ALASKA LEGISLATURE COMMITTEE FILES 1985-1986 8672

3214.58 HHESS HB 57

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James O. Smith
Signature of Camera Operator

7/25/89
Date

02-519 (REV 8/78)

STATE OF ALASKA
THE LEGISLATURE

POUCH Y · STATE CAPITOL
JUNEAU, ALASKA 99811
907·465·3800

LEGISLATIVE AFFAIRS AGENCY

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May, 1988

Copies of minutes listed below were originally included in this file. The minutes are available on the STAIRS database CMPR. In order to save space copies of minutes have not been left in the files.

Mary Van Nimwegen

HOUSE H.E.S.S. 5-24-84 5pm

COMMITTEE REPORT

HOUSE

Labor and Commerce

(7)

FURTHER: Finance

1/16/85

Date: Feb 1985

The Committee on Health, Education and Social Services has had HB 57

"An Act making special appropriations for an asbestos health hazard abatement program; and providing for an effective date."

under consideration and recommends:

[✓] do pass [ ] do not pass

[ ] do pass with attached amendments(s)

[✓] replace with CS for HB 57 [✓] same title [ ] new title

and recommends do pass

[ ] AND attaches a "Letter of Intent" [ ] New Fiscal Note [ ] Zero Fiscal Note Attached

[ ] reports it back without recommendation

[ ] referred to the ______ ______ Committee

MEMBERS SIGNING DO PASS	MEMBERS HAVING OTHER RECOMMENDATIONS:
[signature]	Adrian Taylor (Do not Pass)
[signature]	[signature] no rec
[signature]	
[signature]	
[signature]	

[signature]

CHAIRMAN

This is revision we passed Gruenberg Hein 2/1/85.

Original sponsors: Gruenberg and Koponen

Funding Information
General Fund ~~$26,300,000~~ ~~27,700~~ 29,923,000
Other Funds -0- ~~0~~
~~$26,300,000~~ 29,923,000

IN THE HOUSE BY THE HEALTH, EDUCATION AND SOCIAL SERVICES COMMITTEE

CS FOR HOUSE BILL NO. 57 (HESS)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act making special appropriations for an asbestos survey and an asbestos health hazard abatement program; and providing for an effective date."

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

* Section 1. The sum of $300,000 is appropriated from the general fund to the Department of Labor to implement the asbestos health hazard abatement program.

* Sec. 2. The sum of ~~$24,000,000~~ ~~25,400,000~~ 27,623,000 is appropriated from the general fund to the Department of Education for administration of the asbestos health hazard abatement program and for grants to abate asbestos health hazards in schools in school districts and regional educational attendance areas.

* Sec. 3. The sum of $2,000,000 is appropriated from the general fund to the University of Alaska for an asbestos survey and an asbestos health hazard abatement program within the University of Alaska system.

* Sec. 4. The unexpended and unobligated portions of the appropriations made by this Act lapse into the general fund June 30, 1987.

* Sec. 5. This Act takes effect on the effective date of an Act establishing an asbestos health hazard abatement program.

STATE OF ALASKA 1985 LEGISLATIVE SESSION

FISCAL NOTE

Revision Date: January 30, 1985

REQUEST

Bill/Resolution No.: SS for HB 5
Title: "An act establishing an asbestos health hazard abatement"
Sponsor: Gruenberg
Requestor: House HESS
Date of Request: 1-16-85

FISCAL DETAIL

Agency Affected: Labor
Program Category Affected: Public Protection
BRU, Program or Subprogram(s) Affected: Occupational Safety & Health

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90
OPERATING						
100 PERSONAL SERVICES		79.3	84.7			
200 TRAVEL		12.0	12.0			
300 CONTRACTUAL		171.9	24.8			
400 SUPPLIES		4.5	1.6			
500 EQUIPMENT		16.4	-0-			
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	-0-	284.1	123.1	-0-	-0-	-0-
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		284.1	123.1			
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	284.1	123.1	-0-	-0-	-0-

POSITIONS:

FULL-TIME	-0-	2	2	-0-	-0-	-0-
PART-TIME	-0-					
TEMPORARY						

ANALYSIS: Attach a separate page if necessary

Prepared By: Robert J. Bacolas Phone: 465-4870
Division: Labor Standards & Safety Date: 1/30/85

Approved by Commissioner: Jim Robison Date: 1/30/85
Agency: Department of Labor

Distribution (by Agency preparing fiscal note):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

7/1/84

FISCAL NOTE

THE LEGISLATURE OF THE STATE OF ALASKA
FOURTEENTH LEGISLATURE
BILL/RESOLUTION NO: SS for HB 5
TITLE: "An Act relating to establishing asbestos health hazard abatement"
AGENCY AFFECTED: Department of Labor

There are approximately 550 school buildings in Alaska. Of these buildings we know that 140 buildings have been surveyed for asbestos. This is based on information from the U.S. Environmental Protection Agency (EPA), that they have made on-site inspections for compliance with their regulations in the Juneau, Anchorage, Fairbanks, Ketchikan, Sitka and Kodiak school districts. These school districts contain approximately 140 buildings. We are estimating that of the approximately 410 other school buildings, that a third have been properly surveyed or a school district will use a private consultant to survey their buildings. We estimate therefore, that the department will be required to make physical inspections of approximately 270 buildings that have either not been surveyed or have been improperly surveyed.

It is important that these school districts survey their buildings within two years to allow them time to budget and plan for the work necessary to abate the asbestos health hazards in their school districts.

It is assumed that the responsibility for training and certification outlined in AS 18.38.030 of SS HB 5 will mainly be with the employer and that the department will only be responsible for establishing training guidelines and certifying training programs.

A lead industrial hygienist, a clerk typist and monies to enter into a contract for surveying and abatement evaluation will be needed for the first year. To assure that the program is implemented without delay, we would need to hire the industrial hygienist and clerk on July 1, 1985. We estimate that it will take two months to set up the schedule for surveying schools and three months to develop the regulations and guidelines for the certification program. An industrial hygienist is required to perform this task as the work requires a person who has an educational background and experience in industrial health evaluation. Because of difficulties we anticipate in hiring a full-time position for only 10 months, we would enter into a contract by September with two other health specialists to perform the majority of the surveys. It is estimated that by the end of the first year, we would survey and evaluate potential health hazards in approximately 220 of the 270 school buildings yet to be surveyed. In the first year of operation the one time special costs would include:

- Sampling Pumps (3)	$6,000.00
- Training Films/Slides	$4,000.00
- Air Supplied Respirators (3)	$3,000.00
- Protective Clothing (3)	$3,000.00
- Contract for Two Health Specialists	$110,000.00
- Contract to Analyze the Bulk Asbestos Samples (5 per buildings)	$38,500.00

During the second year only the hygienist and clerk would be maintained to monitor the completion of the program.

	POSITION TITLE			RANGE/STEP	BARG. UNIT	FORM 12 PAGE/LINE	GOV.	APPROV.	DISAPP.
1.	Industrial Hygienist I			19A	GGU				
2.	TYPE OF POSITION	STAFF MONTHS	RP NUMBER / PCN NUMBER	BRU PRIORITY	LOCATION	ELECTION DISTRICT	LEG.		
	PFT	12			Anch.				

3.	CONTINUATION LEVEL		ADDITION
4.	TYPE OF EXPENDITURE		AMOUNT
	1	2	3
	PERSONAL SERVICES		
5.	Salary	40,032	
6.	Benefits	6,669	
7.	Supplemental Benefits	2,454	
8.	Fixed Benefits	2,732	
9.	TOTAL PERSONAL SERVICES	01	51,887
10.	Travel	02	12,000
11.	Contractual	03	10,404
12.	Commodities	04	1,500
13.	Equipment	05	4,700
14.	Other		
15.	TOTAL COST		80,491

	RECEIPT CODE	FUNDING SOURCE	
16.		Federal Receipts 1002	
17.		G.F. Match 1003	
18.		General Funds 1004	80,491
19.		I-A Receipts 1005	
20.		Program Receipts 1028	
21.		Other	

FOR B&M USE ONLY
4A KEY NUMBER __ __ - __ __ - __ __ - __ __ - __ __

JUSTIFICATION

As lead position of the Asbestos Health Hazard Abatement Program, this position will set up the scheduling system for surveying approximately 270 buildings and develop guidelines for the certification program. This position will survey approximately 50 buildings the 1st year and 50 buildings the 2nd year. In the second year this position would be maintained to monitor and evaluate the certification program; provide information and training to contractors, their workers, and other interested parties of the potential health hazards of asbestos.

Contractual costs include rent $3,600, indirect costs $4,800 and other normal costs of $2,000.

Commodities include protective clothing $1,000 and other costs $500.

Equipment costs include sampling pumps $2,000, air respirator $1,000, and other normal costs of $1,700.

13. REQUEST FOR NEW POSITION

AGENCY: Labor

PROGRAM: Public Protection

BRU: Occupational Safety & Health

COMPONENT: Occupational Safety & Health

Revised Date

FY 86

LEG:F:31

1.	POSITION TITLE: Clerk Typist III			RANGE/STEP: 8B	BARG. UNIT: GGU	FORM 12 PAGE/LINE	GOV.	APPROV.	DISAPP.
2.	TYPE OF POSITION: PFT	STAFF MONTHS: 12	RP NUMBER	PCN NUMBER	BRU PRIORITY	LOCATION: Anch	ELECTION DISTRICT	LEG.		
3.	CONTINUATION LEVEL: 1	ADDITION:								

4.	TYPE OF EXPENDITURE		AMOUNT
	1	2	3
	PERSONAL SERVICES		
5.	Salary	20,136	
6.	Benefits	3,355	
7.	Supplemental Benefits	1,234	
8.	Fixed Benefits	2,732	
9.	TOTAL PERSONAL SERVICES 01		27,457
10.	Travel 02		0
11.	Contractual 03		13,016
12.	Commodities 04		1,000
13.	Equipment 05		1,700
14.	Other		
15.	TOTAL COST		43,173

	RECEIPT CODE	FUNDING SOURCE	
16.		Federal Receipts 1002	
17.		G.F. Match 1003	
18.		General Funds 1004	43,173
19.		I-A Receipts 1005	
20.		Program Receipts 1028	
21.		Other	

FOR B&M USE ONLY
4A KEY NUMBER __ __ - __ __ - __ __ - __ __ - __ __

JUSTIFICATION

This position will keep track of the asbestos samples taken by the industrial hygienists and will assure that these samples are mailed to and returned from the contract laboratory. The clerk typist will take, type, and process the reports and correspondence about the asbestos program to the school districts, contractors, and Department of Education personnel who are required to be informed of the program. This position will also provide the clerical support necessary for the monitoring and evaluation of employer and employee training certification programs.

Contractual costs include rent of $3,600, indirect of $2,400, and other normal expenses, including word processing of $7,000.

Normal commodities of $1,000 and equipment of $1,700 are also included.

13 REQUEST FOR NEW POSITION

AGENCY: Labor
PROGRAM: Public Protection
BRU: Occupational Safety & Health
COMPONENT: Occupational Safety & Health

Revised Date

FY 86

LEG:F:34

STATE OF ALASKA 1985 LEGISLATIVE SESSION

FISCAL NOTE

Revision Date:

REQUEST

Bill/Resolution No.: SS for HB 5
Title: "An act establishing an asbestos health hazard abatement"
Sponsor: Gruenberg
Requestor: House HESS
Date of Request: 1/16/85

FISCAL DETAIL

Agency Affected: Labor
Program Category Affected: Public Protection
BRU, Program or Subprogram(s) Affected: Occupational Safety & Health

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 85	FY 86	FY 87	FY 88	FY 89	FY 90
OPERATING						
100 PERSONAL SERVICES		122.6	84.7			
200 TRAVEL		23.5	5.4			
300 CONTRACTUAL		53.0	24.8			
400 SUPPLIES		6.0	1.6			
500 EQUIPMENT		18.3	-0-			
600 LAND & STRUCTURES						
700 GRANTS, CLAIMS						
800 MISCELLANEOUS						
TOTAL OPERATING	-0-	223.4	116.5	-0-	-0-	-0-
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		223.4	116.5			
FEDERAL FUNDS						
OTHER						
TOTAL	-0-	223.4	116.5	-0-	-0-	-0-

POSITIONS:

FULL-TIME	-0-	2	2	-0-	-0-	-0-
PART-TIME	-0-	1				
TEMPORARY						

ANALYSIS: Attach a separate page if necessary

Prepared By: NB Robert J. Bacolas
Phone: 465-4870
Division: Labor Standards & Safety
Date: 1/22/85

Approved by Commissioner: AB Jim Robison SR
Date: 1/22/85
Agency: Department of Labor

Distribution (by Agency preparing fiscal note):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

7/1/84

FISCAL NOTE

THE LEGISLATURE OF THE STATE OF ALASKA
FOURTEENTH LEGISLATURE
BILL/RESOLUTION NO: SS for HB 5
TITLE: "An Act relating to establishing asbestos health hazard abatement"
AGENCY AFFECTED: Department of Labor

According to the latest information available from the U.S. Environmental Protection Agency and the Department of Education, 33 of 53 school districts have completed asbestos surveys of their buildings in compliance with 40 C.F.R. Part 763. The 20 school districts that have not completed the survey contain an estimated 100 buidings.

It is important that these school districts survey their buildings within two years to allow them time to budget and plan for the work necessary to abate the asbestos health hazards in their school districts.

It is assumed that the responsibility for training and certification outlined in AS 18.38.030 of SS HB 5 will mainly be with the employer and that the department will only be responsible for establishing training guidelines and certifying training programs.

Three positions will be needed for the first year--two Industrial Hygienists and one Clerk Typist III. During the second year only one hygienist and a clerk typist will be required. To assure that the program is implemented without delay, we would need to hire one hygienist and a clerk on July 1, 1985. We estimate that it will take two months to set up the schedule for surveying schools and three months to develop the regulations and guidelines for the certification program. An industrial hygienist is required to perform this task as the work requires a person who has an educational background and experience in industrial health evaluation. The other industrial hygienist would be hired by September, 1985. It is estimated that by the end of the first year, we would survey and evaluate potential health hazards in approximately 70 of the 100 school buildings yet to be surveyed. In the first year of operation the one time special costs would include:

- One set of sampling pumps for the 2 Industrial Hygienists	$4,000.00
- Training Films	$4,000.00
- Protective clothing and respirators	$4,000.00
- Contract to analyze the bulk asbestos samples (5 per building)	$20,000.00

	Position Title				Range/Step	Barg. Unit	Form 12 Page/Line	GOV.	APPROV.	DISAPP.
1	Industrial Hygienist I				19A	GGU				
	Type of Position	Staff Months	RP Number	PCN Number	BRU Priority	Location	Election District	LEG.		
2	PFT	12				Anch.				

3	CONTINUATION LEVEL		ADDITION	
4	Type of Expenditure			Amount
	1		2	3
	PERSONAL SERVICES			
5	Salary		40,032	
6	Benefits		6,669	
7	Supplemental Benefits		2,454	
8	Fixed Benefits		2,732	
9	TOTAL PERSONAL SERVICES		01	51,887
10	Travel		02	12,000
11	Contractual		03	20,404
12	Commodities		04	2,500
13	Equipment		05	7,100
14	Other			
15	TOTAL COST			93,891

	RECEIPT CODE	FUNDING SOURCE		
16		Federal Receipts	1002	
17		G.F. Match	1003	
18		General Funds	1004	93,891
19		I-A Receipts	1005	
20		Program Receipts	1028	
21		Other		

For M&B Use Only
4A Key Number ___ - ___ - ___ - ___ - ___

JUSTIFICATION

As lead position of the Asbestos Health Hazard Abatement Program, this position will set up the scheduling system for surveying approximately 100 buildings and develop guidelines for the certification program. This position will survey approximately 40 buildings the 1st year and 30 buildings the 2nd year. In the second year this position would be maintained to monitor and evaluate the certification program; provide information and training to contractors, their workers, and other interested parties of the potential health hazards of asbestos.

13 REQUEST FOR NEW POSITION

AGENCY Labor

PROGRAM Public Protection

BRU Occupational Safety & Health

COMPONENT Occupational Safety & Health

FY 86

Revised Date

LEG:F:31

Position Title	Range/Step	Barg. Unit	Form 12 Page/Line	GOV.	APPROV.	DISAPP.
1 Industrial Hygienist I	19A	GGU				
Type of Position	**Staff Months**	**RP Number**	**PCN Number**	BRU Priority	Location	Election District	LEG.		
2 Seasonal	10				Anch.				

3 CONTINUATION LEVEL		ADDITION
4 Type of Expenditure		Amount
1	2	3
PERSONAL SERVICES		
5 Salary	33,360	
6 Benefits	5,558	
7 Supplemental Benefits	2,045	
8 Fixed Benefits	2,277	
9 TOTAL PERSONAL SERVICES	01	43,240
10 Travel	02	11,500
11 Contractual	03	19,603
12 Commodities	04	2,500
13 Equipment	05	7,100
14 Other		
15 TOTAL COST		83,943

RECEIPT CODE	FUNDING SOURCE		
16	Federal Receipts	1002	
17	G.F. Match	1003	
18	General Funds	1004	83,943
19	I-A Receipts	1005	
20	Program Receipts	1028	
21	Other		

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4A Key Number __ __ - __ __ - __ __ - __ __ - __ __

JUSTIFICATION

This is a one year position responsible for surveying approximately 30 school buildings to determine if there are any asbestos materials present in the buildings and to take samples of such materials. This position will assure the integrity of the samples and will analyze the sample results. The industrial hygienist will prepare a report to the school district based on this analysis and recommend methods to control or remove the asbestos materials. This position will also provide information to contractors and school officials on the proper methods and safeguards that must be used to encapsulate or remove the asbestos material. Other duties include assisting the lead industrial hygienist monitor and evaluate the employer certification program.

13 REQUEST FOR NEW POSITION

AGENCY Labor

PROGRAM Public Protection

BRU Occupational Safety & Health

COMPONENT Occupational Safety & Health

FY 86

Revised Date

LEG:F:32

	Position Title			Range/Step	Barg. Unit	Form 12 Page/Line	GOV.	APPROV.	DISAPP.
1	Clerk Typist III			8B	GGU				
	Type of Position	Staff Months	RP Number / PCN Number	BRU Priority	Location	Election District	LEG.		
2	PFT	12			Anch.				

3	CONTINUATION LEVEL	ADDITION	
4	Type of Expenditure		Amount
	1	2	3
	PERSONAL SERVICES		
5	Salary	20,136	
6	Benefits	3,355	
7	Supplemental Benefits	1,234	
8	Fixed Benefits	2,732	
9	TOTAL PERSONAL SERVICES	01	27,457
10	Travel	02	0
11	Contractual	03	13,016
12	Commodities	04	1,000
13	Equipment	05	4,100
14	Other		
15	TOTAL COST		45,573

	RECEIPT CODE	FUNDING SOURCE		
16		Federal Receipts	1002	
17		G.F. Match	1003	
18		General Funds	1004	45,573
19		I-A Receipts	1005	
20		Program Receipts	1028	
21		Other		

For M&B Use Only
4A Key Number ___ - ___ - ___ - ___ - ___

JUSTIFICATION

This position will keep track of the asbestos samples taken by the industrial hygienists and will assure that these samples are mailed to and returned from the contract laboratory. The clerk typist will take, type, and process the reports and correspondence about the asbestos program to the school districts, contractors, and Department of Education personnel who are required to be informed of the program. This position will also provide the clerical support necessary for the monitoring and evaluation of employer and employee training certification programs.

13 REQUEST FOR NEW POSITION

AGENCY Labor

PROGRAM Public Protection

BRU Occupational Safety & Health

COMPONENT Occupational Safety & Health

FY 86

Page 3 of 3

Revised Date

LEG:F:34

STATE OF ALASKA

BILL SHEFFIELD, GOVERNOR

DEPARTMENT OF LABOR

Pouch 7-018
Anchorage, Alaska 99510

OFFICE OF THE COMMISSIONER

Alaska Safety Advisory Council

January 29, 1985

Alaska State Legislature
Joint HESS Committee
Max F. Gruenberg, Jr.
Sponsor, HB-5
Pouch V
Juneau, Alaska 99811

Members of the Committee:

As a result of the teleconference on HB-5 on Friday, January 25, 1985, the Asbestos Abatement Fact Finding Committee offers the enclosed outline of our report to the Commissioner of Labor. This outline is offered to alert you to the areas we are addressing. We recognize that it is not very informative, but the development of the report has been directed towards a presentation date of February 15, 1985.

The full report will be presented in an open forum chaired by the Commissioner of Labor, Jim Robison, on February 15, 1985, at the Department of Labor building in Anchorage, Suite 308, at 1:30 p.m.

Please contact Nancy Cannington at 264-2400 if you have any questions.

Very truly yours,

Ambrose Bittner II

Ambrose Bittner II
Chairman
Asbestos Abatement Fact Finding Committee
Director - Apprenticeship & Training - US Department of Labor

AB:bv

cc: Commissioner Jim Robison, Alaska Department of Labor
Robert Jandau
Eileen Slate

Asbestos Abatement Facting Finding Committee

I. Introduction

Commissioner Robison to satisfy many petitions to approve asbestos abatement training programs, such as described by the following excerpt from a "Request for Proposals" by the Municipality of Anchorage:

> "Contractor shall provide notarized certification by name and social security (number) certifying that all employees involved in asbestos removal have been thoroughly instructed through an Asbestos Removal Training Program as approved by the State of Alaska Department of Labor in the hazards of exposure to asbestos fibers; proper care and use of protective respiratory equipment; proper use of protective clothing; decontamination procedures and all other conditions and requirements as reviewed under relevant DOSH, EPA, and OSHA standards."

and a response by the purchasing officer to the members of the request for proposal evaluating committee to wit: that eight of nine proposers offered training programs of varying scope and strength. "Not withstanding inferences to the contrary, no federal, state, or municipal guidelines exist against which specific training programs can be objectively evaluated. Absent such guidelines, the adequacy of individual programs remain in question."

The Commissioner recognizing the need as identified above and his responsibility to lead the way in this critical area of worker safety and health, appointed our industry (government, labor and management) task force to act as a fact finding committee for asbestos abatement and related problems.

The committee, although few in number, represents all aspects of this industry:

The committee includes:

1. Chair, Ambrose Bittner - State Director
   U.S. Department of Labor - Bureau of Apprenticeship and Training

2. Co-Chair, Ron Cunningham - Safety and Health Director
   Alaska General Contractors

3. Ray Jorgensen - Chief of Industrial Health Comp.
   Alaska Department of Labor, Department of Safety and Health

4. Dan Middaugh - Member Asbestos Workers Local 91
   Joint Apprenticeship and Training Committee Asbestos Abatement Instructor
   Member, Board of Directors, Alaska Health Project

5. Leonard Limtiaco - Area Director
   U.S. Department of Labor, Occupational Safety and Health Agency

6. Joe Churchill - Manager
   E. J. Bartell Company
   Secretary - Asbestos Workers Joint Apprenticeship and Training Committee
   President, Western Insulation Contractors Association

7. Les Lauinger - Training Director
   AGC - Laborers Training Trust
   Instructor - Abestos Abatement

8. Nancy Cannington - Special Assistant to the Commissioner

The committee in its collective wisdom did not attempt to reinvent a wheel, but rather outline and describe existing practices and procedures. The committee report outlines procedures and programs to deal with the safety and health concerns of those involved in an asbestos abatement project.

Our report follows.

II Scope

This report is intended to describe recommended rules which are in existence and to establish minimum content for an acceptable training program, provide for certification of trainers, recognition of trainers, and to establish the requirements for a presurvey and provide disposal procedures while performing demolition, removal, enclosure, remodeling and disposal of asbestos contaminated materials.

III Asbestos Abatement Safety and Health Standards and Regulations

A. Federal and State Regulatory Agencies

B. Federal and State Applicable Regulations

In addition to enforced regulations, the agencies have enforcement policies and regulation interpretations that affect the contractor/employer, worker/employer, and owner/operator asbestos abatement/compliance programs.

IV Asbestos Abatement Project Responsibilities

A review of the standards and regulations in Section III of this report revealed a need for the assignment of specific responsibilities of owners/operators, contractors/employers and workers/employees prior to the initiation or commencement of work on any asbestos abatement project. Therefore, this Fact Finding Committee has determined that specific responsibilities be assigned:

A. Owners/Operators
B. Contractor/Employers
C. Workers/Employees

V Recommended Procedures for Abatement Projects

The Fact Finding Committee, based on information uncovered and their collective experience dealing with asbestos abatement, safety and health and training, recommends the following procedures for:

A. Owner/Operator
B. Contractor/Employer
C. Worker/Employee

VI Conclusions

Committee Recommendations to the Commissioner

Bill No. Sponsor Substitute for House Bill 5

Date January 22, 1985

Title "An Act establishing an asbestos health hazard abatement program."

Contact: Richard Arab
465-4856
Dr. Annette Thorn
465-2700

Sponsor Substitute for House Bill 5 is designed to abate asbestos health hazards in Alaska's schools so that school children and workers will not be endangered.

There is no longer any doubt that exposure to asbestos presents a serious and substantial threat to health; and the Department's understanding is that the results of recent surveys indicate that many school buildings in Alaska do contain asbestos materials.

Under the provisions of Sponsor Substitute for House Bill 5, the Department of Labor would inspect school buildings to identify asbestos health hazards; make recommendations as to the need for removal or encapsulation of asbestos; certify employee training programs to assure that workers removing or encapsulating asbestos know how to do it safely.

In connection with the certification program, the Department of Labor would establish minimum requirements for asbestos abatement employee training programs, and review and approve specific training plans proposed by contractors, labor organizations, or others training persons who will be employed to abate asbestos health hazards. Contractors involved in asbestos health hazard abatement would then certify that each employee who will work on the project has been trained in accordance with the plan approved by the Department. Likewise, Sponsor Substitute for House Bill 5 prohibits a person from working on the abatement of asbestos health hazards unless the person has been certified in a program approved by the Department.

The certification program is essential, not only to prevent harmful exposure to workers who are required to work with materials containing asbestos, but to also assure that harmful exposures do not occur to school children as a result of removal or encapsulation work.

Inasmuch as the guidelines for the certification program would need to be established by regulation, the Department would not be able to implement the certification provisions immediately as provided in this bill. We, therefore, would suggest that the provisions in Sec. 18.28.030 take effect 90 days after the bill becomes law.

The Department also notes the sponsor substitute amendment to Sec. 18.28.020(1), which narrows the Department of Labor's inspection responsibilities to schools which have not complied with the Environmental Protection Agency's regulations. We agree that inspection effort should not be duplicated. However, it might be well to verify that competent surveys have been conducted. Our understanding is that the EPA regulations did not require that the surveys be conducted by a qualified person or firm.

The Department supports Sponsor Substitute for House Bill 5, provided adequate funding will be provided to carry out its provisions. The Department's fiscal note is attached.

Approved: Jim Robison

Jim Robison, Commissioner

POSITION PAPER/Department of Labor

[redacted]
Business Manager/Secretary-Treasurer

Joe J. Thomas
President

ALASKA STATE DISTRICT COUNCIL OF LABORERS

Laborers International Union of North America, AFL-CIO

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January 28, 1985

HESS Committee--SS HB-5

Co-Chairmar --Max Gruenberg
Niilo Koponen

Committee Members--Katie Hurley, Alyce Hanley, David Thompson, Robin Taylor
Fritz Pettyjohn

TESTIMONY--Don Rouleau
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During testimony on SS HB-5, Friday, January 25, 1985, HESS Committee Hearing the question was raised of whether the Laborers' Training School would be willing to train non-union workers in the removal of asbestos. It is unfortunate that some perceive this as a union vs non-union issue and fail to see what it really is, an issue of safety of their workers, their families and the safety of the people who frequent the buildings where asbestos removal has or is taking place.

Safety training for the workers is a responsibility, albeit a cost item, of all contractors. Responsibile contractors have a safety program for their work force and to incorporate an asbestos removal course into their existing program should be a priority and necessity if they are concerned about the health and welfare of their workers, families and those who frequent those buildings which involve asbestos abatement or removal.

Through the Alaska Laborers' Construction Industry Training Fund the participating Employers are signatory to a Trust Agreement establishing this fund between the Union and the Alaska Chapter, Associated General Contractors (AGC). It is a cost item for the union members and the participating contractors. When asbestos removal was found to be an extremely hazardous material the asbestos removal training course was implemented within the Training School.

Federal law mandates that the funds be directed only to the participating members.

It is my understanding that Les Lauinger of the Alaska Laborers' Training School will submit testimony regarding the availibility of the guidelines, used in the Laborers' Asbestos Removal course, to all interested parties who wish to set up their own training program.

NEA-ALASKA

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January 22, 1985

TO: Co-Chairman, Representative Niilo Koponen and Max Gruenberg
Members, House HESS Committee

RE: HB 57 "An Act making special appropriations for an asbestos health hazard abatement program; and providing for an effective date.

NEA-Alaska strongly supports and encourages expeditious attention to this extremely serious matter.

We further encourage that the suppliers and producers be held accountable for their products and services.

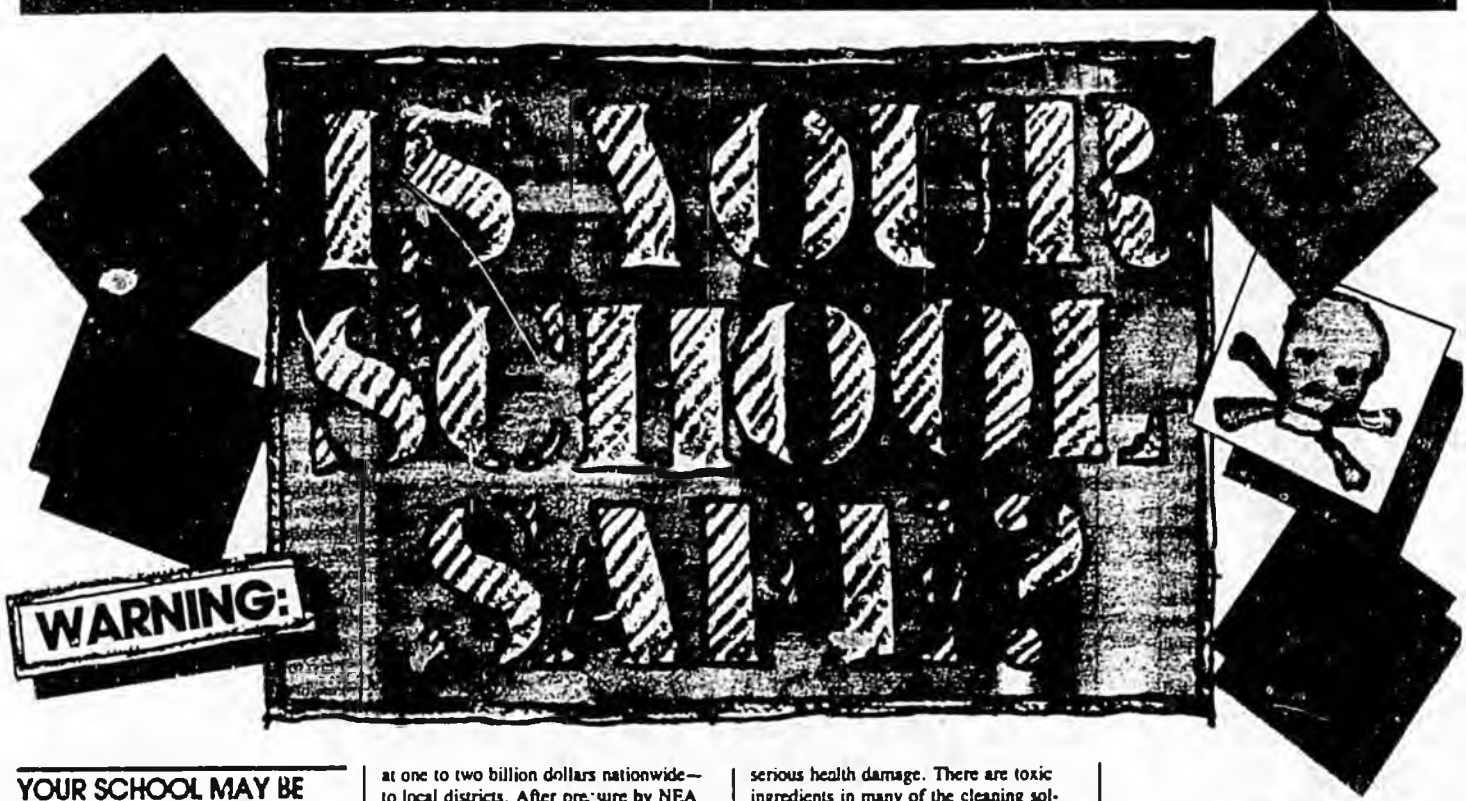
With this memorandum, supplemental information is being provided for the Committee.

Respectfully submitted:

Robert Manners
Executive Secretary

L85:03

EMPLOYEES AND STUDENTS . . .



YOUR SCHOOL MAY BE HAZARDOUS TO THE HEALTH OF STAFF AND STUDENTS ALIKE.

Maybe you think you're safe—that occupational exposure to toxic hazards is limited to places like steel mills, petroleum refineries, and chemical plants.

Schools, after all, are where children learn. No manufacturing takes place: there are no dangerous chemicals, no poisonous emissions. Schools are "safe."

Ten years ago few would have disputed that comfortable assumption. The absence of noxious fumes and billowing smokestacks provided a sense of security. No longer. We now recognize that unseen toxic hazards inhabit our schools.

Asbestos provided the first warning of toxic danger. For more than three decades, asbestos was the material of choice for fireproofing, soundproofing, and insulation in schools. Then scientists and public officials began to worry. A proven—and potent—cancer-causing agent, asbestos is virtually indestructible. But the materials that bind it together are not. These materials can become friable (easily crumbled) and release asbestos fibers into the air.

Slowly the recognition grew that asbestos is a time bomb ticking away in our nation's schools. In 1980 Congress passed legislation requiring school districts to inspect all buildings and notify parents and employees if friable asbestos was found. But the government does not require friable asbestos to be either sealed off or removed.

Last August, Congress passed the School Hazard Abatement Act of 1984, authorizing the Environmental Protection Agency (EPA) to spend up to $600 million over the next seven years on grants and loans to school districts for asbestos removal. Initially the EPA told Congress it would not use the funds but would leave the cost of asbestos cleanup—estimated at one to two billion dollars nationwide—to local districts. After pressure by NEA and other concerned groups, the Reagan EPA reversed itself, announcing last month that the funds would be used.

The EPA estimates that 15 million children and 1.4 million employees study and work in schools containing friable asbestos.

Asbestos is only the tip of the toxic iceberg. The potential health hazards in schools are many, and students as well as school employees are potentially at risk. Teachers, custodians, clerical workers, paraprofessionals, mechanics, and administrators—no school employee is immune from occupational health hazards.

Toxic hazards can be found in art rooms, science labs, and vocational shops. Most duplicating fluids contain methanol, a powerful solvent that can cause serious health damage. There are toxic ingredients in many of the cleaning solvents and pesticides used in schools. Even the sites on which schools are built and the air that circulates through them can pose health dangers.

Some hazards, like asbestos, take considerable detective work and expertise to track down—and a lot of money to correct. Others are more easily identified and removed. They are dangers that—with awareness, some work, and cooperation—employees and parents can eliminate.

Art classrooms may be the most dangerous rooms in school. A major reason for the danger is lack of awareness that many art materials—including those designed for young children—contain substances that can cause cancer or damage to the reproductive, nervous, and respiratory systems, the heart, and other vital organs.

"Art materials aren't adequately labeled," explains Lou Spelich, an NEA-New York member in Albany who has taught art for 30 years. "We have to find the hazards," he adds, "because children—and especially teachers—are at risk."

From paints and magic markers to glues, clays, glazes, and silkscreen inks the list of art materials containing ingredients that can cause long-term, serious health damage is astounding. As with any toxic substance, these materials pose a danger when inhaled, absorbed through the skin, or ingested by a person who licks his or her fingers, eats, chews gum, or smokes in their presence.

Safety has been a concern for many years in both science laboratories and vocational education workshops. But only recently has it been recognized that many commonly used materials pose serious health risks for students and employees alike.

A 1981 survey by the Consumer Product Safety Commission concluded that school science labs routinely contain "312 stock chemicals including 27 recognized or suspected carcinogens and 11 suspected teratogens" (chemicals that cause birth defects). Other health threats—such as damage to the lungs, liver, and kidneys—come from acids, organic solvents, and other chemical substances that are not cancer agents.

Many of the specimens used for dissection in biology labs are pickled in formaldehyde, a proven carcinogen in animals and a suspected one in humans.

In many schools, voc ed shops now resemble mini-industrial workplaces, filled with sophisticated machinery and equipment, and posing health hazards similar to those found in the workplaces themselves. Dangers run the gamut: poisonous gases released during welding, carbon monoxide fumes in auto shops, toxic chemicals in cosmetology classes.

The many energy-efficient, "air-tight" school buildings constructed during

Ventilation Problems at Indian Brook

Teachers and students at Indian Brook Elementary School in Plymouth, Mass., began noticing health problems during the 1981-82 school year, more than four years after the new closed-environment school opened.

"Teachers and students were reporting frequent headaches, dizziness, nausea, and respiratory problems," recalls Susan Offner, a biology teacher and activist in the Education Association of Plymouth and Carver.

An unusually high number of childhood cancers were reported among students in the school. "Then we started counting," Offner reports. "We realized that out of 20 teacher pregnancies since 1979, there were four babies born with serious birth defects, three miscarriages, and one stillbirth. Something was terribly wrong."

Finding out what was wrong took investigations by three federal agencies, three state agencies, and one private lab.

"It was a very emotional period," says Mary LeSueur, president of the local Association. "We really weren't sure what was causing the problems."

The experts finally determined that due to a malfunction in the school's central ventilation system, no fresh air was entering the closed building. In addition, an unvented duplicating machine in the teacher's lounge was releasing methanol fumes that were circulating throughout the school.

After the duplicating machine was moved and vented, and the building's fresh air intake adjusted, the complaints of headaches, dizziness, and nausea stopped. The problem pregnancies remain unexplained.

"The most important thing," Susan Offner reflects, "is that other people learn of the problems we faced—and that they are alert for health problems in their own closed-environment schools."

—*H.S.*

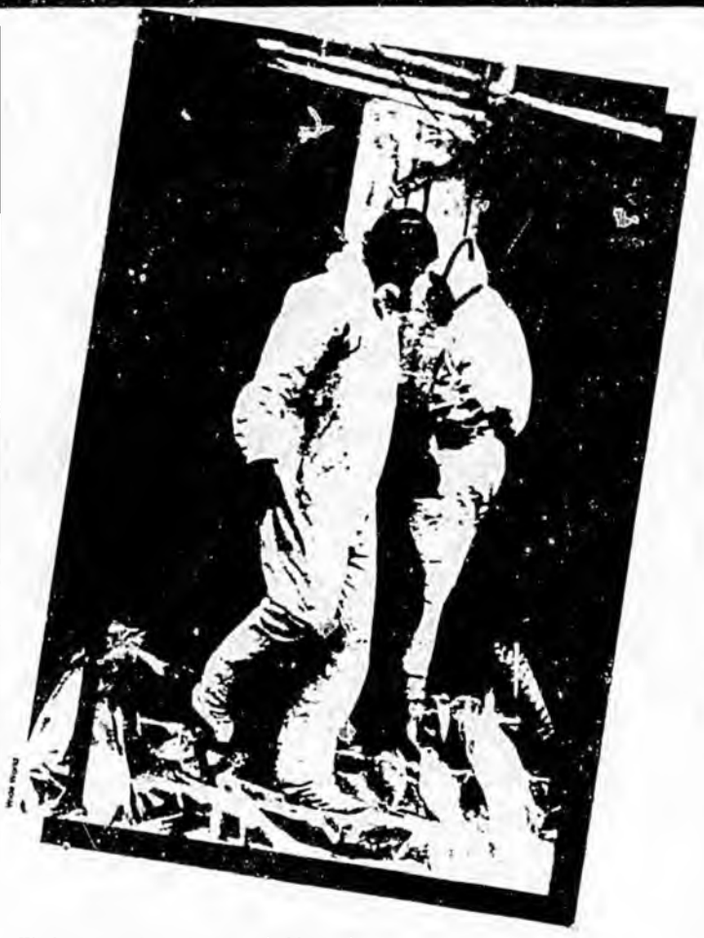
. . . FACE TOXIC HAZARDS

the past decade create a new set of problems. Known as closed environments, these buildings have central ventilation systems that recirculate air—with little venting or fresh air intake. Employees and students in these schools report a wide range of health problems—including headaches, dizziness, nausea, fatigue, respiratory problems, and flu-like illnesses—symptomatic of chemical poisoning.

The buildings contain such a wide variety of potential health hazards that it's often extremely difficult to determine the source of problems in any one school. Central ventilation systems can malfunction, not allowing sufficient fresh air into the building. Or the fumes from a toxic substance in one location can be circulated throughout the school.

Four years ago, students and staff at Oakland (Calif.) High School developed symptoms of chemical poisoning shortly after the brand new building opened. Formaldehyde gas and other toxic substances were vaporizing from bookshelves, particle board, and carpeting in the closed-environment school. Exhaust fans had to be installed, and some areas of the school coated with a plastic sealant.

At the closed-environment Willamina (Oregon) Elementary/Middle School, local Association president Sally Davis reports, "The faculty has been complaining of frequent sinus infections and headaches, itching eyes, and extended flu-like illnesses ever since the building opened several years ago." Formaldehyde and carbon dioxide levels have been tested without finding the cause of health problems at Willamina. Davis, who teaches in the school, faces a common problem. "It's so difficult to prove anything," she says, "or to know the cause of our health complaints."



Workmen wearing protective clothing and respirators carry bags of asbestos-contaminated materials from a school in New Jersey. Asbestos is just one of the toxic hazards in America's schools.

Many of America's public schools are built on or near landfills that contain toxic wastes. They are also located near nuclear plants, factories that emit dangerous pollutants, or freeways where automobile exhaust fumes cause dangerously high concentrations of lead. Our schools, in short, are subject to all hazards present in the towns, cities, and suburbs in which they're located.

Pollutants from the surrounding environment recently complicated a case of toxic detection work at Indian Brook Elementary School in Plymouth, Mass. *(see box on page 4).*

Indian Brook is located between two landfills known to contain illegally dumped hazardous wastes. It's also near a nuclear power plant that vents radioactive gases. When staff and students at the school reported a series of health problems, it took extensive testing of the school's air, soil, and water to determine that outside pollutants were not contaminating the school environment.

Toxic hazards in schools are a danger to all. Chemical fumes can threaten employees and students who never enter the chemistry lab; a duplicating machine's methanol fumes can be circulated throughout the school. The janitor who sweeps up clay dust at the end of the day is no more aware than the art teacher or student that the dust he inhales may contain asbestos or silica.

Wherever they're found, toxic hazards pose two types of health risks. An *acute* exposure will result in immediate and visible symptoms. The more insidious danger is from *chronic* exposure. Day after day, year after year, both teachers and support staff come into contact with hazardous substances. The damage goes unnoticed until, years later, a cancer or other serious health problem develops—its cause rarely known.

Health hazards can be controlled. In many cases, a toxic substance can be replaced by a nonpoisonous material. When a material with a toxic ingredient is crucial either to the learning process or to upkeep of the school, it should be handled with the same precautions industrial workers demand from their employers.

The federal Occupational Safety and Health Act doesn't cover public school employees. Since it's up to the legislatures to pass laws extending occupational safety and health protections to school personnel, the situation varies from state to state.

It is left to school employees to ensure that their schools are not hazardous to their health. Local Associations can form health and safety committees to become the toxic watchdogs for their schools.

Resources—people and publications—are available to assist in identifying health hazards. Using them, health and safety committees can provide valuable guidance on everything from ordering art and chemistry materials to choosing pesticides and cleaning solvents to investigating ventilation problems.

Making schools safe takes work. But our health—even our lives—and those of our students may depend on our efforts.

—Heidi Steffens

RESOURCES

Material Safety Data Sheets (MSDS). Beginning in November 1985, OSHA will require manufacturers to provide these sheets for hazardous workplace substances. They list toxic ingredients, health hazards, precautions, etc. Reputable manufacturers already have MSDSs and will provide them on request.

Center for Occupational Hazards. Publishes wide range of inexpensive materials on art hazards and has MSDSs for many materials. While focus is on art, Center does a lot of work with schools and has information on many different toxic hazards. Will also refer you to other sources. For a publications list—or to request specific information—send self-addressed, stamped business envelope to 5 Beekman St., New York, NY 10038.

Safe Art Materials List. The Art and Craft Materials Institute publishes a list of art products certified as safe. Free. Send self-addressed, stamped business envelope to 715 Boylston St., Boston, MA 02116.

Manual of Safety and Health Hazards in the School Science Laboratory ($5.75). Safety in the School Science Laboratory (in-service training manual—$6.25). School Science Laboratories: A Guide to Some Hazardous Substances (emphasis on safe storage of chemicals—free with purchase of either manual). All are available—prepaid—from Council of State Science Supervisors, Rte. 2, Box 637, Lancaster, VA 22503. Guide to Hazardous Substances also available, free, from Consumer Product Safety Commission, EX-0412, Washington, DC 20207, and National Science Teachers Association, 1742 Connecticut Ave., N.W., Washington, DC 20009. NSTA also sells Safety in the Elementary Science Classroom for $5 plus postage and handling.

New Jersey Local Identifies Asbestos Hazard

Questions about the safety of asbestos removal in some 200 New Jersey schools created a crisis as schools prepared to open this September. Less than a week before the scheduled beginning of the school year, a state official's report charged that unsafe asbestos removal over the summer may have endangered summer workers and could pose a future threat to students and employees.

The New Jersey Education Association, on September 25, sued over 200 school boards and asbestos-related firms, demanding that they set up a trust fund to pay for regular checkups for school employees exposed to asbestos.

At least one New Jersey school district, however, is not affected by the crisis. In East Windsor, the NJEA support staff affiliate and the local parents group had successfully fought to have asbestos removed the previous year.

"We knew where the asbestos was," recalls East Windsor Regional Supportive Staff Association President Bill Sweeney. "It was in every school."

"The school board claimed the asbestos wasn't dangerous," Sweeney adds. But the parents and the Association kept insisting on action. When they finally forced the board to test all asbestos-containing materials in the schools, friable asbestos was found.

Officers of the support and teachers Associations in front of one of the East Windsor, N.J., schools where they won asbestos removal. From left: Marilyn Nemeth, Bill Sweeney, Flo Riccio, and Bob Patten.

Removal began in the summer of 1983. Sweeney, who has been trained in asbestos removal, emphasizes that this process requires extreme caution.

"EPA guidelines must be strictly followed," he says. "Sloppy removal work actually increases the danger—not only for the workers, but for all employees and students in the school."

—H.S.

Introduced: 1/16/85
Referred: Health,Education & Social Services,Labor & Commerce and Finance

IN THE HOUSE

BY GRUENBERG,GOLL,DAVIS, KOPONEN AND NAVARRE

SPONSOR SUBSTITUTE FOR HOUSE BILL NO. 5

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act establishing an asbestos health hazard abatement program; and providing for an effective date."

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

* Section 1. AS 14.03.030 is amended to read:

Sec. 14.03.030. SCHOOL TERMS. A [THE] school term begins and ends on the dates fixed by the governing body of a [THE] school district. A school [HOWEVER, THE] term shall include not less than 180 days in session, except that, with [SUBJECT TO] the approval of the commissioner,

(1) a day used for in-service training of teachers may be substituted for a day in session, up to a maximum of 10 days; [AND]

(2) an "emergency closure day" may be substituted for a day in session because of conditions posing a threat to the health or safety of students; and

(3) a school board may adopt a school term of not less than 150 days for a school if the commissioner finds that

(A) the shorter term is necessary for abating asbestos health hazards in the school; and

(B) the school board has submitted an acceptable plan under which students will receive the approximate educational equivalent of a 180-day term.

* Sec. 2. AS 18 is amended by adding a new chapter to read:

CHAPTER 28. ASBESTOS HEALTH HAZARD ABATEMENT PROGRAM.

Sec. 18.28.010. PROGRAM ESTABLISHED. The asbestos health hazard

abatement program is established in the Department of Labor to coordinate efforts of state departments and agencies to eliminate asbestos health hazards in schools in the state. The program applies to all work involving

(1) demolition, removal, encapsulation, salvage, transportation, disposal, storage, and containment of asbestos products;

(2) construction, alteration, repair, maintenance, or renovation conducted in environments that contain asbestos.

Sec. 18.26.020. DUTIES OF THE DEPARTMENT OF LABOR. In order to eliminate asbestos health hazards from schools in the state, the Department of Labor shall

(1) in a school district or regional educational attendance area that has not complied with Environmental Protection Agency asbestos regulations (40 C.F.R. Part 763), inspect school buildings to determine the presence of asbestos, take samples as needed, answer inquiries on the subject, ensure quality control of asbestos sampling, or enter into contracts for these purposes;

(2) distribute, retrieve, and store training materials concerning inspection and sampling for asbestos;

(3) establish guidelines for abating the asbestos health hazard, for inspecting and collecting samples of suspected asbestos, and for analyzing the samples;

(4) evaluate analysis results and distribute the results to affected schools;

(5) coordinate efforts by state departments and agencies and by school officials to identify and eliminate asbestos health hazards;

(6) cooperate with the Department of Education to administer state money appropriated for the asbestos health hazard abatement

program;

(7) review and approve all asbestos health hazard abatement programs relating to respirator use and employee training, including training materials;

(8) oversee an employee certification program;

(9) establish guidelines and procedures to prevent damage to asbestos products in daily operations;

(10) whenever the department is informed of scheduled work to abate a health hazard that is asbestos related, inform the contractors and others concerned of the health hazards of asbestos; and

(11) adopt regulations necessary to implement the provisions of this chapter.

Sec. 18.26.030. CERTIFICATION PROGRAMS. (a) The Department of Labor shall

(1) establish guidelines for employee training certification programs including respiratory and competency tests to be completed successfully, to ensure that a person who is employed to abate asbestos health hazards in this state is trained to do the work safely and is informed about the danger of working with asbestos;

(2) review certification programs proposed by contractors, labor organizations, and others for persons who will be employed to abate asbestos health hazards in this state;

(3) approve proposed certification programs that meet the department's guidelines under this subsection.

(b) Before a contractor can undertake to abate an asbestos-related health hazard in this state, the contractor shall

(1) propose to the Department of Labor a plan for the certification of its employees as adequately trained to handle asbestos in a safe and knowledgeable way;

(2) receive approval from the department of that plan; and

(3) certify that each person who will work on the abatement of an asbestos health hazard in this state is adequately trained to handle asbestos in a safe and knowledgeable way.

(c) A person may not be employed to abate an asbestos health hazard in this state unless that person has been certified in a program approved by the Department of Labor under (a) of this section.

(d) A contractor who violates (b) or (c) of this section is subject to a civil penalty not to exceed $1,000, as determined by the commissioner of labor.

(e) A contractor who violates (b) of this section is guilty of a class A misdemeanor.

(f) A contractor who violates (c) of this section is guilty of a class B misdemeanor.

Sec. 18.28.040. DUTIES OF THE DEPARTMENT OF EDUCATION. To assist in implementing the asbestos health hazard program, the Department of Education shall

(1) cooperate with the Department of Labor, school districts, and regional educational attendance areas to ensure inspection of schools in the state for asbestos health hazards and to ensure that identified asbestos health hazards are abated;

(2) maintain records, files, and reports on asbestos health hazards in city and borough schools and regional educational attendance area schools;

(3) administer state money appropriated to finance renovation contracts under AS 18.28.050(5);

(4) distribute available money as necessary to abate asbestos health hazards in schools in the state, including reimbursement of school districts and regional educational attendance areas for

asbestos hazard abatement work already undertaken;

(5) inform the Department of Labor when renovation contracts are awarded under AS 18.28.050(5), to enable the Department of Labor to advise contractors and others concerned of asbestos health hazards that may be encountered in the renovation project.

Sec. 18.28.050. DUTIES OF SCHOOL OFFICIALS. To assist in implementing the asbestos health hazard abatement program, each city or borough school district and each regional educational attendance area shall

(1) maintain records of all inspections, including sample dates, location, condition, and analysis of materials;

(2) notify school personnel of the location of asbestos materials and ways to reduce exposure;

(3) notify the parents of students about the results of asbestos inspections in their children's schools;

(4) either

(A) contract for the inspection of its school buildings in compliance with Environmental Protection Agency Asbestos Regulations (40 C.F.R. Part 763) and in accordance with guidelines established by the Department of Labor; or

(B) notify the Department of Labor that the school district or regional educational attendance area has not entered and does not intend to enter into a contract for an inspection for asbestos health hazards; and

(5) contract for renovating school buildings to abate asbestos health hazards, and supervise and monitor the renovation contracts, applying the standards in AS 18.60.075 to protect the health of the persons who renovate the school buildings.

Sec. 18.28.090. DEFINITIONS. In this chapter

(1) "asbestos" means chrysotile, amosite, crocidolite, fibrous tremolite, fibrous anthophyllite, and fibrous actinolite;

(2) "asbestos health hazard" means the presence of asbestos material that could result in the dispersal of asbestos fibers into a school building or public facility;

(3) "asbestos product" means a product that produces airborne asbestos.

* Sec. 3. This Act takes effect immediately in accordance with AS 01.-10.070(c).

TESTIMONY OF
SENATOR JOE P. JOSEPHSON
January 22, 1985

SSHB 5 - "AN ACT ESTABLISHING AN ASBESTOS HEALTH HAZARD ABATEMENT PROGRAM"

Prepared for: House HESS Committee

Mr. Chairman and Members of the Committee;

Thank you for this opportunity to discuss with you the problem of asbestos in Alaska's public schools.

Asbestos in public facilities is a problem that goes beyond the school buildings of Alaska. For example, Commissioner Richard Knapp of the Department of Transportation and Public Facilities has noted the presence of asbestos in facilities of the Alaska Railroad and the Department is continuing to work on its inventory of asbestos in public buildings.

But the issue of asbestos in school buildings is particularly critical, medically and morally. There are several explanations for this criticality:

First, school attendance is required by law; the child of school age has no practical alternative to presence in the school house.

Second, children are especially vulnerable to the health risk of asbestos, according to the Environmental Protection Agency; their remaining life expectancy, as one writer has noted, "provides the 20 to 40 years it takes for disabling and fatal asbestos-related diseases to develop."

Third, school activities can damage or disturb asbestos, such as a ball hitting a gym ceiling or a ski or ski pole or hockey stick in contact with a ceiling or wall, and if asbestos materials become wet (for example, from a roof that leaks) or damaged or disturbed either by school activities, or vandalism -- or, indeed, by maintenance activities (for example, the repair of electrical wiring in a ceiling), the health hazards rise because of the dispersal of countless particles.

Fourth, governments hold their highest moral responsibility to the chi ren of the society governments serve.

Naturally, because of the cost of asbestos removal programs, prudent people ask about the possibility of less costly alternatives. The literature in your Committee's possession contains warning against any "quick fix" solutions. For example, at page 5 of State Government News (March 1984), Elaine Knapp has written:

> Many experts believe removal of asbestos is the only final and satisfactory solution to asbestos exposure. However, removal may cost more initially and be more complicated. Temporary measures include encapsulation by spraying asbestos with a sealant or enclosing the asbestos. EPA and other experts warn that such temporary measures make removal more difficult and dangerous later on, and must be constantly monitored.

And in the same tenor is an article in The Journal of School Health (August 1982) by Leonard Stavisky. Mr. Stavisky

notes that encapsulation, which involves the use of a sealant to cover the original asbestos material and prevent further flaking, "may not hold up for a long period of time" and that "the very act of applying a chemical covering may damage some of the asbestos."

This morning, in fact, I questioned Mr. Tom Freeman of the Anchorage School District, to ascertain whether any technology has been demonstrated that would obviate the necessity of asbestos removal. Mr. Freeman responded in the negative. In fact, he reported, he is in contact with school officials in Jefferson County, Missouri, where an encapsulation program was carried out within the past several years. There, school officials have determined that the program is a failure, and that removal of asbestos is the only prudent course.

Structural containment is another method which has been examined, requiring the installation of a permanent partition between the asbestos area and the public. In the schools in my district, this methodology would be unacceptable, because the spaces between ceilings and the floor above are used for electrical, plumbing, heating, and ventilation installations. In a building like Bartlett High School, workers need access to the area behind suspended ceilings to repair and check faulty wiring, water leakage,

and the air circulation system. The ventilation ducts can carry asbestos particles from one area of the building to another.

I am grateful, Mr. Chairman, for your leadership this year in bringing the need for asbestos removal before the House. I am also grateful to Governor Sheffield, who has included 11 million dollars for asbestos removal in his proposed Fiscal Year 1986 budget.

Unfortunately, the scope of the problem in our schools is much greater than 11 million dollars. The number one priority of the Anchorage School District, as transmitted to the Anchorage legislators at this session, is 11 million dollars for the removal of asbestos in Anchorage schools. This amount, which would meet substantially the remaining need in Anchorage, has nothing to do, of course, with the need in other areas of the State. The 11 million dollar figure is computed after the achievement of asbestos removal at West, East and Dimond High Schools, and Clark Junior High School, in Anchorage. And it does not take into account the cost of the 18 million dollar asbestos removal program at Bartlett High School.

The good news is that Anchorage has received 10 million dollars of State money for the Bartlett asbestos removal program, and because of a unique quirk -- part of the Bartlett school building is on federal land -- Anchorage

expects to receive another 6 million dollars from the United States government as a contribution to the cost of asbestos removal at that school.

But asbestos removal in Anchorage schools is a 55-school obligation, and we have hardly begun.

Let me turn, now, to the bill itself.

It would appear that section 1, allowing the Commissioner of Education to designate a shorter school term, may no longer be necessary. Section 1 was prepared last year, after the Attorney General had advised the Commissioner that existing statutes did not give the Commissioner authority to relax the 180-day school term requirement for asbestos removal. At that time, the Department of Law's rationale that while waivers may be granted in cases of emergency, the installation of asbestos in the schools was a human-caused problem, not a natural emergency such as an earthquake or flood.

Since then, the Commissioner has been permitted by the Attorney General to relax the 180-day school term requirement for Bartlett High School, without a change in the statute. Accordingly, by this precedent, it would appear that the Attorney General's mind has changed and no statutory amendment is needed.

I am a strong believer in section 2, although you will hear testimony against it. Let me tell you something of the dimension of the asbestos problem which I have not

mentioned. According to the National Cancer Institute, between 1.6 and 2.15 million American workers will die from exposure to cancer-causing asbestos -- and another 3 million more may suffer non-cancerous, but fatal, asbestosis.

In your packets is the article by Kathleen McCormick in The American School Board Journal (April 1984) which warns:

> But the removal process itself is an extremely dangerous undertaking; a faulty or incomplete removal job could present even greater health hazards to your students and staff, as well as to asbestos abatement workers.

I have some confidence that the Anchorage School District, because of the availability of competing contractors with asbestos-removing experience and because of the District's sophistication in contract management, is making sure that workers removing asbestos are trained and qualified, and appropriately supervised.

In all candor, I am not equally confident about other [illegible]as of the state. Last year, your Committee heard [illegible]ness testimony that Alaska workers handling asbestos on the job-site have been observed using careless methods reflecting a want of training. We are concerned for the safe working place; we are also concerned about the thoroughness and completeness of the asbestos removal job itself.

I think it is also important, Mr. Chairman, that provisions of the bill creating statutory duties of school officials to comply with EPA regulation be enacted into law. At last report, in the Thirteenth Alaska State Legislature, we were told that only about half of the State's school districts had examined their facilities for the presence of asbestos as part of EPA's requirement that schools be inspected for asbestos hazards, with record-keeping of the inspection results and notification to parents and employees if asbestos is found.

This slow-paced response to EPA must be deemed unacceptable, and mandatory state legislation appears to be needed and even overdue.

Mr. Chairman, I again wish to commend you and your Committee for your prompt action to consider the asbestos issue in our schools. Surely this is one problem that must be addressed even in this time of relative constraint in state budgeting. For if Alaska cannot afford to remove asbestos in the schools, what state can? In my judgment, our thoroughgoing action now will save hundreds or thousands of Alaska youngsters from disability and untimely death over the next several decades. The resources of local districts are inadequate to the problem, an Alaskans look here for a solution.

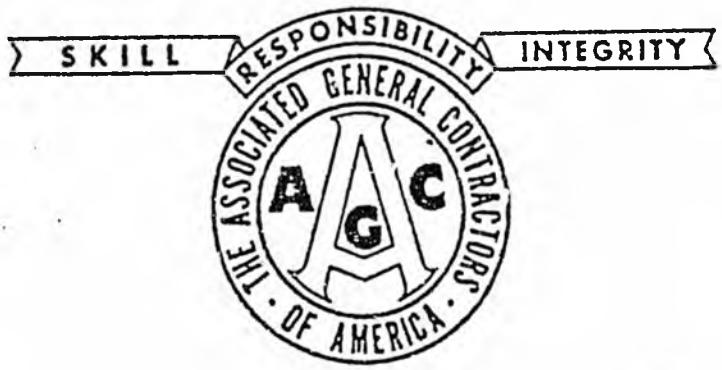
ALASKA CHAPTER
ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC.

POSITION STATEMENT

ON LEGISLATION ESTABLISHING

AN ASBESTOS HEALTH HAZARD ABATEMENT PROGRAM (HB 5)

January 18, 1985



POSITION PAPER ON HB 5

The Alaska Chapter, Associated General Contractors of America, Inc. (A.G.C.) represents more than 900 companies, including most of the general contracting companies engaged in Alaska's commercial construction.

The A.G.C. agrees with the intention of this bill - the abatement of asbestos health hazards. Many A.G.C. contractors are or have been involved in this very important safety effort. There is, however, a section of the bill that unnecessarily duplicates existing safety regulations and should, therefore, be deleted.

Specifically, we draw your attention to Section 18.28.030, Certification Programs. In this section, the Department of Labor is given authority to certify contractors and employees who intend to conduct asbestos abatement.

What the bill essentially requires is a State license to do asbestos work. But is there a need for such a license? We think not.

There are literally thousands of potentially hazardous substances that are handled safely in todays workplace. Asbestos should not be treated any differently than these substances.

Another serious concern that needs to be addressed is that of liability. Asbestos work is plagued with lawsuits. Through the proposed Department of Labor certification program, the State may become party to these suits by certifying that contractors, employees and labor organizations are competent to undertake this work, the State may have

liability if an employer or employee is certified improperly. We suggest an opinion from the attorney general's office be obtained prior to passage of this bill from committee.

Finally, in examining the fiscal requirements of this proposed licensing program, it appears that millions of dollars would be needed, rather than the proposed $300,000. It is virtually impossible to competently administer the proposals contained in HB 5 for $300,000. We suggest that an inadequately administered program is worse than no program at all. A realistic fiscal note must be developed so that lawmakers may assess the true costs of proposed legislation.

We believe once the true cost of this program is known, the question will arise: What does a certification program provide that is not already enforceable under the existing DOSH safety code regulations? The answer is "nothing." Sufficient asbestos health standards already exist, including requirements for employer training and proper respirator usage. (See attached).

In conclusion, we request this committee to thoroughly determine the fiscal costs of the proposed legislation, including potential State liability and to balance that cost against the benefits received. A.G.C. contends that for the certification program, the dollar cost will be high and there is no benefit because sufficient asbestos health standards presently exist.

We strongly urge deletion of the licensing section of SSHB 5.

04.0102 Asbestos. (a) Definitions, for the purpose of 04.0102.

(1) "Asbestos" includes chrysotile, amosite, crocidolite, tremolite, anthophylite, and actinolite.

(2) "Asbestos fibers" means asbestos fibers longer than five micrometers.

(b) Permissible exposure to airborne concentrations of asbestos fibers.

(1) Standard effective July 7, 1972. The 8-hour time weighted average airborne concentrations of asbestos fibers to which any employee may be exposed shall not exceed five fibers, longer than five micrometers, per cubic centimeter of air, as determined by the method prescribed in 04.0102(e).

(2) Standard effective July 1, 1976. The 8-hour time weighted average airborne concentrations of asbestos fibers to which any employee may be exposed shall not exceed two fibers, longer than five micrometers, per cubic centimeter of air, as determined by the method prescribed in 04.0102(e).

(3) Ceiling concentration. No employee shall be exposed at any time to airborne concentrations of asbestos fibers in excess of 10 fibers, longer than five micrometers, per cubic centimeter of air, as determined by the method prescribed in 04.0102(e).

(c) Methods of compliance.

(1) Engineering methods.

(A) Engineering controls. Engineering controls, such as, but not limited to, isolation, enclosure, exhaust ventilation, and dust collection, shall be used to meet the exposure limits prescribed in 04.0102(b).

(B) Local exhaust ventilation

(i) Local exhaust ventilation and dust collection systems shall be designed, constructed, installed, and maintained in accordance with the American National Standard Fundamentals Governing the Design and Operation of Local Exhaust Systems, ANSI Z9.2-1971, which is incorporated by reference herein.

(ii) See 1910.6 of the Federal Occupational Safety and Health Act concerning the availability of ANSI Z9.2-1971, and the maintenance of a historic file in connection therewith. The address of the American National Standards Institute is given in 04.0109.

(C) Particular tools. All hand-operated and power-operated tools which may produce or release asbestos fibers in excess of the exposure limits prescribed in 04.0102(b), such as, but not limited to, saws, scorers, abrasive wheels, and drills, shall be provided with local exhaust ventilation systems in accordance with 04.0102(c)(1)(B).

(2) Work practices.

(A) Wet methods. Insofar as practicable, asbestos shall be handled, mixed, applied, removed, cut, scored, or otherwise worked in a wet state sufficient to prevent the emission of airborne fibers in excess of the exposure limits prescribed in 04.0102, unless the usefulness of the product would be diminished thereby.

(B) Particular products and operations. No asbestos cement, mortar, coating, grout, plaster, or similar material containing asbestos shall be removed from bags, cartons, or other containers in which they are shipped, without being either wetted, or enclosed, or ventilated so as to prevent effectively the release of airborne asbestos fibers in excess of the limits prescribed in 04.0102.

(C) Spraying, demolition, or removal. Employees engaged in the spraying of asbestos, the removal, or demolition of pipes, structures, or equipment covered or insulated with asbestos, and in the removal or demolition of asbestos insulation or coverings shall be provided with respiratory equipment in accordance with 04.0102(d)(2)(C) and with special clothing in accordance with 04.0102(d)(3).

(d) Personal protective equipment.

(1) Compliance with the exposure limits prescribed by 04.0102(b) may not be achieved by the use of respirators or shift rotation of employees, except:

(A) During the time period necessary to install the engineering controls and to institute the work practices required by 04.0102(c);

(B) In work situations in which the methods prescribed in 04.0102(c) are either technically not feasible or feasible to an extent insufficient to reduce the airborne concentrations of asbestos fibers below the limits prescribed by 04.0102(b); or

(C) In emergencies.

(D) Where both respirators and personnel rotation are allowed by 04.0102(d)(1)(A), (B) or (C), and both are practicable, personnel rotation shall be preferred and used.

(2) Where a respirator is permitted by 04.0102(d)(1), it shall be selected from among those approved by the Bureau of Mines, Department of the Interior, or the National Institute for Occupational Safety and Health, Department of Health, Education, and Welfare, under the provisions of 30 CFR Part 11 (37 F.R. 8244, Mar. 25, 1972), and shall be used in accordance with 04.0102(d)(2)(A), (B), (C) and (D).

(A) Air purifying respirators. A reusable or single use air purifying respirator, or a respirator described in 04.0102(d)(2)(B) or (C), shall be used to reduce the concentrations of airborne asbestos fibers in the respirator below the exposure limits prescribed in 04.0102(b), when the ceiling or the 8-hour time weighted average airborne concentrations of asbestos fibers are reasonably expected to exceed no more than 10 times those limits.

(B) Powered air purifying respirators. A full facepiece powered air purifying respirator, or a powered air purifying respirator, or a respirator described in 04.0102(d)(2)(C), shall be used to reduce the concentrations of airborne asbestos fibers in the respirator below the exposure limits prescribed in 04.0102(b), when the ceiling or the 8-hour time weighted average concentrations of asbestos fibers are reasonably expected to exceed 10 times, but not 100 times, those limits.

(C) Type "C" supplied-air respirators, continuous flow or pressure-demand class. A type "C" continuous flow or pressure-demand, supplied-air respirator shall be used to reduce the concentrations of airborne asbestos fibers in the respirator below the exposure limits prescribed in 04.0102(b), when the ceiling or the 8-hour time weighted average airborne concentrations of asbestos fibers are reasonably expected to exceed 100 times those limits.

(D) Establishment of a respirator program.

(i) The employer shall establish a respirator program in accordance with the requirements of the American National Standards Practices for Respiratory Protection, ANSI Z88.2–1969, which is incorporated by reference herein.

(ii) See 1910.6 of the Federal Occupational Safety and Health Act concerning the availability of ANSI Z88.2–1969 and the maintenance of a historic file in connection therewith. The address of the American National Standards Institute is given in 04.0109.

(iii) No employee shall be assigned to tasks requiring the use of respirators if, based upon his most recent examination, the examining physician determines that the employee will be unable to function normally wearing a respirator, or that the safety or health of the employee or other employees will be impaired by his use of a respirator. Such employee shall be rotated to another job or given the opportunity to transfer to a different position whose duties he is able to perform with the same employer, in the same geographical area and with the same seniority, status, and rate of pay he had just prior to such transfer, if such a different position is available.

(3) Special clothing. The employer shall provide, and require the use of, special clothing, such as coveralls or similar whole body clothing, head coverings, gloves, and foot coverings for any employee exposed to airborne concentrations of asbestos fibers, which exceed the ceiling level prescribed in 04.0102(b).

(4) Change rooms.

(A) At any fixed place of employment exposed to airborne concentrations of asbestos fibers in excess of the exposure limits prescribed in 04.0102(b), the employer shall provide change rooms for employees working regularly at the place.

(B) Clothes lockers. The employer shall provide two separate lockers or containers for each employee, so separated or isolated as to prevent contamination of the employee's street clothes from his work clothes.

(C) Laundering.

(i) Laundering of asbestos contaminated clothing shall be done so as to prevent the release of airborne asbestos fibers in excess of the exposure limits prescribed in 04.0102(b).

(ii) Any employer who gives asbestos-contaminated clothing to another person for laundering shall inform such person of the requirement in 04.0102(d)(4)(C)(i) to effectively prevent the release of airborne asbestos fibers in excess of the exposure limits prescribed in 04.0102(b).

(iii) Contaminated clothing shall be transported in sealed impermeable bags, or other closed, impermeable containers, and labeled in accordance with 04.0102(g).

(e) Method of measurement. All determinations of airborne concentrations of asbestos fibers shall be made by the membrane filter method at 400–450 X (magnification) (4 millimeter objective) with phase contrast illumination.

(f) Monitoring.

(1) Initial determinations. Within six months of the publication of 04.0102 every employer shall cause every place of employment where asbestos fibers are released to be monitored in such a way as to determine whether every employee's exposure to asbestos fibers is below the limits prescribed in 04.0102(b). If the limits are exceeded, the employer shall immediately undertake a compliance program in accordance with 04.0102(c).

(2) Personal monitoring.

(A) Samples shall be collected from within the breathing zone of the employees, on membrane filters of 0.8 micrometer porosity mounted in an open- face filter holder. Samples shall be taken for the determination of the 8-hour time weighted average airborne concentrations and of the ceiling concentrations of asbestos fibers.

(B) Sampling frequency and patterns. After the initial determinations required by 04.0102(f)(1), samples shall be of such frequency and pattern as to represent with reasonable accuracy the levels of exposure of employees. In no case shall the sampling be done at intervals greater than six months for employees whose exposure to asbestos may reasonably be foreseen to exceed the limits prescribed by 04.0102(b).

(3) Environmental monitoring.

(A) Samples shall be collected from areas of a work environment which are representative of the airborne concentration of asbestos fibers which may reach the breathing zone of employees. Samples shall be collected on a membrane filter of 0.8 micrometer porosity mounted in an open-face filter holder. Samples shall be taken for the determination of the 8-hour time- weighted average airborne concentrations and of the ceiling concentrations of asbestos fibers.

(B) Sampling frequency and patterns. After the initial determinations required by 04.0102(f)(1), samples shall be of such frequency and pattern as to represent with reasonable accuracy the levels of exposure of the employees. In no case shall sampling be at intervals greater than six months for employees whose exposures to asbestos may reasonably be foreseen to exceed the exposure limits prescribed in 04.0102(b).

(4) Employee observation of monitoring. Affected employees, or their representatives, shall be given a reasonable opportunity to observe any monitoring required by 04.0102 and shall have access to the records thereof.

(g) Caution signs and labels.

(1) Caution signs.

(A) Posting. Caution signs shall be provided and displayed at each location where airborne concentrations of asbestos fibers may be in excess of the exposure limits prescribed in 04.0102(b). Signs shall be posted at such a distance from such a location so that an employee may read the signs and take necessary protective steps before entering the area marked by the signs. Signs shall be posted at all approaches to areas containing excessive concentrations of airborne asbestos fibers.

(B) Sign specifications. The warning signs required by 04.0102(g)(1)(A) shall conform to the requirements of 20 inches by 14 inches vertical format signs specified in 02.0105 and to 04.0102(g)(1)(B). The signs shall display the following legend in the lower panel, with letter sizes and styles of a visibility at least equal to that specified in 04.0102(g)(1)(B).

Legend	Notation
Asbestos	1 in. Sans Serif, Gothic or Block
Dust hazard	½ in. Sans Serif, Gothic or Block
Avoid breathing dust	¼ in. Gothic
Wear assigned protective equipment	¼ in. Gothic
Do not remain in area unless your work requires it.	¼ in. Gothic
Breathing asbestos dust may be hazardous to your health	14 point Gothic

Spacing between lines shall be at least equal to the height of the upper of any two lines.

(2) Caution labels.

(A) Labeling. Caution labels shall be affixed to all raw materials, mixtures, scrap, waste, debris, and other products containing asbestos fibers, or to their containers, except that no label is required where asbestos fibers have been modified by a bonding agent, coating, binder, or other material so that during any reasonably foreseeable use, handling, storage, disposal, processing, or transportation, no airborne concentrations of asbestos fibers in excess of the exposure limits prescribed in 04.0102(b) will be released.

(B) Label specifications. The caution labels required by 04.0102(g)(2)(A) shall be printed in letters of sufficient size and contrast as to be readily visible and legible. The label shall state:

CAUTION

Contains Asbestos Fibers
Avoid Creating Dust
Breathing Asbestos Dust May Cause
Serious Bodily Harm

(h) Housekeeping.

(1) Cleaning. All external surfaces in any place of employment shall be maintained free of accumulations of asbestos fibers if, with their dispersion, there would be an excessive concentration.

(2) Waste disposal. Asbestos waste, scrap, debris, bags, containers, equipment, and asbestos-contaminated clothing, consigned for disposal, which may produce in any reasonably foreseeable use, handling, storage, processing, disposal, or transportation, airborne concentrations of asbestos fibers in excess of the exposure limits prescribed in 04.0102(b), shall be collected and disposed of in sealed impermeable bags, or other closed, impermeable containers.

(i) Recordkeeping.

(1) Exposure records. Every employer shall maintain records of any personal or environmental monitoring required by 04.0102. Records shall be maintained for a period of at least 20 years and shall be made available upon request to the Assistant Secretary of Labor for Occupational Safety and Health, the Director of the National Institute for Occupational Safety and Health, and to authorized representatives of either.

(2) Employee access. Every employee and former employee shall have reasonable access to any record required to be maintained by 04.0102(i)(1) which indicates the employee's own exposure to asbestos fibers.

(3) Employee notification. Any employee found to have been exposed at any time to airborne concentrations of asbestos fibers in excess of the limits prescribed in 04.0102(b) shall be notified in writing of the exposure as soon as practicable but not later than five days of the finding. The employee shall also be timely notified of the corrective action being taken.

(j) Medical examinations.

(1) General. The employer shall provide or make available at his cost, medical examinations relative to exposure to asbestos required by 04.0102(j).

(2) Preplacement. The employer shall provide or make available to each of his employees, within 30 calender days following his first employment in an occupation exposed to airborne concentrations of asbestos fibers, a comprehensive medical examination, which shall include, as a minimum, a chest roentgenogram (posterior–anterior 14 x 17 inches), a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at one second ($FEV_{1.0}$).

(3) Annual examinations. On or before January 31, 1973, and at least annually thereafter, every employer shall provide, or make available, comprehensive medical examinations to each of his employees engaged in occupations exposed to airborne concentrations of asbestos fibers. Such annual examination shall include, as a minimum, a chest roentgenogram (posterior–anterior 14 x 17 inches), a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at one second ($FEV_{1.0}$).

(4) Termination of employment. The employer shall provide, or make available, within 30 calender days before or after the termination of employment of any employee engaged in an occupation exposed to airborne concentrations of asbestos fibers, a comprehensive medical examination which shall include, as a minimum, a chest roentgenogram (posterior–anterior 14 x 17 inches), a history to elicit symptomatology of respiratory disease, and pulmonary function tests to include forced vital capacity (FVC) and forced expiratory volume at one second ($FEV_{1.0}$).

(5) Recent examinations. No medical examination is required of any employee, if adequate records show that the employee has been examined in accordance with 04.0102(j) within the past one-year period.

(6) Medical records.

(A) Maintenance. Employers of employees examined pursuant to 04.0102(j) shall cause to be maintained complete and accurate records of all such medical examinations. Records shall be retained by employers for at least 20 years.

(B) Access. The contents of the records of the medical examinations required by 04.0102(j) shall be made available, for inspection and copying, to the Assistant Secretary of Labor for Occupational Safety and Health, the Director of NIOSH, to authorized physicians and medical consultants of either of them, and, upon the request of an employee or former employee, to his physician. Any physician who conducts a medical examination required by 04.0102(j) shall furnish to the employer of the examined employee all the information specifically required by 04.0102(j) and any other medical information related to occupational exposure to asbestos fibers.

04.0103 Ventilation. (a) Abrasive blasting.

(1) Definitions applicable to 04.0103.

(A) Abrasive. A solid substance used in an abrasive blasting operation.

(B) Abrasive-blasting respirator. A continuous flow air-line respirator constructed so that it will cover the wearer's head, neck, and shoulders to protect him from rebounding abrasive.

(C) Blast cleaning barrel. A complete enclosure which rotates on an axis, or which has an internal moving tread to tumble the parts, in order to expose various surfaces of the parts of the action of an automatic blast spray.

(D) Blast cleaning room. A complete enclosure in which blasting operations are performed and where the operator works inside of the room to operate the blasting nozzle and direct the flow of the abrasive material.

(E) Blasting cabinet. An enclosure where the operator stands outside and operates the blasting nozzle through an opening or openings in the enclosure.

(F) Clean air. Air of such purity that it will not cause harm or discomfort to an individual if it is inhaled for extended periods of time.

(G) Dust collector. A device or combination of devices for separating dust from the air handled by an exhaust ventilation system.

(H) Exhaust ventilation system. A system for removing contaminated air from a space, comprising two or more of the following elements: (a) enclosure or hood, (b) duct work, (c) dust collecting equipment, (d) exhauster, and (e) discharge stack.

(I) Particulate-filter respirator. An air purifying respirator, commonly referred to as a dust or a fume respirator, which removes most of the dust or fume from the air passing through the device.

(J) Respirable dust. Airborne dust in sizes capable of passing through the upper respiratory system to reach the lower lung passages.

(K) Rotary blast cleaning table. An enclosure where the pieces to be cleaned are positioned on a rotating table and are passed automatically through a series of blast sprays.

(L) Abrasive blasting. The forcible application of an abrasive to a surface by pneumatic pressure, hydraulic pressure, or centrifugal force.

(2) Dust hazards from abrasive blasting.

(A) Abrasives and the surface coatings on the materials blasted are shattered and pulverized during blasting operations and the dust formed will contain particles of respirable size. The composition and toxicity of the dust from these sources shall be considered in making an evaluation of the potential health hazards.

(B) The concentration of respirable dust or fume in the breathing zone of the abrasive-blasting operator or any other worker shall be kept below the levels specified in 04.0101.

SUBCHAPTER 1 - GENERAL SAFETY CODE

ARTICLE 4 - PERSONAL PROTECTIVE EQUIPMENT

01.0401 General requirements. (a) Application. Protective equipment, including personal protective equipment for eyes, face, head, and extremetles, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.

(b) Employee-owned equipment. Where employees provide their own protective equipment, the employer shall be responsible to assure its adequacy, including proper maintenance, and sanitation of such equipment.

(1) Other personal safety equipment or clothing, such as rubber gloves, rubber boots, leggings, aprons, hand pads, safety belts, life lines, buoyant vests, shall be furnished to the employees who are exposed to hazards where such device may be expected to prevent injury.

(c) Design. All personal protective equipment shall be of safe design and construction for the work to be performed.

(d) Sterilization. Goggles, rubber gloves, respirators and other protectors shall not be interchanged among employees unless they have been sterilized.

01.0402 Eye and face protection. (a) General.

(1) Protective eye and face equipment shall be required where there is a reasonable probability of injury that can be prevented by such equipment. In such cases, employers shall make conveniently available a type of protector suitable for the work to be performed, and employees shall use such protectors. No unprotected person shall knowingly be subjected to a hazardous enviornmental condition. Suitable eye protectors shall be provided where machines or operations present the hazard of flying objects, glare, liquids, injurious radiation, or a combination of these hazards.

(A) An employer must provide all employees working with acids, protective clothing, as well as any other equipment needed for safety purposes.

(B) Goggles, hard hats, masks, shields, or other prescribed face, eye and head protection shall be worn by employees who are engaged in welding, grinding, torch cutting, snagging or chipping, handling molten metals, caustics, or who are exposed to harmful rays, dust or flying materials of any kind.

(2) Protectors shall meet the following minimum requirements.

(A) They shall provide adequate protection against the particular hazards for which they are designed.

(B) They shall be reasonably comfortable when worn under the designated conditions.

(C) They shall fit snugly and shall not unduly interfere with the movements of the wearer.

(D) They shall be durable.

(E) They shall be capable of being disinfected.

(F) They shall be easily cleanable.

(G) Protectors shall be kept clean and in good repair.

(3) Persons whose vision requires the use of corrective lenses in spectacles, and who are required by this standard to wear eye protection, shall wear goggles of one of the following types:

(A) Spectacles whose protective lenses provide optical correction.

(B) Goggles that can be worn over corrective spectacles without disturbing the adjustment of the spectacles.

(C) Goggles that incorporate corrective lenses mounted behind the protective lenses.

(4) Every protector shall be distinctly marked to facilitate identification only of the manufacturer.

(5) When limitations or precautions are indicated by the manufacturer, they shall be transmitted to the user and care taken to see that such limitations and precautions are strictly observed.

(6) Design, construction, testing, and use of devices for eye and face protection shall be in accordance with American National Standard for Occupational and Educational Eye and Face Protection, Z87.1-1968.

01.0403 Respiratory protection. (a) Permissible practice.

(1) In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective

shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to the following requirements.

(2) Respirators shall be provided by the employer when such equipment is necessary to protect the health of the employees. The employer shall provide the respirators which are applicable and suitable for the purpose intended. The employer shall be responsible for the establishment and maintenance of a respiratory protective program which shall include the requirements outlined in 01.0403(b).

(3) The employee shall use the provided respiratory protection in accordance with instructions and training received.

(b) Requirements for a minimal acceptable program.

(1) Written standard operating procedures governing the selection and use of respirators shall be established.

(2) Respirators shall be selected on the basis of hazards to which the worker is exposed.

(3) The user shall be instructed and trained in the proper use of respirators and their limitations.

(4) Where practicable, the respirators should be assigned to individual workers for their exclusive use.

(5) Respirators shall be regularly cleaned and disinfected. Those issued for the exclusive use of one worker should be cleaned after each day's use, or more often if necessary. Those used by more than one worker shall be thoroughly cleaned and disinfected after each use.

(6) Respirators shall be stored in a convenient clean, and sanitary location.

(7) Respirators used routinely shall be inspected during cleaning. Worn or deteriorated parts shall be replaced. Respirators for emergency use, such as self-contained devices shall be thoroughly inspected at least once a month and after each use.

(8) Appropriate surveillance of work area conditions and degree of employee exposure or stress shall be maintained.

(9) There shall be regular inspection and evaluation to determine the continued effectiveness of the program.

(10) Persons should not be assigned to tasks requiring use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. The local physician shall determine what health and physical conditions are pertinent. The respirator user's medical status should be reviewed periodically (for instance, annually.)

(11) Approved or accepted respirators shall be used when they are available. The respirators furnished shall provide adequate respiratory protection against the particular hazard for which it is designed in accordance with standards established by competent authorities. The U.S. Department of Interior, Bureau of Mines, and the U.S. Department of Agriculture are recognized as such authorities. Although respirators listed by the U.S. Department of Agriculture continue to be acceptable for protection against specified pesticides, the U.S. Department of the Interior, Bureau of Mines, is the agency now responsible for testing and approving pesticide respirators.

(c) Selection of respirators. Proper selection of respirators shall be made according to the guidance of American National Standard Practices for Respiratory Protection Z88.1-1969.

(d) Air quality.

(1) Compressed air, compressed oxygen, liquid air, and liquid oxygen used for respiration shall be of high purity. Oxygen shall meet the requirements of the United State Pharmacopoeia for medical or breathing oxygen. Breathing air shall meet at least the requirements of the specification for Grade D breathing air as described in Compressed Gas Association, Commodity Specification G-7.1-1966. Compressed oxygen shall not be used in supplied-air respirators or in open circuit self-contained breathing apparatus that have previously used compressed air. Oxygen must never be used with air line respirators.

(2) Breathing air may be supplied to respirators from cylinders or air compressors.

(A) Cylinders shall be tested and maintained as prescribed in the Shipping Container Specification Regulations of the Department of Transportation (49 CFR Part 178.)

(B) The compressor for supplying air shall be equipped with necessary safety and standby devices. A breathing air-type compressor shall be used. Compressors shall be constructed and situated so as to avoid entry of contaminated air into the system and suitable in-line purifying sorbent beds and filters installed to further assure breathing air quality. A receiver of sufficient capacity to enable the respirator wearer to escape from a contaminated atmosphere in event of compressor failure, and alarms to indicate compressor failure and overheating shall be in-

stalled in the system. If an oil-lubricated compressor is used, it shall have a high-temperature or carbon monoxide alarm, or both. If only a high-temperature alarm is used, the air from the compressor shall be frequently tested for carbon monoxide to insure that it meets the specifications in 01.0403(d)(1).

(3) Air line couplings shall be incompatible with outlets for other gas systems to prevent inadvertent servicing of air line respirators with non-respirable gases or oxygen.

(4) Breathing gas containers shall be marked in accordance with American National Standard Method of Marking Portable Compressed Gas Containers to Identify the Material Contained, Z48.1-1954; Federal Specification BB-A-1034a, June 21, 1968, Air, Compressed for Breathing Purposes; or Interim Federal Specification GG-B-00675b, April 27, 1965, Breathing Apparatus, Self-Contained.

(e) Use of respirators.

(1) Standard procedures shall be developed for respirator use. These should include all information and guidance necessary for their proper selection, use and care. Possible emergency and routine uses of respirators should be anticipated and planned for.

(2) The correct respirator shall be specified for each job. The respirator type is usually specified in the work procedures by a qualified individual supervising the respiratory protective program. The individual issuing them shall be adequately instructed to insure that the correct respirator is issued. Each respirator permanently assigned to an individual should be durably marked to indicate to whom it was assigned. This mark shall not affect the respirator performance in any way. The date of issuance should be recorded.

(3) Written procedures shall be prepared covering safe use of respirators in dangerous atmospheres that might be encountered in normal operations or in emergencies. Personnel shall be familiar with these procedures and the available respirators.

(A) In areas where the wearer, with failure of the respirator, could be overcome by a toxic or oxygen-deficient atmosphere, at least one additional man shall be present. Communications (visual, voice, or signal line) shall be maintained between both or all individuals present. Planning shall be such that one individual will be unaffected by any likely incident and have the proper rescue equipment to be able to assist the other(s) in case of emergency.

(B) When self-contained breathing apparatus or hose masks with blowers are used in atmospheres immediately dangerous to life or health, standby men must be present with suitable rescue equipment.

(C) Persons using air line respirators in atmospheres immediately hazardous to life or health shall be equipped with safety harnesses and safety lines for lifting or removing persons from hazardous atmospheres or other and equivalent provisions for the rescue of persons from hazardous atmospheres shall be used. A standby man or men with suitable self-contained breathing apparatus shall be at the nearest fresh air base for emergency rescue.

(4) Respiratory protection is no better than the respirator in use, even though it is worn conscientiously. Frequent random inspections shall be conducted by a qualified individual to assure that respirators are properly selected, used, cleaned and maintained.

(5) For safe use of any respirator, it is essential that the user be properly instructed in its selection, use and maintenance. Both supervisors and workers shall be so instructed by competent persons. Training shall provide the men an opportunity to handle the respirator, have it fitted properly, test its facepiece-to-face seal, wear it in normal air for a long familiarity period, and, finally, to wear it in a test atmosphere.

(A) Every respirator wearer shall receive fitting instructions including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly. Respirators shall not be worn when conditions prevent a mask to skin face seal. To assure proper protection, the facepiece fit shall be checked by the wearer each time he puts on the respirator. This may be done by following the manufacturer's facepiece fitting instructions. Conditions which could prevent a mask to skin face seal may be a growth of beard, sideburns, a skull cap that projects under the facepiece, or temple pieces on glasses. Also the absence of one or both dentures can affect the fit of a facepiece. The worker's diligence in observing these factors shall be evaluated by periodic check.

(B) Providing respiratory protection for individuals wearing corrective glasses is a serious problem. A proper seal cannot be established if the temple bars of eye glasses extend through the sealing edge of the full facepiece. As a temporary measure, glasses with short temple bars or without temple bars may be taped to the wearer's head. Wearing of contact lenses in contaminated atmosphere with a respirator shall not be allowed. Systems have been developed for mounting corrective lenses inside full facepieces. When a workman must wear corrective lenses as part of the facepiece, the facepiece and lenses shall be fitted by qualified individuals to provide good vision, comfort, and a gas-tight seal.

(C) If corrective spectacles or goggles are required, they shall be worn so as not to affect the fit of the facepiece. Proper selection of equipment will minimize or avoid this problem.

(f) Maintenance and care of respirators.

(1) A program for maintenance and care of respirators shall be adjusted to the type of plant, working conditions, and hazards involved, and shall include the following basic services:

(A) Inspection for defects (including a leak check.)

(B) Cleaning and disinfecting.

(C) Repair, and

(D) Storage

Equipment shall be properly maintained to retain its original effectiveness.

(2) Inspection of respirators.

(A) All respirators shall be inspected routinely before and after each use. A respirator that is not routinely used but is kept ready for emergency use shall be inspected after each use and at least monthly to assure that it is in satisfactory working condition.

(B) Self-contained breathing apparatus shall be inspected monthly. Air and oxygen cylinders shall be fully charged according to the manufacturer's instruction. It shall be determined that the regulator and warning devices function properly.

(C) Respirator inspection shall include a check of the tightness of connections and the condition of the facepiece, headbands, valves, connecting tube, and canisters. Rubber or

elastomer parts shall be inspected for pliability and signs of deterioration. Stretching and manipulating rubber or elastomer parts with a massaging action will keep them pliable and flexible and prevent them from taking a set during storage.

(D) A record shall be kept of inspection dates and findings for respirators maintained for emergency use.

(3) Routinely used respirators shall be collected, cleaned, and disinfected as frequently as necessary to insure that proper protection is provided for the wearer. Each worker should be briefed on the cleaning procedure and be assured that he will always receive a clean and disinfected respirator. Such assurances are of greatest significance when respirators are not individually assigned to workers. Respirators maintained for emergency use shall be cleaned and disinfected after each use.

(4) Replacement or repairs shall be done only by experienced persons with parts designed for the respirator. No attempt shall be made to replace components or to make adjustment or repairs beyond the manufacturer's recommendations. Reducing or admission valves or regulators shall be returned to the manufacturer or to a trained technician for adjustment or repair.

(5) Storage of respirators.

(A) After inspection, cleaning, and necessary repair, respirators shall be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals. Respirators placed at stations and work areas for emergency use should be quickly accessible at all times and should be stored in compartments built for the purpose. The compartments should be clearly marked. Routinely used respirators, such as dust respirators, may

be placed in plastic bags. Respirators should not be stored in such places as lockers or tool boxes unless they are in carrying cases or cartons.

(B) Respirators should be packed or stored so that the facepiece and exhalation valve will rest in a normal position and function will not be impaired by the elastomer setting in an abnormal position.

(C) Instructions for proper storage of emergency respirators, such as gas masks and self-contained breathing apparatus, are found in "use and care" instructions usually mounted inside the carrying case lid.

(g) Identification of gas mask canisters.

(1) The primary means of identifying a gas mask canister shall be by means of properly worded labels. The secondary means of identifying a gas mask canister shall be by a color code.

(2) All who issue or use gas masks falling within the scope of 01.0403 shall see that all gas mask canisters purchased or used by them are properly labeled and colored in accordance with these requirements before they are placed in service and that the labels and colors are properly maintained at all times thereafter until the canisters have completely served their purpose.

(3) On each canister shall appear in bold letters the following:

(A) Canister for _____
or Type N Gas Mask Canister.

SUBCHAPTER 1 - GENERAL SAFETY CODE

Article 1 - General Safety and Health Considerations

01.0101 Purpose and Scope. (a) This subchapter sets forth the occupational safety and health standards adopted by the C mmissioner of Labor for the purpose of providing the Alaskan work force with a healthful and safe place to work.

01.0102 Employer Requirements. (a) The employer shall furnish to each of his employees, employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees. This shall be implemented by the employer by complying with these regulations.

(b) The employer shall initate and maintain accident prevention programs for the prevention of occupational illness and disease.

(c) Employers shall display a poster, furnished by the Alaska Department of Labor, in places where notices to employees are generally posted. The poster will outline appropriate provisions of AS 18.60.010 to AS 18.60.105.

01.0103 Employee Requirements. (a) Each employee shall comply with all regulations contained in this chapter which are applicable to his own actions while on the job.

(b) Employees shall conscientiously use all safety devices, procedures, and personal protective equipment required by these regulations.

01.0104 Reporting of Injuries. Occupational injuries shall be reported in accordance with AS 18.60.058.

01.0105 Accident-Prevention Program. (a) Program organization.

(1) Every employer shall start and maintain an accident prevention program. The program shall provide that personnel knowledgeable in the field of occupational safety and health shall make daily inspections of on the job equipment and activities. The employer shall insure that immediate action be taken to eliminate all hazards.

(2) Each employer shall adopt a code of safe practices and procedures which applies to his operation and which embraces the applicable provisions of these regulations. It shall be the obligation of the employer to have the safe practices code posted in a conspicuous location at each job site office.

(3) Each employer shall insure that the supervisory personnel shoulder their share of the responsibility for accidents. It is suggested that a written report be submitted by each supervisor associated with an accident. These reports should suggest a feasible means of avoiding future accidents of a similar nature.

(b) Recommendations.

(1) Each employer should display an interest in safety matters by:

(A) The display of safety posters and warning signs. A sign indicating how many consecutive accident free days have passed is often worthwhile.

(B) Considering the advisability of posting a list of all foremen who have kept their crews accident free for a certain period of time.

(C) Considering the advisability of establishing various forms of safety competition, including suitable rewards or recognition to individuals and crews with good records.

(c) General safety requirements.

(1) Anyone known to be under the influence of intoxicating liquor, narcotics or drugs shall not be allowed on the job while in that condition. Further, horseplay, scuffling, and other acts which tend to have an adverse influence on the safety or well-being of the employees shall be prohibited.

(2) No one shall knowingly be permitted or required to work while his ability and alertness is impaired by fatigue, illness, or other causes that might unnecessarily expose him or others to injury.

ALASKA CHAPTER A.G.C.
EDUCATION COMMITTEE

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ANCHORAGE, ALASKA
APRIL 18, 1984

FAIRBANKS INN
FAIRBANKS, ALASKA
APRIL 20, 1984

AGENDA:

11:30 to 12:00 - Registration
12:00 to 12:30 - Lunch
12:30 PROGRAM

I. Asbestos in the Workplace
   a. Source
   b. Uses
II. Standards
III. Health Hazards
IV. Locations
V. Survey
VI. Identification
VII. Abatement Procedures and Removal Techniques
   a. Types
   b. Design
   c. Procedures
VIII. Monitoring
   a. Why
   b. How
   c. Standards
IX. Personal Protective Equipment
   a. Clothing
   b. Respirators
      1. Types
      2. Demonstration
X. Employee Training
XI. Legal Liability
XII. Insurance
XIII. EPA Demolition and Renovation Regulations
XIV. Waste Disposal Procedures and Permits
XV. Contractor Prequalification Requirements
XVI. Pending Legislation
XVII. Questions and Answers

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ASBESTOS
SAFETY AND HEALTH WORK PRACTICES GUIDE

A Safety Service of the:

Alaska Chapter Associated General Contractors
3201 Spenard Road
P.O. Box 4-2500(99509)
Anchorage, Alaska
(907) 561-5334

In conjunction with:

OSH
Alaska Department of Labor
3301 Eagle Street
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Anchorage, Alaska
(907) 264-2599

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2733 W. Wisconsin Avenue
P.O. Box 08374
Milwaukee, WI 53208
(414) 933-7661

Respirator use, allowed under this section, is on a sliding scale according to exposure levels. Respirator use is allowed as follows, provided that they have NIOSH and MSHA approval:

1. Any respirator must be an approved type. Approval currently is a combined MSHA/NIOSH designation, which means that respiratory equipment is jointly approved by the Mine Safety and Health Administration and the National Institute of Occupational Safety and Health. In the future, it is possible that respirators will be approved only by NIOSH. All approved respirators carry an approval number. Respirators are approved only for specific types of hazard and within certain contamination limits. Make sure that respirators you are using are designed and approved for the hazard encountered and the concentration at which it is encountered.

2. Re-usable or single-use air purifying respirators for use in atmospheres with exposure up to 10 times that limit of 2 fibers per cubic centimeter (cc) of air for an 8-hour exposure or 10 times the limit of 10 fibers per cc for a short exposure.

3. Powered air purifying respirators for up to 100 times the limit.

4. Type C supplied air or pressure demand type respirators where the exposure exceeds 100 times the limit.

Disposable clothing is suggested for employees working in asbestos atmospheres (See Appendix C). In addition, monitoring of exposure levels on both an initial and continuing basis must be performed. Caution signs are required in work areas and all debris must be bagged and labeled before disposal in accordance with the provisions of 04.0102. Medical monitoring is another important part of the program. Every employee exposed to asbestos in concentrations greater than 0.1 fiber per cubic centimeter (f/cc) must have a medical examination made available to him within 30 days of his first exposure and annually thereafter. If an employee terminates his employment, or is terminated, a medical exam must be available to him within 30 days of the termination. All medical records must be retained by employer for 20 years.

APPLICATION OF STANDARDS

The OSH code as written is extremely hard to comply with in the construction industry. They were written for static industrial applications. The entire 04.0102 asbestos standard is part of the 01.0101 verticalized standard and must be adhered to. The effects of asbestos do not show until as late as 20 years after the initial exposure. The legal and moral ramifications of not providing proper protection for employees are enormous. Liability suits in the millions of dollars have already been awarded to exposed employees and their associated costs far overshadow OSH penalties. We are then faced with a two-fold problem in construction operations. First and foremost is whether or not employees are adequately protected and secondarily, are we in compliance with OSH standards? Since the existence of asbestos cannot be determined in the field, and many construction operations which come in contact with asbestos are of short duration we have a difficult time gaining 100% compliance with OSH regulations. This policy can only be a guide to initial employee protection and seeks a method of safeguarding the employee and OSH compliance.

This document is intended to aid in short term, small or low exposure routine situations. It is not intended for use on abatement projects where the scope of the project is solely to remove asbestos from a structure. Because of the many other factors involved in abatement work like EPA regulations, protection of the owners future interest, etc., monitoring should always be conducted for abatement projects.

ASBESTOS POLICY AND SAFE WORKING PRATICES

For the purpose of simplification, we are dividing this sub-section into three areas we have been able to identify where the construction process comes into contact with asbestos.

Notify him that because he had taken these actions you will consider his rights waived unless he informs you within 5 days that he will take a physical. This notice should also be certified mail or personal service with certification. If you use our data base concept you will almost always have a provide medical monitoring since it is extremely unlikely that exposures would fall under the 0.1 fiber limit. If you do not use the data base you will have to air monitor to determine whether or not medical surveillance is required.

EMPLOYEE TRAINING

An important part of any asbestos program must be employee hazard awareness. Employees likely to be exposed must be told about what produces asbestos dust, such as cutting. While all of us are aware of the health hazard, many of us fail to realize that it is so abundant in repair, remodeling, and emergency work. We must instruct our employees in safe working practices, covering thoroughly the following topics:

1) The health hazard.

2) The areas of work most likely to have exposure problems.

3) The importance and proper use of respiratory protection.

4) The importance of treating all suspect material as asbestos until proven otherwise.

5) The importance of having all suspect material tested.

6) The importance of having air tests made.

7) A thorough understanding of OSH regulations.

8) A thorough knowledge of techniques for limiting airborne concentrations.

9) A thorough understanding of personal protective equipment.

DATA BASE CONCEPT

One way to handle the problem of air monitoring is to use a data base concept. The OSH standard is loosely worded about actual monitoring requirements and hard to apply to construction operations.

We feel that the monitoring requirements can be technically met if each company does air monitoring for a range of examples of exposures it deals with. This data could then be applied to different projects with similar circumstances and materials. Each company can in effect establish a data base of probable concentrations for each type of exposure and rpotect their employees accordingly.

Many contractor air samples indicate properly handled asbestos will be below two fibers, the current OSH respirator requirement level. In spite of this we feel that respirators are absolutely required for any work with asbestos containing materials. While the current OSH level is 2 fibers per cubic centimeter, we have reason to believe it will soon be lowered. It is only prudent to provide respiratory protection for all exposures including those assumed to be reasonably low. While it is possible to make an informed decision that air monitoring is not required, we do not feel that the same can be said for the use of respirators. It is a keystone of the data base concept that employee protection be supplied and used for the so called low level exposures (those below current OSH respiratory requirement limits).

When an asbestos exposure situation is encountered you have two choices: monitor or use the data base concept. If you use data basing, review your file for similar situations. Make an informed decision based on past exposure experience. Be sure to allow an adequate safety factor when deciding on a respirator type. If your expected exposure is near the top of the allowable limits for the respirators you have selected, go to the next type up the protective ladder.

)4.0102 —ASBESTOS

(a) Definitions.

For the purpose of this section,

(1) "Asbestos" includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.

(2) "Asbestos fibers" means asbestos fibers longer than 5 micrometers.

(b) Permissible exposure to airborne concentrations of asbestos fibers.

(1) Standard effective July 7, 1972. The 8-hour time-weighted average airborne concentrations of asbestos fibers to which any employee may be exposed shall not exceed five fibers, longer than 5 micrometers, per cubic centimeter of air, as determined by the method prescribed in paragraph (e) of this section.

(2) Standard effective July 1, 1976. The 8-hour time-weighted average airborne concentrations of asbestos fibers to which any employee may be exposed shall not exceed two fibers, longer than 5 micrometers, per cubic centimeter of air, as determined by the method prescribed in paragraph (e) of this section.

(3) Ceiling concentration. No employee shall be exposed at any time to airborne concentrations of asbestos fibers in excess of 10 fibers, longer than 5 micrometers, per cubic centimeter of air, as determined by the method prescribed in paragraph (e) of this section.

(c) Methods of compliance.

(1) Engineering methods.

(i) Engineering controls. Engineering controls, such as, but not limited to, isolation, enclosure, exhaust ventilation, and dust collection, shall be used to meet the exposure limits prescribed in paragraph (b) of this section.

(ii) Local exhaust ventilation.

(a) Local exhaust ventilation and dust collection systems shall be designed, constructed, installed, and maintained in accordance with the American National Standard Fundamentals Governing the Design and Operation of Local Exhaust Systems, ANSI Z9.2–1971, which is incorporated by reference herein.

(b) See § 1910.6 concerning the availability of ANSI Z9.2–1971, and the maintenance of a historic file in connection therewith. The address of the American National Standards Institute is given in § 1910.100.

(iii) Particular tools. All hand-operated and power-operated tools which may produce or release asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section, such as, but not limited to, saws, scorers, abrasive wheels, and drills, shall be provided with local exhaust ventilation systems in accordance with subdivision (ii) of this subparagraph.

(2) Work practices.

(i) Wet methods. Insofar as practicable, asbestos shall be handled, mixed, applied, removed, cut, scored, or otherwise worked in a wet state sufficient to prevent the emission of airborne fibers in excess of the exposure limits prescribed in paragraph (b) of this section, unless the usefulness of the product would be diminished thereby.

(ii) Particular products and operations. No asbestos cement, mortar, coating, grout, plaster, or similar material containing asbestos shall be removed from bags, cartons, or other containers in which they are shipped, without being either wetted, or enclosed, or ventilated so as to prevent effectively the release of airborne asbestos fibers in excess of the limits prescribed in paragraph (b) of this section.

(iii) Spraying, demolition, or removal. Employees engaged in the spraying of asbestos, the removal, or demolition of pipes, structures, or equipment covered or insulated with asbestos, and in the removal or demolition of asbestos insulation or coverings shall be provided with respiratory equipment in accordance with paragraph (d)(2)(ii) of this section and with special clothing in accordance with paragraph (d)(3) of this section.

(d) Personal protective equipment.

(1) Compliance with the exposure limits prescribed by paragraph (b) of this section may not be achieved by the use of respirators or shift rotation of employees, except:

(i) During the time period necessary to install the engineering controls and to institute the work practices required by paragraph (c) of this section;

(xi) Laundering.

(a) Laundering of asbestos contaminated clothing shall be done so as to prevent the release of airborne asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section.

(b) Any employer who gives asbestos-contaminated clothing to another person for laundering shall inform such person of the requirement in (a) of this subdivision to effectively prevent the release of airborne asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section.

(c) Contaminated clothing shall be transported in sealed impermeable bags, or other closed, impermeable containers, and labeled in accordance with paragraph (g) of this section.

(e) Method of measurement.

All determinations of airborne concentrations of asbestos fibers shall be made by the membrane filter method at 400–450 × (magnification) (4 millimeter objective) with phase contrast illumination.

(f) Monitoring.

(1) Initial determinations. Within 6 months of the publication of this section, every employer shall cause every place of employment where asbestos fibers are released to be monitored in such a way as to determine whether every employee's exposure to asbestos fibers is below the limits prescribed in paragraph (b) of this section. If the limits are exceeded, the employer shall immediately undertake a compliance program in accordance with paragraph (c) of this section.

(2) Personal monitoring.

(i) Samples shall be collected from within the breathing zone of the employees, on membrane filters of 0.8 micrometer porosity mounted in an open-face filter holder. Samples shall be taken for the determination of the 8-hour time-weighted average airborne concentrations and of the ceiling concentrations of asbestos fibers.

(ii) Sampling frequency and pattern. After the initial determinations required by subparagraph (1) of this paragraph, samples shall be of such frequency and pattern as to represent with reasonable accuracy the levels of exposure of employees. In no case shall the sampling be done at intervals greater than 6 months for employees whose exposure to asbestos may reasonably be foreseen to exceed the limits prescribed by paragraph (b) of this section.

(3) Environmental monitoring.

(i) Samples shall be collected from areas of a work environment which are representative of the airborne concentrations of asbestos fibers which may reach the breathing zone of employees. Samples shall be collected on a membrane filter of 0.8 micrometer porosity mounted in an open-face filter holder. Samples shall be taken for the determination of the 8-hour time-weighted average airborne concentrations and of the ceiling concentrations of asbestos fibers.

(ii) Sampling frequency and patterns. After the initial determinations required by subparagraph (1) of this paragraph, samples shall be of such frequency and pattern as to represent with reasonable accuracy the levels of exposure of the employees. In no case shall sampling be at intervals greater than 6 months for employees whose exposures to asbestos may reasonably be foreseen to exceed the exposure limits prescribed in paragraph (b) of this section.

(4) Employee observation of monitoring. Affected employees, or their representatives, shall be given a reasonable opportunity to observe any monitoring required by this paragraph and shall have access to the records thereof.

(g) Caution signs and labels.

(1) Caution signs.

(i) Posting. Caution signs shall be provided and displayed at each location where airborne concentrations of asbestos fibers may be in excess of the exposure limits prescribed in paragraph (b) of this section. Signs shall be posted at such a distance from such a location as that an employee may read the signs and take necessary protective steps before entering the area marked by the signs. Signs shall be posted at all approaches to areas containing excessive concentrations of airborne asbestos fibers.

(ii) Sign specifications. The warning signs required by subdivision (i) of this subparagraph shall conform to the requirements of 20" x 14" vertical format signs

Annual examinations. On or before January , 1973, and at least annually thereafter, ery employer shall provide, or make avail-le, comprehensive medical examinations each of his employees engaged in occupa-ns exposed to airborne concentrations of bestos fibers. Such annual examination all include, as a minimum, a chest roent-nogram (posterior-anterior 14 x 17 ches), a history to elicit symptomatology respiratory disease, and pulmonary func-n tests to include forced vital capacity VC) and forced expiratory volume at 1 sec-d ($FEV_{1.0}$).

Termination of employment. The employer all provide, or make available, within 30 lendar days before or after the termina-on of employment of any employee gaged in an occupation exposed to air-rne concentrations of asbestos fibers, a mprehensive medical examination which all include, as a minimum, a chest roent-nogram (posterior-anterior 14 x 17 ches), a history to elicit symptomatology respiratory disease, and pulmonary func-n tests to include forced vital capacity VC) and forced expiratory volume at 1 sec-d ($FEV_{1.0}$).

) Recent examinations. No medical examina-on is required of any employee, if adequate ecords show that the employee has been amined in accordance with this para-raph within the past 1-year period.

) Medical records.

(i) Maintenance. Employers of employees examined pursuant to this paragraph shall cause to be maintained complete and accurate records of all such medical examinations. Records shall be retained by employers for at least 20 years.

(ii) Access. The contents of the records of the medical examinations required by this paragraph shall be made available, for inspection and copying, to the Assistant Secretary of Labor for Occupational Safety and Health, the Director of NIOSH, to authorized physicians and medical consultants of either of them, and, upon the request of an employee or former employee, to his physician. Any physician who conducts a medical examination required by this paragraph shall furnish to the employer of the examined employee all the information specifically required by this paragraph, and any other medical information related to occupational exposure to asbestos fibers..

THE NEW OSH STANDARD

On Friday November 4, 1983 OSHA issued an Emergency Temporary Standard (ETS) on asbestos. These emergency requirements will remain in effect for six months under the rules governing the issuance of Emergency Temporary Standards. This means that it will be in effect until May 4, 1984.

During this time period we expect OSHA to go through the formal rule making process in order to cause a permanent change in the existing standard. We would be very much surprised if this formalization process resulted in a final standard with provisions much different than those outlined in the ETS.

The complete text of the Emergency Temporary Standard is printed after this explanation.

The ETS does not effect the data base concept since we are providing employee protection from zero exposures on up. It does, however, reduce the margin of error and place an even greater emphasis on careful work procedures.

It requires additional employee training and lowers the permissable exposure level (PEL) to .5 fibers from the current 2 fibers per cc of air. This is a 75% reduction in the amount of asbestos that an employee can be exposed to without respiratory protection. The .1 fiber action level for medical surveillance remains unchanged.

In addition the approval level for each type of respirator is reduced to a multiple of the new lower PEL.

Single use respirators have a maximum concentration approval of 5 fibers per cc (10 times .5) rather than 20 fibers (10 times 2) for as long as the ETS is in effect. Our data base indicates that about 5% of all construction exposures could exceed the 5 fiber limit on single use respirators.

Full face piece purifying and powered air purifiers are approved up to 50 fibers per cc (100 times .5) rather than up to 200 fibers (100 times 2). Any concentration over 50 fibers requires the use of airline respirators.

CONTRACTORS GUIDE TO RESPIRATOR USE
AND
WRITTEN RESPIRATOR PROGRAMS

A Safety Service of the:

Alaska Chapter Associated General Contractors
3201 Spenard Road
P.O. Box 4-2500(99509)
Anchorage, Alaska
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With co-operation and
technical assistance from:

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Innovative Safety for an Innovative Industry

I-RESPIRATOR TYPES

A respirator is a device designed to ensure the wearer of a breathable non-contaminated supply of air. There are two basic types of respirators, those that purify the existing atmosphere by filtering contaminants out and those that provide clean air from an outside source. There are several types of respirators within each of the above categories. A basic respirator program starts with a thorough understanding of the respirators available and the uses and limitations of each.

Air-Purifying Respirators remove the contaminants from air before breathing by filtering out contaminants, such as dust, fumes and mists. The simplest form of respirator in this category is commonly known as a single use or disposable respirator. These units are low cost and offer protection for certain types of low level exposures. They are generally used for dusts and fiber removal. As with all types of respirators, each manufacturer's product is approved for only certain types of contaminants and specific exposure levels.

The next most complicated type of air-purifying respirators is also designed for dusts and mists and features removable purifying elements. It is reusable as long as the elements are changed and it is properly maintained and cleaned. It is generally approved for higher concentrations than the single-use respirator. It can be purchased in quarter-mask, half-mask and full-face piece styles. Each style offers, successively, more protection with the full-face piece offering some protection for the eyes as well.

Closely related to the above respirator style are chemical cartridge and cannister respirators for gases and fumes. These respirators feature replaceable filter units and come in quarter, half and full-face styles. The filters remove harmful gases and vapors by way of a chemical reaction that absorbs or renders them harmless. Each filter element is effective only against a specific hazard or class of hazards. Filter cartridges are color coded according to a universal scheme, enabling the user to positively identify the proper cartridge for the hazard present.

The last type of respirator, in the air-purifying class, is known as a powered air purifying unit. This is a high efficiency mechanical unit. Powered air purifies come in half-mask and full-face mask or hood styles. A fan forces contaminated air through a filter and pure air into the face piece. Depending on the approved cartridges used, they can be effective for particles and gases or vapors.

It is important to note that none of the air-purifying respirators can be used in oxygen deficient atmospheres, since they do not supply air. They are also only effective against the particular contaminant and the concentration they are approved for.

The second major category of respirators are termed air supply units. As the name implies, they provide their own source of air from an outside supply. They can be used in high concentrations of most any type of hazardous substance.

The values, we have been discussing, represent a term in Industrial Hygiene known as a TLV or threshold limit value. When we say carbon monoxide is regulated by OSHA at concentrations of 50 PPM, we mean that it has a TLV of that amount. A TLV is the concentration value below which workers, exposed for extended periods of eight hour days, are assumed to suffer no ill effects. Concentrations above the TLV are considered dangerous and require contractor action either in the form of engineering or administrative controls. TLV's are also referred to as PEL's (Permissable Exposure Limits) when talking in terms of OSHA compliance.

Another commonly used term in Industrial Hygiene is TWA or Time Weighted Averages. PEL's are usually expressures in terms of Time-Weighted Averages. A time-Weighted Average is simply an average of the various exposures occuring during a normal work day. Using a TWA and carbon monoxide as an example an exposure of 4 hours at 75 PPM and 4 hours at 25 PPM yields a time-weighted average of 50 PPM or no excessive employee exposures. Occasionally, hazardous substances, which are regulated on the basis of Time-Weighted Averages, have upper exposure limits (UEL) which cannot be exceeded without proper employee protection.

IV TESTING EQUIPMENT AND METHODS

Effective health protection requires that monitoring of concentration levels be done. No effective program can exist without an accurate idea of the contaminant levels present in the work environment. Since respirators are only approved and effective for specific concentrations, the hazard concentration must be established even to make an accurate selection. The types and methods of air monitoring are varied, ranging from simple units for spot checks to sophisticated continuous monitors. Equipment suppliers can help you choose the exact type of monitoring equipment for your needs and the hazards you are encountering. Most of the time, they will train your employees in the use and maintenance of the equipment. It is important to know exactly the kind and extent of service the manufacturer will provide before purchasing any monitoring equipment. It is also possible to have monitoring handled by an outside consultant.

V ENGINEERING vs ADMINISTRATIVE CONTROL

The cornerstone of any Construction Program, involving Industrial Hygiene, Respirator Protection and Hazardous Substance Control, is an understanding of the relationship between Engineering and Administrative Controls. OSHA law requires that Engineering Control be applied first, wherever possible, to hazardous-substance situations. Engineering controls are methods of reducing the amount of contaminants in the work environment by controlling and modifying the source of the contaminant. They include such things as isolation, enclosure, ventilation and dust collection. Perhaps the most feasible administrative control for construction operations is substitution. Wherever possible, non-hazardous and non-toxic substances should be substituted for harmful ones. This truly limits the hazard at the source. The Construction Health Specialist is always alert for ways and places to substitute.

For example, the problem caused by asbestos has been virtually eliminated in new construction, through the use of new materials. The application of engineering controls can also be effectively achieved in many cases by changes in the work processes. The use of engineering controls require imaginative and innovative thought.

These basic elements must be covered in detail in your respiratory protection program. The writing of a program for your company is a major undertaking. Each company encounters different hazards in their day to day operation. Before beginning preparation of a written program:

1. Identify the hazards found in your activities. This can best be done by obtaining data sheets on all materials used. Someone must be responsible for obtaining this basis information.

2. Take every available option to eliminate the use of known hazardous substances.

3. Determine the exposure levels of hazardous substances that are in use. This can only be done through accurate monitoring.

4. Investigate the types of respiratory equipment, specifically designed and approved for the hazard encountered. Before buying any respiratory equipment, find out what services the seller supplies with his equipment. Will he help train and fit? Does he have specific and detailed use instructions?

5. Because construction operations are diverse, complex, and widespread, you must establish an internal notice of use of hazardous substances system. Make someone (job superintendant) responsible for notifying safety personnel of intended usage.

6. Set up a specific training and fitting program for respirator use. No one can tell for certain in construction, when and where in the construction process, hazardous substances will be encountered. Because of the high turnover, periodic general training of employees may not be sufficient. A training program, done immediately before respirator use, appears to be the only effective way to combat infrequent use of regulated hazardous substances.

7. Make one individual responsible for administering your program, keeping your records, and inspecting your equipment. Provide him with all the training possible.

8. Plan for every contingency. Be thoroughly prepared and avoid future trouble.

9. Establish a working relationship with a doctor or clinic familiar with industrial medicine and respirator use.

Having done the required "homework" you can now begin to draft your company's respiratory use program

VIII SAMPLE RESPIRATORY PROGRAM

A.

It is the intended purpose of _____ company to provide a safe and healthful workplace environment for all employees. To further this purpose we have established this respirator use program. The requirements of this program are binding on all employees.

4. Wherever possible, respirators will be assigned to individual workers for their exclusive use. Workers will be responsible for maintenance and sanitation of respirators assigned to them. Periodic and frequent spot checks will be made by supervisory personnel to insure compliance. Respirators, for the exclusive use of an individual, will be cleaned at least once a day at the end of the shift. Respirators, used by more than one worker, shall be cleaned and disinfected after each use. Respirators will be stored in a clean, sanitary place on the jobsite reserved solely for that purpose. No respirators may be removed from any jobsite except on written authorization from the Safety Director. If respirators are individually assigned, they shall bear the name of the person to whom they are assigned.

5. Areas, where respirators are in use, shall be closely monitored to insure compliance and safe conditions. Unauthorized and untrained personnel will be prohibited from entering these areas. Crew sizes for work, requiring respiratory protection, will be kept to the smallest practical size and the makeup, for short-duration operations, will not be changed unless absolutely necessary.

6. This program will be under constant review to determine that it meets its stated goal of providing maximum employee protection. Suggestions for improvement of this program should be submitted to _____ at _____ and are openly encouraged. Questions should also be referred to _____.

7. _____ Company has made arrangements with _____ (Doctor or Clinic) to handle medical requirements for respirator use. Employees will be required to furnish medical information in order to be sure that respirator use will not, in itself, be detrimental to their health.

This policy will be amended, from time to time, to improve it's performance. The proper use of respirators requires the active participation of all employees. The _____ Company is making a commitment to a healthful work environment for the good of us all.

_____

President (etc.)

USING THE MODEL PROGRAM

OSHA regulations were designed for General Industry which is more static in nature. The work process and materials used change very seldom and with longer planning times in general industry. Construction is different altogether. The products we use are specified by owners and architects, and we have no control over them. Each construction project is unique and uses different materials. We do not have the luxury of knowing exactly what chemical hazards we may encounter down the road. This changeable nature makes respiratory protection programs hard to formulate. We cannot begin the selection process until we are able to identify the hazardous components of each project.

MEMORANDUM State of Alaska

TO: Dick Stokes, SERO
Bob Flint, SCRO
Pete McGee, NRO

DATE: October 12, 1983

FILE NO:

TELEPHONE NO:

FROM: Stanley W. Hungerford, Chief
Air and Solid Waste Management
SWH for

SUBJECT: Waste Asbestos Disposal Responsibilities

There seems to be some confusion concerning our role and responsibility in asbestos disposal. Specifically, what laws address asbestos, what permits are required, and who issues them. Dick Williams and Dave Estes have compiled a list of the pertinent laws and policies on asbestos acttivities. Please circulate copies to your staff for their reference.

I. ASBESTOS IS NOT A HAZARDOUS WASTE UNDER RCRA.

RCRA covers ignitable, corrosive, reactive, EP toxic, and listed wastes. It does not recognize long-term health effects as a separate criteria.

II. ASBESTOS IS A HAZARDOUS AIR POLLUTANT UNDER NESHAPS.

Federally, asbestos is an air pollutant addressed by 40 CFR 61. These regulations address air emissions from activities that involve asbestos, and specify operating procedures that should prevent hazardous emissions.

ADEC has not taken on that part of NESHAPS, and any situation encountered should be referred to EPA, Alaska Operations Office, Juneau.

III. NO FEDERAL PERMITS APPLY TO ASBESTOS DISPOSAL AT ALASKAN LANDFILLS.

IV. ASBESTOS IS A HAZARDOUS WASTE UNDER OUR SOLID WASTE REGULATIONS, 18 AAC 60.

18 AAC 60.910.(11)...' "hazardous waste" means a solid waste or combination of solid wastes, which because of its quantity, concentration, or physical, chemical or biological characteristics may cause or significantly contribute to

(a) an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness; or

(b) a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.'

Diseases caused by breathing asbestos dust, such as lung cancer and asbestosis, definitely increase mortality.

V. ASBESTOS DISPOSAL REQUIRES AN ADEC WASTE DISPOSAL PERMIT.

Asbestos is a solid waste and, therefore, requires a Waste Disposal Permit under AS 46.03.100 and 18 AAC 60.200.(a).

Asbestos is also "hazardous" and requires "specific appr val" from the department according to 18 AAC 60.087.(a).

"Specific Approval" should be given via conditions in a new permit or an amendment of an existing permit.

Approvals should be granted for an overall operation, not for each bag, barrel or truckload.

V. ASBESTOS DISPOSAL PROCEDURES.

All the solid waste disposal standards in 18 AAC 60 apply to asbestos disposal. In addition, the following requirments must also be met:

a. Waste asbestos must be thoroughly wetted and placed in a water-tight container before burial. Containers may be barrels, drums, or double -four mil or thicker- plastic bags.
or single six mil

b. All containers shall have a warning label attached that states:

CAUTION

CONTAINS ASBESTOS

AVOID OPENING OR BREAKING CONTAINER

BREATHING ASBESTOS IS HAZARDOUS
TO YOUR HEALTH

c. Apply 2 FEET of cover soil to the wastes at the end of each operating day, or if cover is not applied

1. install fencing or provide other approved access controls, and
2. post signs at site entrances and at 100 foot intervals along the site boundary that state in one inch or taller lettering:

ASBESTOS WASTE DISPOSAL SITE

DO NOT CREATE DUST

BREATHING ASBESTOS IS
HAZARDOUS TO YOUR HEALTH

VI. ASBESTOS REMOVAL AND HANDLING PROCEDURES ARE OSHA AND EPA CONCERNS.

ADEC should refer the public to these agencies when appropriate. We are not authorized or trained to interpret and enforce their regulations. Also, we lack the staff and funding needed to take on any more programs.

Conclusion:

Asbestos is a "hazardous solid waste" under Alaskan Law. We regulate its disposal with the Solid Waste Management Regulations, 18 AAC 60, and the Waste Disposal Permit program. All disposal must be approved in writing, i.e., by permit condition. Disposal activities must comply with departmental standards and procedures. Signs and fences are NOT required if the waste is covered on the day of deposition. All removal, handling, and air pollution control activities are EPA concerns and must be referred to them.

Please call Dick or Dave if you have any questions or corrections.

cc : Keith Kelton

RTW:SH:sz

Federal Regulations Affecting Asbestos

U.S. Dept. of Labor
OSHA

- Code of Fed. Regulations (CFR)
  Title 29 Part 1910
- Work practices & worker protection
- Industrial exposure

EPA
Toxic Substances Control Act (TSCA) - CFR Title 40 Part 763
Asbestos in Schools Rule

- Identifying friable asbestos containing material
- Employee & parent notification
- Record Keeping

EPA
Clean Air Act (CAA) Section 112
National Emission Standards for
Hazardous Air Pollutants (NESHAPS)
(asbestos, beryllium, mercury,
vinyl chloride)

- CFR Title 40 Part 61 Subpart A
  Subpart B replaced by Subpart M
  on 4/5/84 Fed Reg. Vol. 49 No. 67
- Standards for mills, roadways
  manufacturing, demolition/renovation,

Demolition / Renovation of Friable Asbestos Material
CFR Title 40 Part 61 Subpart M Sections 61.140; 61.141,
61.145 - 61.147, 61.152, 61.154 and 61.156

Definitions - CFR 40 Part 61 Section 61.141

Friable asbestos material - any material containing more than 1 percent asbestos by weight that hand pressure can crumble, pulverize or reduce to powder when dry

Renovation - altering in any way one or more facility components. Operations in which load-supporting structural members are wrecked or taken out are excluded

Demolition - wrecking or taking out of any load-supporting structural member of a facility together with any related handling operations.

Visible emissions - emissions containing particulate asbestos material that are visually detectable without the aid of instruments. Excludes condensed uncombined water vapor.

Facility Component - pipe, duct, boiler, tank, reactor, turbine, furnace

Demolition / Renovation of Friable Asbestos

- Applicability Categories Section 61.145

61.145(a) Demolition ≥ 260 lin. feet (pipes) or ≥ 160 sq. ft other fac. comp.

Notification Req. Section 61.146

Written notification to EPA required.
Postmark/Deliver 10 days prior to demolit.

(1) Name/wrd. of owner/op. of rem./dem. firm
(2) Bldg. description (size, age, prior use)
(3) Amount of asb. in facility

(4) Fac. location for dem./renov.
(5) Start date / Completion date
(6) Descrip. of dem./renov. and methods
(7) Procedures followed in dem./renov. to comply with Subpart M
(8) Name & location of waste disp. site

Emission Control Procedures Section 61.147

(a) Remove asb. before wrecking or dismantling that would break asb. mat. or preclude access. Exception - demolition - asb. on fac. component encased in concrete - wet whenever asb. is exposed while dem.

(b) Removal of facility component w/ asbestos in sections
- Wet the areas to be cut
- Do not drop - lower the units to ground

(c) Removing/stripping asb. from intact

Notification Req.: Section 61.146

SEND NOTIFICATIONS TO:

EPA
Alaska Operations Office
3200 Hospital Dr.
Suite 101
Juneau, AK 99801
ATTN: KATHRYN PATTON

Emission Control Proced. Section 61.147

(d) After removing facility component w/ asb.
- Wet during stripping —OR—
- Use local exhaust vent. & collection (i.e. V.E. or designed & oper. 61.154)

(e) All asbestos removed or stripped
- Asb. must remain wet until contained for disposal
- Do not drop - lower material to ground
- Dust-tight chutes or containers if > 50 feet above ground - Exception: 61.147 (b)

(+) Temp. at wetting point < 32°F
- Comply w/ (d) and (e) - no other wetting requirements

Demolition / Renovation of Friable Asbestos

- Applicability Categories Section 61.145

61.145(b) Demolition < 260 ln. feet (pipes) or < 160 sq. ft. other fac. comp.

Notification Req. Section 61.146

Written notification to EPA required

Postmark/deliver 20 days prior to demol/rt

(1) Name/add. of owner/op. of ren./dem. firm

(2) Bldg. description (size, age, prior use)

(3) Amount of a.s.b. in facility

- Explain techniques of estimation

(4) Fac. location for dem./renov.

(5) Start Date / Completion date

Emission Control Proced. Section 61.147

Not required by EPA regulations

But recommend follow 61.147 a-g