 Health pursuant to section 5 of this act for which an employer
8 may not make a trade secret claim.

9 u. "Trade secret" means any formula, plan, pattern, process,
10 production data, information, or compilation of information,
11 which is not patented, which is known only to an employer and
12 certain other individuals, and which is used in the fabrication and
13 production of an article of trade or service, and which gives the
14 employer possessing it a competitive advantage over businesses
15 who do not possess it, or the secrecy of which is certified by an
16 appropriate official of the federal government as necessary for
17 national defense purposes. The chemical name and Chemical
18 Abstracts Service number of a substance shall be considered a
19 trade secret only if the employer can establish that the substance
20 is unknown to competitors. In determining whether a trade
21 secret is valid pursuant to section 15 of this act, the Department
22 of Health, or the Department of Environmental Protection, as the
23 case may be, shall consider material provided by the employer
24 concerning (1) the extent to which the information for which the
25 trade secret claim is made is known outside the employer's
26 business; (2) the extent to which the information is known by
27 employees and others involved in the employer's business; (3) the
28 extent of measures taken by the employer to guard the secrecy of
29 the information; (4) the value of the information, to the employer
30 or the employer's competitor; (5) the amount of effort or money
31 expended by the employer in developing the information; and (6)
32 the ease or difficulty with which the information could be
33 disclosed by analytical techniques, laboratory procedures, or
34 other means.

35 v. "Trade secret registry number" means a code number
36 temporarily or permanently assigned to the identity of a
37 substance in a container by the Department of Health pursuant to
38 section 15 of this act.

39 w. "Trade secret claim" means a written request, made by an
40 employer pursuant to section 15 of this act, to withhold the
41 public disclosure of information on the grounds that the
42 disclosure would reveal a trade secret.

43 x. "Workplace hazardous substance list" means the list of
44 hazardous substances developed by the Department of Health
45 pursuant to section 5 of this act.

46 y. "Workplace survey" means a written document, prepared by
47 the Department of Health and completed by an employer
48 pursuant to this act, on which the employer shall report each
49 hazardous substance present at his facility.

50 (cf: P.L.1985, c.543, s.1)

1 ¹[16.] 18.¹ Section 4 of P.L.1983, c.315 (C.34:5A-4) is
2 amended to read as follows:

3 4. a. The Department of Environmental Protection shall
4 develop an environmental hazardous substance list which ¹[shall
5 include, but not be limited to, substances used, manufactured,
6 stored, packaged, repackaged, or disposed of or released into the
7 environment of the State which, in the department's
8 determination, may be linked to the incidence of cancer; genetic
9 mutations; physiological malfunctions, including malfunctions in
10 reproduction; and other diseases; or which, by virtue of their
11 physical properties, may pose a threat to the public health and
12 safety. The [department shall base the] environmental hazardous
13 substance list]¹ [on] shall include the list of substances developed
14 and used by the department for the purposes of the Industrial
15 Survey Project, established pursuant to P.L.1970, c.33 (C.13:1D-1
16 et seq.) [and P.L.1977, c.74 (C.58:10A-1 et seq.)], ¹[any substance
17 which is a chemical constituent on the list of hazardous
18 substances adopted by the department pursuant to section 3 of
19 P.L.1976, c.141 (C.58:10-23.11b), any extraordinarily hazardous
20 substance listed on the extraordinarily hazardous substance list
21 established by the department pursuant to section 4 of P.L.1985,
22 c.403 (C.13:1K-22), or rules and regulations adopted pursuant
23 thereto,] and¹ any substance on the list established by the United
24 States Environmental Protection Agency for reporting pursuant
25 to ¹[Section 313 of Title III of the "Superfund Amendments and
26 Reauthorization Act of 1986" (¹ 42 U.S.C. §11023 ¹), or any
27 substance that is a chemical constituent on the list of hazardous
28 substances established by the United States Environmental
29 Protection Agency pursuant to section 101 of the
30 "Comprehensive Environmental Response, Compensation, and
31 Liability Act of 1980" (42 U.S.C. §9601),]¹ and may include other
32 substances which the department, based on documented scientific
33 evidence, determines pose a threat to the public health and
34 safety.

35 b. The department shall develop an environmental survey,
36 which shall be designed to enable employers to report information
37 about environmental hazardous substances at their facilities.

38 c. The department shall prepare and, upon request, make
39 available to employers, county health departments, or the public
40 a Spanish translation of the environmental survey. The
41 department shall also prepare and make available a Spanish
42 translation of any written material prepared by the department
43 to inform the public of the information available pursuant to the
44 provisions of this act.

45 d. Three months prior to the effective date of this act the
46 department shall adopt, pursuant to the "Administrative
47 Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), the
48 environmental hazardous substance list.

49 (cf: P.L.1983, c.315, s.4)

50 ¹19. Section 7 of P.L. 1983, c. 315 (C. 34:5A-7) is amended to

1 read as follows:

2 7. a. Except as otherwise provided in section 15 of this act, an
3 employer shall have until October 30, 1985, or within 90 days of
4 the employer's receipt of the workplace survey, whichever is
5 later, to complete the survey and transmit a copy of the
6 completed survey to the Department of Health, the health
7 department of the county in which the employer's facility is
8 located, the local fire department, and the local police
9 department. If an employer has reason to believe that a mixture
10 present at his facility contains a hazardous substance as a
11 component, but is unable to obtain from the manufacturer or
12 supplier of the mixture the chemical names and Chemical
13 Abstracts Service numbers of the components of the mixture, he
14 shall list the mixture by its common name in the space provided
15 on the survey. The department shall have the responsibility to
16 obtain the chemical names and Chemical Abstracts Service
17 numbers of the components of the mixture so listed, and, upon
18 obtaining this information, shall transmit it to the employer along
19 with any appropriate hazardous substance fact sheet or sheets
20 and directions to the employer on how to communicate this
21 information to his employees.

22 b. Except as otherwise provided in section 15 of this act, an
23 employer shall [have until October 30, 1985, or within 90 days of
24 the employer's receipt of the environmental survey, whichever is
25 later, to complete the survey and] transmit a copy of the
26 completed environmental survey to the Department of
27 Environmental Protection and the health department of the
28 county in which the employer's facility is located, and pertinent
29 sections of the survey to the local fire department and the local
30 police department on the date on which Toxic Chemical Release
31 Forms are due to be transmitted to the United States
32 Environmental Protection Agency pursuant to 42 U.S.C. §11023¹.
33 (cf: P.L.1985, c.216, s.1.)

34 ¹[17.] 20.¹ Section 26 of P.L.1983, c.315 (C.34:5A-26) is
35 amended to read as follows:

36 26. a. There is established in the Department of the Treasury a
37 nonlapsing, revolving fund to be known as the "Worker and
38 Community Right To Know Fund." The [fund] "Worker and
39 Community Right To Know Fund" shall be credited with all fees
40 collected pursuant to paragraph (1) of subsection b. of this
41 section and interest on moneys in the [fund] "Worker and
42 Community Right To Know Fund" shall be credited to the [fund]
43 "Worker and Community Right To Know Fund" and all moneys in
44 the [fund] "Worker and Community Right To Know Fund" are
45 appropriated for the purposes of the [fund] "Worker and
46 Community Right To Know Fund", and no moneys shall be
47 expended for those purposes without the specific appropriation
48 thereof by the Legislature. The State Treasurer shall be the
49 administrator of the [fund] "Worker and Community Right To
50 Know Fund", and all disbursements from the [fund] "Worker and

1 Community Right To Know Fund" shall be made by the State
2 Treasurer upon the warrant of the Director of the Division of
3 Budget and Accounting.

4 b. (1) The Department of Labor shall annually assess each
5 employer a fee of not less than \$50.00 nor more than an amount
6 equal to \$2.00 per employee to provide for the implementation of
7 the provisions of this act. All fees collected by the department
8 pursuant to this [section] paragraph shall be deposited in the
9 [fund] "Worker and Community Right To Know Fund".

10 (2) The Department of Labor shall annually assess each
11 employer a fee of \$2.00 per employee for the implementation of
12 P.L. , c. (C.) (pending in the Legislature as this bill). All
13 fees collected by the department pursuant to this paragraph shall
14 be deposited in the "Pollution Prevention Fund" established
15 pursuant to section ¹[14] ¹16¹ of P.L. , c. (C.) (pending in the
16 Legislature as this bill), and shall be used only for the
17 implementation of P.L. , c. (C.) (pending in the Legislature
18 as this bill).

19 c. The moneys in the [fund] "Worker and Community Right To
20 Know Fund" shall be disbursed only for the following purposes:

21 (1) Expenses approved by the Director of the Division of
22 Budget and Accounting and incurred by the Department of
23 Health, the Department of Environmental Protection, the
24 Department of Labor, the Department of the Treasury, and the
25 county health departments in implementing the provisions of this
26 act; and

27 (2) Repayment to the General Fund of any moneys
28 appropriated by law in order to implement the provisions of this
29 act.

30 d. The State Treasurer shall annually disburse the moneys in
31 the [fund] "Worker and Community Right To Know Fund" for
32 expenditures approved by the Director of the Division of Budget
33 and Accounting pursuant to paragraph (1) of subsection c. of this
34 section, but in no case in an amount to the several departments
35 that is greater than the following percentages of the [fund]
36 "Worker and Community Right To Know Fund" available in any
37 one year: the Department of Health, 40%; the Department of
38 Environmental Protection, 20%; the county health departments,
39 15%; the Department of Labor, 15%; and the Department of the
40 Treasury, 10%.

41 e. Beginning two years after the effective date of this act, the
42 State Treasurer shall make an annual audit of the [fund] "Worker
43 and Community Right To Know Fund" to determine the adequacy
44 of moneys on deposit in the [fund] "Worker and Community Right
45 To Know Fund" to support the implementation of the provisions
46 of this act. If the State Treasurer, in consultation with the
47 Department of Health, the Department of Environmental
48 Protection, and the Department of Labor makes a determination
49 that the revenues in the [fund] "Worker and Community Right To
50 Know Fund" are sufficient to warrant a reduction in the fees

1 imposed pursuant to paragraph (1) of subsection b. of this section
2 for the ensuing year, he may reduce the amount of the fees
3 imposed during that year by an amount warranted by the balance
4 in the [fund] "Worker and Community Right To Know Fund" at
5 the time of the determination.

6 (cf: P.L.1989, c.155, s.2)

7 ¹21. (New section) There is appropriated from the monies
8 deposited in the "Pollution Prevention Fund," established
9 pursuant to section 16 of P.L. , c. (C.) (pending in the
10 Legislature as this bill) during the first year following the
11 enactment of P.L. , c. (C.)(pending in the Legislature as
12 this bill), the sum of \$200,000 to the Hazardous Substance
13 Management Research Center at the New Jersey Institute of
14 Technology for the implementation of a technical assistance
15 program for pollution prevention.¹

16 ¹[18.] 22.¹ This act shall take effect immediately ¹, provided,
17 however, that the provisions of this act requiring industrial
18 facilities to prepare pollution prevention plans and submit
19 pollution prevention plan summaries and pollution prevention plan
20 progress reports to the department shall remain inoperative until
21 the department has adopted the rules and regulations necessary
22 to implement this act¹.

23
24
25 ENVIRONMENT

26
27 The "Pollution Prevention Act."

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SENATOR CATHERINE A. COSTA (Vice-Chairman): May I have your attention, please? As you can see, there is one bill on the agenda today and we don't have a quorum, so we are not going to start with that. We are going to start with a public hearing. I'd appreciate it if everyone would sit down and we can get started on it -- the pollution prevention public hearing, today, that's Senate Bill No. 3581. Mark will state what this Act is about, and then we will call on some witnesses.

Senator Dalton is in another part of the building. In fact, he is chairing the RF&A Committee today, so we are all over the place.

This is an Act concerning pollution prevention and the reduction of the use of hazardous substances, so we are just going to go right to the witnesses.

May I call on the Department of Environmental Protection first? Who is here to represent the Department? Commissioner Daggett.

C O M M . C H R I S T O P H E R J . D A G G E T T: Good morning, Senator.

SENATOR COSTA: Hello, Commissioner.

SENATOR GORMLEY: This is your last testimony, isn't it?

COMMISSIONER DAGGETT: Yes it is, Senator.

SENATOR GORMLEY: The last one?

COMMISSIONER DAGGETT: The last time you have to listen to me.

SENATOR GORMLEY: Unless there are some subpoenas after this.

COMMISSIONER DAGGETT: That's true, absent any of your subpoenas. (laughter)

SENATOR COSTA: We won't have you to kick around anymore, right? Is that what you are going to say? We appreciate your being here, and if Senator Gormley will observe decorum on this Committee, we will start.

COMMISSIONER DAGGETT: That would be a first, right?

Thank you very much, Senator. I am pleased to have an opportunity to come and talk about what we at DEP think is one of the most exciting environmental challenges facing New Jersey as we move into the 1990s, and that's pollution prevention. With me today is Jeanne Herb, who is the head of our Pollution Prevention Office, which we established back in the fall.

It is important to initially stress that the progress and advances we have made over the past two decades to protect New Jersey's environmental resources and public health are significant. The swell of environmental awareness that was sparked in the early 1970s has led to the development of major environmental laws and policies that have greatly improved the quality of life in New Jersey, as well as throughout the United States.

However, while we recognize the achievements of our environmental protection regulatory structure, there has been, over the past five years, a growing recognition of the limitations of the existing regulatory web of environmental laws and regulations.

We have historically focused on controlling the release of pollution to individual environmental media after it is generated. As a result, we have seen the following trends develop:

First, an emphasis on technology-based measures that control the release of pollutants into the environment, rather than on measures to generate less pollution.

Secondly, we have seen shifts in environmental releases of pollutants from one environmental medium to another.

Third, we have seen a myriad of pollution control laws that do not necessarily coincide, since they were developed unsystematically over time, and since each is specific to one environmental medium.

Fourth, we have seen increasing cases of litigation over discharge reports and limits.

And, finally, we have seen regulation of a defined set of pollutants in each medium leaving many hazardous pollutants still unregulated.

DEP, as well as most State environmental agencies, is on record as endorsing a four-tier strategy to waste management, with source reduction as the preferred course of environmental protection, followed by recycling, treatment, and disposal. However, as the Congressional Office of Technology Assessment points out, although most agencies in the United States endorse this hierarchy, the expenditure of resources and emphasis is generally on end-of-pipe treatment measures.

Research and innovative source reduction programs by industry have highlighted the various benefits of source reduction, including: avoiding future health consequences that are now unknown; reducing liability costs; lessening pollution control costs to industry, such as disposal and treatment technologies; using raw materials more efficiently; and reducing energy usage.

Research and industrial case studies have also indicated that there is enormous potential to reduce the generation of pollution at the source by changing operations, reformulating products, substituting chemicals, modifying processes, improving housekeeping, and initiating management leadership to instill a pollution prevention ethic. However, many businesses and agencies are not aware of the potential for source reduction due, in part, to a lack of multimedia information. Many companies have reported that preparing their reports for Federal Right to Know requirements prompted an unexpected realization of the volume of hazardous substances used and generated at their facility and, in turn, prompted them to seek source reduction measures.

Although there are a number of source reduction success stories by industry, most industries do not have formal plans for multimedia source reduction.

Those businesses that have undertaken aggressive pollution prevention programs indicate that several factors generally prompted them to do so: economics, concern over negative publicity, aggressive enforcement of existing end-of-pipe controls, and long-term vision on the part of upper management.

Addressing the limitations of the existing single-media pollution control system will require nothing less than a total transformation of our current regulatory structure. In short, it means totally changing the way we do business. And to do that effectively, we must base our approach on two basic premises: First, that we will have the greatest impact both environmentally and economically if we build a prevention ethic into our existing programs, rather than create a new, separate regulatory program; and second, that this transformation will not happen overnight, and therefore must be phased in over time.

We must keep in mind that the limitations of the existing regulatory structure are due to our state of knowledge at the time when various environmental laws and regulations were developed. As a result, pollution prevention becomes the next step in the evolution of our environmental protection efforts. In short, pollution prevention is evolutionary, not revolutionary.

Building a source reduction core into existing environmental programs is not at all meant to indicate that existing programs are obsolete. In fact, an effective source reduction effort cannot succeed unless it is coupled with strong end-of-pipe pollution controls. Even with the greatest amount of source reduction, pollution will still be generated and must meet our stringent control standards. Also, aggressive enforcement of existing end-of-pipe controls will continue to be a major factor in prompting source reduction in industry.

Undertaking the challenge of making multimedia pollution prevention the core of our environmental programs is an enormous task, but we firmly believe that the benefits of, and need for, an environmental protection structure based on source reduction, demands that we in New Jersey take up that challenge. We are not alone. The Federal government, as well as at least eight other states, are developing or have enacted legislation or policies specifically directed at pollution prevention.

New Jersey has always been in the lead in creatively addressing environmental challenges. Now is the time for us again to take the lead in bringing about the next era of environmental protection, by instilling a prevention ethic into our programs. This is why DEP strongly supports the concept and need for pollution prevention legislation in New Jersey.

DEP announced a pollution prevention initiative this past August for the purpose of beginning the task of building a pollution prevention infrastructure within the agency. Many of the major concepts of DEP's initiative are embodied in S-3581 by Senator Dalton, as well as in S-2502 by Senator Gormley, which would establish a Technical Assistance Program at the New Jersey Institute of Technology. There are several provisions in S-3581, the Dalton bill, for which we have alternative suggestions, or believe additional dialogue is needed.

DEP looks forward to working closely with the Legislature to address these provisions in the months ahead. But, at this time, we want to express our strong support for your work in developing pollution prevention legislation in New Jersey.

The pollution prevention initiative developed by DEP is based on several premises, some of which I spoke about earlier.

First, pollution prevention should be gradually built into existing DEP programs, rather than implemented through a new, separate program.

Second, transforming the existing media-specific pollution control system to multimedia pollution prevention must be phased in and regarded as a top priority for the next decade.

Third, government is not equipped to prescribe specific pollution prevention methods to individual facilities. The nature of industrial operations is distinct in each facility; prescribed pollution prevention measures across-the-board in all industries are infeasible. Instead, assessing pollution prevention opportunities within an industry group would provide individual facilities with a comparison "yardstick."

Fourth, pollution prevention is, to a great extent, in industry's best economic interest. Not generating pollution means business does not have to pay for its treatment or disposal and associated liability costs or for future health and ecological consequences. As a result, government's role should be to establish an atmosphere that allows business to identify their own opportunities for pollution prevention so that industry will, in turn, recognize the benefits of pollution prevention and adopt those practices. At the same time, however, government's role should also be to ensure that pollution prevention remains in industry's best interest. As discussed earlier, economics and aggressive end-of-pipe enforcement drive businesses to reduce pollution generation. Government needs to provide the appropriate mix of carrots and sticks to prompt industry to identify pollution prevention opportunities.

Fifth, even with the greatest amount of source reduction, pollution will still be generated and, in turn, needs to be managed. Therefore, preventing the generation of pollution must be given first preference, but must also be coupled with comprehensive programs to manage pollution after generation.

And, sixth, a pollution prevention program within DEP must be coupled with a strong technical assistance program at NJIT.

The DEP's initiative discusses an approach that is "quasi-regulatory," in that it would require a set of industry groups to prepare pollution prevention plans that would not be submitted to the agency for approval. To track progress, DEP would rely on reporting via Community Right to Know.

To build prevention into existing permit programs, DEP proposed developing a facility-wide permit. This permit blends pollution prevention with the concept of developing a single multimedia permit for a given facility, by identifying cross-media pollution shifts. The DEP proposed an initial pilot effort of 15 facility-wide permits.

The DEP initiative also included the preparation of industry group pollution prevention profile reports that would allow for "yardsticking" by outlining pollution prevention opportunities that have been applied within that industry group statewide, nationally, and internationally.

Finally, the DEP initiative established by administrative order the Office of Pollution Prevention which reports directly to the Deputy Commissioner, and which is charged with coordinating pollution prevention activities within the Department. A director was assigned to the Office of Pollution Prevention in October, 1989, and two staff members joined the office a month later.

Although this approach has many similarities to S-3581, there are some differences:

First, DEP proposes basing the pollution prevention program initially on the 329 chemicals covered via Federal Right to Know. S-3581 refers to the list of chemicals covered by New Jersey's Worker and Community Right to Know programs. We suggest use of the Federal list because it will allow us to dovetail the pollution prevention program more closely to surveying efforts currently underway in DEP.

Secondly, S-3581 is limited to manufacturing SIC codes, whereas DEP supports establishing a scope of all employers covered under the State's Community Right to Know program, and then identifying a subset of 10 SIC codes in which to initiate the program.

Third, S-3581 establishes a more traditional type of regulatory program whereby hazardous substance inventory reports and pollution prevention plans are submitted to DEP for review and approval. The approach taken in DEP's initiative strives to build industry's pollution prevention planning into the Department's existing permit programs. In addition, the Department has not supported a new regulatory system whereby a separate program in the agency would approve a business' plan.

We believe that establishing a whole new program -- with considerable resource needs -- would be neither cost-effective, nor would it achieve the goals of pollution prevention. During the past few months, we have become increasingly optimistic about developing an alternative approach whereby a facility's full pollution prevention plan would be kept on-site, while an annual plan summary would be submitted that would be publicly available.

As the Department begins developing facility-wide permits, the pollution prevention plan would become an integral part of the facility's permit. Such an approach would address industry's concern regarding confidentiality, as well as the public's demand for access to more detailed information.

I am optimistic that together we can work out the details of these issues as discussions progress over the next several months.

I would like to spend just a few minutes updating you on the activities that have been initiated by the Office of Pollution Prevention during the past two months.

First, we have established Department-wide pollution prevention committees at the director and staff levels to allow

us to initiate policies and solicit advice from the top down, and from the bottom up.

Second, we are establishing an External Pollution Prevention Advisory Group with representatives from the industrial, public interest, environmental, and academic communities.

Third, with the Department's Division of Science and Research, we are conducting a review of existing regulations to determine if they may provide any incentives or obstacles to industrial source reduction efforts.

Fourth, we are developing informal criteria to identify the 10 priority SIC codes.

Fifth, in conjunction with the Department's Community Right to Know program, we are studying ways to maximize the use of that program's information resources to track pollution prevention progress at a facility level.

Sixth, the Division of Science and Research is conducting a study to determine effective approaches to facility-wide permitting which will serve as guidance for the Department's future efforts.

Seventh, we are working with several DEP programs to identify candidate facilities to use in separate pilot efforts for facility-wide permits and for enforcement settlements.

Eighth, we are considering the need for regulatory and/or statutory adjustment, in order to carry out the goals of pollution prevention.

Ninth, we are working in-house to develop an effort to make DEP offices a statewide model for pollution prevention in areas such as consumerism, procurement, and individual behavior.

Tenth, and finally, working with the Hazardous Waste Facilities Siting Commission, we are involved in identifying a director for the Technical Assistance Program at NJIT.

I think it is extremely important to let you know about the level of enthusiasm we have seen within DEP for

pollution prevention since announcing our initiative. By taking the approach that it wants to work with existing programs to instill a prevention ethic rather than eclipsing or displacing existing programs, the Office of Pollution Prevention is building an effective infrastructure for a formal pollution prevention program. The Department is looking forward to working with the Legislature in defining the details of that formal program.

In closing, I just want to underline the Department's commitment to developing an innovative program that strives to instill a prevention ethic into New Jersey's environmental protection efforts as we move into the 1990s.

Clearly, pollution prevention is the most important environmental challenge facing New Jersey in the next decade. We have had a very good start so far at the DEP, and I am extremely enthusiastic about the potential for developing a pollution prevention program in New Jersey.

Finally, in closing, let me say as this is going to be my last appearance before this Committee, I appreciate the opportunities I have had to appear before the Committee. I look forward to watching as you continue to struggle with this issue.

SENATOR COSTA: Thank you. I'm excited about this one, too, very much so. I appreciate your being here. I must send you that-- You must give me your forwarding address. I do have a tape I have with you, and I'll send it to you.

Did you wish to say anything, Ms. Herb?

J E A N N E H E R B: I think that one thing I would like to stress to you, is one thing that the Commissioner mentioned about the level of enthusiasm that we have seen in the Department.

Many times when we initiate new programs we're concerned about issues like turf battles, but what we've seen over the past two months is real enthusiasm from folks, both at

the staff level and at the upper management level. We are trying to work out the details of a program that blends into existing programs. It's really exciting.

SENATOR COSTA: It certainly is. Senator Gormley, anything?

SENATOR GORMLEY: Could we get into a "multimedia" permit? It seems to have a bit of a Spielberg flair to it. Could you define what you mean by-- You know, it's the old political "one-stop shopping." We all use that in October all the time. What do you mean by multimedia permit?

COMMISSIONER DAGGETT: Essentially right now, Senator, in many facilities there are many different permits that someone has to get from the DEP. There will be an air permit, a water permit, various hazardous type waste permits -- those sorts of things. And they are all on different timetables as well. You are just finishing one and you have to start on a water permit, or they are overlapping, whereas you are winding up one, and the other one begins, and so on. There is not a real good ability in the Department to take all those permits together and look at them comprehensively for pollution prevention reasons.

We are hoping that we can do a couple of things with the multimedia permit. One is, to consolidate our efforts such that we build some efficiencies into what otherwise is somewhat inefficient by having these many different permits. This will admittedly take some time, and some real work on our information bases to be able to do that.

Secondly is, from a pollution prevention standpoint we can ultimately -- and hopefully -- stop what we call the shell game; that is, that you fix a problem in air, only to find that you have created one in water. This way, we will be able to comprehensively look at a facility's permits in an effort to reduce the pollution levels.

MS. HERB: One of the differences between tying it into pollution prevention and just doing facility-wide permitting separately, is that in the past when the Department has tried some small-scale efforts to look at a facility from a comprehensive perspective, what we have seen, for example, is that-- We did have a pilot project a few years ago where an air, water, and waste inspector went to a facility at the same time to try to look at the big picture at the facility. What ended up happening was that the air guy looked at the air thing, and the water guy looked at the water thing, and the waste guy looked at the waste thing. The problem was that there wasn't any kind of cohesive thing pulling them together. We feel that looking at reducing generation can be the thing that will tie them together.

SENATOR GORMLEY: So actually we are talking about two issues?

COMMISSIONER DAGGETT: That is correct.

SENATOR GORMLEY: The multimedia permit is something that goes even beyond the particular subject of the hearing.

MS. HERB: That's right.

COMMISSIONER DAGGETT: That's correct. Although it's linked, it does go beyond. You're right.

SENATOR GORMLEY: It goes beyond. And isn't a part of the problem far greater than the Department, because it really goes beyond the Department to those entities in the State that are not under the Department's control: the Board of Public Utilities, the Pinelands Commission--

COMMISSIONER DAGGETT: To some degree, but I think we've got plenty of things that we can do, absent getting into there.

SENATOR GORMLEY: If you are considering a multimedia permit -- let's give it the knot hole cement. It could be perceived as an environmental trade-off. For example: You'll say there will be a greater-- Let's take a noncontroversial

topic, trash incineration. (laughter) This is not in a particular area. You would have to have certain trade-offs in terms of the BPU, or if there were to be a site in the Pinelands, or whatever. A multimedia permit for me means that someone is going to have to make hard decisions so that something gets done.

What I think happens -- and I think you are correct and I am glad you pinpointed it -- is that when you have single mission entities, you have no result. And everybody is perfectly correct. In other words, if you cross-reference certain permit levels, you are going to find nothing gets done in certain circumstances.

I think you are correct, but when you talk about a multimedia permit, would you espouse that other agencies would be subject to DEP; not just your divisions, but BPU and the Pinelands Commission? Believe me, there are conflicts there. You know there are conflicts there. They would be subject to this one-stop shopping concept?

COMMISSIONER DAGGETT: First of all, we have got to move into this concept slowly and carefully. It is not something that we can just willy-nilly one day decide that we are going to do, and then start doing it. It falls back to a number of reasons. One is, we have something in the range of 120-plus data bases in our Department. To be honest with you, not that many interact with one another from an electronic standpoint. In order to do this effectively, we have to have people in the water program to be able to call up the information about air permits, and vice versa. We ought to share this information. That alone is going to take a good deal of time, by the time we get hardware and software compatible and so on. As we do that, we want to explore the possibility of merging these data bases in a way that will allow us to do facility-wide permits, primarily for industrial facilities.

We have plenty of learning to do on the learning curve, plenty of movement to make, before we have to get into some of the finer details about our interrelationship with other commissions or other boards or other agencies, not that we want to ignore that. I'm just saying that we have so much to do internally before we even get to some of those questions.

SENATOR GORMLEY: Philosophically, would you agree that's the goal?

COMMISSIONER DAGGETT: Philosophically, I think we have got to go down the road that says, wherever a permit has intradepartmental actions, we need to coordinate it.

SENATOR GORMLEY: One department head has to be in charge?

COMMISSIONER DAGGETT: I'm not sure. I'd have to go example by example. I think generally speaking I agree with that, but I'd say that there-- It may have such a fundamental cut into some of the other responsibilities of other department heads, that we may not be able to do that effectively, and you may need to get two department heads to do it. That's why I'm hesitating. But the concept generally, I would support; that we want to try as best as possible to get as much under one permit as we can.

MS. HERB: It also gets even more complicated when we keep in mind that we have obligations to Federal permitting requirements for environmental programs at this level.

SENATOR GORMLEY: No. Ideally I would put DEP at the top of the pyramid and put the environmental concerns at the very top, but there just has to be somebody who can say, "Yes" and "No," because what happens is, local government is there dealing with the State, but the State has two or three different hats. Then local government -- and I cite local government -- or private industry, is left in the lurch like, "What does the State want?" That is the--

COMMISSIONER DAGGETT: That is part of the effort, by the way, that we are addressing, at least with respect to the municipal sector study that we have had underway for some time to get a better understanding of how our regulations impact the municipalities throughout the State. That's a report that will be out in the next few weeks, probably. I reported on it back in November at the League meeting.

Some of those very issues will be addressed, because we are concerned about not only do municipalities not know necessarily who is in charge or where the decision might come from, but it has an impact, obviously, on them financially, when they have to continually work through the various departments to try to get an answer to their problem.

SENATOR GORMLEY: Will there be the potential to have a report from DEP on the conceptual -- let's call it conceptual, very vague, not giving a time frame -- on what would be the ideal multimedia permit system between departments--

SENATOR COSTA: Excuse me.

SENATOR GORMLEY: --in order to help the new Governor, because I think this is something he is going to have to deal with.

COMMISSIONER DAGGETT: I think we can look at that question as well. We haven't spent as much time there as we have interdepartmentally, because of the problems we have--

SENATOR GORMLEY: I'm not disagreeing with what you're doing. What you're doing is right, and serves as the example to go beyond this.

COMMISSIONER DAGGETT: I got it. Yes, we should be able to move in that direction.

MS. HERB: May I just point out one small thing? I would encourage you that, regardless what any bill looks like that comes out of this Committee-- I would really encourage you to include a component that provides the Department some resources to do some research in this area.

If we recognize this is where the Department is heading in the next decade, I think we have to keep in mind the only way the Department is going to move forward is if we have specific money set aside to look into some of the emerging policy issues and technical issues.

SENATOR GORMLEY: Excuse me. In terms of research and development, or--

MS. HERB: No, in terms of researching issues like that; in terms of researching issues like what would a facility-wide permit look like; in terms of researching issues like how can we set up market incentives in this State -- policy research, as opposed to technological.

SENATOR GORMLEY: Because some of the representatives in the audience represent companies that, quite frankly, their R&D budgets--

MS. HERB: No, no. I don't mean doing research on the technologies. I mean research on policy issues. For example: A lot of the initiative -- the Department's initiative -- came out of research that was done within the Department looking at how we would track progress of pollution prevention without setting up a new program, and we looked at all the different data bases within the Department, and we identified community red tape--

SENATOR GORMLEY: Have we ever started a study on the premise of having a single permit, instead of starting from the bottom up and trying to get to the top?

MS. HERB: The Division of Science and Research has a study on that right now that's starting actually within the next few weeks.

SENATOR GORMLEY: On the single permit?

MS. HERB: That is looking at what are some approaches for facility-wide permits? What will we need to identify a set of scenarios? There are probably a million different ways you could do this. Identify a set of them, and then identify what will we need to do to achieve those different scenarios, yes.

SENATOR COSTA: Okay, thank you very much. We appreciate it, and good luck in all your future endeavors.

COMMISSIONER DAGGETT: Thank you, Senator.

SENATOR COSTA: May I call on Commissioner Merin? If he could take a little less time? While it's all very informative and it's what we need, the time is fleeting and I appreciate-- Is Commissioner Merin here? He was just here.

DEPUTY COMMISSIONER DAVID GRUBB: He was just here, but he got called out to another meeting. My name is David Grubb, and I am a Special Deputy Commissioner.

SENATOR COSTA: Will you speak for him?

DEPUTY COMMISSIONER GRUBB: I will.

SENATOR COSTA: All right, otherwise we will call somebody else and wait for Commissioner Merin to come back.

DEPUTY COMMISSIONER GRUBB: First of all, Commissioner Merin wishes to extend his apologies. As I say, he had another meeting, actually several meetings, and he was hoping to do this one because this is an issue that he feels very, very strongly about, as all of us do over in the Department of Insurance.

For approximately the last three years, the Department of Insurance has been involved in a research project with MIT, in conjunction with our responsibilities as chair of the Environmental Impairment Liability Task Force of the National Association of Insurance Commissioners.

The basic conclusion of this report is that-- It's along the lines of the bill and what Commissioner Daggett just testified to: Pollution prevention is obviously, really, the long-term key, not only to cleaning up the environment, but also to the environmental impairment liability crisis that the NAIC started investigating a number of years ago. It was the conclusion of the report that financial responsibility standards -- financial responsibility requirements could be, if

selectively used and properly planned -- could be a very important tool in a State's regulatory effort to motivate source reduction and pollution prevention.

Therefore, MIT recommended that departments of insurance become involved in pollution prevention and source reduction, and even went so far as to suggest that in the event that an interagency task force or an interagency organization or coordination council was created, that a department of insurance of a given state that was interested in this area might be a constructive participant. From the standpoint that in order to be able to implement financial responsibility standards, obviously, there is going to be some considerable work necessary by a department of insurance with the industry and with others, setting up environmental impairment liability insurers to make certain the capacity was there to make the financial responsibility insurance available.

Just as a general note: My own personal background is as a risk manager before coming down to the Department of Insurance. It's been my experience that the financial motives of requirements that somebody has insurance, or the concern over somebody's asset base in a corporation, can go a long, long way to motivating people to change behavior. I think we are already beginning to see this as a result of, for example, the standards of strict liability, and joint and several liability, have gone a long way to motivating people to stop the production or minimizing the use of toxic waste, simply because they are fearful of the long-term financial consequences of letting the stuff out in an uncontrolled manner into the environment.

From that type of analysis I have personally come to the conclusion that first of all, Senator Dalton's bill, in our view, is certainly a good step forward, in that the Department of Insurance possibly should be considered to be involved in that process. One of the powers that should be given to the

Department of Environmental Protection, in conjunction with this process, is to have the ability to promulgate financial responsibility standards to further motivate people to reduce the production and use of toxic waste.

That, in essence, is our testimony.

SENATOR COSTA: Thank you very much. We appreciate it. Senator Gormley, our next witness will be-- We will be calling on industries-- Do you have a question, Senator Gormley?

SENATOR GORMLEY: No, thank you.

SENATOR COSTA: Call Dorothy Bowers, from Merck.

J A M E S W A T K I N S: Thank you, Senator. My name is Jim Watkins. I'm with American Cyanamid. I'm here as Chairman of the Chemical Industry Council's Pollution Prevention Subcommittee. We have three people who would like to present testimony.

SENATOR COSTA: We are going to call American Cyanamid. Do you want to give testimony together?

MR. WATKINS: She is going to go first, and we have two other people who will give testimony.

SENATOR COSTA: Yes, I have you. I was going to call you.

MR. WATKINS: Okay, fine.

D O R O T H Y P. B O W E R S: Good morning. I am pleased to be here this morning to comment on behalf of Merck & Co. on Senator Dalton's proposed pollution prevention legislation. I am particularly pleased that I can speak this morning wholeheartedly in support of the bill and its requirements.

Merck, as part of its commitment to the delivery of improved health products and to the development of advanced technology, has always had an aggressive program of waste minimization. In previous testimony I have given many examples of that commitment and achievements. Consequently, we support legislation that will encourage and stimulate all of industry to attack the problem of waste generation.

There are several specific aspects of the bill that I would like to particularly endorse because I believe they have been innovatively and responsibly crafted. I would also like to make some suggestions on some approaches that I think could move the program along faster and make it even more effective.

The Pollution Prevention Advisory Council: We very, very much support the creation of a council where the public, academia, environmental groups, industry, and government can meet together; share their ideas, share their wants, and ultimately then, will all be working together toward the same goal. Speaking for industry, as well as for my company, I can assure the Legislature that industry will be pleased to participate in this council, and to shoulder its responsibilities.

The bill approaches developing the pollution prevention plans by phasing in the program; starting out with a small number of facilities, and then bringing in more. That is an excellent approach. There are many corporations that have not yet developed aggressive waste management programs. They are just getting on the bandwagon. There are other companies, including my very own company, who would really like to better develop tracking programs to monitor exactly where we are in our progress.

All of us will appreciate the opportunity to develop those plans on a noncrisis basis. Furthermore, if those plans are done in a measured program, they will be much better and they will be more effective.

The bill also proposes having a small group for the initial plan development. I think that, in itself, is a good idea. It also gives both industry and the DEP a unique opportunity for industry and DEP to work together to develop what's really the heart of the whole waste minimization program, which is the pollution prevention plan criteria.

The first group should include a cross section of industries. It should go from large to small industries. I would suggest that this first group of industries be asked to work directly with the DEP and with each other as they develop their own waste minimization programs.

I urge the Legislature to allow the DEP to write the regulations that define what is required in the plan, but write them after this early pilot program is completed. That way, the DEP will be able to take into account those kinds of problems that will come up as the plans are developed by 10 or 15 very different companies.

I think if the first group of plans can be viewed as a pilot program, then both the DEP and the rest of industry will be able to make more productive use of their time as the following plans are required to be prepared. Once the scope and the form of pollution prevention plans are tested against real life situations, the plans will be easier to do, and will be much more meaningful for the rest of industry. Granted, the pilot companies will need to put in considerably more effort than others, but I am convinced that even the pilot companies will benefit from being able to work in a small, close forum with the DEP, and with each other.

I would urge the Legislature to allow for people to volunteer to submit pollution prevention plans. The bill really only allows for the plans to be submitted as the DEP calls them in. I urge that the legislative language also explicitly allow interested companies to submit their plans on a volunteer basis.

The DEP could either use those volunteers to be that year's drafted participants, or they could add the volunteers to the drafted companies. I suggest this, because a company that has a very aggressive waste minimization program would probably like to come forward and put it into the mill and say, "Here's my program. I'd like the DEP to know what we are

doing, and how we are doing it." Furthermore, I think other companies would stand to gain a lot from what those companies are doing.

The scope of this bill covers not just hazardous waste minimization, but minimization of releases to all parts of the environment. We at Merck strongly endorse this approach. We believe that a reduction in air emissions is just as meaningful as a reduction in hazardous wastes, and we further believe that the joint goals of government and industry should be the overall reduction of the chemical burden on the environment.

I endorse Mr. Daggett's recommendation that the SARA data be used as the basis for the program. I have a longer written comment on that, that I won't repeat, since he has already given the good reasons.

I think it would be worthwhile to postpone the new inventory collection until after the pilot program is at least well underway. First of all, there is significant, additional, new information required in this inventory; that is, to take the existing inventories that we submit to both the DEP and the EPA and break them down according to individual process. I think many industries are going to need a year or two to change their tracking and their materials management in order to do that. I think that this new submittal should then be limited in the beginning to the priority facilities that are asked to submit the pollution prevention plans, and then phased in later on for the rest of industry.

I believe that there can be a real payback here. If the statewide inventory is postponed and the first set of pollution prevention plans is considered as a pilot program, I believe that DEP can apply more resources to focus on, again, the real heart of the program, which is the criteria for the pollution prevention plans. I think, furthermore, they could do a better and faster job of doing that.

Certainly, the DEP could use the current SARA reporting to select priority facilities, and there might even be enough of a volunteer group to be able to kick off the pilot program.

Again, I have a longer, written comment on trade secret protection that I am not going to read. The essence of it is that if DEP can avoid asking us for highly sensitive information that is going to force us to label it as trade secret, then it is very easy-- Human nature says you might as well put other things in as a trade secret. But if there is nothing on the paper that is highly sensitive, human nature also says, "Why should I bother? Let's leave the other information open to the public and not hold it as trade secret."

The last issue I would like to raise is, I would urge that research and development be viewed in a different light. New Jersey is a worldwide research center and most manufacturing facilities have research and development facilities on their plant sites. Research and development activities do generate environmental releases, but it is important to remember that the laboratories and the pilot plants are the workshops for developing better manufacturing processes and, in fact, the workshops for developing pollution prevention technology

Even though the environmental releases from our pilot plants and labs are very small, we do have a program for reducing them. I believe we should be encouraged to reduce them, but it would be meaningless to try to associate the release numbers with the dozens of experimental products that we work on. The process information on experimental products would be extremely sensitive trade secrets, and trying to commit to specific future reductions would be perhaps even counterproductive. We recommend that the releases from facilities for research and development be excluded from this program, as they have been from many other environmental programs.

In conclusion, I believe that the suggestions I've proposed are modest refinements of a basically sound and well-drafted bill. They should make the bill more workable without sacrificing any of the bill's goals; goals which we at Merck & Co. support, and to which we are anxious to contribute.

The operating management of our manufacturing site in Rahway, New Jersey, is very enthusiastically supportive of an industry/government pilot approach to developing the criteria for pollution prevention plans; so enthusiastic that I am authorized to volunteer their site to participate in any pilot program that might be put together under this bill, or under any other pollution prevention initiative.

I might add that a number of other companies have already volunteered for a pilot program called The Arrow Program, and I would believe that this could already form a core group for a new pilot program initiative. Thank you.

SENATOR COSTA: We appreciate that very much.

SENATOR GORMLEY: A couple of questions? Has any other state, to your knowledge -- and because of Merck being international, I assume you monitor other states-- Has there been a similar effort in other states?

MS. BOWERS: No, to my knowledge there has not -- none of the states we have manufacturing facilities in.

SENATOR GORMLEY: So, consequently, if we were to be the pilot project, it would seem reasonable that there is the potential for Federal assistance, or should be, because no other state has, shall we say, been on the cutting edge of something of this nature?

MS. BOWERS: I'm not familiar with how to get Federal assistance, but it would seem like--

SENATOR GORMLEY: No, no, no. The point is, no other state has taken this on, and obviously, what is developed as a result of these pilot programs would be implemented -- I would hope would be implemented -- in other areas of the country.

MR. WATKINS: Senator, there are at least two other states that have passed statutes that deal with pollution prevention: Massachusetts and Oregon, that I know of.

Their programs vary somewhat from what is being proposed in this bill, but they do address the issue of pollution prevention.

SENATOR COSTA: How far into it are they, at this point?

MR. WATKINS: The Massachusetts bill was passed in June of this year, and the Oregon bill was passed in--

SENATOR GORMLEY: Are they into the concept that we're talking about in terms of the research and development, in terms of actually developing new methodologies, or is it a control, goal-oriented approach?

MS. BOWERS: I'm sorry, Senator. I'm not familiar with it.

SENATOR COSTA: Is it as far-reaching in scope as this bill would bring it into?

MR. WATKINS: It includes some things that are in this bill, and this bill goes beyond it in other areas.

SENATOR GORMLEY: But there has not been a-- To my knowledge, there really hasn't been a Federal initiative in terms of assistance to the states or private industry in terms of waste minimization, hazardous waste reduction, or anything of that nature.

MS. BOWERS: I believe there are some draft bills in the House.

SENATOR GORMLEY: Okay.

SENATOR COSTA: Thank you very much for your testimony.

SENATOR GORMLEY: One other question, development of new technologies or whatever: Has there ever been discussion pertaining not to existing trademarks, but to patents of new developments that might come from a joint venture with the State and with private industry? Has that ever been considered -- public-private partnerships on patents?

MS. BOWERS: I don't recall exactly where it exists, but--

SENATOR GORMLEY: I'm just thinking, if we are going to do it together -- you have such a wonderful successful company -- you might as well share a little bit. (laughter) I mean if-- This is just a little innovative in terms of public-private--

SENATOR COSTA: That's the lawyer in him coming out.

SENATOR GORMLEY: Oh, you'd take a piece if it goes to the State, too.

MS. BOWERS: We have developed some innovative environmental control technologies. We have not patented them. We have published them and made them available to everyone.

SENATOR GORMLEY: Okay, thank you.

SENATOR COSTA: Thank you so much. Rick Gimello of the Hazardous Waste Facility Siting Commission?

R I C H A R D J. G I M E L L O: Good morning.

SENATOR COSTA: Good morning.

MR. GIMELLO: Thanks for the opportunity to address the Committee. I would like to just share with you very brief comments that the Commission has regarding this effort. We've been involved for some time, and I think most of my comments will reenforce what you have heard this morning.

The legislation that we are dealing with this morning reenforces much of what the Commission and its Source Reduction and Recycling Task Force have been saying for quite some time. First, the Commission agrees with the legislation's recognition of the need for a phased-in approach, the complicated effort that the State is about to undertake. And we agree with Senator Dalton when he indicated that, "This is not a quick fix. It's a proposal for the 1990s." In a fundamental way, it changes the way agencies in this State approach the question of pollution.

A major strong point in the legislation is its multimedia focus which Senator Gormley spoke about. It's a focus that will discourage the shifting of waste from one medium to another, and it's extremely important.

We need to make it clear to the public what is anticipated under this pollution prevention legislation, which is the reduction of releases to all media, not just a reduction in solid hazardous waste. In fact, we could see dramatic reductions in air and water discharges as a result of this bill, and perhaps not the same level reduction in the waste business, because of the way things are done under RCRA. One of the first projects under Senator Dalton's bill and in the NJDEP's new Office of Pollution Prevention, should be the creation of an accounting system that accurately tracks multimedia waste reduction efforts.

The Commission has just released the results of its Hazardous Waste Facility Plan Update. This study found that the routine generation of hazardous waste is decreasing, but at the same time, other waste streams and new generators are entering the system. Waste from cleanups in New Jersey is increasing and new hazardous waste generators are appearing in the service sector of our economy, reflecting wider changes in the State's economy as a whole.

In the Plan Update, we have looked at what we believe are maximum waste reduction possibilities as identified by industry. This State is one of the few in the nation that has several years' worth of data now, tracking hazardous waste reduction activities in industry. The Commission took great pains to evaluate that and to factor it into our projections, which take us through the year 2007.

We looked at cases where firms have applied maximum waste reduction efforts, and then forecast what all generators in that particular industry group could do if they applied a similar level of effort. This maximum waste reduction scenario

was factored into all the Commission's projections about the facilities that we need.

We are not interested -- and I am sure no one is -- in building more hazardous waste facilities than we need, so we are very conscious of the importance of waste reduction. At the same time, we need to make it clear to everyone that the adoption of this strong pollution prevention legislation will not eliminate the need for facilities to manage our hazardous waste. In fact, there is a possibility that efforts to reduce emissions to the air and water may actually increase the need for new facilities.

Strong pollution prevention measures such as those proposed in the Dalton bill are definitely needed and will allow us to meet our projections for maximum waste reduction, which is why we support this bill.

A related bill that we believe is also very important to the success of this effort, is a bill sponsored and introduced by Senator Gormley to institute a Technical Assistance Program at New Jersey Institute of Technology. As Commissioner Daggett indicated, we are currently using some Federal moneys to establish a pilot Technical Assistance Program at NJIT.

It will help smaller industries get the kind of information and technical assistance that they need, but we would also like to see that supported in the form of the legislation sponsored by Senator Gormley.

In conclusion, we would just like to say that we do support the efforts here, and we think coupled with the descriptions in the bill to create the Technical Assistance Program, it will give this State -- it will be one of the first states in the nation to have the ability to not only track this stuff, but to lead the nation in this kind of activity. I thank you.

SENATOR COSTA: We appreciate your testimony.

SENATOR GORMLEY: I'll repeat the Federal question: Has there been any Federal money for grants yet for projects of this nature -- pilot projects of this nature?

MR. GIMELLO: No, not pilot programs as though we are speaking. There has been some seed money to establish programs to help us with the Technical Assistance Program. But to do actual testing of pollution prevention plans in industry, there is some money available in what is called a RITA grant, which is some RCRA money that was funneled through DEP. But it's a drop in the bucket. Very minimal; very, very minimal.

SENATOR GORMLEY: Is there an effort on the Federal level to provide some assistance?

MR. GIMELLO: I think there is a commitment to-- I think it is a budget question, obviously, but clearly EPA has established a high level office of pollution prevention. They are starting to have some seed money go to the states for start-up programs, so there is a commitment, Senator, as opposed to an all-out effort, I would say.

SENATOR GORMLEY: Have we had any meetings with the Federal government on that?

MR. GIMELLO: Regularly. It was part of what we did, in fact, during the -- in the need for new facilities in New Jersey. They are aware of our needs. Frankly, they turned to us for a lot of advice, because as was noted earlier, we are on the cutting edge of this issue.

SENATOR GORMLEY: Thank you.

MR. GIMELLO: Thank you.

SENATOR COSTA: Thank you very much, Rich. I would like to call on Marian Wise of NJ PIRG, and also Bill Ryan of the US PIRG, Toxic Action Program.

M A R I A N W I S E: Rick Engler wanted to testify with us.

SENATOR COSTA: Is he with you?

MS. WISE: He was in a hurry.

Good morning, my name is Marian Wise. I am an environmental advocate for New Jersey Public Interest Research Group. The New Jersey Public Interest Research Group is a nonprofit, nonpartisan organization with more than 75,000 members throughout the State of New Jersey. We engage in research, education, litigation, and advocacy in the areas of environmental preservation, consumer protection, and governmental reform.

We are really happy to be here today, and we thank the Committee, and Senator Dalton, of course, for affording us the opportunity to present our concerns about the toxics problem in our State, and express our full support for S-3581, the Pollution Prevention Toxics Use Reduction legislation.

We fully agree that the State of New Jersey should take the lead in shifting the environmental regulatory and enforcement policy from pollution control, to pollution prevention. We endorse the legislation's establishment of a statewide policy goal of a 50% reduction in the use and discharge of hazardous substance over a five-year period, and the emphasis on toxics use reduction as the key to pollution prevention.

We feel that the key component in the drive toward pollution prevention is a clear and concise definition of "toxics use reduction." Toxics use reduction must be seen as changes in the production processes by working to reduce or avoid the use of toxic or hazardous substances, or the generation of hazardous by-products, per unit of product. It's very important that that definition is very clear.

Further, the Dalton bill would provide for the new Office of Pollution Prevention, with further powers and responsibilities. We fully support the ongoing efforts of the Office of Pollution Prevention.

Also, the bill requires industry to conduct an audit of their facilities -- prepare hazardous substance

inventories. We fully support that, and we fully support the detailed planning requirements as required in the pollution prevention plans.

We feel that plans are, in fact, so crucial that we propose the legislation be strengthened to require even a broader number of industries to prepare these pollution prevention plans.

Now, at the Committee's last hearing on source reduction, many representatives from industry said in part that they were already reporting hazardous substance use and practicing source reduction, thereby invalidating the need for legislation. But since that hearing, New Jersey PIRG has performed numerous studies on the severity of the toxics problem in New Jersey. Our latest report -- which you have copies of there, "Toxic Trends" -- illustrates the fact that although some source reduction has occurred, New Jersey facilities are not aggressively taking the initiative to practice toxics use reduction.

We looked at several figures. We looked at the 1988 figures which were reports for the 1987 year, and we found that facilities discharged-- First, the totals of the numbers: We found that over 225 million pounds of toxic chemicals were released into the air, water, land, and sewage systems, and an additional 27 million pounds were transferred to off-site treatment facilities.

We looked at the 17 worst dischargers in the State of New Jersey and found that they exceeded the 400,000 pound threshold for discharges of toxic substances. We found that there was a total of over 15 million pounds of carcinogens, once again, into the air and water in 1987, and in 1988 over 12 million. The overall reported reduction was about 14.9%. Some facilities reported reduction; some facilities did not.

We looked at the data to see whether facilities really achieved reductions by practicing true pollution prevention

measures. We found that actually it was very difficult to tell whether or not they were practicing pollution prevention because of the lack of available data.

We did calculate that only 2% of the toxic reductions from 1987 to 1988 could be attributed to changes in industrial processes, but it is not clear that this 2% reduction was due to true pollution prevention measures. More specific data -- as data called for in the Dalton bill -- is needed to identify whether or not these facilities are really practicing pollution prevention.

Waste minimization strategies are also somewhat erroneously being promoted by industry as viable alternatives for regulatory impetus such as toxics use reduction legislation. Waste minimization is not, in itself, a preventive strategy, and should not be thought of in terms of an alternative to toxics use reduction, because waste minimization is generally characterized as the reduction in the volume of RCRA hazardous waste going into landfills. This approach does not fail to address the problems associated with the use of toxics; including workplace exposures, indoor air pollution, transport accidents, and the stream of waste that reaches our environment via discharges and emissions of toxic chemicals into our waterways, air, land, and sewage systems.

Basically waste minimization, while it is generally a positive step in the approach to pollution control, is not an acceptable pollution prevention strategy.

In conclusion, NJPIRG, joined by a growing coalition of community groups in New Jersey, believes that all facilities should significantly reduce their toxic discharges, and that they should do so by practicing pollution prevention and toxics use reduction. This hearing shows that there is an emerging consensus that pollution prevention will be an important part of the solution to New Jersey's environmental problems.

The numbers that we have presented to you today, and you will look at in our "Toxic Trends Report," show that facilities are not comprehensively implementing toxics use reduction aggressively on their own, and they should be given strong incentives to do so. Swift passage of S-3581 is essential in providing such incentives. We urge this Committee, the Legislature, and the next administration to make pollution prevention legislation a top priority in the coming months, and we welcome the opportunity to work with Senator Dalton and all concerned in order to insure passage of this vital piece of legislation.

At this point I would like to reintroduce William Ryan, our Director of PIRG Toxics Action, who will give you an update of the current national situation surrounding the toxics use reduction.

SENATOR COSTA: Mr. Ryan?

W I L L I A M R Y A N: Thank you very much for the opportunity to be here. I'll try to be brief. I know you have a lot of things to do today.

I do work with a number of Public Interest Research Groups across the country -- about 10 of them -- and was very involved in the negotiations around both the Massachusetts and Oregon bills when they were passed earlier this year.

SENATOR COSTA: When was Oregon's passed? We didn't get that from the gentleman.

MR. RYAN: They were both passed in June or July of this year, about the same time. In fact, they were signed into law the same day, it turned out, by the respective governors. Also in California there is a lot of activity around this.

We are seeing across the country a tremendous interest in pollution prevention, and in toxics use reduction in particular. There are bills being introduced in Maine, Minnesota -- a number of other states -- Wisconsin, along these lines. I think New Jersey is on the -- the next state that

will be moving in this area, and I think what New Jersey does will set a tone for the rest of the country and be extremely important.

Let me just note a couple of key things about the Massachusetts and Oregon legislation that I think have been instructive as we have gone through those negotiations, that may be helpful here. One of the key things to note, moving into this air pollution prevention, is the emphasis in both bills on toxics use reduction as the fundamental strategy to address not only waste, but also to address issues such as worker exposure and indoor air pollution; changing products and production processes to actually reduce the use of toxic chemicals.

The two bills are different. They were formulated, as this State is doing, according to the severity of the problem in the state, and also just the unique circumstances around those bills. So you will see some differences, but they are constructed along the same basic framework as the New Jersey bill is, as I perceive it, which is basically not a heavy regulatory thrust, but requiring reporting and planning around toxics use reduction in order to get companies to start thinking in this way.

This is a new way of thinking, and I think that's the key thing that is important to note about this. What we are trying to do is shift the way that people do business, not only industries, but also government as well. I'll note particularly the way that Massachusetts is kind of reshaping their agencies to address this along some of the lines that were talked about earlier today.

Both have a heavy emphasis on planning -- as does New Jersey's bill -- although they both require planning over a much broader spectrum of companies. People know there has been a lot of work done in the past five or six years over what it

takes to do a toxics use reduction plan, and these two states are moving aggressively to require, again, almost all of the industries involved in the 313 reporting, to do plans.

Looking at this more as a way of getting people to think about this stuff, as opposed to regulating by the particular agency -- that this particular plan should be reviewed and signed off by the agency. So it's a little bit different approach, I think, from the way New Jersey is doing it in terms of the number of companies that will move into the planning fairly quickly.

In Massachusetts, the reporting is much more detailed along the lines of what is being proposed here in New Jersey. There has been a lot of work and thought that has gone into -- and I think, that can be used to explore how to do this kind of reporting on a production process basis, because as we move into this area that is really what is going to be critical. Because you have so many different companies that are using so many different types of processes, it is going to be hard to compare companies over time. It is going to become crucial to actually begin to compare one company that is using a similar production process as a number of other companies, and so an emphasis on that -- as is in New Jersey, in the Dalton bill -- is extremely important.

The government reform that is being practiced in Massachusetts goes a little bit further than the idea of merely establishing a Pollution Prevention Office. The Massachusetts bill establishes an interagency commission, or an interagency council, to begin to explore some of the ideas of how do the different agencies work together. We had the Department of Insurance here earlier today. I think the insurance area is actually a very exciting and an important area to be pursuing in the area of pollution prevention as a way of pushing this. I think that kind of reform is extremely important.

Another thing that the new Department of Environmental Protection -- as it has been renamed in Massachusetts -- has done, is that they've not only established a Pollution Prevention Office, but they've, across-the-board, required that toxics use reduction be the primary way in which companies are supposed to come into compliance. They have restructured their agency so that under an Assistant Commissioner for Waste Prevention, essentially all of your regulatory programs -- air, water, or land -- are all under that person now, and that person's primary mission is to bring about toxics use reduction.

It doesn't go as far in the area of multimedia permitting as is being proposed here, and I think that's a particularly important innovation that is being proposed here and being explored.

Other things that I think are particularly key -- that are instructive -- along the lines of the statewide goal that has been proposed for here, is that companies are required in both states to establish goals for themselves as to how much they are going to reduce their use and their generation of by-products. So they kind of put themselves on the line, and there is some sense then that the public has of what companies are really committing themselves to do.

The reporting is extremely important to get in place early so you can begin to get a base line of information -- as we suggested in "Toxic Trends" -- to really be able to understand: Is this happening and are companies making progress? Some of the ideas that were suggested a little bit earlier in the hearing about maybe delaying the reporting, I think, would not really serve the public's interest that well. The public is particularly interested, whether it be in the hazardous waste facility siting area or any number of other areas, in getting information on what is really going on, as soon as possible. So, I think that the way it has been currently proposed in the bill is extremely important.

As I said, there is a broad national movement to prevention. I think that New Jersey is perceived across the country as a leader in this area, and as particularly doing very innovative things. I think a lot of states will be looking very closely to what you all do in this State as to how they will model their program in the future, so we're extremely encouraged to see what is going on. I would encourage this State to not be timid. We do know a lot about the pollution prevention area already. The ideas about pilot programs, I think are good, but I think there is a lot that we can do already and move very aggressively into this area, as opposed to doing too much -- just kind of working through the problem, because a lot of that work has already been done and thought through.

I did want to note just one other thing: We've been doing some research that really indicates the fundamental nature of how a toxics use reduction program is in conformance and parallels very well what a lot of theoreticians and business advisors and consultants are saying today about what's going to be necessary to revitalize American industry. Some of the key themes that are emerging from that literature from those people like Robert Watermillier (phonetic spelling) and Tom Peters are three basic concepts:

One is, much more attention back to the production process itself again; actually measuring what's going on -- really kind of going back and understanding, as opposed to just kind of an accountant's view of things, the fundamental nature of the production process. Toxics use reduction in its emphasis of changing production processes is very consistent with that. I think as companies look to do those kinds of things, they can be doing toxics use reduction at the same time.

This then goes to the second kind of theme that is emerging out of this literature, which is a lot of collaboration -- a lot of communication with workers and others

over how this can be done. Getting people to work together to come up with ideas and the idea of actually reducing waste is kind of a goal of the company; something that's driving people to collaborate. That's actually a very good idea, and one that a number of theoreticians have suggested.

The third area is an idea of incremental innovation. The idea that you are not going to innovate all at once but you need constant change over time, and the idea of toxics use reduction, once again, can be used to create that kind of thinking within a company; that you are constantly innovating, to come up with new ideas.

We are doing some studies now that indicate that companies that have taken this on in a very serious way are not only saving themselves money, as has been suggested in some of the information you have heard from, say, Monsanto, in the way that they -- Monsanto or 3M -- have saved money, but this has actually created for many companies new job opportunities and new sales opportunities. Because they have become so efficient, they have innovated, they have actually opened up new market niches and been able to expand their operations, which is the kind of activity that we really need in American industry today. So this kind of concept of toxics use reduction is very much consistent with our needs throughout the country for increased industrial innovation.

I think I'll stop there, and thank you very much.

SENATOR COSTA: I'm sure you are pleased to hear that industry is volunteering their sites, as we heard from Dorothy Bowers, from Merck.

MR. RYAN: Yes, that was very good to hear. There are a number of industries beginning to step forward in this area.

SENATOR COSTA: Mr. Engler, the Industrial Union Council, AFL-CIO.

R I C K E N G L E R: Thank you for the opportunity to testify. I'm Rick Engler from the Industrial Union Council of

the AFL-CIO. We represent over 200,000 workers in this State, both in the public and private sectors. Most notably for the purpose of this hearing, we represent local affiliates in the Oil, Chemical, and Atomic Workers, the International Chemical Workers Union, the United Auto Workers, and in many other basic industrial facilities that include primary producers of hazardous chemicals and also users of various toxic chemicals.

From our point of view, the toxic use reduction, pollution prevention effort is, in fact, also an occupational health effort. For that reason we support this legislation.

Just about two weeks ago, the Department of Health issued a report that was done by the Mount Sinai School of Medicine, that showed the epidemic proportions of occupational disease in our State: that perhaps 3000 occupational deaths occur each year in New Jersey from cancer, dust diseases of the lungs, cardiovascular disease, chronic respiratory disease, and neurologic disease; that up to 15,000 new cases of occupational disease occur annually. This report -- by the way, which will be provided to the Legislature shortly by the Department of Health, which didn't get that much publicity -- documents the epidemic proportions of disease, and, in fact, shows that more people are dying from occupational disease in New Jersey than they are from suicide and homicide combined.

That's certainly not a reason to minimize the crime problem, but it is a reason to give more attention to the extent of occupational diseases, many of which occur as a result of ongoing chronic exposure to toxic substances on the job.

The Mount Sinai Health Department Report looked at OSHA -- Federal OSHA's performance in this area -- and based on OSHA data, they found that of the work sites inspected where there was some exposure to toxic substances -- for example, lead, which has been known since the turn of the century as a severely hazardous agent -- 46% of the work sites inspected

were over the legal standards; and for silica, 31% over; selected carcinogens over 20%. These were the places where they did inspect, where there were excessive exposures, so that a pollution prevention effort, where the first exposure is in the workplace to our members who are handling the products, can help focus attention on those conditions before OSHA inspectors get there to find illegal exposures.

And, I should note, that's if they get there. Because according to our calculations, the 62 Federal OSHA inspectors in the entire State can only visit all the covered work sites once every 62 years at last year's rate of inspection. Clearly an outside regulatory effort relying on a centralized government agency to send inspectors out into the field is not adequate, and we need to have approaches like pollution prevention which says that companies have to do internal pollution prevention plans; that management has to be involved in that process; that workers have to be involved. It's simply not a realistic use of government resources to expand outside inspection forces in DEP to send large numbers of inspectors into workplaces, both for environmental protection or occupational health protection.

You should also note that the Department of Health report found that at least \$280 million was the price tag to victims and taxpayers of just five types of occupational disease; \$280 million a year in direct costs and some indirect costs in New Jersey alone. Again, the full report will be provided to members of the Legislature. Two hundred eighty million dollars a year for just five types of occupational disease, that excluded some of the most common ones such as skin disease.

Therefore, the Industrial Union Council supports this legislation fully, not only because we support a better environment for all the people in the State, but because our members directly benefit from the impetus that will help create a lowering of workplace exposures to toxic substances.

We have some particular concerns about the bill which we will submit in writing. Essentially, they are for the most part minor technical comments.

Let me say clearly that we support this legislation. We urge its passage. I would like to present one issue for the Committee to think about for the long-term that I think needs to be addressed up-front.

This legislation calls for a 50% use reduction -- discharge reduction -- goal as State policy over five years. I would suspect that means that in five years this Committee is going to -- if the legislation passes-- The Legislature will revisit this issue and say, "How effective was the legislation?" and that's where we think another issue is raised.

This legislation does not have anything about bans and phase-outs of toxic substances in it, in its present form. And yet, it's of concern to us. We clearly know that bans and phase-outs of hazardous products are effective tools of public health policy. Barry Commoner, among others, has written extensively on this, showing that the most effective means to protect public health are with bans and phase-outs. He uses the example of lead being removed from gasoline to show that the lead level has been reduced -- airborne lead levels have been reduced. Clearly, experience with asbestos and polychlorinated biphenyls and other products has shown that bans are often necessary, that phase-outs are necessary.

Certainly the current debate about the earth's atmosphere and the ozone and those issues raise these broader questions about production decisions that may necessarily involve bans and phase-outs, both for the protection of workers, the public health, and the environment.

At that point we also have to be concerned about the future of the manufacturing sector in New Jersey; how to try to reconcile the need to maintain and expand employment and reasonably decent paying jobs in the manufacturing sector and

maintaining a safe environment. I would only point out -- though it is unusual that I cite figures from the Business and Industry Association -- that New Jersey ranks 38th in level of manufacturing capital investment among all the states; that since 1970, our share of employment in the manufacturing sector has gone from 43.4% to 22.3% in 1987; and that since 1979 there has been a clear loss of jobs in the chemical and pharmaceutical industries, down 12,100 jobs between 1979 and 1986 alone, according to the New Jersey Business Retention Commission.

Of course, the closings of Ciba-Geigy and National Lead, cutbacks at many plants, and just in recent months, the closings or layoffs at GE, Regina, Certainteed, Campbell Soup, and Lockheed-- The list goes on and on.

The problem is, and it's posed on an everyday basis for workers-- In fact, I'll use a local example: Just a few miles from here in Trenton, at Friction Division Products-- This is a small plant that recycles asbestos brake shoes and has been exposed to-- The workers there have been exposed to huge levels of asbestos. The plant's been cited by OSHA for their number of lung cancer and, I believe, mesothelioma cases. Even in a situation there where workers were in an imminent danger situation being exposed to cancer-causing agents, and even in the case where the Federal Labor Department issued huge fines and said that people would not be penalized for returning to work and were protected on their ability to leave the job, despite guidance from the union, half the workers stayed because they felt they had no other income alternatives, and half the workers left over protection for their health.

So, it's a difficult problem that we are going to have to face.

SENATOR GORMLEY: Excuse me. The portion you mentioned about Ciba-Geigy and all the closings, or whatever-- What was the point you were making?

MR. ENGLER: The point I'm making is that one of the reasons that I think you have heard such positive responses from not only the environmental community on this bill, but also from business and labor, is that there are no bans and phase-outs. And yet, bans and phase-outs are something that the Legislature is going to have to address, to fashion an effective toxic use reduction bill in the years ahead.

I don't usually jump off on the immediate legislation, but I just want to raise the issue.

SENATOR GORMLEY: I'm trying to get that leap. You went through the closings in the State. And if we were to talk to your new research arm, Business and Industry (laughter), they would say -- if we were to cite all those closings and whatever -- "Those environmental regulations are driving those jobs out of the State." Now, that's what they would say.

MR. ENGLER: We found no evidence. I've reviewed, for instance, just this month, the Labor Department's last indication of plant closings in the State, and not one single closing was coded for environmental reasons. So I should clarify that.

SENATOR GORMLEY: But I'm trying to get how-- You're bringing those plant closings up to say we could have kept those plants going, or kept them open if we had bans?

MR. ENGLER: No. What I'm suggesting is that the problem of toxic chemicals is severe; that the only way to deal with some of these problems in the future is probably to phase-out some of these substances, which raises major employment impacts. I'm suggesting that in anticipating that issue -- and I will submit more detailed comments on this -- that the Council that's established by this Act, which may -- the word is "may" -- consider employment issues arising from the work of the other mandates in the Act, also has to consider the question of bans and phase-outs, and has to look at the question of impact on employment and earnings.

SENATOR GORMLEY: In reference to that fact, we did put in the Ciba-Geigy bill -- the bill on the pipe. We did talk about looking at employment. So what you're saying is, you're conceding the point that if you do have these bans and phase-outs -- and heavens knows you have to look at the individual items -- you're saying that you have to look to employment alternatives for those individuals who would be unemployed as a result of that?

MR. ENGLER: And also whatever is possible to do for plant retention. So I don't want to be misinterpreted. We are clearly endorsing this bill. The IUC supports this legislation, but because we think the problem is so big, and we've seen it from our own history of working with things like asbestos -- which the EPA has just moved to ban, which should have been banned decades ago -- which EPA has banned PCBs-- I mean, there is clearly an emerging conflict. As much as we like to say that you can reconcile the jobs issue and the environment issue, there is an emerging conflict. We think we should anticipate that as we fully support this legislation.

We think one of the things the Council should do, and I'll conclude, is consider the question that if there is effective plant closing notification, if there are effective mechanisms and incentives for manufacturing to be in this State, if there are ways that community organizations can participate, and pollution prevention through community inspections and other mechanisms, that's appropriate. But we also think that the problem is so severe that the Council ought to be involved in looking directly, and mandated to look at the employment and earnings impact of the future of this issue as well.

So we fully support this legislation, but we expect to revisit this problem.

SENATOR COSTA: Thank you so much. We appreciate your testimony as well as your recommendation, and that will all be taken into consideration as we review the bill.

MR. ENGLER: Thank you.

SENATOR COSTA: I'd like to call on Rick Tabakin, of American Cyanamid.

MR. WATKINS: Unfortunately, Rick had to leave because of the length of the testimony. I have a statement that I will enter into the record on behalf of Rick. My name is Jim Watkins. I'm with American Cyanamid. I'm also here today as Chairman of the Chemical Industry Council, Pollution Prevention Subcommittee.

I would like to make one comment relative to some of the information of the previous people. That is that, in Massachusetts the idea of bans and phase-outs was in the initial bill that was considered, but was subsequently deemed to be perhaps a little bit too far-reaching, and a little bit too much to go at this point in time.

The bill that was reached there focuses on waste minimization and does not include bans or phase-outs. It does not require specific limitations for restrictions or elimination of the use of certain chemicals. That was an agreement that was developed by environmental groups, by the business community, and by members of the legislature in Massachusetts.

I think it's perhaps something that we can look to, to gain some experience from, in developing a program that can be utilized here in New Jersey.

Again, I have testimony here from Mr Tabakin, but let me just say that on behalf of CIC, we recognize that pollution prevention legislation is needed. It's needed to continue to move to prevention from control. We support much of what's in the bill. We do, quite honestly, have some concerns about some of the specific reporting requirements, but we are here to participate in the debate, which I believe will go on for some time.

In the interest of time, I am going to cut these comments short, but we do have someone from Du Pont who has testimony, who is here, and who I'd like to bring up now, if that's possible.

SENATOR COSTA: All right. Mr. Haaf, Bill Haaf of du Pont.

W I L L I A M C. H A A F: Good afternoon. Does everybody have a copy? (no response) I'll skim through it fairly quickly. Feel free to ask questions as I go along, or at the end, that's fine.

I'm Bill Haaf, Manager of Environmental Affairs for the du Pont Company, responsible for overseeing our environmental auditing function. I also coordinate our Product Safety Management Committee. I am a chemist by training and am a certified industrial hygienist.

I am here today to underscore the importance with which the du Pont Company views the concept of pollution prevention generally, and particularly here in New Jersey; and to impress upon you our sincere desire to work with you and with the other parties concerned with this issue.

Our company has made a major commitment to pollution prevention and has already made significant strides in the reduction of both hazardous waste and air emissions by emphasizing source reduction, as well as other techniques.

As you may know, we have a very active Chairman, Ed Woolard, who has recently made a number of public commitments that we will achieve even greater reductions in hazardous waste minimization and toxic release reduction.

We are pushing each of our worldwide facilities, including those here in New Jersey, to become models of pollution prevention, fully in the spirit you so clearly intend by the proposal you have before you. We will commit a lot of future research, engineering, and investment in order to aggressively pursue this goal of continual reduction of hazardous waste and toxic release

As many of us in industry move towards the goal of adopting pollution prevention as a fundamental standard of operation, there is a constructive role to be played by State government; that is, to provide assurances to the public and to the rest of industry that those companies who may lag in this evolution, either for lack of resources, lack of knowledge, or lack of vision, will be hastened along the responsible path; and that those who would be leaders -- that's du Pont, for one -- find the path toward innovation unencumbered by bureaucratic excesses.

We in industry must evolve a new mind-set as we approach our businesses. I think I've heard evolution of this new mind-set said a number of times today. The State, working together with leadership in industry and the environmental community, can assure that this process is constructive, fair, and results in meaningful gains to the public.

Let me note clearly that we regard the appropriate State role in pollution prevention to be an extremely delicate one. By its very nature, pollution prevention, with its emphasis on source reduction, touches on the very core of our operations. We sell over \$1 billion worth of chemicals and products each year from our New Jersey facilities. The processes by which these materials are formulated and manufactured are varied, often extremely sophisticated technically, and require intimate knowledge of both chemical engineering and the detailed design of our facilities and operations.

This complexity poses serious implications for both industry and the State. For industry, obviously, State intervention in matters as fundamental as product formulation will always arouse fears of mishandled information or some other action that will compromise our competitive advantage. For the State, too, however, there is a danger -- the danger of

becoming mired in detail and complexity that can turn into a "black hole" for very limited enforcement and oversight resources.

We agree that the goal for all facilities, whether public or private, must be continual reduction to all media in hazardous waste and toxic releases in order to improve the margin of safety for public health and environmental protection.

This continuing reduction can be achieved through a variety of means, including: source reduction, recycling and reuse, improved operations and maintenance, improved or new production processes, or pollution control. We feel it is important that we don't freeze science and technology, but allow for advances in all these dimensions that can help us to reduce public or environmental exposure.

Recognizing the technical complexity of major manufacturing facilities and the overriding concern with public and environmental exposures, we believe the primary focus of the State should be on the site as a whole, not on process-specific detail, which can change as processes are altered, shut down, started up, etc. In short, the emphasis should be on overall progress.

With these general thoughts in mind, let me give you some specific suggestions for any legislation:

First, we believe the legislation should focus initially on existing SARA Title III chemicals and their thresholds. This will focus efforts on those chemicals of large volume that are regarded as being the most important, and on which you have already begun to accumulate significant information.

Second, we believe there is a need for site pollution prevention plans to better focus the attention of facilities on hazardous waste and toxic release reduction.

Third, the State should avoid too much detail, such as specifics for each chemical and each process. It should

require only the detail necessary to assure that the site is making progress. Too much detail threatens to bog down the total process, while adding little to the State's ability to judge true progress. In addition, reams of detail may compromise competitive advantage, thus eroding incentives for innovation and posing a long-term threat to progress.

Fourth, the State should have the ability to determine if site plans include the elements of pollution prevention, that there is a commitment, a strong commitment, to implement these elements; and the State should have the ability to determine, through some equitable type of measurement, that the site is, in fact, making progress.

We recognize that there may be facilities which will not make satisfactory progress toward waste and release reduction. The mechanisms by which the State judges each facility must be flexible enough in those circumstances to take into account short-term factors which may impede progress -- start-up of a new process, for example -- and to recognize real limits of technical and economic practicality -- kind of like mutual funds. We don't look for month to month, or year to year. We look at trends. Where such limits have not been reached, however, the State should have the authority to challenge plans and secure changes that will be feasible and result in real gains.

Again, this process threatens to become a consuming one. Recognizing this, there should be some guidance by which the State can allocate its limited resources. The bill you propose responds to this problem by limiting the number of facilities required to develop pollution prevention plans.

We encourage an alternative approach with a larger number of facilities required to develop pollution prevention plans, recognizing that this is an internal step that all sites should be taking in order to accomplish real reductions, not just big sites.

With the above in mind, the State will again need to allocate its limited resources. We would recommend the following considerations in developing priorities to guide the Department's planned pollution plan review and enforcement: relative risk, volumes generated or released, inherent toxicity, potential for substantial improvement, and history of noncompliance.

That was kind of quick. I'd like to conclude. Thanks for the chance, and if you have any questions--

SENATOR COSTA: Thank you very much for appearing before us. I'd like to go on at this point, and call Diane Walker, please?

SENATOR GORMLEY: Thank you.

MR. HAAF: Okay.

SENATOR COSTA: Who are you representing, Diane?

D I A N E W A L K E R: My name is Diane Walker, and I am representing the Sierra Club, the New Jersey Chapter. I'll be very brief.

The Sierra Club has long been supportive of source reduction and waste reduction for hazardous waste from the time when many of us got together -- many different interests -- way back in the old 1300 bill, where it was included as policy, and through the work of the Source Reduction and Recycling Task Force.

We support S-3581, and we're glad to see that the Department is already aggressively pursuing an internal program, which is key to getting the whole thing underway. In concert with S-3581, we also strongly support Senator Gormley's bill that would set up a Technical Assistance Program. We feel that that is essential as a base for getting whatever needs to be done in the State on source reduction and recycling going.

Thank you.

SENATOR COSTA: Thank you very much. I would like to call Walt Sodie, representing the Township of Bridgewater.

I think we are speaking of something new, and yet it is based on something very old: "An ounce of prevention is worth a pound of cure."

W A L T E R M. S O D I E: Madam Chairwoman, Senator Gormley, thank you for the opportunity. I'm Walt Sodie of Commtran Communications, representing the Township of Bridgewater, Somerset County. I'm entering this statement on behalf of Mayor James Dowden and the Township Council. You have the written copies of my testimony.

The Mayor asked me to speak before you, both on the merits of the bill per se and because he thought it would be valuable for the Committee to hear what might be a somewhat different perspective on it.

For the past year-and-a-half, the Township of Bridgewater has had to live with the constant threat of being selected as the site of a hazardous waste incinerator. The incinerator siting is not the issue of our testimony, but it provides a very pertinent backdrop for why Bridgewater is interested in seeing this legislation enacted; reasons we believe could apply to any other number of municipalities throughout New Jersey.

The Bridgewater background as a potential incinerator site might seem like an inconsequential concern in the overall context of this bill, and that would be true except for one thing: The direction the State of New Jersey has taken until recently has provided nothing but lip service to the concept of hazardous waste minimization. It's a football that's been kicked around by the DEP, the Hazardous Waste Facilities Siting Commission, and by others, with no one -- again, up until recently -- showing any signs of really wanting to pick up the ball and run with it.

I use this analogy to make just one point: Because the State of New Jersey has failed to take the initiative on hazardous waste minimization, Bridgewater and many other

communities not only have undergone the excruciating experience of being targeted for environmentally questionable hazardous waste disposal facilities, but they've also been subjected to a wide range of other problems associated with hazardous waste; the simple matter of storage not being the least among them.

Unless this Committee and the rest of the Legislature are prepared to get serious about waste reduction quickly, these experiences will be infinitesimal compared to what we can expect in the 1990s, and I'm speaking, again, strictly on the municipal level.

I can tell you from working closely with the officials of Bridgewater, that whether a town is wrestling with a hazardous waste incinerator or other problems associated with hazardous waste, it's a critical concern that requires a major commitment; a commitment that part-time, local officials are very hard-pressed to fulfill, yet they somehow manage to do so, usually at great personal sacrifice.

Serving as part-time public officials yourselves, you can appreciate the difficulties and the frustrations of not having the tools -- or worse, not being given the tools -- to do your jobs properly. This is the dilemma that municipalities that host waste producing facilities encounter. They simply haven't been given the help they need by the State of New Jersey. This Committee, of course, has the power to begin reversing that process.

One of the great oversights of the Legislature in this decade was the failure to enact a hazardous waste minimization act -- and I am using that term somewhat generically -- to complement the major Hazardous Waste Facilities Siting Act of 1981. S-3581 would rectify that oversight.

You've already heard, I'm sure, or read reams of statistics about, the quantities of hazardous waste produced by New Jersey industries each year. You don't need to hear any more on that from me. However, there is one excellent study

that was brought to Bridgewater's attention by the Township's environmental consultant, that I would like to call to your attention in the event no one else has, or will, enter this on the record.

It's called, "From Poison to Prevention," prepared by the National Toxics Campaign Fund. I could make this copy, in fact, leave this copy, for the Committee. I don't have 10 copies of it, but this one is available.

Just a few more comments before concluding: S-3581 is not antibusiness legislation, nor is it antilabor.

Will it cause some disruptions? Yes. Will it affect the initial quarterly reports of affected businesses? Very likely, and possibly several beyond that. In the long run, though, I think it's going to be helpful to business on a bottom-line basis.

The bill also provides reasonable measures aimed at accounting for the loss of jobs, and, hopefully, minimizing and avoiding, to the greatest extent possible, that loss.

And the five-year phase-in provision -- after priority industries start to comply -- is an excellent feature that should effectively blunt criticism about moving too fast.

All in all, the Township of Bridgewater views S-3581 as excellent legislation. We believe the Chairman of the Committee is to be commended for sponsorship of it, and we urge the bill to be released with an affirmative recommendation.

SENATOR COSTA: Thank you, Mr. Sodie.

MR. SODIE: Thank you very much.

SENATOR COSTA: Oliver Papps, New Jersey Petroleum Council, please?

O L I V E R P A P P S: Good morning, Senator Costa, Senator Gormley. My name is Oliver Papps, and I'm Associate Director of the New Jersey Petroleum Council, a trade association based in Trenton, representing the major oil companies in refining, marketing, transportation, and research.

On behalf of the Petroleum Council, we wish to itemize several components of our initial review of the legislation before you for consideration today. As major manufacturers in the State of New Jersey, the petroleum industry has a key concern in the development of pollution prevention, waste minimization initiatives.

Senate Bill No. 3581 is a very ambitious and comprehensive proposal. The Committee is to be commended for its deliberative approach and careful review. We wish to state at the outset that the petroleum industry supports the concept of integrated waste management, consisting of source reduction, recycling, and treatment at both on-site and off-site facilities.

The current voluntary waste minimization requirements under the 1984 RCRA amendment should be allowed to continue. The petroleum industry is committed to an equitable legislative regulatory waste minimization requirement which recognizes that waste management practices should be tailored to site-specific circumstances, providing administrators with a flexible regulatory format.

The petroleum industry recognizes the need to work from an identified certain number of substances using established lists, such as the State Toxic Catastrophe Prevention Act list, or SARA 313, thereby lessening confusion and uncertainty over what may be covered.

We wish to express our concern, however, over efforts to restrict the use of substances. We should be concerned over the releases and wastes generated, which are the real issues in the legislation.

We further recommend that all users and emitters of these listed substances be included in the regulatory proposals -- not just single components of New Jersey's economies. We would include public and private entities in this format.

Finally, the regulatory process should work to minimize the detailed reporting requirements often accompanying regulatory programs.

The fine work accomplished to date by New Jersey ACT, should receive continued support and incentives to grow. While we will be delivering further positions as this legislation evolves, we wish to enter into the record our initial perspectives on the legislation.

Thank you very much for your time, and we look forward to working with you further on this issue.

SENATOR COSTA: Thank you very much.

MR. PAPPS: Thank you, Senator.

SENATOR COSTA: I believe there may be one more person. Please identify yourself for the record.

H A R V E Y S T E I N B E R G: Surely. I'm Harvey Steinberg. I live in Lawrenceville and I'm representing myself as a citizen.

I wandered in here, I must admit, from another hearing. Hearing all this is sort of deja vu for me. One or two people in the audience will recognize that these were issues that came up 20 years ago -- the idea of reduction of all sorts of substances at the source. It was really a very early idea.

Of course, things take the cycle of 20 or 30 years to get around to the reality when people begin to get injured. Ten years ago I went through it specifically with respect to the gutting of the OSHA bill -- Senator Schweiker's bill, in the U.S. Senate -- and we helped kill that. And these issues came up very strongly, because labor, at a national level, as well as in New Jersey, worked closely with the environmental movement at that time.

But I do have some surprising things therefore, coming out of that background, to say. Part of my background is in the labor movement, and presently I teach management and human

resources and consult and write in that. And I have-- I mean, it's just a fundamental societal contradiction here, that needs solution.

One of those things is that small companies-- I think the main thing that I would think about is that small companies in this State truly do not have the resources -- you just have to admit that -- to rework all their processes. They don't have that information; they don't have that competency in staff to rework all their processes, to produce their products, which they put out in the market. They cannot revolutionize themselves.

It's all very well to hear du Pont and American Cyanamid, and the other large companies that appeared -- and I just simply have absorbed this as I have been sitting in this room -- speak about their support of this bill. They have those resources. They can continue to compete in the international and the national markets, stay in New Jersey, or whatever.

What this is saying, really, with respect to all those other companies from which our main continuing growth of employment -- where we have our main continuing growth of employment, in the small companies, okay-- We have seen a reduction from the 40-plus percent, as Rick Engler was saying, to 22%, let's say, in manufacturing, and I must say that therefore the low-- The trade imbalance exists solely because of the manufacturing sector. This is not a small matter.

They don't have those resources. The large companies do, so they might support this. While it is absolutely necessary to get rid of our poisons at the source, it's also true that you want to continue to exist as a society -- as an economically viable society.

So, what does one do about this? I don't know. I think Diane Walker's final sentence about the absolute need for technical assistance is where it's at for our industries.

You cannot pass a bill like this. I mean, I'm for it, but you need a companion bill, if not now, then in the next session around, that's going to put your resources into assisting the businesses, to license that, to have available for their licensing, okay? The processes which will enable them to continue to stay in business, very frankly.

I've been in an industry where our industry went out of business, as such -- a national industry went out of business, as such -- and that process began because at that time the communist countries were coming in with products processed by mercury, which of course, properly--

SENATOR COSTA: Have you had an opportunity to review this bill at all?

MR. STEINBERG: No, I haven't, but I just heard what was said.

SENATOR COSTA: Well, this is what we are trying to do, to get public input, based upon the bill itself.

MR. STEINBERG: Well, I realize that. I understand what legislative sessions are. I would say that, as a citizen, representing only myself, I would support what I've heard. You are a functioning Committee. You will continue to function at future times, and I would think that you must take that up.

If necessary what I would say, even with respect to the large companies, is that you ask them to set up units. I mean, what they'll be doing is to oligopolize the market -- with all due deference to them, I work in industry -- even more than they presently do, because they'll have the resources to create the products and the processes. I have seen that before in terms of small businesses being just, you know, not driven out with intention, but nevertheless, that's what occurs.

Maybe they should set up units -- research units specifically -- that will afford licensing out to the smaller companies to keep our own State's economy viable.

I realize that time is short and--

SENATOR COSTA: We do have a quorum call.

MR. STEINBERG: --that you are on a bill; you are on a specific bill. Nevertheless, this is an opportunity for me to make what I think is very meaningful to me, coming out of a lifetime of experience in this field. So I give that to you for your future thoughtfulness on bills you might propound in the future.

SENATOR COSTA: Thank you very much.

MR. STEINBERG: Thank you.

SENATOR COSTA: The public hearing is over.

(HEARING CONCLUDED)

APPENDIX



TESTIMONY OF DEPARTMENT OF ENVIRONMENTAL
PROTECTION COMMISSIONER CHRISTOPHER J. DAGGETT
BEFORE THE SENATE ENERGY AND ENVIRONMENT
COMMITTEE DECEMBER 18, 1989

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TESTIMONY OF DEPARTMENT OF ENVIRONMENTAL
PROTECTION COMMISSIONER CHRISTOPHER J. DAGGETT
BEFORE THE SENATE ENERGY AND ENVIRONMENT
COMMITTEE DECEMBER 18, 1989

I AM HAPPY TO BE HERE TODAY TO DISCUSS ONE OF THE MOST EXCITING ENVIRONMENTAL CHALLENGES FACING NEW JERSEY AS WE MOVE INTO THE 1990'S - POLLUTION PREVENTION.

IT IS IMPORTANT TO INITIALLY STRESS THAT THE PROGRESS AND ADVANCES WE HAVE MADE OVER THE PAST TWO DECADES TO PROTECT NEW JERSEY'S ENVIRONMENTAL RESOURCES AND PUBLIC HEALTH ARE SIGNIFICANT. THE SWELL OF ENVIRONMENTAL AWARENESS THAT WAS SPARKED IN THE EARLY 1970'S HAS LED TO THE DEVELOPMENT OF MAJOR ENVIRONMENTAL LAWS AND POLICIES THAT HAVE GREATLY IMPROVED THE QUALITY OF LIFE IN NEW JERSEY AS WELL AS THROUGHOUT THE UNITED STATES.

HOWEVER, WHILE WE RECOGNIZE THE ACHIEVEMENTS OF OUR ENVIRONMENTAL PROTECTION REGULATORY STRUCTURE, THERE HAS BEEN, OVER THE PAST 5 YEARS, A GROWING RECOGNITION OF ITS LIMITATIONS AS WELL. THE EXISTING STRUCTURE HAS LEAD TO AN EMPHASIS ON TECHNOLOGY-BASED MEASURES THAT CONTROL THE RELEASE OF POLLUTANTS INTO THE ENVIRONMENT AFTER THEY ARE GENERATED, RATHER THAN ON MEASURES TO GENERATE LESS POLLUTION. OTHER LIMITATIONS OF THE EXISTING STRUCTURE INCLUDE:

- SHIFTS IN ENVIRONMENTAL RELEASES OF POLLUTANTS FROM ONE ENVIRONMENTAL MEDIUM TO ANOTHER.
- A MYRIAD OF POLLUTION CONTROL LAWS THAT DO NOT NECESSARILY COINCIDE SINCE THEY WERE DEVELOPED UNSYSTEMATICALLY OVER TIME AND SINCE EACH IS SPECIFIC TO ONE ENVIRONMENTAL MEDIUM.
- INCREASING CASES OF LITIGATION OVER DISCHARGE REPORTS AND LIMITS.
- REGULATION OF A DEFINED SET OF POLLUTANTS IN EACH MEDIUM LEAVING MANY HAZARDOUS POLLUTANTS STILL UNREGULATED.

DEP, AS WELL AS MOST STATE ENVIRONMENTAL AGENCIES, IS ON RECORD AS ENDORSING A FOUR-TIER STRATEGY TO WASTE MANAGEMENT WITH SOURCE REDUCTION AS THE PREFERRED COURSE OF ENVIRONMENTAL PROTECTION

FOLLOWED BY RECYCLING, RECOVERY, TREATMENT, AND DISPOSAL. HOWEVER, AS THE CONGRESSIONAL OFFICE OF TECHNOLOGY ASSESSMENT (OTA) POINTS OUT, ALTHOUGH MOST AGENCIES IN THE U.S. ENDORSE THIS HIERARCHY, THE EXPENDITURE OF RESOURCES AND EMPHASIS IS GENERALLY ON END-OF-PIPE TREATMENT MEASURES.


RESEARCH AND INNOVATIVE SOURCE REDUCTION PROGRAMS BY INDUSTRY HAVE HIGHLIGHTED THE VARIOUS BENEFITS OF SOURCE REDUCTION, INCLUDING:

- AVOIDING FUTURE HEALTH CONSEQUENCES THAT ARE NOW UNKNOWN
- REDUCING LIABILITY COSTS
- LESSENING POLLUTION CONTROL COSTS TO INDUSTRY, SUCH AS DISPOSAL AND TREATMENT TECHNOLOGIES
- USING RAW MATERIALS MORE EFFICIENTLY
- REDUCING ENERGY USAGE

RESEARCH AND INDUSTRIAL CASE STUDIES HAVE ALSO INDICATED THAT THERE IS ENORMOUS POTENTIAL TO REDUCE THE GENERATION OF POLLUTION AT THE SOURCE BY CHANGING OPERATIONS; REFORMULATING PRODUCTS; SUBSTITUTING CHEMICALS; MODIFYING PROCESSES; IMPROVING HOUSEKEEPING; AND INITIATING MANAGEMENT LEADERSHIP TO INSTILL A POLLUTION PREVENTION ETHIC. HOWEVER, MANY BUSINESSES AND AGENCIES ARE NOT AWARE OF THE POTENTIAL FOR SOURCE REDUCTION DUE, IN PART, TO A LACK OF MULTI-MEDIA INFORMATION. MANY COMPANIES HAVE REPORTED

THAT PREPARING THEIR REPORTS FOR FEDERAL RIGHT TO KNOW REQUIREMENTS PROMPTED AN UNEXPECTED REALIZATION OF THE VOLUME OF HAZARDOUS SUBSTANCES USED AND GENERATED AT THEIR FACILITY AND, IN TURN, PROMPTED THEM TO SEEK SOURCE REDUCTION MEASURES.

THOSE BUSINESSES THAT HAVE UNDERTAKEN AGGRESSIVE POLLUTION PREVENTION PROGRAMS INDICATE THAT SEVERAL FACTORS GENERALLY PROMPT THEM TO DO SO: ECONOMICS; CONCERN OVER NEGATIVE PUBLICITY; AGGRESSIVE ENFORCEMENT OF EXISTING END-OF-PIPE CONTROLS; AND LONG-TERM VISION ON THE PART OF UPPER MANAGEMENT.

ADDRESSING THE LIMITATIONS OF THE EXISTING SINGLE-MEDIA POLLUTION CONTROL SYSTEM WILL REQUIRE NOTHING LESS THAN A TOTAL TRANSFORMATION OF OUR CURRENT REGULATORY STRUCTURE. IN SHORT, IT MEANS TOTALLY CHANGING THE WAY WE DO BUSINESS. AND TO DO THAT EFFECTIVELY, WE MUST BASE OUR APPROACH ON TWO BASIC PREMISES: FIRST,  THAT WE WILL HAVE THE GREATEST IMPACT BOTH ENVIRONMENTALLY AND ECONOMICALLY IF WE BUILD A PREVENTION ETHIC INTO OUR EXISTING PROGRAMS RATHER THAN CREATE A NEW, SEPARATE REGULATORY PROGRAM; AND, SECOND, THAT THIS TRANSFORMATION WILL NOT HAPPEN OVERNIGHT AND, THEREFORE MUST BE PHASED IN OVER TIME. WE MUST KEEP IN MIND THAT THE

LIMITATIONS OF THE EXISTING REGULATORY STRUCTURE ARE DUE TO OUR STATE OF KNOWLEDGE AT THE TIME WHEN VARIOUS ENVIRONMENTAL LAWS AND REGULATIONS WERE DEVELOPED. AS A RESULT, POLLUTION PREVENTION BECOMES THE NEXT STEP IN THE EVOLUTION OF OUR ENVIRONMENTAL PROTECTION EFFORTS. IN SHORT, POLLUTION PREVENTION IS EVOLUTIONARY, NOT REVOLUTIONARY.

BUILDING A SOURCE REDUCTION CORE INTO EXISTING ENVIRONMENTAL PROGRAMS IS NOT AT ALL MEANT TO INDICATE THAT EXISTING PROGRAMS ARE OBSOLETE. IN FACT, AN EFFECTIVE SOURCE REDUCTION EFFORT CANNOT SUCCEED UNLESS IT IS COUPLED WITH STRONG END-OF-PIPE POLLUTION CONTROLS. EVEN WITH THE GREATEST AMOUNT OF SOURCE REDUCTION, POLLUTION WILL STILL BE GENERATED AND MUST MEET OUR STRINGENT CONTROL STANDARDS. ALSO, AGGRESSIVE ENFORCEMENT OF EXISTING END-OF-PIPE CONTROLS WILL CONTINUE TO BE A MAJOR FACTOR IN PROMPTING SOURCE REDUCTION IN INDUSTRY.

UNDERTAKING THE CHALLENGE OF MAKING MULTI-MEDIA POLLUTION PREVENTION THE CORE OF OUR ENVIRONMENTAL PROGRAMS IS AN ENORMOUS TASK. BUT WE FIRMLY BELIEVE THAT THE BENEFITS OF AND NEED FOR AN ENVIRONMENTAL PROTECTION STRUCTURE BASED ON SOURCE REDUCTION DEMANDS THAT WE IN NEW JERSEY TAKE UP THAT CHALLENGE. WE ARE NOT ALONE. THE FEDERAL GOVERNMENT AS WELL AS AT LEAST 8 OTHER STATES ARE

DEVELOPING OR HAVE ENACTED LEGISLATION OR POLICIES SPECIFICALLY DIRECTED AT POLLUTION PREVENTION.

NEW JERSEY HAS ALWAYS BEEN IN THE LEAD IN CREATIVELY ADDRESSING ENVIRONMENTAL CHALLENGES. NOW IS THE TIME FOR US AGAIN TO TAKE THE LEAD IN BRINGING ABOUT THE NEXT ERA OF ENVIRONMENTAL PROTECTION BY INSTILLING A PREVENTION ETHIC INTO OUR PROGRAMS. THIS IS WHY DEP STRONGLY SUPPORTS THE CONCEPT AND NEED FOR POLLUTION PREVENTION LEGISLATION IN NEW JERSEY.

DEP ANNOUNCED A POLLUTION PREVENTION INITIATIVE THIS PAST AUGUST FOR THE PURPOSE OF BEGINNING THE TASK OF BUILDING A POLLUTION PREVENTION INFRASTRUCTURE WITHIN THE AGENCY. MANY OF THE MAJOR CONCEPTS OF DEP'S INITIATIVE ARE EMBODIED IN S-3581 BY SENATOR DALTON AS WELL AS IN S-2502 BY SENATOR GORMLEY; THE LATTER WOULD ESTABLISH A TECHNICAL ASSISTANCE PROGRAM (TAP) AT THE NEW JERSEY INSTITUTE OF TECHNOLOGY. THERE ARE SEVERAL PROVISIONS IN S-3581 FOR WHICH WE HAVE ALTERNATIVE SUGGESTIONS OR BELIEVE ADDITIONAL DIALOGUE IS NEEDED. DEP LOOKS FORWARD TO WORKING CLOSELY WITH THE LEGISLATURE TO ADDRESS THESE PROVISIONS IN THE MONTHS AHEAD BUT, AT THIS TIME, WE WANT TO EXPRESS OUR STRONG SUPPORT FOR YOUR WORK IN DEVELOPING POLLUTION PREVENTION LEGISLATION IN NEW JERSEY.

THE POLLUTION PREVENTION INITIATIVE DEVELOPED BY DEP IS BASED ON SEVERAL PREMISES, SOME OF WHICH I SPOKE ABOUT EARLIER:

- POLLUTION PREVENTION SHOULD BE GRADUALLY BUILT INTO EXISTING DEP PROGRAMS RATHER THAN IMPLEMENTED THROUGH A NEW, SEPARATE PROGRAM.
- TRANSFORMING THE EXISTING MEDIA-SPECIFIC POLLUTION CONTROL SYSTEM TO MULTI-MEDIA POLLUTION PREVENTION MUST BE PHASED IN AND REGARDED AS A TOP PRIORITY FOR THE NEXT DECADE.
- GOVERNMENT IS NOT EQUIPPED TO PRESCRIBE SPECIFIC POLLUTION PREVENTION METHODS TO INDIVIDUAL FACILITIES. THE NATURE OF INDUSTRIAL OPERATIONS IS DISTINCT IN EACH FACILITY; PRESCRIBED POLLUTION PREVENTION MEASURES ACROSS-THE-BOARD IN ALL INDUSTRIES IS INFEASIBLE. INSTEAD, ASSESSING POLLUTION PREVENTION OPPORTUNITIES WITHIN AN INDUSTRY GROUP WOULD PROVIDE INDIVIDUAL FACILITIES WITH A COMPARISON "YARDSTICK."
- POLLUTION PREVENTION IS, TO A GREAT EXTENT, IN INDUSTRY'S BEST ECONOMIC INTEREST. NOT GENERATING POLLUTION MEANS BUSINESS DOES NOT HAVE TO PAY FOR ITS TREATMENT OR DISPOSAL AND ASSOCIATED LIABILITY COSTS OR FOR FUTURE HEALTH/ECOLOGICAL CONSEQUENCES. AS A RESULT, GOVERNMENT'S ROLE SHOULD BE TO ESTABLISH AN ATMOSPHERE THAT ALLOWS

BUSINESSES TO IDENTIFY THEIR OWN OPPORTUNITIES FOR POLLUTION PREVENTION SO THAT INDUSTRY WILL, IN TURN, RECOGNIZE THE BENEFITS OF POLLUTION PREVENTION AND ADOPT THOSE PRACTICES. AT THE SAME TIME, HOWEVER, GOVERNMENT'S ROLE SHOULD ALSO BE TO ENSURE THAT POLLUTION PREVENTION REMAINS IN INDUSTRY'S BEST INTEREST; AS DISCUSSED EARLIER, ECONOMICS AND AGGRESSIVE END-OF-PIPE ENFORCEMENT DRIVE BUSINESSES TO REDUCE POLLUTION GENERATION. GOVERNMENT NEEDS TO PROVIDE THE APPROPRIATE MIX OF CARROTS AND STICKS TO PROMPT INDUSTRY TO IDENTIFY POLLUTION PREVENTION OPPORTUNITIES.

- EVEN WITH THE GREATEST AMOUNT OF SOURCE REDUCTION, POLLUTION WILL STILL BE GENERATED AND, IN TURN, NEEDS TO BE MANAGED. THEREFORE, PREVENTING THE GENERATION OF POLLUTION MUST BE GIVEN FIRST PREFERENCE BUT MUST ALSO BE COUPLED WITH COMPREHENSIVE PROGRAMS TO MANAGE POLLUTION AFTER GENERATION.

- A POLLUTION PREVENTION PROGRAM WITHIN DEP MUST BE COUPLED WITH A STRONG TECHNICAL ASSISTANCE PROGRAM AT NJIT.

THE DEP'S INITIATIVE DISCUSSES AN APPROACH THAT IS "QUASI - REGULATORY" IN THAT IT WOULD REQUIRE A SET OF INDUSTRY GROUPS TO

PREPARE POLLUTION PREVENTION PLANS THAT WOULD NOT BE SUBMITTED TO THE AGENCY FOR APPROVAL. TO TRACK PROGRESS, DEP WOULD RELY ON REPORTING VIA COMMUNITY RIGHT TO KNOW.

TO BUILD PREVENTION INTO EXISTING PERMIT PROGRAMS, DEP PROPOSED HAVING A POLLUTION PREVENTION FACILITY-WIDE PERMIT FOR THAT FACILITY. THIS COMPONENT BLENDS POLLUTION PREVENTION WITH THE CONCEPT OF DEVELOPING A SINGLE, MULTI-MEDIA PERMIT FOR A GIVEN FACILITY AS A MEANS OF PREVENTING POLLUTION, IN PART, THROUGH IDENTIFYING CROSS-MEDIA POLLUTION SHIFTS. THE DEP PROPOSED AN INITIAL PILOT EFFORT OF 15 FACILITY-WIDE PERMITS.

THE DEP INITIATIVE ALSO INCLUDED THE PREPARATION OF INDUSTRY-GROUP POLLUTION PREVENTION PROFILE REPORTS THAT WOULD ALLOW FOR "YARDSTICKING" BY OUTLINING POLLUTION PREVENTION OPPORTUNITIES THAT HAVE BEEN APPLIED WITHIN THAT INDUSTRY GROUP STATEWIDE, NATIONALLY AND INTERNATIONALLY.

FINALLY, THE DEP INITIATIVE ESTABLISHED BY ADMINISTRATIVE ORDER THE OFFICE OF POLLUTION PREVENTION WHICH REPORTS DIRECTLY TO THE DEPUTY COMMISSIONER AND WHICH IS CHARGED WITH COORDINATING POLLUTION PREVENTION ACTIVITIES WITHIN THE DEPARTMENT. A DIRECTOR WAS

Differences



ASSIGNED TO THE OFFICE OF POLLUTION PREVENTION (OPP) IN OCTOBER, 1989 AND TWO STAFF MEMBERS JOINED OPP A MONTH LATER.

ALTHOUGH THIS APPROACH HAS MANY SIMILARITIES TO S-3581, THERE ARE SOME DIFFERENCES:

- DEP PROPOSES BASING THE POLLUTION PREVENTION PROGRAM INITIALLY ON THE 329 CHEMICALS COVERED VIA FEDERAL RIGHT TO KNOW. S-3581 REFERS TO THE LIST OF CHEMICALS COVERED BY NEW JERSEY'S WORKER AND COMMUNITY RIGHT TO KNOW PROGRAMS. WE SUGGEST USE OF THE FEDERAL LIST BECAUSE IT WILL ALLOW US TO DOVETAIL THE POLLUTION PREVENTION PROGRAM MORE CLOSELY TO SURVEYING EFFORTS CURRENTLY UNDERWAY IN DEP.
- S-3581 IS LIMITED TO MANUFACTURING SIC CODES WHEREAS DEP SUPPORTS ESTABLISHING A SCOPE OF ALL EMPLOYERS COVERED UNDER THE STATE'S COMMUNITY RIGHT TO KNOW PROGRAM AND THEN IDENTIFYING A SUBSET OF 10 SIC CODES IN WHICH TO INITIATE THE PROGRAM.
- S-3581 ESTABLISHES A MORE-TRADITIONAL TYPE OF REGULATORY PROGRAM WHEREBY HAZARDOUS SUBSTANCE INVENTORY REPORTS AND POLLUTION PREVENTION PLANS ARE SUBMITTED TO DEP FOR REVIEW AND APPROVAL. THE APPROACH TAKEN IN DEP'S INITIATIVE STRIVES TO BUILD INDUSTRY'S POLLUTION PREVENTION PLANNING INTO THE DEPARTMENT'S EXISTING PERMIT

PROGRAMS. AS THE DEPARTMENT BEGINS DEVELOPING FACILITY-WIDE PERMITS, THE POLLUTION PREVENTION PLAN WOULD BECOME AN INTEGRAL PART OF THE FACILITY'S PERMIT. IN ADDITION, THE DEPARTMENT HAS NOT SUPPORTED A NEW REGULATORY SYSTEM WHEREBY A SEPARATE PROGRAM IN THE AGENCY WOULD APPROVE A BUSINESS'S PLAN. WE BELIEVE THAT ESTABLISHING A WHOLE NEW PROGRAM (WITH CONSIDERABLE RESOURCE NEEDS) WOULD BE NEITHER COST EFFECTIVE NOR WOULD IT ACHIEVE THE GOALS OF POLLUTION PREVENTION. DURING THE PAST FEW MONTHS, WE HAVE BECOME INCREASINGLY OPTIMISTIC ABOUT DEVELOPING AN ALTERNATIVE APPROACH WHEREBY A FACILITY'S FULL POLLUTION PREVENTION PLAN BE KEPT ON-SITE WHILE SUBMITTING AN ANNUAL PLAN SUMMARY THAT WOULD BE PUBLICLY AVAILABLE. SUCH AN APPROACH WOULD ADDRESS INDUSTRY'S CONCERN REGARDING CONFIDENTIALITY AS WELL AS THE PUBLIC'S DEMAND FOR ACCESS TO MORE DETAILED INFORMATION.

I AM CONFIDENT THAT TOGETHER WE CAN WORK OUT THE DETAILS OF THESE ISSUES AS DISCUSSIONS PROGRESS OVER THE NEXT SEVERAL MONTHS.

I WOULD LIKE TO SPEND JUST A FEW MINUTES UPDATING YOU ON THE ACTIVITIES THAT HAVE BEEN INITIATED BY THE OFFICE OF POLLUTION PREVENTION DURING THE PAST TWO MONTHS:

1. WE HAVE ESTABLISHED DEPARTMENT-WIDE POLLUTION PREVENTION COMMITTEES AT THE DIRECTOR AND STAFF LEVELS TO ALLOW US TO INITIATE POLICIES AND SOLICIT ADVICE FROM THE TOP DOWN AND THE BOTTOM UP.
2. WE ARE ESTABLISHING AN EXTERNAL POLLUTION PREVENTION ADVISORY GROUP (PPAG) WITH REPRESENTATIVES FROM THE INDUSTRIAL, PUBLIC INTEREST, ENVIRONMENTAL AND ACADEMIC COMMUNITIES.
3. WITH THE DEPARTMENT'S DIVISION OF SCIENCE AND RESEARCH, WE ARE CONDUCTING A REVIEW OF EXISTING REGULATIONS TO DETERMINE IF THEY MAY PROVIDE ANY INCENTIVES OR OBSTACLES TO INDUSTRIAL SOURCE REDUCTION EFFORTS.
4. WE ARE DEVELOPING INFORMAL CRITERIA TO IDENTIFY 10 PRIORITY SIC CODES.
5. IN CONJUNCTION WITH THE DEPARTMENT'S COMMUNITY RIGHT TO KNOW PROGRAM, WE ARE STUDYING WAYS TO MAXIMIZE THE USE OF THAT PROGRAM'S INFORMATION RESOURCES TO TRACK POLLUTION PREVENTION PROGRESS AT A FACILITY LEVEL.

6. THE DIVISION OF SCIENCE AND RESEARCH IS CONDUCTING A STUDY TO DETERMINE EFFECTIVE APPROACHES TO FACILITY-WIDE PERMITTING WHICH WILL SERVE AS GUIDANCE FOR THE DEPARTMENT'S FUTURE EFFORTS.

7. WE ARE WORKING WITH SEVERAL DEP PROGRAMS TO IDENTIFY CANDIDATE FACILITIES TO USE IN SEPARATE PILOT EFFORTS FOR FACILITY-WIDE PERMITS AND ENFORCEMENT SETTLEMENTS.

8. WE ARE CONSIDERING THE NEED FOR REGULATORY ADJUSTMENT IN ORDER TO CARRY OUT THE GOALS OF POLLUTION PREVENTION.

9. WE ARE WORKING IN-HOUSE TO DEVELOP AN EFFORT TO MAKE DEP OFFICES A STATEWIDE MODEL FOR POLLUTION PREVENTION IN AREAS SUCH AS CONSUMERISM, PROCUREMENT AND INDIVIDUAL BEHAVIOR.

10. WORKING WITH THE HAZARDOUS WASTE FACILITIES SITING COMMISSION, WE ARE INVOLVED IN IDENTIFYING A DIRECTOR FOR THE TECHNICAL ASSISTANCE PROGRAM (TAP) AT NJIT.

I THINK IT IS EXTREMELY IMPORTANT TO LET YOU KNOW ABOUT THE LEVEL OF ENTHUSIASM WE HAVE SEEN WITHIN DEP FOR POLLUTION PREVENTION SINCE ANNOUNCING OUR INITIATIVE. BY TAKING THE APPROACH THAT IT WANTS TO WORK WITH EXISTING PROGRAMS TO INSTILL A PREVENTION ETHIC

RATHER THAN ECLIPSING OR DISPLACING EXISTING PROGRAMS, THE OFFICE OF POLLUTION PREVENTION IS BUILDING AN EFFECTIVE INFRASTRUCTURE FOR A FORMAL POLLUTION PREVENTION PROGRAM. THE DEPARTMENT IS LOOKING FORWARD TO WORKING WITH THE LEGISLATURE IN DEFINING THE DETAILS OF THAT FORMAL PROGRAM.

IN CLOSING, I WANT TO UNDERLINE THIS DEPARTMENT'S COMMITMENT TO DEVELOPING AN INNOVATIVE PROGRAM THAT STRIVES TO INSTILL A PREVENTION ETHIC INTO NEW JERSEY'S ENVIRONMENTAL PROTECTION EFFORTS AS WE MOVE INTO THE 1990'S. ON A PERSONAL NOTE, I HAVE BEEN WORKING IN ENVIRONMENTAL AGENCIES FOR 5 YEARS NOW, AND I FIRMLY BELIEVE THAT POLLUTION PREVENTION IS THE MOST IMPORTANT ENVIRONMENTAL CHALLENGE FACING NEW JERSEY IN THE NEXT DECADE. WE HAVE HAD A GOOD START SO FAR AND I AM EXTREMELY ENTHUSIASTIC ABOUT THE POTENTIAL FOR DEVELOPING A POLLUTION PREVENTION PROGRAM IN NEW JERSEY.



Research Funds for PP

HAZARDOUS SUBSTANCE
POLLUTION PREVENTION:
THE KEY TO A NEW ERA
OF ENVIRONMENTAL
PROTECTION



NEW JERSEY DEPARTMENT OF
ENVIRONMENTAL PROTECTION

August, 1989

**HAZARDOUS SUBSTANCE POLLUTION PREVENTION:
THE KEY TO A NEW ERA OF ENVIRONMENTAL PROTECTION**

This paper proposes an approach for a statewide industrial hazardous substance source reduction and recycling program. The proposed program would be achieved through a combination of legislative and administrative actions. The purpose of this paper is to outline the proposed program and to suggest approaches for integrating the program's legislative and administrative components.

Preamble

An ounce of prevention is worth a pound of cure. Until recently, most Americans did not consult a physician unless they felt sick. During the past several years, Americans have become conscious about preventing illness rather than waiting to treat it. As a result, many more of us are eating balanced diets and exercising regularly to prevent serious illnesses. Now New Jersey is taking the next step in its environmental protection efforts by applying this prevention lesson. It is an exciting challenge, one that will require commitment of all sectors of society, from the largest industry to the smallest household.

The first Earth Day, celebrated in 1970, made many Americans aware of the need to consider the environmental consequences of their actions. That swell of environmental awareness sparked two decades of environmental laws and public policies that have greatly improved the quality of life in the United States. We have established an intricate regulatory web that lessens environmental impacts by focusing on safely managing pollution after it is generated.

Yet, in addition to making many advances in the past 20 years, we have also learned many lessons. We have learned that there is a limit to our technological ability to control pollution. We have learned that controlling pollution after it is generated is a costly enterprise. We have learned that it is difficult to predict the future environmental consequences of our actions. In short, we have learned that if we are serious about protecting our environment, we must be willing to consider the nature of the actions that cause the pollution in the first place.

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As we move toward the twentieth anniversary of that first Earth Day, pollution prevention will become the hub of our environmental protection ethic. This represents a fundamental shift in philosophy from managing pollution after its generation, to preventing the generation of pollution to the greatest degree possible. This positive shift in ethic calls for bold public policy initiatives that go beyond traditional "command and control" of the by-products of industrial activity.

"Pollution prevention" is a broad goal that can only be achieved through a mix of public policies that are directed at the consumers, as well as the producers, of products that cause pollution. To make pollution prevention a reality in New Jersey, we need to demonstrate vision in a variety of public policy areas. We need to emphasize environmental education in our schools to produce a population of citizens who understand the environmental consequences of their own actions. We need to establish an economic climate that fosters pollution prevention alternatives. And we need to design creative regulatory strategies that prompt innovative pollution prevention responses from industry.

DEP has already undertaken a number of pollution prevention efforts. We now require vapor recovery at gasoline pumps and regulate certain paints and aerosol sprays to meet ozone air standards. New Jersey has one of the most aggressive solid waste recycling efforts in the country, and a comprehensive program to prevent catastrophic releases of toxic chemicals. The state's Right to Know law has served as a model for federal programs, and our wastewater pretreatment program has prompted industrial waste minimization. The pollution prevention ethic of the 1990's must build on and complement these existing efforts in New Jersey by comprehensively reducing the overall load of pollutants in our environment. This pollution prevention initiative does not involve a totally new direction for DEP; rather it clarifies the next logical step for DEP to take in its efforts to protect New Jersey's environment and public health.

If New Jersey is serious about shifting its environmental protection ethic to pollution prevention, we will inevitably face some hard decisions both at the level of statewide policymakers and at the level of individuals. The mix of policies that New Jersey must adopt to achieve pollution prevention will inevitably lead to addressing individual behavior. To achieve pollution prevention, it is as important for us to affect a homeowner's choice about lawn care as it is for us to affect the efficiency at which an industrial facility operates. It is as pressing for us to foster consumer use of environmentally preferred packaging as it is for us to develop incentives for industry to use less environmentally harmful substances. It is as timely for us to provide alternatives to reduce automobile use as it is for us to restrict use of chemicals that cause cancer.

To move toward a broad statewide pollution prevention ethic, we must now proceed with a major, but manageable, initiative. DEP proposes that this pollution prevention initiative focus on industrial hazardous substance source reduction and recycling. This is an area that public and private sector leaders have pointed to as one where environmental and economic gains can often go hand-in-hand. This initiative, a crucial complement to DEP's traditional pollution control programs, will serve as a major step towards comprehensively reducing the overall load of pollutants in New Jersey's environment. Focusing on the industrial sector and on hazardous substances is not meant to discount the importance or necessity of other pollution prevention components. We will continue our efforts to pursue recycling goals and to develop comprehensive environmental education programs. But, at the same time, this particular initiative focuses our efforts and acts as a catalyst to undertaking broader pollution prevention steps in the 1990's. Planning these next steps must be accomplished through dialogue between the state's industrial, academic and environmental leaders. To this end, DEP will initiate dialogue with these groups in order to plan together the direction of the broader pollution prevention effort, and prompt a shift to a prevention environmental ethic in New Jersey.

This paper presents key elements that DEP recommends be the foundation of New Jersey's hazardous substance source reduction and recycling initiative. Thus, this paper only discusses the components of an industrial hazardous substance source reduction and recycling initiative. To be consistent with federal policy, source reduction and recycling will be termed "pollution prevention."

DEP's Hazardous Substance Pollution Prevention Initiative

DEP proposes that the focus of any legislative hazardous substance pollution prevention program in New Jersey be on source reduction and recycling. DEP further proposes achieving an effective program through the integration of two elements: facility identification of pollution prevention opportunities and facility-wide permitting. DEP proposes a multi-media initiative that builds pollution prevention components into existing DEP program units as well as assigning planning and coordination activities to a centralized focal point in DEP.

DEP believes that, in many cases, existing environmental statutes may already provide the agency with the authority to undertake several of the pollution prevention activities outlined in this paper. However, it is DEP's opinion that, since hazardous substance source reduction and recycling is an issue that is under legislative debate, it would be preferable and in the best interest of the citizens of New Jersey for DEP to have explicit authority to undertake the pollution prevention activities discussed in this

paper. Therefore, DEP will continue to exercise its existing pollution prevention authority by proceeding with pollution prevention activities currently underway in the agency while also seeking explicit statutory authority to direct the pollution prevention program.

To achieve the latter, DEP is establishing two internal entities to prompt the agency's concerted effort on hazardous substance source reduction. A DEP administrative order to establish a high-level Office of Pollution Prevention and an executive-level Pollution Prevention Planning and Advisory Committee has been issued together with this paper. The Office will be responsible for coordinating hazardous substance source reduction and recycling activities of DEP. The Pollution Prevention Committee will be responsible for planning the development of the state's hazardous substance source reduction and recycling initiative and providing the Office with guidance on coordinating pollution prevention activities within DEP.

The Office of Pollution Prevention will have three specific, initial mandates: to help determine the impact existing and planned regulatory efforts have on source reduction and recycling; to assist in the establishment of a mechanism for integrating pollution prevention into existing enforcement efforts of DEP; and to develop and propose a plan for approval by the Commissioner which outlines the framework for a facility-wide permitting process. DEP believes it is essential that this office remain relatively small so that it can work cooperatively with, and not usurp the authority of, program units, while still providing direction for New Jersey's pollution prevention initiative.

It is imperative to note that the establishment of a state Waste Reduction Technical Assistance Program (TAP) at the New Jersey Institute of Technology (NJIT) is important to implementing an effective pollution prevention program. State-supported pollution prevention technical assistance to industry is critically needed in New Jersey. Legislation (S-2502/A-3415) is currently pending in the state Legislature that would institute the TAP. There is general consensus that government, industry, the public, and academic communities must continue to demonstrate commitment to the need for the TAP.

I. Introduction

Federal and state efforts undertaken over the past two decades to control the environmental release of hazardous and non-hazardous pollutants have significantly improved the quality of life in New Jersey. Aggressive environmental protection measures initiated in New Jersey often serve as models for similar endeavors by other states and by the federal government. It is essential to recognize that the next era of environmental protection must

include a focus on preventing the use and generation of hazardous substances in conjunction with existing programs. Even with the most stringent pollution prevention program, New Jersey's industries and citizens will still use and generate hazardous substances. Accordingly, pollution control compliance standards cannot be relaxed; strong pollution control programs to ensure safe release and disposal of hazardous substances must go hand-in-hand with pollution prevention. But the new prevention ethic can only succeed if it is given a multi-media basis and if it is encouraged as a first choice over pollution control.

NJDEP has already initiated several aggressive efforts aimed at minimizing landfilled wastes and other liquid wastes regulated under the Resource Conservation and Recovery Act. In particular, the Hazardous Waste Advisement Program (HWAP) in the DEP Division of Hazardous Waste Management has provided regulatory waste minimization consultation to industry through responsive guidance, development of informational materials, and sponsorship of waste minimization seminars. The HWAP aggressively sought funding from USEPA to administer three waste minimization programs through the Division of Hazardous Waste Management and the Advanced Technology Center at the New Jersey Institute of Technology. These programs are designed to assess business activities which generate waste, recommend actions for reducing waste, provide technical assistance, and evaluate technology reported to be effective in reducing waste. These programs serve to document and verify existing waste minimization by industry and to encourage waste minimization technology transfer among industry. The first of these three programs is directed at determining how hazardous waste is generated as a result of a site-specific manufacturing process. The second consists of an initiative that promotes business-to-business endeavors, training, and outreach and start-up of the Technical Assistance Program (TAP) at NJIT. The third program assesses the effectiveness of novel waste minimization equipment or process modifications.

In addition to these programs, the DEP Division of Science and Research has undertaken several investigations pertaining to multi-media hazardous substance source reduction. These studies included assessing the potential of information resources within DEP to track source reduction progress, a review of existing regulations for their impact on source reduction, development of a protocol for industry-based incentives, and development of methods to set statewide source reduction priorities.

II. Defining the Scope

DEP recognizes that comprehensive management of hazardous substance use and waste involves the utilization of a range of programmatic tools and strategies. EPA and most states, including New Jersey, recognize a hierarchy that holds source reduction to

be the preferred and first choice strategy, followed by recycling and recovery; on-site treatment, destruction and/or reduction; and secure and safe storage/disposal. The issue that currently faces New Jersey is determining what components of that hierarchy should be the focus of a pollution prevention program. DEP proposes that the scope of New Jersey's initiative focus on multi-media pollution prevention, including both source reduction and recycling, and that the State seek to achieve three objectives:

- To clarify and state through legislation the policy of the State of New Jersey that recognizes the primacy of hazardous substance source reduction.

- To provide specific funding for the pollution prevention initiative. The Congressional Office of Technology Assessment (OTA) reported that "the level of funding for waste reduction also indicates that it has little status as a solution to environmental problems." By establishing a deliberate funding source, New Jersey will be putting its commitment to source reduction into action.

- To provide express authority for pollution prevention alternatives where it may not already exist or where it is not explicit. For DEP to fulfill a multi-media pollution prevention program, it would be preferable to have explicit authority to conduct multi-media hazardous substance source reduction and recycling activities.

Defining the scope of New Jersey's pollution prevention program to be source reduction and recycling is consistent with the national pollution prevention policy as adopted by EPA. In general terms, "source reduction" focuses on avoiding creation of hazardous substances at the front end of industrial processes primarily through use of facility material substitutions, operational changes, product reformulation, and process modifications. "Pollution prevention" has, in some cases, been used interchangeably with "source reduction" although, as mentioned earlier, in the case of the EPA policy, "pollution prevention" includes source reduction and environmentally sound recycling. "Waste minimization," generally refers to reducing wastes regulated under RCRA. Waste minimization can be accomplished not only by source reduction and recycling but also by reuse and treatment. Waste minimization initiatives may result in toxicity reduction, volume reduction, off-site recycling and off-site waste exchanges.

DEP's endorsement of source reduction and recycling as the focus of a new state pollution prevention initiative is not meant to suggest that waste minimization or post-generation treatment strategies are less critical in the overall management of hazardous substances. DEP recognizes the critical importance of both strategies to prevent use and generation of hazardous substances as well as strategies to reduce environmental release of hazardous substances via treatment. However, DEP also acknowledges the

findings of the Office of Technology Assessment (OTA) that "waste reduction tends to lose out to waste management in the press of immediate concerns ... most State programs stress good waste management practices rather than waste reduction." Therefore, DEP is using this pollution prevention initiative as an opportunity to establish the primacy of pollution prevention in New Jersey.

DEP believes it would be preferable to have explicit statutory authority for the agency to direct industry to explore the use of multi-media innovative treatment technologies. DEP will use this authority to complement the pollution prevention initiative, not to replace it. The exercise of this authority will be within existing pollution control programs. For example, facilities will report on source reduction and recycling activities in the proposed pollution prevention plans described in Section III below. If a facility still generates or uses hazardous substances, then DEP programs will have the ability to apply the innovative treatment authority to direct the facility to explore the use of certain forms of treatment.

III. Components of a Pollution Prevention Program for New Jersey

DEP proposes that the purpose of a hazardous substance pollution prevention legislative initiative should be to strive to establish an atmosphere in the State of New Jersey that prompts industry to evaluate and take advantage of its own opportunities for pollution prevention. This goal can be achieved by maximizing regulatory and economic incentives that foster pollution prevention and, in some cases, by providing technical assistance to industry to identify pollution prevention opportunities. It is DEP's conviction that the approach needed requires the integration of two concepts: (a) facility self-identification of pollution prevention opportunities and (b) facility-wide permitting.

(a) Industrial Identification of Pollution Prevention Opportunities: DEP proposes the establishment of a statewide effort that requires facilities to explore their opportunities for source reduction and recycling. By adopting this approach, industry will have the opportunity to assess the greatest pollution prevention potential at their facility and to also internalize the financial gains provided by pollution prevention. In addition, this approach will provide industry with an excellent opportunity to consider their own long-term strategies for reducing the generation of hazardous substances and for realizing more efficient operating practices. DEP will explore optimizing these pollution prevention activities by integrating them into the facility-wide permitting approach.

(b) Facility-Wide Permitting: DEP recognizes that environmental protection is gradually evolving towards the need for

a total facility regulatory framework. Currently, DEP's regulatory programs are often limited to end-of-the-pipe pollution control and are divided along environmental media lines. A facility-wide framework, rather than individual media-specific programs, will provide industry and the DEP with a more effective and efficient approach to overseeing facility operations and, thereby, enhance our ability to protect the environment. The facility-wide approach will include both consideration of source reduction and also end-of-the-pipe strategies to insure that a facility generates the least possible amount of hazardous substances and that the hazardous substances used and generated at the facility are most efficiently and effectively managed. In addition, a facility-wide approach will contribute to identifying source reduction and recycling opportunities at a facility by arresting the use of media-specific, end-of-pipe treatment strategies when that approach results in the transfer of a pollutant from one medium to another.

Even if New Jersey were not planning a pollution prevention initiative, DEP would pursue a gradual changeover to facility-wide permitting for a variety of reasons, including promoting efficiency in implementing existing end-of-pipe pollution control mandates. Incorporating the facility-wide permitting approach into a pollution prevention initiative complements other on-going DEP efforts to find a solution to the time-consuming and often complicated tangle of regulatory and administrative requirements that industry must weed through in order to gain regulatory compliance. Therefore, the facility-wide permitting concept offers a creative institutional incentive to industrial involvement in the pollution prevention initiative.

In addition to providing industry with an institutional incentive to embrace the state's pollution prevention initiative, the facility-wide permitting approach also provides a more direct link to pollution prevention. DEP sees the facility-wide approach as also prompting a facility to consider source reduction and recycling efforts by limiting a facility's potential to transfer pollution from one environmental medium to another. Therefore, DEP proposes that although facility-wide permitting and facility pollution prevention reporting could be developed separately, the marriage of the two greatly enhances the success of each.

The Proposed Approach

DEP proposes that legislation include a priority-setting scheme as outlined in Figure 1. All employers in SIC codes subject to the community portions of the New Jersey Worker and Community Right to Know Act would be covered facilities. DEP would identify a subset of industry groups which would be required to develop pollution prevention plans (PPP). DEP would select these industry groups based, in part, on: quantity or the degree of hazard associated with substances used or generated; potential for

catastrophic events; potential for adverse public health or ecological impacts; relative efficiency of chemical use; potential for pollution prevention opportunities; and non-compliance with environmental regulations. Subsequently, a subset of 15 facilities would be identified by DEP to be involved in a pilot facility-wide permitting effort.

A pollution prevention plan (PPP) would be a facility-wide, process-based report that documents the management, financial, and technological strategies that the owner intends to undertake to reduce the use and generation of hazardous substances. The information included in the pollution prevention plan is intended to identify source reduction and recycling opportunities at the facility as well as to document strategies the facility will undertake to capitalize on those opportunities. The PPP will address pollution prevention opportunities by objectively and quantitatively reviewing the use and release of hazardous substances at each production process and operation of the facility. DEP suggests that, at a minimum, the PPP must include information outlined in Figure 2.

Changing the current regulatory framework to a facility-wide approach will not happen overnight. Therefore, DEP proposes to use a manageable number of facilities in an initial facility-wide permit pilot effort. A subset of 15 facilities that prepared PPP's would be the focus of this pilot effort. Part of DEP's criteria for selecting the 15 facilities would be interest on the part of the facilities' owners and the potential for integrating the facilities' permits. Accordingly, the 15 facilities would be directed to submit an integrated permit application. Included as part of the permit application would be the facilities' PPP. Depending on resources, the TAP at NJIT may offer to assist the 15 facilities in preparing their PPP's, which would provide them with an additional pollution prevention incentive. DEP project teams, coordinated by the Office of Pollution Prevention, would review the integrated permit applications, including the PPP's, for the 15 facilities and render a decision on the integrated permit based, in part, on the PPP. Subsequently, pollution prevention components would be built into the integrated permit provisions. This facility-wide permit pilot effort will provide DEP with a basis for institutionalizing the facility-wide approach within DEP and for integrating pollution prevention as a part of that approach.

Note that, as discussed earlier, it would be preferable for DEP to have explicit authority to direct a facility to explore use of innovative forms of treatment. This authority will be housed in all existing regulatory program units and may be exercised by the program units for any facility within their jurisdiction. For the purposes of the 15-facility pilot effort, that authority will be exercised as part of the facility-wide permit review.

In addition to the components of the initiative just discussed, DEP will conduct "pollution prevention profiles" for five industry groups per year. Pollution prevention profile reports will be based on review of representative pollution prevention plans and community Right to Know information. Profile reports will outline: the status of source reduction and recycling activities within the industry group; future potential for pollution prevention within the group; financial, technological, regulatory and institutional needs particular to each industry group to undertake additional pollution prevention activities; and recommendations for industry-specific government activities to promote additional pollution prevention. These pollution prevention profiles will serve to direct the planning of the state's pollution prevention program with respect to those industry groups. DEP would work with industry associations to develop pollution prevention profiles.

DEP believes that, although its goal in this pollution prevention initiative is to prompt industry to recognize and adopt its own pollution prevention opportunities, as the state's regulatory environmental authority, DEP must be provided information needed to track pollution prevention progress at a facility level. To this end, DEP intends to utilize its existing mandate under the NJ Worker and Community Right to Know Act to collect necessary facility level information to track pollution prevention progress.

DEP also believes that it is incumbent on the State of New Jersey to be a model for the state's businesses and industries by taking the lead on identifying its own pollution prevention opportunities. For that reason, government operations and offices would also be affected by this initiative as a result of their inclusion on the list of covered SIC codes. DEP encourages other state programs to recognize this initiative as an opportunity not only to identify pollution prevention strategies within state facilities, but also to identify pollution prevention alternatives to relevant state operations, such as procurement practices and contract specifications.

IV. Implementing the Pollution Prevention Initiative

DEP proposes that the following four elements be included in a legislative initiative to establish the hazardous substance pollution prevention initiative as outlined in this paper.

1. Define the scope as hazardous substance source reduction and environmentally sound recycling, termed "pollution prevention." Define covered substances to be any chemical covered by state or federal Right to Know, CERCLA, RCRA and the New Jersey Spill Act and include facilities within SIC codes covered by the community portion of the New Jersey Right to Know Act. A list of proposed definitions is included in Attachment A.

2. Establish a pollution prevention advisory group (PPAG) comprised of academic representatives and environmental and industry leaders to advise DEP on the program's implementation and to establish a mechanism for periodically evaluating the progress of the pollution prevention initiative. One of the tasks of the Advisory Group will be to recommend the best timetable for future expansion of the pollution prevention program beyond the industrial sector in an effort to achieve the state's broader pollution prevention goals. In addition, the Advisory Group will assist in the development of a schedule for the preparation of industry group pollution prevention profiles. Last, DEP proposes to work cooperatively with the Advisory Group to develop a formal public participation plan for the pollution prevention program.

3. DEP believes that existing environmental statutes may already provide the agency with authority to undertake many of the pollution prevention activities discussed in this paper. However, DEP considers it important to provide the agency with explicit hazardous substance source reduction and recycling authority in conjunction with the development of a new legislative program in this area. Legislation should explicitly enable the DEP to develop new regulations or to clarify its existing authority to:

- direct facilities to explore the use of certain forms of treatment.
- integrate all environmental permits for a facility.
- utilize community Right to Know reporting as a tool to track facility level source reduction and recycling progress.
- include coverage in pollution prevention legislation of all businesses in SIC codes covered by NJ community Right to Know.
- require reporting of pollution prevention plans (PPP) according to the priority-setting scheme outlined in Figure 1.
- include pollution prevention provisions as a part of facility-wide permit applications, renewals, and reporting.
- phase down permit limits based on review of pollution prevention plans.
- model trade secret regulations on those adopted by the NJ community Right to Know regulations.

4. Ensure that the pollution prevention activities of DEP and the state's academic Technical Assistance Program are parallel and reinforce each other. A formal mechanism to foster interaction between DEP and the TAP is included in the DEP grant that starts up the TAP.

Issues for Statewide Discussion:

With the introduction of legislation to establish a pollution

prevention program, New Jersey joins a small set of states that are currently considering formal multi-media hazardous substance source reduction and recycling programs. Since no legislated state programs as yet have been established, there is no precedent or model for New Jersey to refer to as we plan the components of this new initiative. Because the nature of source reduction is inherently different from end-of-pipe media-specific pollution control, we cannot totally rely on even our own past experiences to guide the design of a pollution prevention program's components. Therefore, DEP proposes that the following 5 issues need to be resolved through a collective dialogue involving DEP, environmental and industry leaders, and state legislators:

a) Periodicity of pollution prevention plans - Since the ultimate goal of this initiative is to integrate PPP's into facility-wide permits, DEP suggests that it may be appropriate to require updates and regular reporting of pollution prevention progress in conjunction with the integrated permit reporting schedule.

b) Submittal of pollution prevention plans - DEP strongly supports submittal of a facility's pollution prevention plan when that facility is undergoing total facility permitting. However, the state needs to consider whether, following the initial effort discussed in this paper, all facilities' pollution prevention plans should be submitted to DEP. Determining whether those facilities not involved in the initial total facility permitting pilot approach should submit PPP's is a complex question. The level of effort involved in having DEP staff review and/or approve PPP's is uncertain. There is a need to balance enforcement with productively managing the PPP information within DEP. At present, DEP cannot administratively absorb the potentially significant workload of PPP submittal and review. DEP suggests that if PPP's are not required to be submitted to DEP, then community Right to Know surveys also include facility certification that they have prepared a PPP. If PPP's are required to be submitted to DEP, then adequate resources to review those plans must be provided.

c) Program Expansion - The initiative outlined in this paper suggests the introductory phases of a statewide hazardous substance source reduction and recycling program. DEP anticipates that in subsequent years, facilities within additional SIC codes would be identified to prepare pollution prevention plans. However, what will be more difficult to determine is the most appropriate timing of the program's expansion. DEP recommends that the initial effort be limited according to a priority-setting approach as outlined in Figure 1 and that this initial effort include a timetable and mechanism for reviewing progress. As discussed in section IV-2, above, DEP believes it is critical to plan the program's expansion in conjunction with the Pollution Prevention Advisory Group. DEP suggests that, after two years of implementing the initial effort, the agency should report on the progress of the program. This

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progress report will provide an opportunity for making mid-course corrections and for determining the means by which the effort will be expanded.

d) Funding - A fundamental question that requires resolution is whether the source of funding for this pollution prevention initiative should be limited to equipping DEP with a stable pollution prevention funding mechanism or whether it should also provide an inherent incentive to hazardous substance source reduction and recycling. A flat facility fee would not necessarily provide a financial motivation because it would not be increased or decreased based on the facility's level of hazardous substance generation. Establishing a funding source that also provides an economic incentive would be more complicated because it would need to be based on a facility's proportional multi-media generation of hazardous substances. The state may want to also study whether an increase in the state Spill Tax would provide a pollution prevention incentive to covered facilities. Other alternatives may also be worthy of consideration.

e) Economic Incentives - If New Jersey intends to establish pollution prevention as the fixed basis of the state's environmental protection ethic, then it is essential to foster an economy that favors pollution prevention alternatives for both businesses and individuals. Promoting such an economy is a complex undertaking and requires substantial planning. Employing strategies, such as reflecting the social cost of environmental protection in products and services, may necessitate a remodeling of certain segments of the state's economy. Yet, without the marketplace reflecting the preference of pollution prevention alternatives, any legislated pollution prevention initiative is likely to dwindle over time. DEP suggests that development of economic incentives be considered as part of the state's dialogue to gradually build a comprehensive pollution prevention ethic.

V. Summary

DEP recognizes the initiation of a pollution prevention program within the state's industries as a significant step towards comprehensively evaluating approaches that will reduce the overall load of pollutants in our environment. Facility-wide permitting is a critical component of this initial step. Establishing an advisory group of the state's industry, academic, and environmental leaders through this initiative will serve as a mechanism for planning expansion of DEP's pollution prevention efforts into other areas.

In the long term, pollution prevention efforts must expand beyond the industrial sector and involve pollution prevention measures affecting consumerism and individual behavior. New Jersey

has demonstrated national leadership in environmental protection. Aggressively undertaking a multi-media hazardous substance pollution prevention effort is our opportunity to lead the nation in planning and implementing such a comprehensive program. The state's pollution prevention initiative must demonstrate vision and innovation. This particular initiative, which focuses on industrial hazardous substance source reduction and recycling, will both complement existing pollution control programs as well as set the pace for the next era of environmental protection in which further pollution prevention will be achieved through consumerism and changes in individual daily behavior. Through the cooperation of the state's industry, government, environmental, public interest and academic communities, we can phase in a vital shift to a prevention environmental ethic. It is a challenge that we must take on together as we enter the 1990's.

FIGURE 1 - INITIAL PRIORITY SETTING SCHEME

| <u>Covered Businesses</u> -----> | <u>Priority Industry Groups That Are Required to Prepare A PPP*</u> -----> | <u>Facilities To Be In The Facility-Wide Permit Pilot Effort</u> |
|--|--|---|
| 4-digit SIC codes covered by NJCRTK (@ 35,000 facilities) | 10 4-digit SIC Codes number of facilities is dependent on size of the SIC codes | 15 facilities PPP's submitted to DEP with facility-wide permit application/renewal |

* PPP = Pollution Prevention Plan

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FIGURE 2 - SUMMARY OF POLLUTION PREVENTION INFORMATION REPORTING
NEEDS

NJ Right To Know

- Facility Level
- Amount of chemical brought on-site consumed on-site shipped off-site in product shipped off-site for disposal produced on-site, held in inventory
- latitude/longitude.
- Quantity of chemical stream reported by media prior to and after source reduction, prior to and after recycling, prior to and after treatment, and prior to disposal.
- Amount of chemical sent to POTW, released as fugitives, released via stack, discharged to surface water and groundwater.
- Certification that the facility has a PPP.
- Pollution prevention practices for past 2 years for each chemical.
- Amount of chemical expected to be reported for each year for the next 5 years.
- Quantity and units of production associated with use/generation of each chemical in previous year and in reporting year.
- Techniques used to identify prevention opportunities

Proposed PPP

- Process Level
- History and status of pollution prevention effort
- 5 year pollution prevention goal per process
- Evaluation of all potential pollution options per process and option feasibility, economic, and benefits analysis per process.
- Pollution prevention option elected to be employed by facility to achieve 5-year goal.
- Economic evaluation of elected option, schedule for its installment per process, and analysis of expected benefits, including environmental benefits.
- Quantity of chemical prior to and after reduction, prior to and after recycling, prior to and after treatment, prior to disposal.
- Production index

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Attachment A - Proposed Definitions

pollution prevention: source reduction and recycling

source reduction: any method or technique applied at or before the point of generation, the application of which reduces or eliminates the use or generation of hazardous substances so as to reduce the risk to public health and the environment. Source reduction may be achieved through process modifications, in-process recycling, improvements in housekeeping and maintenance operations, input substitutions of chemicals, and development of new products resulting in reduced use or generation of hazardous substances.

recycling: means the processes constituting "use or reuse" and "reclamation." "Use or reuse" means the procedure whereby a residual is employed as an ingredient in an industrial process to make a product or employed as an effective substitute for a commercial product. "Reclamation" means a procedure whereby a material is treated to recover a useable product, or where a material is regenerated.

hazardous substance: any substance or chemical covered by state or federal Right to Know, CERCLA, RCRA and the New Jersey Spill Act.

covered businesses: 4-digit SIC codes pursuant to the community portion of the New Jersey Right to Know Act.

pollution prevention profiles: means a report on the status of pollution prevention activities within an industry group. Profile reports will serve to direct the planning of the state's pollution prevention program with respect to those industry groups. The information in pollution prevention profiles will include, but not be limited to: pollution prevention opportunities within the industry group; future potential for pollution prevention within the group; financial, technological, regulatory, and institutional needs particular to each industry group to undertake additional pollution prevention; and recommendations for industry-specific government activities to promote additional pollution prevention.

treatment: any method, technique, or process, including neutralization or other pH adjustment, designed to change the physical, chemical or biological character or composition of a material so as to (1) recycle energy or material resources from the material; (2) render such material non-hazardous, or less hazardous; (3) render the material safer to dispose of; or (4) render the material more amenable for recycling or storage.

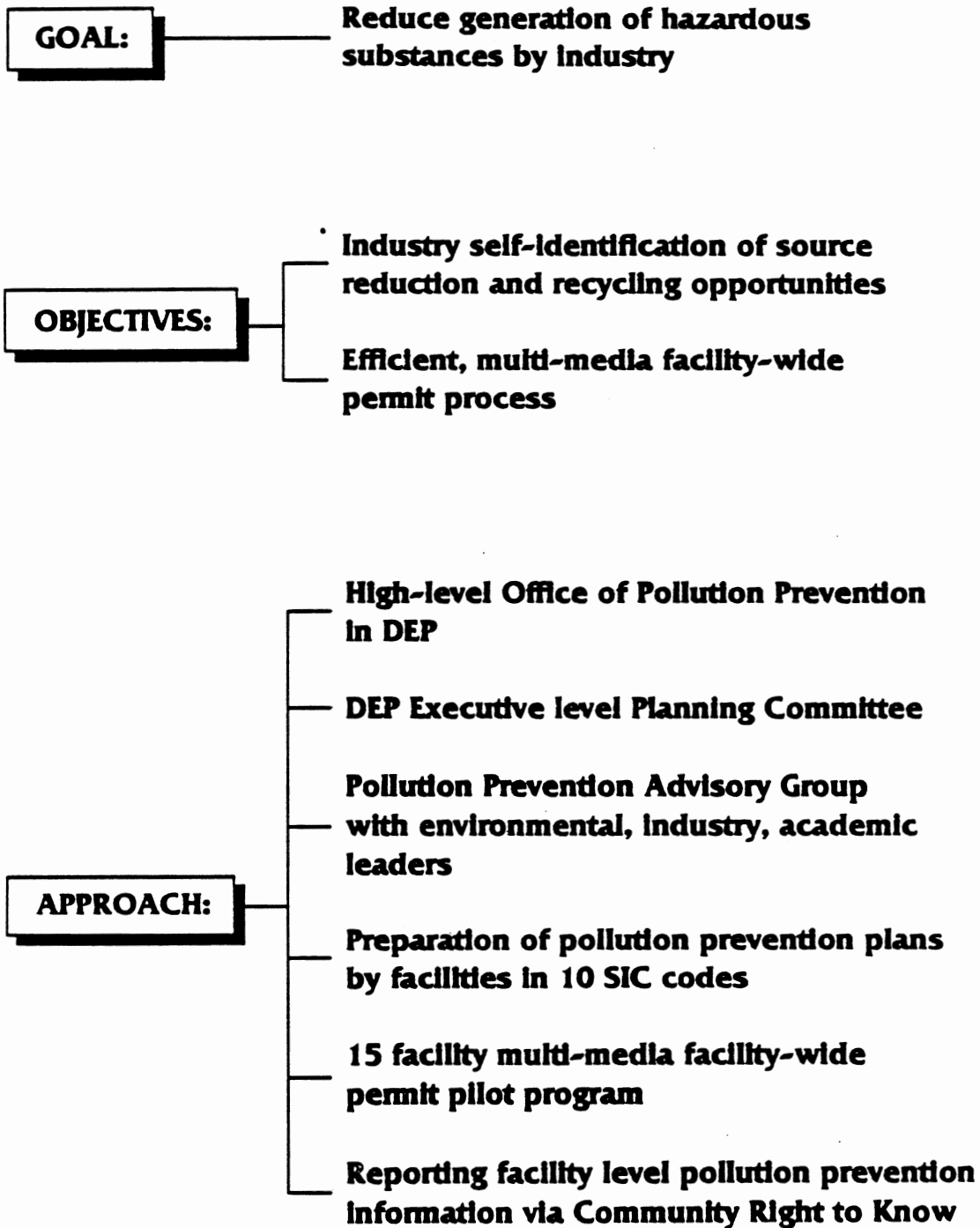
pollution prevention plan: A pollution prevention plan (PPP) is a periodic, facility-wide, process-based report that documents the management, financial, and technological strategies that the owner intends to undertake to reduce use and generation of hazardous

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substances. The information included in the pollution prevention plan is intended to identify source reduction and recycling opportunities at the facility as well as to document strategies the facility will undertake to capitalize on those opportunities. The PPP will address pollution prevention opportunities by objectively and quantitatively reviewing the use and release of hazardous substances at each production process and operation of the facility. The PPP will include, but not be limited to, the information listed in Figure 2.

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DEP POLLUTION PREVENTION INITIATIVE



35-X

Pollution Prevention Plan

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Facility-Wide Permit

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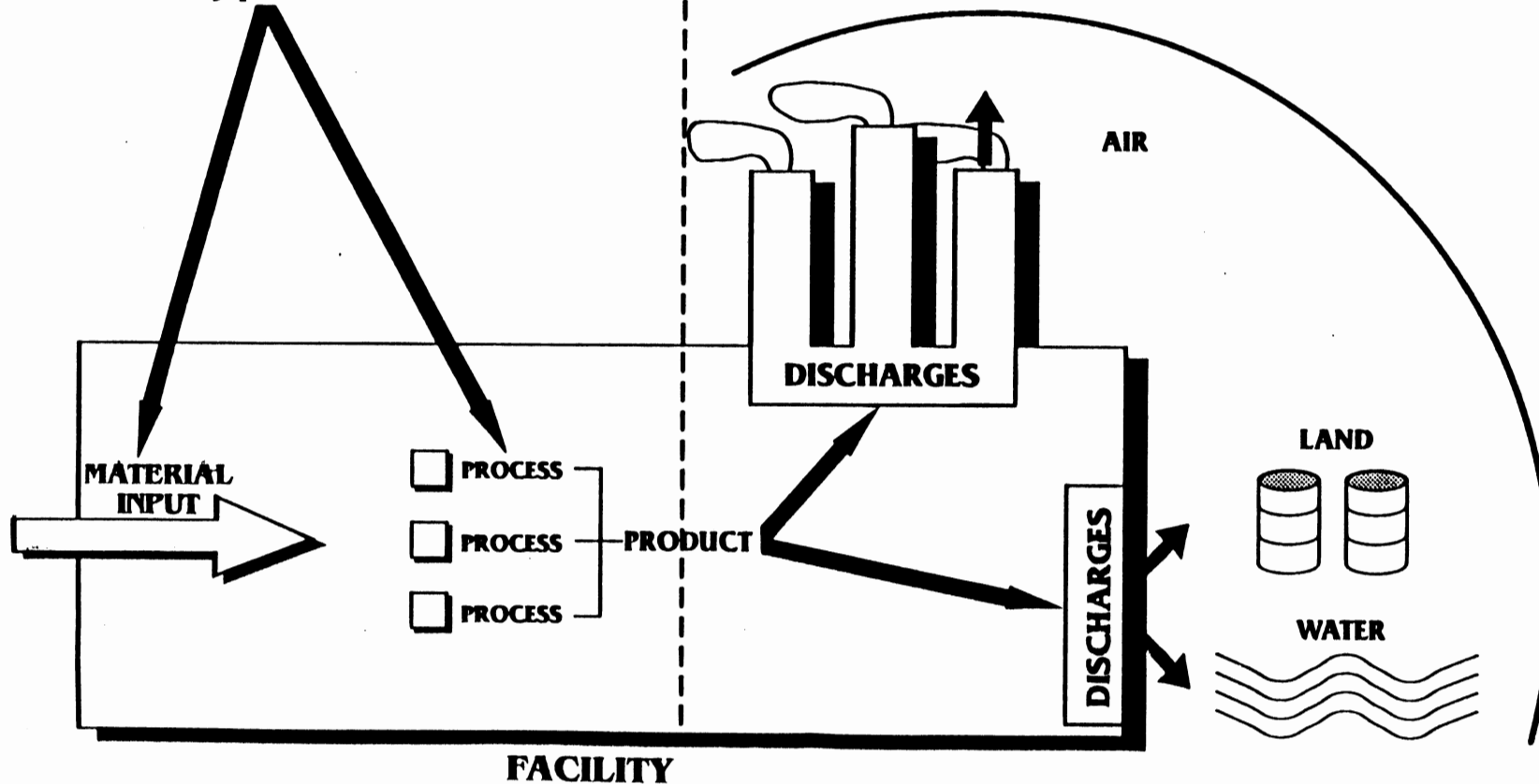
DEP Pollution Prevention Initiative

Facility self-identification of opportunities to:

- ☐ substitute input materials
- ☐ improve operating practices
- ☐ reformulate product
- ☐ recycle on-site
- ☐ modify processes

Pilot effort to develop integrated facility-wide permit to:

- ☐ increase regulatory efficiency
- ☐ provide multi-media review
- ☐ ensure effective enforcement





Environmental News

New Jersey Department of Environmental Protection

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Hudson County

Chromium Clean-up Program

A comprehensive program to minimize health risks of exposure to chromium contaminated sites in Hudson County was jointly announced by the state departments of Environmental Protection and Health on July 25. Clean-up efforts are underway with action on many sites in Jersey City, Kearny and Secaucus.

BY AUGUST 22 initial cleanup efforts of chromium contaminated sites in Jersey City were underway. DEP Commissioner Daggett and Jersey City Mayor Gerald McCann in a joint announcement said that seven lots near the Whitney Young Elementary School, located at 135 Stegman Street, would be the first to be remediated. The work to stabilize the seven sites will include fencing, berming, paving, covering, removing and/or otherwise securing chromium contaminated materials. The sites:

Continued on page 2

Free call, free info

Radon Information Line

1-800-648-0394

The "cold months" — the home heating season when there is less ventilation indoors — is the ideal time to test a house for radon gas. A free radon informational packet is available to New Jersey residents. Just call the toll-free number of the Radon Information Line — **1-800-648-0394** — to request it. Over 125,000 residents have called for information since the line opened in 1985.

Pollution Prevention Initiative for 1990's

Governor Thomas H. Kean on August 16 unveiled a new pollution prevention program designed to stop pollution before it enters the waste stream and to encourage industrial recycling. He said that DEP will create a "high-level office of pollution prevention," and reiterated his long-standing support of source reduction strategies for New Jersey's industrial and manufacturing communities.

The Governor said that this "call to action" continues and pushes forward a new era in environmental protection required to tackle the tough environmental problems facing New Jersey's future. Moreover, he mentioned that his last several State of the State Addresses stressed waste minimization as a central part of his environmental priorities. In his 1988 State of the State Address, Governor Kean said, "...The best way to make sure we do not have a hazardous waste problem is to stop it at its source. Waste that is not produced does not need treatment or disposal and cannot pollute."

In announcing that DEP has formally instituted an "Office of Pollution Preven-



Governor Kean listens as DEP Commissioner Daggett outlines the Pollution Prevention Initiative at the August 16 press conference held at the State House in Trenton.

tion" (OPP) to implement source reduction and recycling of hazardous substances, Governor Kean said that Commissioner Christopher J. Daggett will move forward to develop a detailed program designed to identify pollution prevention opportunities for New Jersey industry.

Calling the proposed Office of Pollution Prevention "a natural evolution of DEP's role in protection New Jersey's environment," Commissioner Daggett said that the department's senior staff, working together to plan for the state's environmental future, identified the need to complement "end-of-the-pipe" regulatory pollution controls with the concept of source reduction and environmentally sound recycling as a first step in initiating a broader pollution prevention ethic.

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Let's Protect Our Earth

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Staff Promotions

DEP Commissioner Daggett on July 28 announced the promotions of five DEP managers — John V. Czapor, Karen D. Alexander, John J. Trela, Lance Miller and Eric J. Evenson — to succeed others who were leaving state government to work in the private sector or to retire. He said, "Although several top-flight managers are leaving to pursue opportunities outside government, DEP, by promoting from within, will continue to perform its responsibilities to the public without interruption." All of the promotions were in effect by early September.

John V. Czapor

is now Acting Assistant Commissioner for Environmental Management and Control. He replaces Donald A. Deieso who resigned in August to become president of Cottrell Environmental Services and Technology, Somerset. Czapor joined DEP in 1988 as Director of the Division of Solid Waste Management and retains the responsibilities of this directorship in addition to those of his new position. For 12 years before coming to DEP he was with the U.S. Environmental Protection Agency (EPA). Immediately prior to entering state service he was Chief of the Site Compliance Branch of Region II, EPA and was responsible for the Superfund Enforcement Program in New Jersey, New York, Puerto Rico and the Virgin Islands. Czapor holds bachelor's and master's degrees in environmental science from Rutgers University.



Karen D. Alexander

is now Assistant Commissioner for External Affairs. She succeeds Arthur Kondrup who retired in July after 27 years of government service. Alexander, who became Deputy Assistant Commissioner of External Affairs in 1988, joined DEP in 1987 as Director of the Office of Legislation. Earlier, she was for five years Manager of Environmental Policy for the U.S. Chamber of



Commerce in Washington, DC. She holds a bachelor's degree in sociology from Brown University.

John J. Trela is now Assistant Commissioner for Hazardous Waste Management. He replaces George G. McCann who resigned in August to become corporate vice president with Metcalf and Eddy Technologies, Somerville. Dr. Trela had served as Director of the Division of Hazardous Waste Management (DHWM) from 1986 until his new appointment. He joined DEP in 1978 and worked in the Division of Water Resources before assuming duties with DHWM. Dr. Trela holds a bachelor's degree in biology, a master's degree in ecology and a doctoral degree in pedology (soil science), all from Rutgers University.



Lance Miller is now Acting Director of the Division of Hazardous Waste Management. He succeeds Dr. Trela. Miller, who joined DEP in 1976, served in several capacities with the Division of Water Resources before moving to the hazardous waste division upon its creation in 1986. He became deputy director of the division in 1988. Miller holds a bachelor's degree in environmental science from Cook College, Rutgers University, and attended the Drexel University environmental planning and management program.



Eric J. Evenson is now Acting Director of the Division of Water Resources (DWR). He replaces Jorge Berkowitz who resigned in September to become executive vice president of Environmental Sciences and Industrial Hygiene for Sadat Associates, Princeton. Evenson, who joined DEP in 1979, has held



various field and management positions with DWR. He served as deputy director of the division from 1987 until this appointment. His earlier experience included a stint as a biologist with the U.S. Fish and Wildlife Service. Evenson holds a bachelor's degree in aquatic biology and a master's degree in ecology, both from the University of Nebraska.

Evenson portrait by Earl Baker.

All others by Jorgi Rosky.

Chromium Clean-up

Continued from page 1

124-A Woodlawn Ave., 143-147 Martin Luther King Dr., 194 Dwight St., 190 Dwight St., 188 Dwight St., 121 Dwight St. and 136 Stegman St. Commissioner Daggett noted that PPG Industries, Inc. (successor to Pittsburgh Plate Glass) has accepted the responsibility for the seven sites and has agreed to perform the work and to pay for the "sealing" of the lots around the Whitney Young School.

ON SEPTEMBER 22 DEP Commissioner Daggett announced the

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DEP Action Hotline

To Report Abuses of the Environment
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Environmental News

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Thomas H. Kean, Governor
Christopher J. Daggett, Commissioner
Edith H. Joseph, Editor
James M. Staples, Policy Editor
Rudy Rackowski, Layout Artist
Office of Communications
and Public Education
Beverly H. Fedorko, Director
CN 402
Trenton, New Jersey 08625-0402
Telephone: 609-984-6773
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Update: Freshwater Wetlands

On September 7 Superior Court Appellate Division Judges Julia Ashby, Michael King and Stephen Skillman handed down decisions in two companion appeals challenging DEP's rules implementing the Freshwater Wetlands Protection Act (Act). The department's rules, including 11 of the 13 challenged provisions, were affirmed, but two—one from each appeal—were invalidated.

□ The court in a two-to-one decision agreed with the New Jersey Conservation Foundation and the New Jersey Audubon Society challenge to the provision providing an exemption

from the transition area requirements of the Act for projects not under the jurisdiction of the Army Corps of Engineers and receiving municipal approval between July 1, 1988 and July 1, 1989, and declared it invalid. *The court ruled that according to the Act this exemption could be approved only if municipal approval were obtained prior to July 1, 1988.*

□ The court rejected nine of 10 challenges to the Freshwater Wetlands Protection Act rules brought by the New Jersey Builders Association as being "clearly without merit." However, the court did invalidate one provision. This

provision had required the initiation of an exempted project before July 1, 1992, i.e., five years from enactment. Otherwise, the project would be subject to full regulation under the Act. *The court's decision results in "grandfather" exemptions for projects receiving certain approvals prior to July 1, 1988 remaining valid as long as the municipal approval remains valid.*

Note: On Page 7, column one, of the September/October issue of *Environmental News*, please note the change as a result of the latter ruling. The paragraph beginning "CERTAIN ACTIVITIES" ends after the second sentence.

Pollution Prevention Initiative for 1990's *Continued from page 1*

Based on an in-depth "white paper" drafted by his department, Daggett advised that he has executed an Administrative Order establishing the "Office of Pollution Prevention" and an executive-level "Pollution Prevention Planning and Advisory Committee" within the DEP. The OPP, along with the Advisory Committee, will be responsible for planning and coordinating source reduction strategies within the DEP.

Additionally, Daggett said that he intends to establish a "Pollution Prevention Advisory Group" comprised of academic, environmental, and industry leaders to further the goals of pollution prevention.

"DEP's Office of Pollution Prevention, combined with the input and expertise of New Jersey's academic, environment and industry leaders, is the first step in creating an expanded philosophy toward environmental protection," Daggett said. He added, "our goal is simple, but monumental — reduce the amount of hazardous substances at their source."

Commissioner Daggett indicated that the Office of Pollution Prevention will have three specific mandates. First, OPP will determine the impact that existing and planned regulatory efforts

have on source reduction and recycling. Second, OPP will establish a mechanism for integrating pollution prevention into existing DEP enforcement efforts. Third, OPP will plan coordinate, and streamline the present permitting system as an inducement for industry to participate in effective pollution prevention efforts.

Under the initiative, the DEP will integrate two components as a way to foster source reduction and recycling by industry. DEP will require that several industry groups develop pollution prevention plans to document the management, financial and technological strategies they will undertake to reduce the generation of hazardous substances. Eventually, it is envisioned that some 36,000

New Jersey industries will implement pollution prevention programs.

The second component will provide industry an opportunity to participate in a facility-wide permitting pilot effort. The goal is to determine a way of

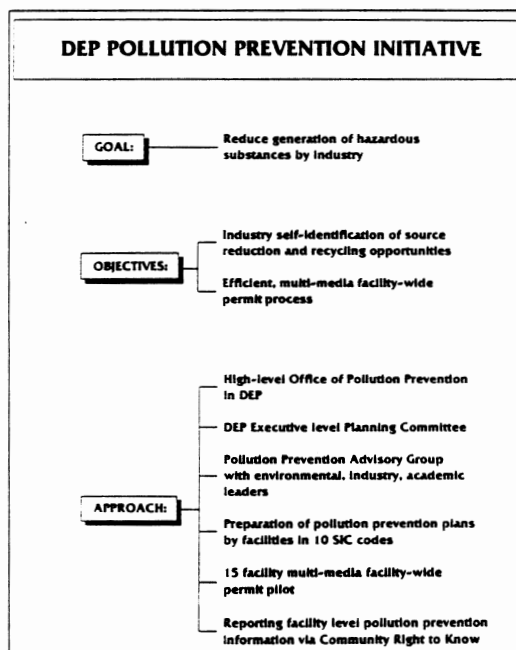
coordinating or integrating a facility's various environmental permits to improve regulatory efficiency and prevent pollution from being transferred between environmental media, according to Daggett.

The DEP Commissioner also identified several issues he believes must be discussed and resolved through

public participation of industry and environmental leaders:

— the frequency in which pollution prevention plans should be pre-

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A Ground Water Strategy for New Jersey Approved

— by Daniel Van Abs, Ph.D., coordinator,
Ground Water Unit, Bureau of Water
Quality Standards & Analysis,
Division of Water Resources

Coordination of New Jersey's many laws affecting ground water management will occur through *A Ground Water Strategy for New Jersey* (Strategy). The Strategy integrates ground water policies of many programs in DEP. It establishes major new initiatives for protecting the potability of aquifers and enhancing the effectiveness of pollution mitigation programs. Christopher J. Daggett, Commissioner of the Department of Environmental Protection, approved the Strategy on July 3, 1989.

The Strategy was developed in recognition of the many laws and programs affecting ground water management which have been instituted in the last decade. Coordination of these laws and programs is necessary for effective management. Several critical aspects of the Strategy are progressing during the current fiscal year (FY), including: (1) the development of an integrated pollution case management system, including ground water pollution cases; (2) revision of the Ground Water Quality Standards; (3) well head protection planning; (4) development of municipal management methods for aquifer recharge area protection; and (5) the management of nonpoint sources of ground water pollution.

The Division of Water Resources is the lead agency for overall Strategy coordination and the last four initiatives, and is working in partnership with the Division of Hazardous Waste Management to develop the case management system.

THE CASE MANAGEMENT SYSTEM will coordinate case assignments, priorities and technical standards for pollution cases involving hazardous substances. The objective is to improve the consistency, efficiency and effectiveness of the department's remedial programs. One component of the system involves cases which involve water supply remedies and pollution mitigation at the same case. The Strategy recognizes the critical importance of quick action to protect public

health where wells are polluted. Through the case management system, water supply remedies and ground water pollution mitigation options for a case will be analyzed concurrently, so that the fastest, most effective and least costly remedies will be implemented.

The Strategy also establishes an important new policy for addressing cases involving major environmental risks. Normally, some complex pollution cases take several years to analyze the site and select a final remedy. When pollution or potential pollution of drinking water wells or sensitive ecosystems exists (known as a "proximate risk"), such lengthy schedules are not acceptable. Under the new policy, the department will develop interim remedies to correct the proximate risk. After an interim remedy is in place (consisting of actions such as source control, plume containment and alternative water supplies) the remaining pollution at the site will be addressed through the normal remedial process. In this manner, the proximate risks can be remedied prior to final decisions regarding overall site mitigation. DEP is encouraging the federal government to use this policy within the Superfund program.

GROUND WATER QUALITY STANDARDS set objectives for controlling the discharge of pollutants to ground water and the correction of pollution from past discharges. The standards are a fundamental part of DEP's efforts to implement the New Jersey Water Pollution Control Act. New standards will be promulgated in FY 1990.

The standards will contain a new system for classifying ground water of the state, numerical criteria for many pollutants, and an policy which protects good quality ground water from significant degradation due to future discharges.

WELL HEAD PROTECTION is a concept for protecting the quality of ground water which flows into drinking water wells. Congress required in 1986 that all states develop and implement well head protection programs. New Jersey submitted its plan to the federal

Environmental Protection

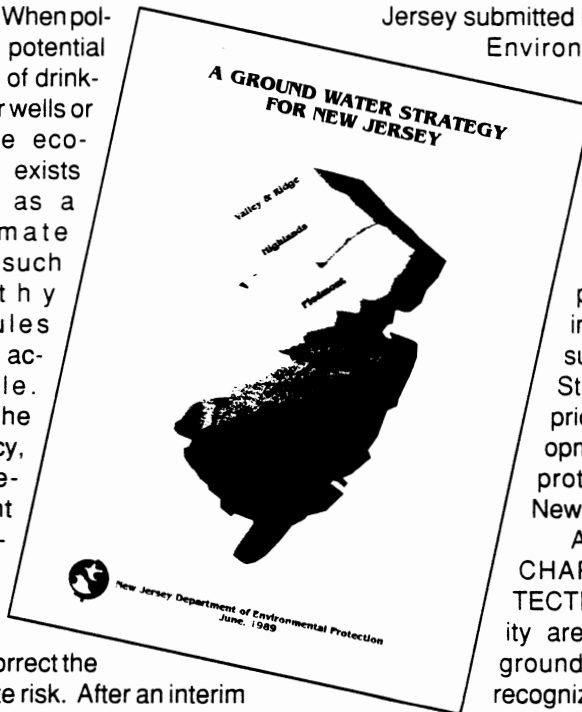
Agency in June, 1989. Under the Strategy not only public water supply wells, but also clusters of domestic wells, will receive protection due to their importance as a water supply source. The Strategy places a high priority on further development of the well head protection program in New Jersey.

AQUIFER RECHARGE AREA PROTECTION is another priority area for protection of ground water quality, as recognized by the Strategy. The department will prepare

guidance for voluntary municipal use in mapping and protecting their aquifer recharge areas by June 1990, and then prepare maps of major aquifer recharge areas by 1992.

NONPOINT SOURCES OF POLLUTION are a major concern for ground water quality, as they are for surface water quality. Nonpoint sources of pollution include urban runoff, road runoff, agricultural and lawn care practices, and myriad sources of pollutants (e.g., septic systems) which are individually small but so ubiquitous as to pose significant pollution concerns. Policies in the Strategy highlight the need for nonpoint source management which ensures that ground water qual-

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West Pine Plains Proposed As 42nd State Natural Area

A 3,800 acre tract in Woodland Township, Burlington County, recognized worldwide because of its unusual vegetation, is soon expected to become part of DEP's Natural Areas System. The unique qualities of this tract, known as the West Pine Plains, make it particularly suitable for inclusion in the Natural Areas System, which was established in 1961 for the purpose of protecting and preserving New Jersey's natural and ecological resources for present and future generations.

The objective in adding the West Pine Plains to the Natural Areas System is to actively manage and protect a significant portion of the Pine Barren Plains, a globally rare ecological community type which is known to occur only in areas of New Jersey and New York. This unusual forest supports a tree canopy of pine and oak that may not attain more than four feet in height at maturity, although the overall the canopy height may vary considerably (see photo). In addition, the biota of the West Pine Plains includes the rare Broom Crowberry plant and up to twelve rare species of moths, some of which are classified by the Office of Natural Lands Management as globally rare. The presence of so many globally rare moths within one area is considered unusual.

The Pine Barren Plains ecosystem, which spans over 13,000 acres in New Jersey, has long been considered a wonder by biologists worldwide, many of whom have tried to explain the cause of the stunted vegetation. Although numerous theories have been tested, the reason or reasons have yet to be determined. One thing that biologists agree about is that the Plains is a fire adapted community. This is because the heat of a fire is needed to release seeds from the closed "serotinous" cones of the pitch pine tree. Fires are known to occur frequently in the Plains. It is the consensus of ecologists that this unique ecosystem may be lost without the beneficial effects of fire.

For this reason, the DEP expects to manage the area, where possible and

feasible, by minimizing wildfire suppression, and using controlled burning to reduce fire hazards and provide positive benefits to the ecology of the area. Fire management activities will be planned and carried out under the authority of the New Jersey Bureau of Forest Fire Management within the Division of Parks and Forestry. The DEP will use



such burning techniques only if the proper safety and weather conditions permit and life and property are not in danger.

The area to be placed in the Natural Areas System is and shall continue to be managed by the Division of Parks and Forestry through Bass River State Forest. Only state owned lands may be placed in the system, and only after the

Division of Parks and Forestry conducts a study of the area. Commissioner Daggett and Governor Kean's approval must be obtained before designation is complete.

Placement of the West Pine Plains in the Natural Areas System is not expected to alter the current use of the area, which now consists mostly of hiking and hunting. Motorized vehicle use, including ATV's and dirt bikes, may be limited to existing roads and prohibited in the areas which are sensitive to human impact. Research and education will be encouraged.

Decisions on management will be made upon preparation of a management plan for the Plains, which must be pursued after the Plains becomes part of the system. Management plans have been adopted for nine of the 41 areas which now comprise the System. The total area of the Natural Areas System is now almost 26,000 acres. This figure will increase to about 29,800 with the addition of the Plains tract, which will be the largest Natural Area in New Jersey.

—by Robert J. Cartica, supervising planner, ONLM, Division of Parks and Forestry

Ground Water Strategy

Continued from page 4

ity standards are met to the greatest extent practicable. Best Management Practices (BMPs) will be developed to implement these policies.

A Ground Water Strategy for New Jersey, as a policy document, establishes the department's directions and priorities. Implementation requires an extensive commitment to planning, public participation and implementation. To obtain a copy of the Strategy contact Daniel J. Van Abs, Bureau of Water Quality Standards & Analysis, DEP, DWR, CN 029, 401 E. State St., Trenton 08625. Phone: 609-833-7020.

Pollution Prevention

Continued from page 3

pared:

- whether all pollution prevention plans should be submitted to DEP;
- the most effective approach for expanding the program beyond the initial effort;
- determining an appropriate funding mechanism for the program that would also provide a source reduction incentive to industry; and
- planning long-term approaches to develop segments in the state's economy that foster a marketplace favoring pollution prevention alternatives.

DEP's "white paper" challenges the Office of Pollution Prevention and the private sector advisory group to focus

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on industrial hazardous substance source reduction and recycling as their first mission. The recommendation is in light of DEP's recognition of the need to complement traditional pollution prevention control programs with sound prevention efforts.

The governor and the commissioner also recognized that DEP should have clearer statutory authority in order to further the goals of industry-wide pollution prevention. "In this regard, the Department of Environmental Protection looks forward to a close working relationship with Senator Daniel J. Dalton (D-Dist. 4) who, through his proposed legislation, has laid the crucial groundwork for much of what we need to achieve in the

area in industrial source reduction," Daggett said.

"The DEP recognizes the necessity of

public policy areas." Four such areas include:

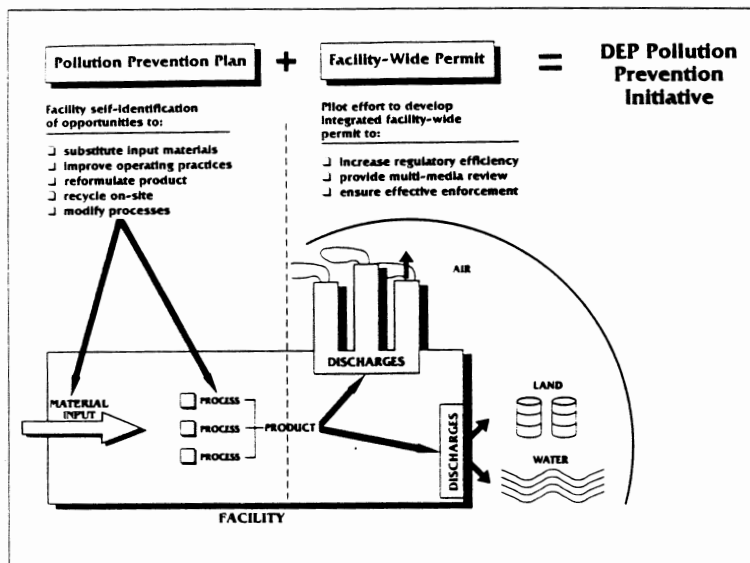
- establishing economic incentives that favor and promote pollution prevention alternatives;
- incorporating the pollution prevention ethic within a regulatory framework to encourage participation by both industry and the general public;
- integrating the ethic of environmental education into the curricula of schools throughout the state; and
- ensuring that the development and implementation of these policies be planned through dialogue with and between the state's government, academic, industry and environmental leaders.

The New Jersey Department of Environmental Protection already has undertaken a number of pollution prevention efforts — many of which paved the way for the rest of the nation. The state now requires vapor recovery at gasoline pumps and regulates certain paints and aerosol sprays to meet ozone air standards. New Jersey has one of the most aggressive solid waste recycling efforts in the country, and a comprehensive program to prevent catastrophic releases of toxic chemicals. The state's Right to Know Law has served as a model for federal programs, and our wastewater pretreatment program has prompted industrial waste minimization.

"The pollution prevention ethic of the 1990's must build on and complement existing efforts in New Jersey by comprehensively reducing the overall load of pollutants in our environment," Daggett said. "This pollution prevention initiative does not involve a totally new direction for DEP; rather it clarifies the next logical step for DEP to take in its efforts to protect and preserve the state's natural resources, its environment and most importantly, the health of our citizens," he added.

"As we move towards the 20th anniversary of that first Earth Day, pollution prevention will become the hub of our environmental protection ethic," Governor Kean concluded.

Charts by Bob Cieszkowski



expanding pollution prevention beyond industrial hazardous substances and into the everyday life of all New Jerseyans," Commissioner Daggett said, adding that "the long-term effort will require innovation initiatives in a variety of

Application deadline: 3/15/90

Open Lands Management Grants

Applications are available from DEP's Office of Natural Lands Management (ONLM), Division of Parks and Forestry, for the 1990 round of funding grants of up to \$10,000 each for public outdoor passive recreation facilities on private land. Commissioner Daggett recently announced that the department set aside \$110,000 from the "Open Lands Management Program" for grants to private landowners willing to build nature trails, install foot bridges, purchase picnic tables, erect protective fencing, construct boat ramps or other types of projects for passive recreational uses. Grant monies also may be used to provide maintenance of sites and to cover administrative and legal expenses.

Private individuals, corporations, nonprofit organizations or other private groups owning land are eligible to receive the grants. To apply, a landowner

must approve an access covenant specifying that the property is to remain available to the public for a fixed number of years. Also, the landowner must agree to maintain the property for the duration of the contract. At contract's end all materials and facilities become the property of the landowner.

Commissioner Daggett noted that the advantage to the landowner in signing the agreement is that property taxes cannot be increased for the facilities developed with the grant funds and, with the exception of cases of negligence or malicious intent, the landowner is protected from liability claims on the property used by the public.

Applications, approved on a "first come, first served" basis, will be accepted through March 15, 1990. For information and an application form write to DEP, ONLM, Division of Parks and Forestry, CN 404, Trenton 08625.

Application deadline: 2/1/90

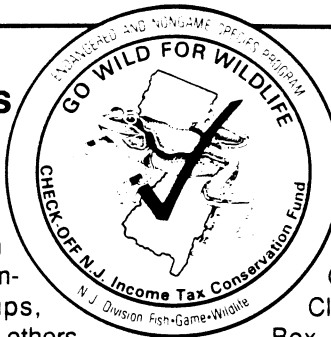
Wildlife Check-Off Conservation Grants

George P. Howard, director, Division of Fish, Game and Wildlife, recently announced that the Endangered and Nongame Species Program (ENSP) again will be awarding grants for local projects designed to benefit New Jersey's nongame wildlife. Matching "Wildlife Check-Off Conservation Grants" of up to \$1,000 will be awarded to qualified organizations whose project proposals are selected for funding.

The objectives of the grant program are to increase public involvement, awareness and knowledge of

wildlife and its needs throughout the state. Qualified organizations include conservation groups, environmental commissions, school groups, scouting groups, 4-H and others. Howard said, "Many of these groups already are making significant contributions to wildlife habitat, recreation and education. We're delighted to be able to support these efforts with Income Tax Check-Off monies."

The application deadline for proj-



ects to be funded in 1990 is February 1. For an application and procedural guide, write to Check-Off Grants, ENSP, Clinton WMA, RD 3,

Box 409, Hampton 08827.

Phone: 201-735-5450.

Note: Funding for the Wildlife Check-Off Conservation Grants is provided through taxpayer donations to the Endangered and Nongame Wildlife Conservation Fund. The Wildlife Fund check-off is found on line 39B of the New Jersey state income tax form.

Chromium Clean-up Program *Continued from page 2*

completion of efforts to clean up chromium contamination inside Jersey City's Whitney Young Elementary School and that temporary measures designed to reduce the spread of chromium from nearby lots are in place.

In conjunction with the clean-up of the school, asphalt caps have been installed at seven chromium contaminated lots in the area of the school building to limit any further chromium migration. The capping of the sites is an interim measure to control chromium contamination at the residential sites until excavation and removal can be completed in 1990 or early 1991.

"By completing an aggressive cleanup of the school's interior, along with 'sealing' chromium contaminated lots in the neighborhood, faculty and students can safely enter the building without fear of exposure to chromium contamination," said Commissioner Daggett.

The cleanup, announced on August 21, begun on August 22 and completed on September 7, was conducted in accordance with recommendations of the New Jersey Department of Health. Restoration efforts including the installation of floor tiling and the patching of the ventilation system were completed on September 18. A report on the cleanup has been forwarded to the Jersey City School Superintendent and the Jersey City Health Officer.

Particular attention was paid to

floors, storage rooms, lighting fixtures, and ceilings in every classroom. Additionally, all interior and exterior surfaces of the heating and ventilation system were cleaned and carpets from the library, principal offices, basement classrooms, auditorium and computer learning center were removed and replaced with vinyl tile. Basement walls were sealed with an epoxy sealant, while all ceiling lighting fixtures, beams, ledges, sills and grates in the gymnasium were thoroughly cleaned. In the pool room, the pool was drained, vacuumed and washed and the drop ceiling was replaced with new panels.

Daggett stressed that the completeness of the cleanup has been confirmed by sampling interior rooms, the school's ventilation system and courtyard soils. Soil and surface wipe samples were analyzed for total and hexavalent chromium. The sampling results are available by contacting DEP's Division of Hazardous Waste Management, Responsible Party Cleanup Element. Additionally, a copy of the sampling report has been forwarded to the Jersey City Health Division.

In announcing the completion of clean-up measures inside the school and the temporary 'sealing' of seven sites in the neighborhood, Daggett said that DEP's efforts to date are only part of the state's commitment to implementing both short and long-term solu-

tions to the chromium problem in Hudson County.

In an effort to keep the community up-to-date on the state's progress Commissioner Daggett noted that he has met with local government officials, neighborhood residents, and representatives of community and educational organizations, including Mayor Gerald McCann, the Interfaith Community Organization, the Jersey City Environmental Commission, the Jersey City Health Department, the Hudson County Regional Health Commission, and the Parents Council on Public Schools in Jersey City.

The temporary measures to seal chromium contaminated lots on Dwight Street, Woodlawn Avenue and Martin Luther King Drive — the seven sites close to the Whitney Young School and believed to be a primary source of contamination inside the school — were done by PPG Industries, Inc. On August 24, DEP directed PPG to also pay the \$251,000 cost of cleanup at the school.

Daggett also reported that DEP is progressing with temporary measures to seal 11 other contaminated sites in Jersey City not being addressed by responsible parties and that Allied Signal has begun clearing debris from the Roosevelt Drive-in site in preparation for installing a cover on areas of exposed chromium contamination.

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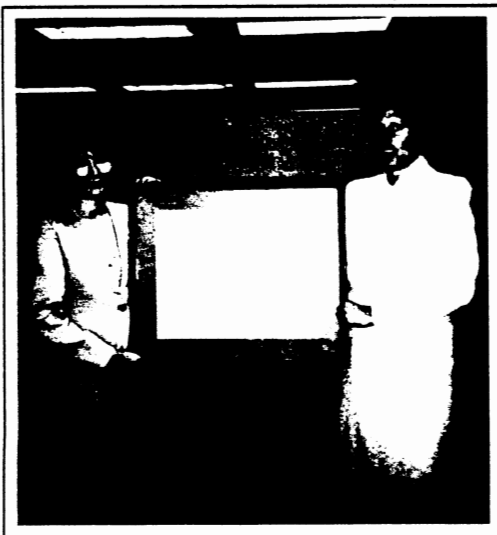
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Take Pride in America

Winners and finalists of the third annual (1988) "Take Pride in America National Awards Program" were honored by President Bush at a reception and an awards ceremony on South Lawn of the White House on July 24. The awards were presented to organizations and individuals whose efforts "symbolize America's commitment to volunteerism and stewardship. They share our dedication to the preservation of the land and waters and natural riches that are the great gift of our American heritage," said U.S. Interior Secretary Manuel Lujan, Jr. Lujan, U.S. Education Secretary

Lauro Cavazos and U.S. Agriculture Secretary Clayton Yeutter co-chaired the 31-member Blue Ribbon Panel of Judges which selected the 103 winners from among 530 groups and 190 finalists. First Lady Barbara Bush was honorary chairman of the panel.

EHJ Photo



Joyce Albanezi (left) and Dawn Blauth of DEP's Office of Communications and Public Education represented the department at the Washington, DC event. Albanezi, coordinator of the Take Pride in America Program in New Jersey, and Blauth, coordinator of the ongoing "New Jersey Shore—Keep it Perfect" anti-litter public awareness campaign, display the certificate awarded to the clean shore program this year.

New Jersey had three winners. **Camden City Garden Club, Inc.** This organization's officers and members worked with Camden City and Camden County as well as private foundations and businesses to obtain resources to clean city lots and help residents establish community vegetable gardens. **The Isles' Open Space Programs, Trenton.** This group started with the development of a city-wide community gardening and

parks program which works with lower income groups seeking to adopt and improve vacant lands. Isles' is creating a city Open Space Coalition to help revamp Trenton's Open Space Master Plan and promote public awareness and support for open space. **Kids Against Pollution (K.A.P.), Closter.** This group of youngsters formed as a networking organization geared to educating other students and adults about the environment.

There were four New Jersey finalists. **Wakefern Food Corporation, Elizabeth,** which developed a public information campaign to bring biodegradable shopping bags back into supermarkets. **Citizens United to Protect the Maurice River, Millville,** which works to preserve and protect the Maurice River watershed. **Alliance for a Living Ocean, Ship Bottom,** which has 250 members involved in an "Adopt a Beach" program in Ocean and Cape May counties. **The New Jersey Wastewater Treatment Trust, Trenton,** which helps finance improvements at wastewater treatment facilities.



Chromium Clean-up

Continued from page 7

Commissioner Daggett reiterated that DEP's plans to effectively and permanently deal with chromium contaminated sites in Jersey City include excavation as the only feasible alternative for removal of contaminated materials from residential areas.

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New Jersey Environmental Lobby



Respond to:

Testimony before Senate Energy and Environment
Committee - December 18, 1989
Re: S.3581

I am Marie Curtis representing the New Jersey Environmental Lobby. We are here today in strong support of S.3581, Senator Dalton's Pollution Prevention bill. Avoidance of environmental contamination is cheaper and healthier for all.

The very name of the DEP - Environmental Protection - implies prevention, rather than clean-up, of environmental degradation. To tackle the question of toxics usage and generation as the first step is also wise. The specific percentage reduction goals also seem to us a rational approach. Unless targets are set and specific direction given, delay in reduction efforts would probably result.

NJEL also applauds the current efforts of the Department in this regard. Commissioner Daggett and office chief Jean Herb have been laying the groundwork within which this concept can operate. The people of New Jersey in recent polls have indicated a heightened awareness of the need for environmental safeguards and a willingness to pay for same. The time for such an initiative is now. We strongly urge passage of the Pollution Prevention Act.

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TESTIMONY BEFORE SENATE ENERGY & DEVELOPMENT COMMITTEE
DECEMBER 18, 1989
TRENTON, NEW JERSEY

RICHARD B. TABAKIN
PLANT MANAGER - LINDEN, NEW JERSEY
AMERICAN CYANAMID COMPANY

Introduction and Thank You (Include information on your professional background and your role as Chairman of CIC/NJ Environmental Committee).

American Cyanamid and the CIC/NJ recognize the desirability of pollution prevention legislation to reinforce the change in direction from pollution control to pollution prevention.

We (i.e. American Cyanamid and the Chemical Industry Council) are committed to participating in the legislative debate on this issue and agree that reducing waste generation at the source is the preferred method to deal with this issue. However, consideration must also be given to other valid waste management strategies that have proven effective in reducing environmental and public health exposures. Namely, recovery and reuse, recycling and treatment. All of these strategies must be components of an overall plan.

I'd like to share with you a few figures about the chemical industry's efforts in the area of waste reduction. According to the most recent data from the Chemical Manufacturers Association's Annual Hazardous Waste Survey, between 1981 and 1986, the nationwide generation of solid hazardous waste by member companies has been reduced by 56%, while net production has increased by 11%. To put that in perspective, the CMA represents about 90% of all the companies in the chemical and allied products industry. In New Jersey alone, we have accomplished much in terms of pollution prevention. A recent study conducted by the Hazardous Waste Facilities Siting Commission showed that the chemical and allied products industry accounted for 34% of the total waste generated in 1983 and only 18% of the total in 1987.

I'll be the first to admit that whatever we've accomplished in the way of waste reduction or pollution prevention, has been largely been driven by the enactment of federal and state legislation and corresponding regulations. Nevertheless, I think it is important for you to recognize that these laws and regulations have created a number of continuing "incentives" for industry's activities in this arena. The cost of disposal has skyrocketed in recent years and shows no signs of abating. It is now extraordinarily expensive to dispose of hazardous or non-hazardous waste for that
waste

matter, even in those cases where it is allowed. The second thing that's driving companies to look at ways to minimize waste generation is the lack of treatment or disposal facilities. Accrued liability is the third, and perhaps most significant, impetus for reducing or preventing waste generation; with joint, several and strict liability, if you make it, or generate it, or ship it, regardless of how well, through whatever process, the generator of the waste will always be liable and responsible from not only a legal but also a financial and public relations point of view. All these things, in addition to the fundamental optimization of a manufacturing process, drive us to look at ways to reduce the amount of waste we generate.

With that, let me get back to the idea of new pollution prevention legislation. As I stated earlier, we recognize the desirability of enacting pollution prevention legislation. We believe that such legislation should include the following:

1. A statewide goal for a reduction in the amount of waste generated and the releases of hazardous substances. We do not believe that the goal should directly include a use reduction component, nor do we believe that the goal should be enforceable. Not every process or every facility needs to achieve the reduction goal.
2. Development and submission to the DEP of pollution prevention plans on a facility-by-facility basis that would outline the plans to be implemented by each facility to reduce the amount of waste generated and the releases from the facility. I want to point out that we have some real concerns about the level of detail that ~~would~~ be included in such a plan, as it relates to public disclosure of process level information. *is proposed to*
3. As contained in the current version of the Bill (S-3581), we support the creation of a Pollution Prevention Advisory Council. The specific functions and responsibilities of this group needs to be thought through further to make sure that ~~we do~~ create a meaningful and constructive organization. *it does*
4. The legislation and any resulting regulations must recognize that industrial processes can be very complex and are not easily grouped into neat categories. Thus, the requirements must be sufficiently flexible to reflect variations from one process to another and from one plant to another. This is particularly important in defining the level of detail of information reporting that will be required.

5. Submission of chemical inventory information, consistent with that required under SARA Title III. There are several advantages to using the SARA Title III, Section 313 list of substances. The list includes roughly 300 substances and a mechanism exists to add to or delete from the list based on knowledge of potential exposure hazards; information on the amount of these substances released to the air, water and land is required to be submitted annually and will be, if it isn't already, completely computerized; it represents an established database that assures consistency in year to year comparisons and that can also be used on a regional basis if necessary.
6. Quite honestly, we have not come to any definitive conclusions regarding enforcement requirements. One that we are actively evaluating is some kind of an audit program. But this needs an awful lot of additional thought and I won't comment any further on it here today.
7. A Technical Assistance Program should be included as an integral part of a pollution prevention bill. We think that a technical assistance program is a great idea and that it should be included in a pollution prevention bill, and not be a separate piece of legislation.

I would like to commend Senator Dalton and his staff for recognizing that this program must be phased-in. We should prioritize pollution prevention opportunities and put emphasis of those that have the greatest potential for success and impact on environmental improvement. (get the biggest bang for the buck!)

In closing, I want to emphasize that the CIC and American Cyanamid want to be a part of the development of a meaningful and effective pollution prevention program in New Jersey. We support many of the concepts and specifics included in S-3581. On the other hand, there are some things in S-3581 that, quite frankly, cause us a great deal of concern. We want to work with the Legislature to address these areas and to come up with a bill that will truly result in pollution prevention and will improve the quality of our environment and reduce public health risks.

Thank you for this opportunity to address you. I'd be glad to answer any questions you might have.

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