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10

HOUSE COMMITTEE REPORT

(11)

Date Referred: March 8, 1989

FURTHER REFERRALS:

Date of Committee Action: 3/13/89

The FINANCE Committee considered:

HB 106

HOUSE BILL NO. 106

[HAZARDOUS WASTE REDUCTION PROGRAM]

"An Act relating to hazardous waste; and providing for an effective date."

RECOMMENDATIONS:

- [] be replaced with 2nd CS HB 106 (Fin) [] the same title
- [] have attached amendment(s) [] a new title
- [] do pass
- [] do not pass
- [] no recommendation
- [] individual recommendations
- [] additional referral to the _____ Committee

ADOPTS: _____ letter of intent

ATTACHES NEW FISCAL NOTE(s):
(Dept)

APPROVES PREVIOUS:

(Date/Dept)

- [] fiscal impact House Finance 3/8/89 [] fiscal note(s) _____
- [] zero fiscal note _____ [] zero fiscal note(s) _____
- [] zero with analysis _____ [] zero fn/analysis _____

SIGNING DO PASS:

SIGNING:

(Check approp. column)

Ronald J. Dur Larson
Carl Swackhammer Swackhammer
John Brown Brown
Koponen Koponen
Ulmer Ulmer
Barnes Barnes
Shultz Shultz
Phillips Phillips
Rieger Rieger
Wallis Wallis

	Do Not Pass	No Rec	Amend
<u>Lynne Hoffman</u> Hoffman	<input checked="" type="checkbox"/>		

co- Lynne Hoffman
 co- Ronald J. Dur
 Chairman's signature

FISCAL NOTE

REQUEST:

Revision Date: 03/08/89
 Title: "An Act relating to hazardous waste; and providing for an effective date."
 Agency Affected: Environmental Conservation
 BRU: Environmental Quality
 Sponsor: Brown, Davis, et al
 Requestor: House Finance Committee
 Components: Environmental Quality

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
PERSONAL SERVICES	0	0	0	0	0	0
TRAVEL	0	0	0	0	0	0
CONTRACTUAL	0	75.0	75.0	75.0	75.0	75.0
SUPPLIES	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
LAND & STRUCTURES	0	0	0	0	0	0
GRANTS, CLAIMS	0	0	0	0	0	0
MISCELLANEOUS	0	0	0	0	0	0
TOTAL OPERATING	0	75.0	75.0	75.0	75.0	75.0

CAPITAL	0	0	0	0	0	0
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REVENUE	0	0	0	0	0	0
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FUNDING: (Thousands of Dollars)

GENERAL FUND	0	75.0	75.0	75.0	75.0	75.0
FEDERAL FUNDS	0	0	0	0	0	0
OTHER	0	0	0	0	0	0
TOTAL	0	75.0	75.0	75.0	75.0	75.0

POSITIONS:

FULL-TIME	0	0	0	0	0	0
PART-TIME	0	0	0	0	0	0
TEMPORARY	0	0	0	0	0	0

ANALYSIS : (Attach a separate page if necessary)

See attached page.

Prepared by: Rep. Ron Larson, Co-Chair/H. Finance Phone: 465-3727
Rep. Lyman Hoffman, Co-Chair/H. Finance Phone: 465-4453
 Division: _____ Date: 03/08/89
 Approved by Commissioner: _____ Date: _____
 Agency: _____

Distribution (by preparer):

Legislative Finance
 Legislative Sponsor
 Requestor
 Office of Management and Budget
 Impacted Agency(ies)

Adopted

03/08/89

Revised Fiscal Note - CS HB 106 (Finance)

FISCAL NOTE ANALYSIS

The proposed legislation directs the DEC to establish a hazardous waste reduction and recycling program to coordinate, promote, and assist efforts to reduce the generation of hazardous waste in Alaska. In Alaska there are more than 300 facilities that have notified EPA as hazardous waste generators and there are several hundred more small businesses that could benefit from these services.

The bill directs the department, subject to available funds, to undertake several activities. These include: providing for technical assistance to businesses upon request; information and referral assistance; organizing workshops and seminars; development of a technical reference center and data base; development of curricula; and administration of a hazardous waste reduction and recycling matching grants program.

The fiscal note includes 75.0 in contractual funds. These funds would be used for non-regulatory, on-site technical assistance to businesses upon request (assumes approximately 8 to 10 on-site waste reduction audits at \$5,000 each plus administrative overhead); contractual services to provide waste reduction technical workshops and seminars; and acquisition of a technical reference materials.

No new positions are authorized by the fiscal note.

Original sponsors: Brown, M. Davis,
Menard, et al.

1 IN THE HOUSE

BY THE FINANCE COMMITTEE

2 2nd CS FOR HOUSE BILL NO. 106 (Finance)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 SIXTEENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to hazardous waste; and providing
7 for an effective date."

8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

9 * Section 1. FINDINGS. The legislature finds that

10 (1) several thousand pounds of hazardous waste are added to the
11 nation's environment for every person in the United States each year;

12 (2) hazardous substances have been improperly disposed of at
13 more than 200 known or suspected sites in the state, including 40 regulated
14 public water supply systems that have been contaminated, and more sites are
15 discovered each year;

16 (3) the Congress of the United States, in adopting the Hazardous
17 and Solid Waste Amendments in 1984, established a national policy that
18 wherever feasible, the generation of hazardous waste should be reduced or
19 eliminated as expeditiously as possible;

20 (4) by reducing or eliminating hazardous waste before it is
21 generated, hazardous waste source reduction efforts can be more effective
22 than traditional "end-of-the-pipe" pollution abatement strategies;

23 (5) hazardous waste reduction can improve workplace safety as
24 well as lower waste management and regulatory compliance costs;

25 (6) while some large businesses have successfully undertaken
26 hazardous waste reduction initiatives, small businesses have a particular
27 need for information and technical assistance regarding opportunities to
28 reduce the generation of hazardous waste; and

29 (7) hazardous waste reduction and recycling efforts are

1 increasingly recognized by both business interests and the general public
2 as an economically and environmentally effective response to the increasing
3 costs and liabilities resulting from hazardous waste generation.

4 * Sec. 2. AS 46.03.299 is amended by adding a new subsection to read:

5 (f) In order to minimize the present and future threat to human
6 health and the environment, the department shall promote the following
7 hazardous waste management practices in the following order of pri-
8 ority:

- 9 (1) waste source reduction;
- 10 (2) recycling of waste;
- 11 (3) waste treatment; and
- 12 (4) waste disposal.

13 * Sec. 3. AS 46.03 is amended by adding new sections to read:

14 Sec. 46.03.316. HAZARDOUS WASTE REDUCTION AND RECYCLING PROGRAM.

15 (a) There is established within the department a hazardous waste
16 reduction and recycling program. Within the limit of funds available,
17 the department shall

- 18 (1) coordinate agency efforts to reduce the production of
19 hazardous waste, including air and water emissions;
- 20 (2) in order to implement the priorities set out in AS 46.-
21 03.299(f)(1) - (2), promote hazardous waste source reduction and
22 on-site recovery of resources from hazardous waste streams and through
23 materials recycling;
- 24 (3) provide for source reduction and recycling technical
25 assistance and consultation to hazardous waste generators at their
26 request;
- 27 (4) sponsor or co-sponsor with public or private organiza-
28 tions technical workshops and seminars on hazardous waste reduction;
- 29 (5) develop a hazardous waste reduction technical reference

1 center and data base;

2 (6) establish and maintain a hazardous waste reduction
3 information referral service;

4 (7) identify and evaluate hazardous waste reduction re-
5 search needs for state businesses and industry, local governments, and
6 state agencies;

7 (8) develop, in consultation with institutions of higher
8 education in the state, courses and curricula related to hazardous
9 waste reduction; and

10 (9) issue hazardous waste reduction grants under AS 46.-
11 03.317.

12 (b) In response to a request of a hazardous waste generator, a
13 representative of the department may visit the hazardous waste genera-
14 tor's site for the purpose of observing a waste generating process,
15 obtaining information relevant to waste reduction, rendering advice,
16 and making recommendations. A visit under this subsection may not be
17 regarded as an inspection or investigation. A representative of the
18 department designated to render advisory or consultative services may
19 not have enforcement authority.

20 (c) This section does not diminish the responsibility of a
21 person to comply with this chapter, AS 46.04, or AS 46.09.

22 Sec. 46.03.317. HAZARDOUS WASTE REDUCTION MATCHING GRANTS. (a)
23 A hazardous waste reduction grant account is established in the gen-
24 eral fund. It consists of appropriations made to it.

25 (b) The department may issue matching grants from money in the
26 account to businesses, local governments, industry trade associations,
27 labor organizations, or nonprofit organizations for the purpose of
28 feasibility analysis and evaluation of ways to implement hazardous
29 waste reduction.

1 (c) Grants under this section

2 (1) must be matched on a dollar-for-dollar basis by the
3 grantee in cash or in kind;

4 (2) may not exceed \$10,000 for any single proposal or
5 project.

6 (d) The department shall establish an advisory committee, con-
7 sisting of five members, to assist the department in reviewing and
8 evaluating grant applications under this section. The advisory com-
9 mittee must include

10 (1) an officer or employee of the department;

11 (2) a representative of the University of Alaska;

12 (3) a professional civil or chemical engineer with experi-
13 ence in environmental engineering;

14 (4) an owner or representative of a small business; and

15 (5) a public member.

16 * Sec. 4. AS 46.03.900 is amended by adding a new paragraph to read:

17 (34) "hazardous waste reduction" means decreasing, avoiding,
18 or eliminating wastes that are hazardous to human health or the envi-
19 ronment through source reduction or recycling; the term does not
20 include hazardous waste treatment or hazardous waste disposal.

21 * Sec. 5. This Act takes effect July 1, 1989.

(11)

Date Referred: February 8, 1989

FURTHER REFERRALS:

Date of Committee Action: 3/2/89

The FINANCE Committee considered:

HB 106

HOUSE BILL NO. 106

[HAZARDOUS WASTE REDUCTION PROGRAM]

"An Act relating to hazardous waste; and providing for an effective date."

RECOMMENDS:

- replacing with CS HB 106 (Fin) the same title
- the attached amendment(s) a new title
- do pass
- do not pass
- no recommendation
- individual recommendations
- additional referral to the _____ Committee

ADOPTS: _____ letter of intent

ATTACHES NEW FISCAL NOTE(S):

- fiscal impact
- zero fiscal note
- zero with analysis

APPROVES PREVIOUS:

- fiscal note(s) published: _____
- zero fiscal notes(s) published: _____

SIGNING DO PASS:

Ronald J. Larson Larson

Swackhammer Swackhammer

Brown Brown

Koponen Koponen

Shultz Shultz

Phillips Phillips

Rieger Rieger

SIGNING OTHER THAN DO PASS:

(Do Not Pass, No Recommendation, Amend)

Ulmer Ulmer

(Needs a new fiscal note.)

Barnes Barnes

(Needs a separate fiscal note.)

Chairman's signature
Ronald J. Larson

FISCAL NOTE

REQUEST:

Revision Date: 3/2/89
Title: An Act relating to hazardous waste; and providing for an effective date.
Sponsor: Brown, Davis, et. al.
Requestor: _____

Agency Affected: Environmental Conservation
BRU: Environmental Quality
Components: Environmental Quality

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-

CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
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REVENUE	-0-	-0-	-0-	-0-	-0-	-0-
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FUNDING: (Thousands of Dollars)

GENERAL FUND	-0-	-0-	-0-	-0-	-0-	-0-
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

POSITIONS:

FULL-TIME	-0-	-0-	-0-	-0-	-0-	-0-
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

Attached is the agency's analysis of the cost of implementation of this new program.

Prepared by: House Finance Committee Phone: 465-3727
Division: Co-Chairman Ron Larson *Ronald J. Larson*
Co-Chairman Lyman Hoffman *Lyman Hoffman*
Approved by Commissioner: _____ Date: _____
Agency: _____

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

Adopted

FISCAL NOTE

REQUEST:

Revision Date: 2/21/89 Agency Affected: Environmental Conservation
Title: An Act relating to hazardous waste; and providing for an effective date. BRU: Environmental Quality
Sponsor: Brown, Davis, et. al. Components: Environmental Quality
Requestor: Menard (House Resources)

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 89	FY 90	FY 91	FY 92	FY 93	FY 94
PERSONAL SERVICES	-0-	87.3	87.3	87.3	87.3	87.3
TRAVEL	-0-	5.0	5.0	5.0	5.0	5.0
CONTRACTUAL	-0-	75.0	75.0	75.0	75.0	75.0
SUPPLIES	-0-	2.0	2.0	2.0	2.0	2.0
EQUIPMENT	-0-	10.0	2.0	2.0	2.0	2.0
LAND & STRUCTURES	-0-	-0-	-0-	-0-	-0-	-0-
GRANTS, CLAIMS	-0-	-0-	-0-	-0-	-0-	-0-
MISCELLANEOUS	-0-	-0-	-0-	-0-	-0-	-0-
TOTAL OPERATING	-0-	179.3	173.9	173.9	173.9	173.9
CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
REVENUE	-0-	-0-	-0-	-0-	-0-	-0-

FUNDING: (Thousands of Dollars)

GENERAL FUND	-0-	179.3	173.9	173.9	173.9	173.9
FEDERAL FUNDS	-0-	-0-	-0-	-0-	-0-	-0-
OTHER	-0-	-0-	-0-	-0-	-0-	-0-
TOTAL	-0-	179.3	173.9	173.9	173.9	173.9

POSITIONS:

FULL-TIME	-0-	2.0	2.0	2.0	2.0	2.0
PART-TIME	-0-	-0-	-0-	-0-	-0-	-0-
TEMPORARY	-0-	-0-	-0-	-0-	-0-	-0-

ANALYSIS : (Attach a separate page if necessary)

See attached page

Prepared by: Jeff Mach Phone: 465-2671
Division: Environmental Quality Date: 2/17/89

Approved by Commissioner: A.D. Klu Date: 2/21/89
Agency: DEC

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)

RECEIVED

FEB 24 1989

page 2 of 7

LEGISLATIVE FINANCE

Adopted

HB 106 FISCAL NOTE ANALYSIS

The proposed legislation directs DEC to establish a hazardous waste reduction and recycling office to coordinate, promote, and assist efforts to reduce hazardous waste efforts in Alaska. This bill designates several activities that the Department will conduct, including the administration of a hazardous waste reduction and recycling grant program.

The fiscal note includes funds to establish the hazardous waste reduction and recycling office within DEC's Solid and Hazardous Waste Management Program. During FY 90, two positions would be established: an Ecologist II (Range 18) to provide overall coordination and administration of the Department's waste reduction efforts and to develop the necessary policies, procedures, regulations, contracts, reference information, grant awards, and progress report; and an Administrative Assistant (Range 12) to assist with the development of program policies and procedures, contract documents, grant awards, reports, and assist with implementation of the other aspects of the program.

FY 91 and future years will continue implementation of the program at the same level of service. One-time equipment costs, included in FY 90, are not required in subsequent years.

Position Title Ecologist II		No. of Positions 1	Range/Step 18A	Barg. Unit GGU
Time Status PFT	Staff Months 12	Location Juneau		Election District 4
Justification				
See attached page				
Type of Expenditure		Amount		
1	2	3		
Salary	37400			
Benefits	14000			
Premium Pay	-0-			
Other	-0-			
Total Personal Services		51400		
Travel		2800		
Contractual		2600		
Commodities		1000		
Equipment		5000		
Other		-0-		
Total Cost		62800		
Funding Source for Total Cost				
Federal Receipts	1002	-0-		
G. F. Match	1003	-0-		
General Fund	1004			
GF Program Receipts	1005	-0-		
Other				

**Request For
New Position**

Agency Environmental Conservation
 BRU Environmental Quality
 Component Environmental Quality

Page 1 of 2
 Revised Date

FY 90

HB 106
JUSTIFICATION FOR ECOLOGIST II

The incumbent will work on a largely independent basis, under the supervision of the Solid and Hazardous Waste Program Chief, to coordinate and promote the Department's efforts pursuant to HB 106, to reduce the production of hazardous wastes, including the following specific tasks:

- Prepare, evaluate, and select one or more contractors to provide technical assistance services to waste generators;
- Arrange for the Department's sponsorship or co-sponsorship of technical workshops or seminars on waste reduction;
- Evaluate and select materials and equipment necessary to establish and maintain a hazardous waste reduction technical reference center and data base;
- Establish and maintain a hazardous waste reduction referral service;
- Identify and evaluate hazardous waste reduction research needs for government agencies and private businesses;
- Assist with the development of courses and curricula for hazardous waste reduction; and
- Develop regulations for the administration of, advertise the availability of, evaluate proposals for, award, monitor, and closeout grants made pursuant to the hazardous waste reduction matching grant account.
- Prepare annual hazardous waste reduction progress reports to the Legislature.

This position will supervise an Administrative Assistant I.

Position Title Administrative Assistant I		No. of Positions 1	Range/Step 12A	Barg. Unit GGU
Time Status PFT	Staff Months 12	Location Juneau		Election District 4
		Justification See attached page		
Type of Expenditure		Amount		
1	2	3		
Salary	24900			
Benefits	11000			
Premium Pay	-0-			
Other	-0-			
Total Personal Services		35900		
Travel		-0-		
Contractual		2600		
Commodities		1000		
Equipment		5000		
Other		-0-		
Total Cost		44500		
Funding Source for Total Cost				
Federal Receipts	1002	-0-		
G. F. Match	1003	-0-		
General Fund	1004			
GF Program Receipts	1005	-0-		
Other				

Request For
New Position

Agency Environmental Conservation
 BRU Environmental Quality
 Component Environmental Quality

Page 1 of 2
Revised Date

FY 90

HB 106
JUSTIFICATION FOR ADMINISTRATIVE ASSISTANT I

The incumbent will work under the supervision of the Ecologist II (Hazardous Waste Reduction Office) to assist the Department's efforts, pursuant to enactment of HB 106, to reduce the production of hazardous wastes, including the following specific tasks:

- Assist with preparation of one or more contracts and account for contractual funds for the provision of technical assistance services to waste generators;
- Assist with arrangements for the Department's sponsorship or co-sponsorship of technical workshops or seminars on waste reduction;
- Assist procurement of materials and equipment necessary to establish and maintain a hazardous waste reduction technical reference center and data base;
- Assist the establishment and maintenance of a hazardous waste reduction referral service;
- Assist with the development of regulations and assist with the administration and disbursement of grant funds from the hazardous waste reduction matching grant account.
- Assist with the preparation of annual hazardous waste reduction progress reports to the Legislature.

2 CS FOR HOUSE BILL NO. 106 (Finance)

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 SIXTEENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to hazardous waste; and providing
7 for an effective date."

8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

9 * Section 1. FINDINGS. The legislature finds that

10 (1) several thousand pounds of hazardous waste are added to the
11 nation's environment for every person in the United States each year;

12 (2) hazardous substances have been improperly disposed of at
13 more than 200 known or suspected sites in the state, including 40 regulated
14 public water supply systems that have been contaminated, and more sites are
15 discovered each year;

16 (3) the Congress of the United States, in adopting the Hazardous
17 and Solid Waste Amendments in 1984, established a national policy that
18 wherever feasible, the generation of hazardous waste should be reduced or
19 eliminated as expeditiously as possible;

20 (4) by reducing or eliminating hazardous waste before it is
21 generated, hazardous waste source reduction efforts can be more effective
22 than traditional "end-of-the-pipe" pollution abatement strategies;

23 (5) hazardous waste reduction can improve workplace safety as
24 well as lower waste management and regulatory compliance costs;

25 (6) while some large businesses have successfully undertaken
26 hazardous waste reduction initiatives, small businesses have a particular
27 need for information and technical assistance regarding opportunities to
28 reduce the generation of hazardous waste; and

29 (7) hazardous waste reduction and recycling efforts are

1 increasingly recognized by both business interests and the general public
2 as an economically and environmentally effective response to the increasing
3 costs and liabilities resulting from hazardous waste generation.

4 * Sec. 2. AS 46.03.299 is amended by adding a new subsection to read:

5 (f) In order to minimize the present and future threat to human
6 health and the environment, the department shall promote the following
7 hazardous waste management practices in the following order of pri-
8 ority:

- 9 (1) waste source reduction;
- 10 (2) recycling of waste;
- 11 (3) waste treatment; and
- 12 (4) waste disposal.

13 * Sec. 3. AS 46.03 is amended by adding new sections to read:

14 Sec. 46.03.316. OFFICE OF HAZARDOUS WASTE REDUCTION AND RE-
15 CYCLING. (a) There is established within the department an office of
16 hazardous waste reduction and recycling. The office shall

17 (1) coordinate department efforts to reduce the production
18 of hazardous waste, including air and water emissions;

19 (2) in order to implement the priorities set out in AS 46.-
20 03.299(f)(1) - (2), promote hazardous waste source reduction and
21 on-site recovery of resources from hazardous waste streams and through
22 materials recycling;

23 (3) provide for source reduction and recycling technical
24 assistance and consultation to hazardous waste generators at their
25 request;

26 (4) sponsor or co-sponsor with public or private organiza-
27 tions technical workshops and seminars on hazardous waste reduction;

28 (5) develop a hazardous waste reduction technical reference
29 center and data base;

1 (6) establish and maintain a hazardous waste reduction
2 information referral service;

3 (7) identify and evaluate hazardous waste reduction re-
4 search needs for state businesses and industry, local governments, and
5 state agencies;

6 (8) develop, in consultation with institutions of higher
7 education in the state, courses and curricula related to hazardous
8 waste reduction; and

9 (9) administer the hazardous waste reduction grants program
10 established under AS 46.03.317.

11 (b) In response to a request of a hazardous waste generator, a
12 representative of the department may visit the hazardous waste genera-
13 tor's site for the purpose of observing a waste generating process,
14 obtaining information relevant to waste reduction, rendering advice,
15 and making recommendations. A visit under this subsection may not be
16 regarded as an inspection or investigation. A representative of the
17 department designated to render advisory or consultative services may
18 not have enforcement authority.

19 (c) This section does not diminish the responsibility of a
20 person to comply with this chapter, AS 46.04, or AS 46.09.

21 Sec. 46.03.317. HAZARDOUS WASTE REDUCTION MATCHING GRANTS. (a)
22 A hazardous waste reduction grant account is established in the gen-
23 eral fund. It consists of appropriations made to it.

24 (b) The department may issue matching grants from money in the
25 account to businesses, local governments, industry trade associations,
26 labor organizations, or nonprofit organizations for the purpose of
27 feasibility analysis and evaluation of ways to implement hazardous
28 waste reduction.

29 (c) Grants under this section

1 (1) must be matched on a dollar-for-dollar basis by the
2 grantee in cash or in kind;

3 (2) may not exceed \$10,000 for any single proposal or
4 project.

5 (d) The department shall establish an advisory committee, con-
6 sisting of five members, to assist the department in reviewing and
7 evaluating grant applications under this section. The advisory com-
8 mittee must include

9 (1) an officer or employee of the department;

10 (2) a representative of the University of Alaska;

11 (3) a professional civil or chemical engineer with experi-
12 ence in environmental engineering;

13 (4) an owner or representative of a small business; and

14 (5) a public member.

15 * Sec. 4. AS 46.03.900 is amended by adding a new paragraph to read:

16 (34) "hazardous waste reduction" means decreasing, avoiding,
17 or eliminating wastes that are hazardous to human health or the envi-
18 ronment through source reduction or recycling; the term does not
19 include hazardous waste treatment or hazardous waste disposal.

20 * Sec. 5. This Act takes effect July 1, 1989.



Official Business

Alaska State Legislature

House

P.O. BOX V
State Capitol
Juneau, Alaska 99811

TO: Representative Ron Larson, Co-Chair
Representative Lyman Hoffman, Co-Chair

FROM: Representative Kay Brown

DATE: March 10, 1989 *Kay*

SUBJ: CS HB 106 (Finance) - Revised Fiscal Note
and Proposed Amendments

Please find attached a revised fiscal note for CS HB 106 (Finance) that I would like the Finance Committee to consider adopting during its reconsideration of the bill on Monday, March 13th. The revised fiscal note would provide funding in the amount of \$75,000 for contractual services associated with the waste reduction program established by CS HB 106 (Finance).

I have also attached a work draft that includes some minor changes to the version of the bill previously adopted by the Finance Committee. Briefly, two changes are proposed in response to fiscal limitations:

- 1) changing the status of the Office of Hazardous Waste Reduction and Recycling to make the "office" a "program"; and
- 2) the addition of language making it clear that the department's level of effort would be subject to available funding.

I hope the Finance Committee will give favorable consideration to adopting both the changes proposed in the work draft and the revised fiscal note.

* * * * *

If you have any questions regarding this material, please let me know.

AMENDMENT

by Rieger

To: Work Draft, CS HB 106, dated 2/28/89

Page 3, lines 19-22 -- delete

Page 4, lines 24-25 -- delete

renumber and reletter sections accordingly

2/25/89 Rep. Kay Brown

HAZARDOUS WASTE REDUCTION
CS HB 106 (Res) and HB 107 - Sectional Analysis

CS for House Bill 106 (Res)

Section 1

A statement of findings by the legislature.

Section 2

Directs the Department of Environmental Conservation to promote hazardous waste management practices according to a hierarchy that recognizes waste reduction as a priority.

Section 3

Creates an Office of Hazardous Waste Reduction and Recycling within the Department of Environmental Conservation and prescribes responsibilities of the Office. Responsibilities include:

- providing for non-regulatory hazardous waste source reduction and recycling technical assistance upon request;
- developing and providing information concerning hazardous waste reduction opportunities; and
- administration of a hazardous waste reduction matching grants program.

The Office is directed to report annually to the legislature concerning the progress of hazardous waste reduction efforts.

Section 3 also establishes a hazardous waste reduction matching grants program (\$10,000 maximum) for the purpose of feasibility analysis and evaluation of ways to implement hazardous waste reduction. An advisory committee is also established.

Section 4

Provides a definition of "hazardous waste reduction."

Section 5

Establishes the due date for the first annual progress report as January 15, 1990.

Section 6

Effective date.

House Bill 107

Section 1

Appropriates \$50,000 to capitalize the waste reduction matching grant account established by CS HB 106 (Res).

Section 2

Effective date.



Official Business

Alaska State Legislature

House

P.O. BOX V
State Capitol
Juneau, Alaska 99811

TO: Representative Ron Larson, Co-Chair
Representative Lyman Hoffman, Co-Chair

FROM: Representative Kay Brown

DATE: February 28, 1989 *Kay*

SUBJ: Proposed Finance CS for CS HB 106 (Res)

Thank you for scheduling a hearing for CS HB 106 (Resources) and HB 107, legislation relating to hazardous waste reduction.

Please find attached a draft Finance Committee Substitute for CS HB 106 (Res) that I would like the Finance Committee to adopt during its consideration of the legislation on Wednesday, March 1st. The changes in the attached work draft CS are proposed in order to clarify the intent of the bill regarding the provision of non-regulatory technical assistance to hazardous waste generators.

During consideration of the bill by the Resources Committee, a concern was raised that ambiguous wording in the Resources CS could have the unintended effect of allowing a hazardous generator to request a waste reduction technical assistance visit as a means of obtaining regulatory immunity. The changes proposed in the attached draft CS would eliminate that possible ambiguity while also making it clear that a site visit may not be regarded as an inspection or investigation and that a representative designated to render assistance may not have enforcement authority.

Also, the proposed draft CS includes language making it clear that nothing in the bill compromises the responsibilities of a hazardous waste generator to comply with the regulatory provisions of AS 46.03 (Water, Air, Energy, and Environmental Conservation), AS 46.04 (Oil Pollution Control), or AS 46.09 (Hazardous Substance Release Control).

In addition, I have also attached various letters and testimony in support of the bills. As you can see from these statements, the legislation is supported by a broad spectrum of public and private interests including representatives of industry, small business, labor, local governments and conservationists.

The attached materials include statements from:

Tom Painter, CONOCO
Mayor Don Gilman, Kenai Peninsula Borough
Fairbanks North Star Borough Assembly
David Wigglesworth, Alaska Health Project
Glenn Akins, America North Inc.
Kristine Benson, Alaska Center for the Environment
Anchorage Health and Human Services Commission
Alaska State AFL-CIO

If you have any questions regarding this material, please let me know.

attachments

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION

STEVE COWPER, GOVERNOR

POSITION PAPER FOR HB 106

Title

An Act relating to hazardous waste; and providing for an effective date.

Effect of the Bill

The bill would establish an office of hazardous waste reduction and recycling within the Department of Environmental Conservation. This office would manage a program that coordinates efforts and promotes reduction of hazardous waste generation in Alaska. The Department would conduct the following activities under the proposed legislation:

- Provide for source reduction and recycling technical assistance information and consultation to hazardous waste generators at their request;
- Sponsor technical workshops and seminars on hazardous waste reduction;
- Develop and maintain a hazardous waste reduction reference center and information referral service;
- Identify and evaluate hazardous waste reduction research needs;
- Participate in the development of hazardous waste reduction courses and curricula;
- Administer a hazardous waste reduction grants program; and
- Report annually to the legislature on hazardous waste reduction progress, including recommendations for legislation on source reduction and recycling.

RECEIVED

FEB 6 1989

LEGISLATIVE FINANCE

Department Position

Waste reduction is increasingly recognized as an important component in the overall management strategy for hazardous wastes. Reducing the amount of wastes generated often is the most cost effective waste management technique that can be instituted. For hazardous wastes that are generated, the potential for reuse or recycling should be explored prior to waste treatment and disposal. This is especially true for hazardous wastes, because of the higher risks and liabilities associated with waste handling and disposal, and in Alaska, where both new product and hazardous waste disposal costs are high.

The Department strongly supports waste reduction and recycling as part of Alaska's hazardous waste management efforts. DEC has undertaken individual hazardous waste reduction and recycling projects in the past when funding from federal grants and legislative appropriations have been provided. This bill establishes a continuing waste reduction and recycling emphasis within the Department.


In order for businesses and institutions to begin waste reduction and recycling efforts, information on hazardous waste reduction and recycling methods must be provided. This is appropriately done through provision of technical assistance and consultation with waste generators and through workshops, seminars, or courses on waste reduction and recycling. This availability of information is particularly important to small businesses that do not have the independent capacity to research appropriate waste reduction and recycling techniques. This bill provides a mechanism to meet those needs. The Department would use contractors to provide technical assistance and consultation to waste generators and thereby avoid potential conflicts that may occur between provision of technical assistance and enforcement of Alaska's pollution laws.

The Department believes the bill should provide the authority to adopt regulations necessary to administer and disburse funds from the hazardous waste reduction grants account.

Fiscal Effect

The Department proposes to add two staff positions, along with funds for travel, contractual services, equipment, and supplies, to undertake the activities described in Section 3 of the bill. Travel funds are included for the four non-DEC members of the proposed hazardous waste grant program advisory committee to meet once each year. The fiscal note submitted includes \$75,000 in contractual funds, in part to provide approximately 8 on-site technical assistance visits to hazardous waste generators, assuming that audits cost \$ 5,000 each and the contractor requires 20% overhead. The contractual services funds also includes funds for the sponsorship or co-sponsorship of one or more waste reduction technical workshops or seminars. The balance of the

contractual funds will be used for staff office expenses and the establishment of a hazardous waste reduction reference library. In Alaska, there are more than 300 facilities that have notified EPA as hazardous waste generators and there probably are several hundred more small businesses that could request these services.

A handwritten signature in black ink, appearing to read "Dennis D. Kelso", written over a horizontal line.

Dennis D. Kelso, Commissioner



Tom Painter
Division Manager

Conoco Inc.
3201 C Street
Suite 200
Anchorage, AK 99503

February 22, 1989

The Honorable Kay Brown
P. O. Box V
Juneau AK 99811

Dear Representative Brown:

I am pleased that you are attempting to implement some of the items that we have discussed in the Pacific Northwest Hazardous Waste Advisory Council with the introduction of HB 106 and HB 107. I would like to have the following statement in support of HB 106 and HB 107 submitted as part of the hearing records for these bills:

I am Tom Painter, Division Manager for Conoco's Anchorage Exploration & Production Division, and a member of the Pacific Northwest Hazardous Waste Advisory Council, appointed by Governor Cowper to represent Alaska along with Representative Kay Brown, Mayor Don Gillman, and Tony Knowles. The Council has members from the four Pacific Northwest states of Alaska, Idaho, Oregon, and Washington, the Province of British Columbia, and the Departments of Defense and Energy. The Council is comprised of a diverse cross-section of public interests including energy, manufacturing, environmental, and municipal, State and Indian tribal government concerns.

The Council is committed to facilitating and supporting greater reliance on waste reduction and waste minimization in the Pacific Northwest. These goals are consistent with the goals of both Conoco and our parent company, Du Pont worldwide. Within Du Pont, a Corporate Waste Minimization Committee has been established to provide leadership and recommend policy and program direction for the company. An annual budget of \$500,000 has been established to provide plant training, support research and development, and carry out a company-wide communication program. Waste minimization offers Du Pont potential savings of \$50 to \$100MM in direct disposal costs, plus several times this amount in conserved resources. We have established a goal within the company of a 35% reduction in wastes generated by yearend 1990.

A company with large resources, such as Du Pont, is able to implement a waste minimization program internally without significant external technical assistance. However, smaller companies do not have these resources internally available, and their ability to devise and implement effective waste minimization programs are limited by the simple lack of technical expertise. It should be noted that the aggregate

volume of wastes generated by small quantity generators, currently exempt from regulation, exceeds the volume generated by larger generators. Thus assistance in aiding small quantity generators to reduce their wastes will be a significant factor in reducing the total waste stream.

HB 106 would both establish legislative intent and provide a method for Alaska's smaller waste generators to obtain technical assistance in devising and implementing waste reduction practices. There are also several key features in this proposed legislation which are consistent with the goals and work of the Advisory Council.

Specifically, these items are:

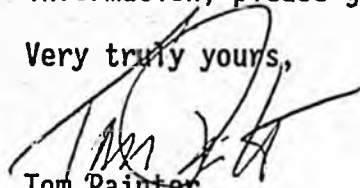
- Public education. The proposed legislation provides for technical workshops, a referral service, public seminars, and college courses on waste reduction. For the program to be successful, public awareness of the problems and resources available for potential solutions are necessary. Our society must come to recognize that the proper handling and disposition of all our wastes is a growing problem to which we all contribute and must work together to solve.
- Public involvement. The Advisory Council will provide the opportunity for increased public involvement in this area.
- Voluntary cooperation. The concept of individuals or small businesses working hand in hand with a regulatory agency, such as the Department of Environmental Conservation, without threat of enforcement sanctions may be a radical concept for some. However, we believe for widespread utilization and acceptance by the general public to occur, the program must be voluntary. Sheer magnitude of the numbers alone renders DEC incapable of regulating each and every small waste generator in the state. The provisions protecting a volunteering business or individual from the threat of citations is essential to the voluntary provisions of the legislation.
- Financial assistance. By providing limited matching funds, the state and the small generator have both made a commitment to reducing the waste volume. This dual commitment will strengthen the cooperative bond between the state and the applicant.

The Honorable Kay Brown
February 22, 1989
Page 3

- Technical assistance. Most small volume generators do not have the technical expertise to implement effective waste reduction programs. Providing this assistance will facilitate a more effective program.

This concludes my statement on HB 106 and HB 107. If any of the hearings are teleconferenced, and I am in Anchorage, I would be willing to present this statement as testimony. Again, Conoco and I personally endorse the innovative concepts embodied in this proposed legislation, and strongly recommend your support in it's enactment. If you need any additional information, please give me a call at 564-7601.

Very truly yours,



Tom Painter
Division Manager

AEH(jah)



KENAI PENINSULA BOROUGH

144 N. BINKLEY • SOLDOTNA, ALASKA 99669
PHONE (907) 262-4441

DON GILMAN
MAYOR

POSITION PAPER HB 106 & 107 HAZARDOUS WASTE REDUCTION

The Administration of the Kenai Peninsula Borough supports the passage of HB 106 & 107, establishing and funding a hazardous waste reduction grant program.

The implementation of a state policy to address hazardous waste source reduction is critical to the future health and safety of the public and environment of Alaska. The Kenai Peninsula Borough, as well as the entire state, is facing ever increasing occurrences of hazardous waste contamination. A recent inventory done on the Kenai Peninsula revealed over 200 potential sites.

Our hazardous waste management policies can no longer simply deal with disposal and treatment practices, but must begin to focus on reduction at the source to the greatest extent possible, as well as recycling of those wastes.

This legislation begins that process by establishing priorities and creating an Office of Hazardous Waste Reduction and Recycling within the Department of Environmental Conservation to implement those priorities. The technical and financial assistance for private industry and local governments provided by this legislation is essential to the success of the program. Through this assistance, they will see that source reduction of hazardous waste is not only environmentally sound, but economically beneficial as well.



Alaska Environmental Lobby, Inc.

P.O. Box 22151 Juneau, Alaska 99802

907-586-2345

AEL ISSUE PAPER - HB 106 and 107 - REDUCTION OF HAZARDOUS WASTE AT ITS SOURCE

The Alaska Environmental Lobby wholeheartedly supports House Bills 106 and 107. Reducing hazardous waste at its source - a **proactive, prevention-oriented approach** - is a pioneering shift from the traditional, **reactive** waste treatment methods. Less hazardous substances in our society mean less potential for environmental damage, and a decreased risk of spills and human health hazards. Economically speaking, reducing our waste output means industry, the public, and government save money by avoiding costs of clean-ups, treatment, and disposal of wastes. We all benefit from hazardous waste reduction.

We are the creators of our children's world. It is our duty to those who will follow us to develop industries and economies that are sustainable, safe, and far-sighted. Hazardous wastes, too, act in the long-term. They can continue to create problems years after they are generated, and are non-specific in who they effect.

Therefore, we must be united in our attack on hazardous waste. HBs 106 and 107 promote cooperation between regulatory agencies, the public, big industry and small business. The huge amount of money, worry and time saved by a small investment now promises to outweigh the costs of handling problems later. We applaud the plan in HB 106 to provide financial and technological assistance to businesses. Scientific and technological information is complicated and is continually evolving; citizens need help in understanding it.

Alaska's current fiscal situation dictates that we must put our limited funds where they will do the most good. Developing a hazardous waste reduction and recycling office represents a wise investment of state money for long-term cost savings, and at the same time promotes public health, industry efficiency, a healthy economy, and a clean environment. We encourage the committee to support HBs 106 and 107.

Karen Wood
March 1, 1989

ALASKA CENTER FOR THE ENVIRONMENT • ALASKA CHAPTER, SIERRA CLUB • JUNEAU GROUP, SIERRA CLUB • SITKA GROUP, SIERRA CLUB
KNIK GROUP, SIERRA CLUB • DENALI GROUP, SIERRA CLUB • ANCHORAGE AUDUBON SOCIETY • ARCTIC AUDUBON SOCIETY
DENALI CITIZENS' COUNCIL • ALASKA FRIENDS OF THE EARTH • JUNEAU AUDUBON SOCIETY • KACHEMAK BAY CONSERVATION SOCIETY
KENAI PENINSULA AUDUBON SOCIETY • KODIAK AUDUBON SOCIETY • LYNN CANAL CONSERVATION • ALASKA WILDLIFE ALLIANCE
SITKA CONSERVATION SOCIETY • NORTHERN ALASKA ENVIRONMENTAL CENTER • SOUTHEAST ALASKA CONSERVATION COUNCIL
K'IK KANOERS AND KAYAKERS

By: Juanita Helms
Introduced: 02/23/89
Adopted: 02/23/89

RESOLUTION NO. 89-023

**A RESOLUTION RELATING TO HOUSE BILL NO. 106 (RESOURCES)
IN THE LEGISLATURE OF THE STATE OF ALASKA**

WHEREAS, the Legislature of the State of Alaska, Sixteenth Legislature, First Session, has offered a bill for an Act entitled: "An Act relating to hazardous waste; and providing for an effective date;" and

WHEREAS, there are known or suspected sites within the Fairbanks North Star Borough where hazardous substances have been improperly disposed and more sites are discovered each year; and

WHEREAS, hazardous waste reduction and recycling efforts are increasingly recognized by both business interests and the general public as an economically effective response to the increasing costs and liabilities resulting from hazardous waste generation; and

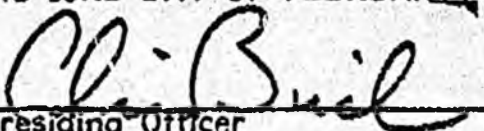
WHEREAS, the people of the Fairbanks North Star Borough are committed to a healthy and non-hazardous environment in which the residents of the Borough may live and work; and

WHEREAS, House Bill No. 106 has been introduced to reduce or eliminate hazardous waste before it is generated.

NOW, THEREFORE, BE IT RESOLVED that the Fairbanks North Star Borough Assembly supports and endorses House Bill No. 106 in the Legislature of the State of Alaska, Sixteenth Legislature, First Session.

BE IT FURTHER RESOLVED that the Fairbanks North Star Borough Assembly urges the Interior Legislative Delegation to actively support the passage of House Bill No. 106 in the Legislature of the State of Alaska, Sixteenth Legislature, First Session.

PASSED AND APPROVED THIS 23RD DAY OF FEBRUARY, 1989.



Presiding Officer

ATTEST:



Clerk of the Assembly



Alaska Health Project

Providing information about hazardous materials on the job and in the community.
431 West 7th Ave., Suite 101, Anchorage, AK 99501 (907) 276-2864

Testimony Supporting House Bill 106 And House Bill 107
Acts Relating To Hazardous Waste
And A Waste Reduction Matching Grant Program

by
David Wigglesworth
Deputy Director
Alaska Health Project

January 24, 1989

Alaska Health Project is a private non-profit organization providing information and education about hazardous materials on the job and in the community. In 1986, AHP established the Waste Reduction Assistance Program (WRAP). WRAP is a non-regulatory multi-media program providing information, technical assistance, and on-site audits for Alaskan businesses. The Small Business Development Center of Alaska and the University of Alaska, School of Engineering are keyed into selected components of WRAP. Funding for AHP's waste reduction services come from a variety of public and private sources.

AHP strongly supports both House Bill 106, "an act relating to hazardous waste and providing for an effective date," and House Bill 107, "an act making a special appropriation for hazardous waste reduction grant program; and providing for an effective date." We urge the Legislature to act quickly on these bills because of their enormous benefit to Alaskan businesses and the general public.

Waste reduction offers environmental quality with economic benefits. It is the most economically sensible approach to solid and hazardous waste management. By reducing the generation of waste at the source before it becomes a pollutant or a "lost" resource, businesses can use resources more efficiently, decrease regulatory compliance costs, reduce liabilities, and create additional revenues from the recovery of waste materials.

To date, several businesses in Alaska have implemented active waste reduction programs. Two local businesses, One Hour Fireweed and PhotoWright Laboratories, have received Pollution Prevention Awards for their efforts in reducing waste. Many other businesses in Alaska are also beginning to see the value in eliminating waste at the source and recycling waste that is created.

Moreover, waste reduction makes sense for all Alaskans by helping to:

- * Protect public health through the reduction of environmental pollution.
- * Reduce state cleanup costs associated with illegal waste disposal and abandoned sites.
- * Increase the capacity (life span) of state solid waste management facilities.
- * Promote economic development and the well being of all Alaskans by improving the operating efficiency of business activities.

A significant barrier to active business involvement in waste reduction has been the lack of technical assistance and other positive incentives to help business owners identify waste reduction opportunities. Alaska needs the institutional support provided by both House Bill 106 and 107 to help overcome these technical and behavioral barriers to waste reduction. For instance,

- * The policy statement in HB 106 prioritizing waste management practices provides the framework and the leadership needed to further enhance waste reduction opportunities in Alaska.
- * The proposed creation of the Office of Hazardous Waste and Recycling institutionalizes waste reduction within the State's environmental management programs and commits the state to an active program.
- * The provisions for education and technical assistance offer the positive, non-regulatory incentives that businesses have requested and need to properly manage their industrial wastes.
- * The Matching Grant Program offers additional incentive for business to identify waste reduction opportunities. At the same time the structure of the matching grant program is fiscally responsible--ensuring that funding goes to only those businesses, or other entities truly interested in developing a waste reduction program and willing to utilize some of their own capital to do so.
- * The funding support for the Matching Grant Program identified in HB 107 allows components of Alaska's waste reduction program to become reality today--not in the future.

Alaska Health Project congratulates the Legislature, in particular, bill sponsor Representative Kay Brown and bill cosponsors Representatives M. Davis, Ellis, Goll, Koponen, Menard, Navarre, and Ulmer for their forward thinking. Both bills should receive broad support from all Alaskans.

Given our current economy, the Legislature may find it difficult to support appropriation of dollars from the General Fund to create a new program. AHP urges the Legislature to consider this legislation not as an expenditure, but as a cost savings investment for the future. The state is already spending millions of public dollars to cleanup abandoned waste sites across the state. An active waste reduction program will help reduce future state expenses in this area and help reduce the size, scope and costs for new waste management facilities. Moreover, the competitiveness of Alaskan industries will be enhanced as businesses improve their operating efficiency through the implementation of waste reduction programs.

As stated in a recent article in Waste Minimization & Recycling Report, a national waste reduction newsletter produced by Government Institutes, Inc.: "it has been demonstrated numerous times that waste minimization can reduce economic expenditures, that there can be significant economic leverage factors in waste minimization. The Ventura County (California) experience shows a whopping leverage factor of over 50--i.e., more than fifty dollars can be saved for each dollar invested in waste minimization." (September 1988, page 11).

The bottom line is that waste reduction works and makes sense for Alaskan business and for the state as a whole. Further, there is demonstrated need for sustained programs to assist industry in developing waste reduction programs, and to build into our state government the capability to maintain a waste reduction program over time.

AHP looks forward to providing further comment on this legislation during committee hearings. We also are available to provide any additional technical assistance that the Legislature might need in the area of waste reduction. Enclosed is some additional information about AHP's Waste Reduction Assistance Program (WRAP). Please keep us informed of the progress of this legislation. Thank you.

cc. Governor Steve Cowper
Representatives:
Brown
M. Davis
Ellis
Goll
Koponen
Menard
Navarre
Ulmer

PROGRAM SUMMARY OF ALASKA HEALTH PROJECT'S
WASTE REDUCTION ASSISTANCE PROGRAM (WRAP)

January 20, 1989

Alaska Health Project's Waste Reduction Assistance Program (WRAP) was established in 1986. WRAP is a non-regulatory multi-media program providing information, technical assistance, and on-site audits to Alaskan businesses, small business in particular. WRAP information and technical assistance has also been provided to businesses and other waste reduction programs through out the United States. WRAP activities focus on source reduction and recycling. Specific program activities include:

- * Information clearinghouse/research
- * Technical assistance (including an 800 number)
- * Seminars
- * Education outreach (news articles, public speaking)
- * On-site waste reduction audits
- * Waste reduction publications (fact sheets, manuals, audits)
- * Waste reduction resource library
- * Graduate engineering students intern program
- * Referrals

To date, WRAP staff have responded to several hundred technical assistance inquiries and have completed 14 detailed waste reduction audit reports for selected Alaskan businesses. A total of 8 graduate interns have assisted WRAP staff conduct the on-site audits and prepare audit reports. In addition, WRAP staff have completed over two dozen informational articles for Alaskan newspapers, presented 10 waste reduction seminars, produced 6 technical waste reduction information fact sheets for selected businesses, and published a 46-page manual entitled "Profiting From waste Reduction In Your Small Business."

The Small Business Development Center of Alaska, the University of Alaska, and the State Department of Environmental Conservation are keyed into selected components of WRAP. Funding for WRAP comes from a variety of public and private sources including the Charles Stewart Mott Foundation ,the Alaska Department of Environmental Conservation, and US EPA Region 10.

AHP is a private non-profit organization established in 1980. The WRAP program contact is David Wigglesworth, 907-276-2864.

LIST OF CURRENT WASTE REDUCTION PUBLICATIONS
PRODUCED BY ALASKA HEALTH PROJECT

January 1989

Detailed Audit Reports

- * Auto Body Repair and Paint Shop
- * Automotive Repair Shop
- * Aviation
- * Chemical Manufacturing (and plastic bottle production)
- * Dairy Foods
- * Dry Cleaners
- * Electroplating
- * Fur Tanning
- * High School
- * Laboratory
- * Newspaper Manufacturing
- * Photofinishing
- * Print Shop
- * Publishing House

Waste Reduction Fact Sheets

- * General Industry
- * Dry Cleaners
- * Local Government
- * Newspaper Manufacturing
- * Photofinishers
- * Print Shop
- * Vehicle Repair

Other Publications

- * News articles
- * "Profiting From Waste Reduction In Your Small Business", 46 pages. Designed to help small business identify and implement and industrial waste reduction program.

OTHER SELECTED WASTE REDUCTION ACTIVITIES
PERFORMED BY ALASKA HEALTH PROJECT

January 1989

- * Member, National Roundtable for State Waste Reduction Programs.
- * Member, Technical Advisory Committee providing review of the "EPA Manual for Waste Minimization Opportunity Assessments."
- * Manuscript contributions to "Hazardous Waste Minimization" to be published by McGraw-Hill Inc.
- * Past member, Pacific Northwest Regional Waste Management Steering Committee.
- * Participant, survey evaluating waste reduction audit protocols conducted by CHEMCYCLE for the State of New Jersey.
- * Recipient, Mayors Pollution Prevention Award, 1987, Anchorage, Alaska.

Hazardous & Solid WASTE MINIMIZATION & RECYCLING REPORT

Code 7025

December 1988

Issue 25

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Federal Report

Federal Waste Reduction Policy, 1989 and Beyond: A Look Ahead

by David R. Jones

On January 20, 1989, George Bush will become the 41st president of the United States. In the years to come, will observers look back upon this date as the beginning of a new era in hazardous waste reduction policy? Or will the man who campaigned to become the "environmental president" be remembered for continuing the weak, fragmented federal policies of recent years?

President-elect Bush takes office with a campaign commitment to reduce pollution. Indeed, his statements on the environment make specific mention of the need for waste minimization and recycling (see box on next page). The question is: Will the Bush administration make waste reduction a cornerstone, or even a major component, of its environmental policy plans?

Legislation in Congress

Congress begins the 1989 session with its own

agenda for hazardous waste reduction and recycling. In the House, the Waste Reduction Act (H.R. 2800 in the previous congressional session) will be reintroduced by Rep. Howard Wolpe (D-Mich.). H.R. 2800 breezed through the House last year, boasting 230 co-sponsors, despite opposition from the Chemical Manufacturers Association (CMA). Though the Wolpe bill must now wind its way through the legislative process all over again, swift approval appears likely.

A different story may be taking shape in the Senate. Sen. Frank Lautenberg (D-N.J.) returns after a tough reelection campaign to sponsor the Senate version of the Hazardous Waste Reduction Act. Last year, Lautenberg's bill had 23 co-sponsors, including seven Republicans, yet died in committee.

In 1989, the Senate probably will have a more liberal tilt: though Senate Democrats increased their numbers by just one, two moderate-to-liberal

(continued on next page)



Case Study

The Alaska Health Project: Sealing Small Businesses on Hazardous Waste Reduction

by David R. Jones

At times, both professionals involved in waste minimization and those reporting on the subject take on the trappings of religious zealots in their advocacy. Reducing hazardous wastes in business and government operations is often so practical, and the economic and environmental benefits so obvious, that those of us in the field occasionally sound like television preachers proclaiming the dawn of a new age.

In short, we sometimes speak of hazardous waste reduction more as a moral imperative and less as a business, engineering and management strategy. And while reducing wastes is undoubtedly the key, long-term solution to toxic pollution, few business managers are willing to commit substantial time and resources to waste reduction simply because it is the "right" thing to do.

Preaching the Bottom Line

The Alaska Health Project (AHP) was established in 1980 with the purpose of providing information and education about hazardous materials in the work place and in the community. AHP conducts seminars on occupational safety and health for business operators and employees; develops training manuals; and provides information to individuals, businesses, health professionals, and state and local governments. Information is offered through publications, a Small Business Hazardous Materials Resource Library, research assistance and referral services to additional resources in the state and the nation.

For AHP, promoting waste reduction in the private sector means speaking the language of the business professional, not that of the environmentalist or the scientist. Consider the introduction to its promotional brochure:

"Effective material management is key to any successful business. And when it comes to hazardous materials and waste reduction, sound management is crucial to protecting your business investment."

AHP goes on to list the benefits of proper hazardous materials and waste reduction management, focusing on economic opportunities:

- "Reduce injuries and costly spills"
- "Reduce liabilities, such as future clean-ups, regulatory and noncompliance problems"
- "Help maintain a safe and healthy work place and community"
- "Improve your public image with your customers and your community," and

- "Reduce hazardous waste production and thereby reduce or eliminate regulatory costs, disposal costs and insurance costs."

Unlike many technical assistance programs (TAPs) for reducing hazardous wastes, AHP is not state-operated; rather, it is a nonprofit organization that taps into the resources of state and local government, academia, foundations and the business community. What further sets AHP from TAPs in other states is its exclusive focus on the needs of small business.

Program Components

AHP launched its waste reduction efforts in 1986 with the development of the Waste Reduction Assistance Program (WRAP) and the Small Business Hazardous Materials Management Project (HMNF). Both programs target small business.

The Waste Reduction Assistance Program focuses on providing on-site consultation for small business. Like Minnesota's Technical Assistance Program, WRAP arranges internships for engineering graduate students. These students, recruited from the University of Alaska School of Engineering, assist AHP staff in conducting waste reduction audits at work sites. Audit reports concentrate on the elimination of waste through source reduction and recycling wherever possible.

After on-site audits are conducted, individual reports are written describing the processes used and waste produced by the particular business. Each report recommends methods for reducing these wastes. The identity of the business remains confidential. While geared to specific sites, the audits are intended to be applicable to similar businesses in the state. Audit reports are available to interested parties upon request.

In addition, WRAP has produced a set of on-site consultation audits for dry cleaners, photofinishing shops, auto body and repair shops, automotive repair shops, printing shops, aviation facilities and electroplaters. Audit reports also are being prepared for dairies, fur tanning shops and bottle making/chemical manufacturing sites. Each audit includes practical, low-cost techniques that businesses can use in current operations, or in planning future expansion.

The success of WRAP was recognized last year when Anchorage Mayor Tony Knowles bestowed the 1987 Mayor's Pollution Prevention Award to AHP for the program. In a letter to AHP, Mayor Knowles noted that WRAP "is a truly outstanding example of



Case Study(continued)

providing needed on-site advice and help to businesses on pollution prevention" that "provides an example for others to follow." WRAP "not only has raised an awareness of the environmental and economic benefits" of waste reduction, write the mayor, but also "has provided practical technical assistance to many businesses that would otherwise not have the money or expertise for such programs."

WRAP is funded by a RCRA 8001 grant from the U.S. Environmental Protection Agency, Region 10.

The Hazardous Materials Management Project focuses on providing technical assistance and education to small firms. This includes developing waste reduction fact sheets; producing other educational materials; conducting seminars; and responding to information requests.

An example of HMMP's program materials is the manual *Profiting from Waste Reduction in Your Small Business*. In the introduction, author David Wigglesworth observes that it is designed to help small business managers and their employees work together to identify and implement methods" of waste reduction, as well as "help managers and employees see their industrial wastes as financial resources rather than as unavoidable byproducts of their business process."

Profiting from Waste Reduction—which could be used by small firms in Alaska and the lower 48 alike—is a highly readable, easy-to-use guide that takes the business owner step-by-step through the process of creating an in-house waste reduction program. After reviewing the financial benefits of such a program, the manual outlines how to:

1. Organize a business to promote waste reduction by forming an audit team.
2. Review business plans and procedures for waste reduction potential. This includes assessing a firm's market plan, financial plan and record-keeping plan and operations plan (which includes process, receiving, delivery and inventory procedures and personnel policies).
3. Carry out a waste reduction audit in four steps: conduct a preliminary walkthrough; conduct a facility walkthrough; identify waste reduction opportunities; and document findings.
4. Evaluate a waste reduction program and implement options.

Also included is a chart that highlights nine common business processes (such as dry cleaning, equipment maintenance and purchasing); the types of businesses that use particular processes; the types of wastes generated; and selected low-cost and higher-cost options for waste reduction. The manual concludes with an extensive listing of waste

reduction resources for small businesses.

A major feature of *Profiting from Waste Reduction* is its ready-to-use business forms, complete with instructions. For example, the chapter on conducting a waste reduction audit includes forms for process identification, materials identification, waste identification and cost identification. It even has a walk-through schematic drawing for diagramming a facility and highlighting waste-generating processes.

HMMP works closely with the Small Business Development Center of Alaska, which helps AHP reach small business operators and serves as a distribution center for program materials. The Charles Stewart Mott Foundation in Flint, Mich. funds HMMP.

Signposts to Success

Though AHP's waste reduction efforts were initiated just two years ago, its two small business programs have provided program materials to numerous businesses and government agencies, both in Alaska and in other states (AHP also conducts regional waste-reduction activities as part of EPA Region 10's waste management initiatives in the Pacific Northwest). It also has offered free, confidential, on-site assistance to firms involved in printing, dry-cleaning, auto body and automobile repair and aircraft maintenance.

Will AHP succeed in helping Alaskan small businesses substantially reduce their waste generation? This question will be answered in the next few years, as the organization expands its outreach and technical assistance efforts. Nevertheless, several factors indicate that AHP may evolve into a model program for hazardous waste reduction.

- AHP combines "generic" technical assistance with information geared to specific types of businesses. AHP's manual *Profiting from Waste Reduction* is a general guide to establishing an industrial waste reduction program that all types of firms can use. This generic manual is complemented by on-site consultation to individual businesses and detailed audits and fact sheets applicable to particular kinds of work sites—dry cleaners, aviation facilities and others.

- AHP taps a wide array of public and private sector resources to bolster its efforts. The Waste Reduction Assistance Program follows the lead of Minnesota's Technical Assistance Program in placing engineering graduate students in individual firms for on-site consultation. To ensure its outreach efforts succeed, AHP works closely with the Small Business Development Center of Alaska, which helps AHP reach small businesses and distributes program materials. In addition, AHP draws upon the

(continued on next page)



Case Study (continued)

advice and expertise of a statewide, 40-member Professional Resource Committee and a Small Business Hazardous Materials Advisory Committee.

- AHP targets Alaskan firms—that is, small businesses—with the greatest need for waste reduction technical assistance. Alaska's economy is dominated by large oil companies. But, as the congressional Office of Technology Assessment has pointed out, "The size of a firm—in terms of annual sales or number of employees—is not necessarily indicative of the amount and/or toxicity of wastes being produced.... In certain states small firms may be more prone than large ones to poor waste practices, i.e., they may create problems out of proportion to their hazardous waste generation rates."

- AHP taps nongovernmental sources of funding. While most technical assistance programs for industrial waste reduction rely on state or federal funds, HMMP is funded by the Flint, Michigan-based Charles Stewart Mott Foundation. This

foundation has long supported innovative programs around the country that take new approaches to solving social problems. In addition, publication of AHP's manual was partially funded by the municipality of Anchorage, the Anchorage Water and Wastewater Utility, the state Department of Environmental Conservation and the U.S. Environmental Protection Agency.

Selling to the Sellers

It remains to be seen whether AHP can have a long-term impact on waste reduction in Alaska. Yet, in just two years, the organization has made its mark. With the motto "Waste Reduction is Good Business Sense [sic], AHP has sold many Alaskan small businesses on the economics of waste reduction, whose environmental benefits become readily apparent upon implementation.

Contact David Wigglesworth, Alaskan Health Project, 431 West 7th Ave., Suite 101, Anchorage, AK 99501; (907) 276-2864. #DRJ

Recycling News

Steel Can Recycling Seen in Future by Scrap Metal Processors—But Not Now

Scrap metal processors don't believe a ready market exists for steel can scrap, according to a survey of members by the Institute of Scrap Recycling Industries (ISRI). The survey showed, however, that many processors expect such recycling to be a viable option for their business in the future—not just yet.

Robert Garino, director of commodities for ISRI, said only about 100 processors responded to the survey. "We assume the lack of response reflects a low present interest in the subject," Garino said, "but we believe the survey is a valid insight." Most respondents—more than 95 percent—now process aluminum can scrap, Garino said, and 30 percent also process bi-metallic cans.

Asked whether processors have recently tried to sell steel can scrap to steel mills, 83 percent of those responding said "no." Of the 17 percent answering yes, only a couple noted positive mill interest. Almost 70 percent of the companies surveyed said no ready market exists for the steel in can scrap.

When asked about any processing problems, most respondents answered "no" and also saw no transportation or environmental problems. Some, however, expressed concern about the lack of specialized processing equipment, anticipated high freight rates, and health problems associated with residual food in cans.

Asked whether steel can recycling was a "viable option for your business in the future," about 60 percent of the respondents said "yes." Thirty-five percent said "no," however, and five percent answered "maybe." For more information, contact Dean Reed, ISRI, 1627 K St., NW, Washington, D.C. 20006; (202) 466-4050. #

Amoco, Big Mac Attack Polystyrene Waste

A joint project of Amoco Foam Products, McDonald's Corporation, and the city and state of New York is investigating the feasibility of recycling polystyrene foam containers into home construction materials. The impetus of the project was New York Governor Cuomo's request to McDonald's to use substitute biodegradable materials for plastic foam packaging in restaurants in the state, as well as New York City Mayor Koch's stated opposition to forms of plastic packaging.

A pilot project will be conducted at 20 McDonald's outlets in New York City, with a companion recycling project for corrugated paperboard boxes also being tested in the city. For more information, contact the Council on Plastics and Packaging in the Environment, 1275 K St., N.W., Washington, D.C. 20005; (202) 789-1310. # AHP



America North Inc.

Environmental Consulting/Natural Resources Management

February 3, 1989

Representative Kay Brown
P.O. Box V
State Capitol
Juneau, Alaska 99811

Dear Representative Brown:

I would like to express my strong support for HB 106/107. This legislation would provide both an important message and a valuable service to waste generators in Alaska.

As co-owner of an environmental consulting firm, I can assure you that several large industrial corporations in Alaska have taken serious steps to reduce generation of hazardous waste. Their interest in this is great, because through minimization they reduce their liability from potential mis-management, and reduce their costs for out-of-state waste disposal. After Hawaii, Alaska has the greatest distance to cover of any state to reach an EPA-permitted disposal site.

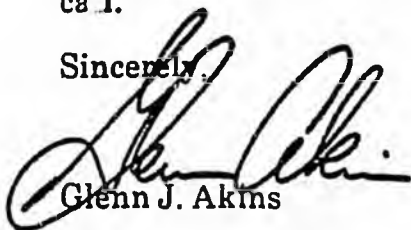
Industry's waste minimization efforts are aided by environmental engineers and industrial hygienists on-staff, and also by consultants such as ourselves. For example, we are in the second year of waste management training for one company, and have trained over 300 of their staff.

Most small businesses do not have these resources. Your legislation, if enacted, will greatly improve the transfer of information and technology to small businesses. The growth of product substitution, waste minimization, and recycling hardware and services over the past two years has been truly amazing. There is a great opportunity to get this information into the hands of those who can use it, along with follow-up technical assistance.

I would like to repeat my recommendation that waste minimization successes be recognized in an annual award. The Anchorage award program has secured valuable publicity for the feasibility and cost effectiveness of waste minimization efforts by small businesses.

Please let me know if I can help in any other way to secure this legislation. If any questions come up on programs underway within large businesses, do not hesitate to call.

Sincerely,



Glenn J. Akms

GJA:wr



Alaska Center for the Environment

700 H Street, Suite 4 • Anchorage, Alaska 99501 • (907) 274-3621

February 27, 1989

Representative Kay Brown
Alaska Legislature
P. O. Box V
Juneau, Alaska 99811

Dear Representative Brown:

Alaska Center for the Environment has been involved in hazardous waste matters in Alaska for the past eight years. Our goals include working for a strong state regulatory program. We support CS HB 106 and HB 107, which would add an office of hazardous waste reduction and recycling to the Department of Environmental Conservation.

We believe that waste reduction needs to be a priority throughout all the DEC programs, including permits and cleanups, in addition to ongoing waste management. It is good that your bill spells out waste management practice priorities and further enables DEC to implement waste reduction policies. Currently, DEC is unable to do little beyond talk about waste reduction.

We also believe that the best regulatory program combines technical assistance and enforcement. However, we feel it is important that personnel who conduct enforcement inspections are not the same as those who technically assist. The Committee Substitute addresses this issue.

We also are concerned that hazardous waste enforcement continues to be lax in Alaska. DEC and EPA estimated compliance with the federal hazardous waste law (RCRA) to be only 8% (1988 draft State EPA Agreement). While we support the establishment of waste reduction programs to address the long-term solutions, they must be in conjunction with adequate enforcement. Enforcement and penalties serve as incentive to reduce hazardous waste generation, without which continuing illegal disposal will leave little motivation for obtaining technical assistance. For this reason, we also urge you to carefully assess the proposed DEC budget to ensure that enforcement has been given enough funding, especially relative to existing levels of technical assistance.

Sincerely,

Kristine Benson
Hazardous Waste Specialist



Tom Fink,
Mayor

Municipality of Anchorage

Municipal Health & Human Services Commission

825 "L" Street

P.O. Box 196650 • Anchorage, Alaska 99519-6650



Telephone:
(907) 343-4874

February 17, 1989

Representative Kay Brown
P.O. Box V
Juneau, Alaska 99811

Subject: HB 106 & 107

Dear Representative Brown,

The Municipal Health and Human Services Commission strongly supports both House Bill 106, "an act relating to hazardous waste," and House Bill 107, "an act making a special appropriation for hazardous waste reduction grant program."

Tons of hazardous materials are known to be stored, used, or transported in Anchorage everyday. The continued need for chemicals will mean that some time a major hazardous materials emergency will happen, potentially involving human casualties, mass evacuations, and environmental and property damage.

The Commission believes that the best way to reduce the dangers associated with hazardous waste is to reduce the amount of hazardous waste used. This philosophy is reflected in the Anchorage Health and Human Services Plan which specifically recommends this strategy.

It is estimated that over 1,500 businesses in Anchorage could potentially take advantage of the proposed hazardous waste reduction program. Although the initial program is modest it could reap large financial and environmental quality benefits in the future.

Please let us know how we can be of further assistance in promoting the passage of this important piece of legislation.

Sincerely,

Linda Langston

Linda Langston, Chair,
Municipal Health & Human Services Commission

cc: Mayor Tom Fink
Bert Hall, Director, Department of Health & Human Services
Bill Faulkner, Chairman, Municipal Assembly
Governor Steve Cowper
Representatives: Larson, Hoffman, Goll, Gruenberg, Davis,
Menard, Navarre, Kopenen, Ellis, Ulmer

ALASKA STATE AFL-CIO

2501 Commercial Dr.
Anchorage, Alaska 99501
(907) 258-6284



819 1st Ave.
Fairbanks, Alaska 99701
(907) 456-2030

MANO FREY
Executive President

February 24, 1989

Representative Kay Brown
Box V
Juneau, Alaska 99811

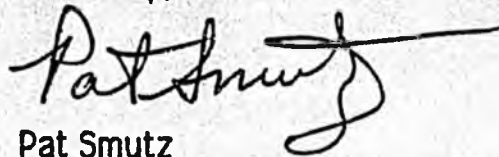
Dear Representative Brown,

On behalf of the Alaska State AFL-CIO, I would like to offer this letter in support of CS HB 106 (Resources) and HB 107, legislation to establish a hazardous waste reduction program in Alaska.

There is one significant benefit of the proposed legislation that we are very interested in, and we feel should be emphasized. Non-regulatory technical assistance to small businesses that results in more efficient use of toxic or hazardous materials can also help reduce occupational health risks. Many waste reduction techniques involve relatively simple housekeeping improvements within a production system (e.g. taking care not to combine waste streams in a way that precludes recycling or reuse of hazardous materials). The technical assistance and matching grants program that would be established by CS HB 106 (Resources)/HB 107 would help businesses identify these opportunities and generally increase awareness about the appropriate management of hazardous materials. Waste reduction efforts will not only result in lower costs, but also increased awareness about hazardous materials management and a general improvement in the cleanliness and safety of operations for employees.

In conclusion, CS HB 106 (Resources)/HB 107 would not only assist businesses generating hazardous wastes to lower costs and avoid expensive and unnecessary contamination clean-ups in the future, the legislation would also help reduce occupational health risks. The Alaska State AFL-CIO supports this preventative approach to hazardous waste management and urges passage of this legislation.

Sincerely,

A handwritten signature in cursive script, appearing to read "Pat Smutz", with a long horizontal flourish extending to the right.

Pat Smutz
Business Representative/
COPE Director

cc: Mano Frey



OTA REPORT BRIEF

September 1986

Serious Reduction of Hazardous Waste

Waste reduction is an economically sensible response to what many people see as a hazardous waste crisis. Several thousand pounds of hazardous waste are generated annually for every person in the Nation. Many thousands of people have lost their drinking water because of contamination by toxic waste. Across the country there are thousands of sites contaminated by hazardous waste that require billions of dollars for cleanup. An increasing number of lawsuits are being brought by people who claim to have suffered adverse health effects from living near toxic waste sites. Also the number of lawsuits being instituted by the government is mounting rapidly. These suits claim that certain waste generators have not complied with regulations and that generators who have used waste management facilities now on the Superfund list must pay for cleanups.

Waste reduction is critical to the prevention of future hazardous waste problems. By reducing the generation of waste, industry can use materials more efficiently and achieve more certain protection for health and the environment. At the same time, industry can lower waste management and regulatory compliance costs, liabilities, and risks.

Although there are many environmental and economic benefits to waste reduction, over 99 percent of Federal and State environmental spending is devoted to controlling pollution after waste is generated. Less than 1 percent is spent to reduce the generation of waste. The current level of national spending for pollution control is about \$70 billion. Two-thirds of this is spent by industry. Since many hazardous substances are not yet regulated, annual expenditures will, in all likelihood, continue to increase.

OTA finds that reducing waste to prevent pollution from being generated at its source is now a practical way to complement this costly pollution control regulatory system. Because of sporadic and uneven enforcement, the current regulatory system weakens the incentive to reduce waste. Waste reduction, no matter how far it is taken, cannot eliminate all wastes, but it can help to lower costs for environmental protection as regulations continue to expand.

Current pollution control methods often do little more than move waste around. For example: air and water pollution control devices typically generate solid, hazardous waste that goes to landfills and too often leaches from there into groundwater. Many hazardous wastes, such as most toxic air emissions, are

not yet regulated, and regulatory standards for permissible emissions legally sanction the generation of some wastes. Thus, OTA finds that establishing a comprehensive, multimedia approach to reducing wastes going into the air, land, and water is essential.

OTA finds that there is no common definition of waste reduction; there are few or no data on the extent of industrial waste reduction; waste reduction is usually measured incorrectly; and the information that the government collects on waste generation is not useful for waste reduction. If waste reduction is defined to include waste treatment, companies will naturally pay more attention to treatment, which is a familiar activity, than to the reduction of waste. Problems of definition and lack of information should be addressed and ongoing waste reduction efforts should be documented by government, even if decisions to reduce waste remain at the discretion of individual companies.

Despite some claims to the contrary, industry has not taken advantage of all effective waste reduction opportunities that are available. Reducing waste involves more than buying a black box, reading the directions, and plugging it in. Even a simple step toward waste reduction can seem difficult to a company with few technical resources and no obvious place to go for guidance. Reducing waste in an industrial process requires intimate knowledge of all aspects of that specific production process, in contrast to waste treatment, which is essentially an add-on to the end of the process. There are also clear pressures to reduce waste tomorrow, rather than today. The attention and resources given to required pollution control activities limit the amount of thought, time, and money that industry can devote to waste reduction. Some U.S. companies, however, have verified the fact that waste reduction pays for itself relatively quickly, especially when compared to the time needed to comply with regulations, obtain regulatory permits, or site waste management facilities. Some companies are even beginning to sell new products and services that help others to reduce waste.

Waste reduction succeeds when it is part of the everyday consciousness of all workers and managers involved with production—where the waste reduction opportunities are—rather than when it is a job only of those responsible for complying with environmental regulations. A few people with end-of-pipe, pollution control jobs are not in a position to reduce waste by themselves; such efforts must involve upstream workers and facilities.

(over)

There are five distinct approaches that industry can take to reduce hazardous waste: 1) change the raw materials of production, 2) change production technology and equipment, 3) improve production operations and procedures, 4) recycle waste within the plant, and 5) redesign or reformulate end-products. Among the opportunities that exist for common processes and wastes are: a) using mechanical techniques rather than organic solvents to clean metal surfaces, b) using water-based raw materials instead of materials based on organic solvents, and c) changing plant practices to generate less hazardous wastewater.

So far government has not required waste reduction. OTA finds that it would be extraordinarily difficult for government to set and enforce waste reduction standards for a myriad of industrial processes. The impact on industry, particularly on troubled manufacturing sectors, could be substantial. Alternatively, the United States could move to an economically sensible environmental protection strategy based on both pollution control (waste management) and pollution prevention (waste reduction) with the Federal Government providing leadership and assistance in the following ways.

First, through policy development, education, and oversight, Congress could help industry and the Nation profit from seeing waste reduction not as some unique technology, but as a field ready for innovative engineering and management. These opportunities are embedded in every part of the industrial produc-

Definitions Used in This Report

Waste Reduction:

In-plant practices that reduce, avoid, or eliminate the generation of hazardous waste so as to reduce risks to health and environment. Actions taken away from the waste generating activity, including waste recycling or treatment of wastes after they are generated, are not considered waste reduction. Also, an action that merely concentrates the hazardous content of a waste to reduce waste volume or dilutes it to reduce degree of hazard is not considered waste reduction. This definition is meant to be consistent with the goal of preventing the generation of waste at its source rather than controlling, treating, or managing waste after its generation.

Hazardous Waste:

All nonproduct hazardous outputs from an industrial operation into all environmental media, even though they may be within permitted or licensed limits. This is much broader than the legal definition of hazardous solid waste in the Resource Conservation and Recovery Act, its amendments, and subsequent regulations. Hazardous refers to harm to human health or the environment and is broader than the term "toxic." For example, wastes that are hazardous because of their corrosivity, flammability, explosiveness, or inter-ecotoxicity are not normally considered toxic.

Waste Reduction and National Policy

"The Congress hereby declares it to be the national policy of the United States that, wherever feasible, the generation of hazardous waste is to be reduced or eliminated as expeditiously as possible. Waste nevertheless generated should be treated, stored, or disposed of so as to minimize the present and future threat to human health and the environment."

From the *Resource Conservation and Recovery Act*, as amended by U.S. Congress in November 1984. This policy statement is supported by waste minimization provisions also added to the Act.

tion system. There is no way to predetermine the amount of waste reduction that is possible; its technical and economic feasibility depend on the characteristics, circumstances, and goals of specific waste generators. Success in reducing waste depends on the ability of organizations to modernize, innovate, and cut costs, thereby increasing profits and reducing long-term liabilities. Thus waste reduction could be used as a measure of performance as energy efficiency and productivity often are.

Second, there are a number of possible legislative actions that could clarify the definition of waste reduction, spur better collection of information on waste reduction, and encourage waste generators to devote more attention to the subject. If the Federal public policy goal is rapid and comprehensive hazardous waste reduction, then a strategy based on government leadership and assistance rather than on prescriptive requirements is likely to be the most effective. For example, Congress could: 1) create an Office of Waste Reduction with an Assistant Administrator within EPA, 2) create a grants program to develop generic or widely transferable technical support for waste reduction, 3) through new comprehensive waste reduction legislation require detailed reporting by industry on past waste reduction actions and plans for future efforts, 4) reward and facilitate waste reduction by offering industry concessions from existing pollution control regulatory requirements, or 5) create and use independent State Waste Reduction Boards to implement programs. Setting a national waste reduction goal of perhaps 10 percent annually could help convert the long stated importance of waste reduction into a true priority and reduce annual environmental spending substantially, ultimately by billions of dollars.

Copies of the OTA report, "Serious Reduction of Hazardous Waste: For Pollution Prevention and Industrial Efficiency," are available from the U.S. Government Printing Office. The GPO stock number is 052-003-01048-8; the price is \$12.00. Copies of the report for congressional use are available by calling 4-8996. Summaries of reports are available at no charge from the Office of Technology Assessment.