

DATE: December 20, 1972

TO: W.F. Young

FROM: H.B. Gayley -

SUBJECT:

DELAVAL
RECEIVED

DEC 22 1972

PUMP ENGINEERING

MEMO

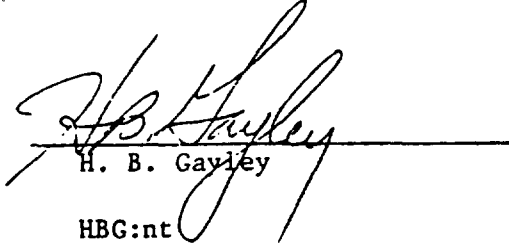
DELAVAL
TURBINE DIVISION
INTER-OFFICE CO

PLAINTIFF'S
EXHIBIT
IMO-128

Questions have been raised concerning the use of asbestos containing products in insulation materials. The Turbine Division is utilizing several materials, namely, Cerafelt, asbestos cloth, Thermobestos Block, and Nbr. 352 Cement. A letter is attached from Johns-Manville Company from the Manager of Accident Prevention and Industrial Health. In this letter he discusses the Johns-Manville and U.S. Government comments concerning these materials. Copies of the U.S. Department of Labor Material Safety Data Sheets and the Federal Register are also attached. This information may be of use to you in discussions with customers concerning asbestos containing materials.

It would seem that the materials may be used safely if proper ventilation, use of breathing protective devices and proper house keeping are observed.

This information has been passed to Industrial Relations for consideration in our shops.


H. B. Gayley

HBG:nt

Ltr. Ser. ME-990

cc: A.S. Gertz
R. Shifler
F.A. Mehler
H.M. Davis
P. Scordo
F.L. Weaver

TX0393

JOHNS: Johns-Manville

At Greenwood Plaza
Denver, Colorado 80217
(303) 770-1000

3 8
File - 1N.1

November 21, 1972

Mr. H. B. Gayley, Manager
Metallurgican and Standards Engrg.
Delaval Turbine Division
P. O. Box 251
Trenton, New Jersey 08602

Dear Mr. Gayley:

By copy of this letter, I am referring your request for information on asbestos-free products to our marketing organization.

Regarding your questions on Cerafelt, asbestos cloth, Thermobestos Block, and Nbr. 352 Cement, I am enclosing U. S. Department of Labor Material Safety Data Sheets for these products.

I am sure that some of your customers wish to take what I feel is an easy way out; that is, to resort to indiscriminate substitution of asbestos-free materials. The indiscriminate substitution of materials with known hazards for a material with an unknown hazard is scientifically unsound, both from a health standpoint and from a performance point of view.

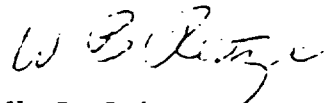
We believe there are some instances where the substitution of a non-asbestos containing product can be safely made. We have developed several such products which our marketing people will brief you on.

We do, however, feel that in the meantime asbestos containing products can be used safely. In certain instances the safe handling of asbestos containing products requires slight alterations in work practices, dust control measures, and in general overall improvements in housekeeping.

It is our opinion that many of the procedures outlined in the attached copy of the Federal Register, June 7, 1972, may soon be applied to a substitute material just as they are at present applied to asbestos containing materials. Dust control measures as they apply to construction work, including power house applications, have been well studied. Under separate cover, I am requesting our marketing people to send you a manual which they have prepared for our insulation contracting units.

If you have any further questions, please contact me.

Very truly yours,



W. B. Reitze
Manager, Accident Prevention
and Industrial Health

TX0394

U.S. DEPARTMENT OF LABOR

Form No. L50-C03-4
May 1969

WAGE AND LABOR STANDARDS ADMINISTRATION
Bureau of Labor Standards

HAZARDOUS MATERIAL SAFETY DATA SHEET

SECTION I

MANUFACTURER Johns-Manville Corp. & Subsidiaries		EMERGENCY TELEPHONE NO. 303-770-1000, Extn. 2020
ADDRESS P. O. Box 5108, Denver, Colorado 80217		
CHEMICAL NAME AND SYNONYMS Refractory Fiber (Glass)		TRADE NAME AND SYNONYMS Cerafelt Insulation
CHEMICAL FAMILY Refractory Fiber (Glass)		FORMULA

SECTION II HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS	Not Applicable	BASE METAL	Not Applicable	
CATALYST	"	ALLOYS	"	
VEHICLE	"	METALLIC COATINGS	"	
SOLVENTS	"	FILLER METAL PLUS COATING OR CORE FILL	"	
ADDITIVES	"	OTHERS	"	
OTHERS	"	"		
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				% TLV (Units)
Refractory Fiber Glass				100
TLV - Same as nuisance or inert dust. See attached Copy Federal Register, Vol. 36, No. 234, Dated December 7, 1971.				

SECTION III PHYSICAL DATA

BOILING POINT (°C)	NOT APPLICABLE	SPECIFIC GRAVITY (H ₂ O = 1)	NOT APPLICABLE
VAPOR PRESSURE (mm Hg)	"	PERCENT VOLATILE BY VOLUME	"
VAPOR DENSITY (AIR = 1)	"	EVAPORATION RATE (1 = 1)	"
SOLUBILITY IN WATER	"		"
APPEARANCE AND ODOR	"		"

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Let	Uel
EXTINGUISHING MEDIA NOT APPLICABLE			
SPECIAL FIRE FIGHTING PROCEDURES "			
FIRE AND EXPLOSION HAZARDS "			

TX0395

See Section II - nuisance or inert dust.	
NOT APPLICABLE	
NOT APPLICABLE	

SECTION III - TOXICITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE		
INCOMPATIBILITY - Materials involved			
NOT APPLICABLE			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR		

SECTION IV - REACTIVE DATA	
STABILITY TO WATER, MOISTURE, WATER, OR RELEASED ON SPILL	
NOT APPLICABLE	
WAS A SPECIAL METHOD	
NOT APPLICABLE	

SECTION V - RESPIRATORY PROTECTION			
RESPIRATORY PROTECTION REQUIRED			
NOT APPLICABLE			
VENTILATION	LOCAL EXHAUST	"	SPECIAL
	MECHANICAL EXHAUST	"	OTHER
PROTECTIVE GLOVES		EYE PROTECTION	
OTHER PROTECTIVE EQUIPMENT			

SECTION VI - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE	
NOT APPLICABLE	
OTHER PRECAUTIONS	

[illegible]

(4) (1) No person is considered to be engaged in a business if he or she is engaged in a business for the purpose of obtaining a license or permit to engage in a business, or if he or she is engaged in a business for the purpose of obtaining a license or permit to engage in a business.

(1) 2020-10-22 14:00:00

WAGE AND LABOR STANDARDS ADMINISTRATION
Bureau of Labor Standards

IDENTIFICATION OF HAZARDOUS INGREDIENTS
AND THE HAZARDOUS MIXTURES OF THESE INGREDIENTS

SECTION I	
MANUFACTURER'S NAME Johns-Manville Corp. & Subsidiaries	TELEPHONE 303-770-1000, Ext. 2020
P.O. BOX 5108, Denver, Colorado 80217	
CHEMICAL NAME AND SYNONYMS Chrysotile Asbestos	TRADE NAME AND SYNONYMS Commercial Grade Asbestos Cloth
CHEMICAL FAMILY Asbestos	FORMULA N.A.

SECTION II HAZARDOUS INGREDIENTS					
PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FILL		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES					% TLV (Units)
Chrysotile Asbestos Fibre					by weight 75
TLV - See Federal Register 6/7/72, Vol. 37, No. 110; 8-hour time weighted average 5 fibres/ML greater than 5 microns in length. Ceiling concentrations not to exceed 10 fibres/ML.					

SECTION III PHYSICAL DATA			
BOILING POINT (°F.)	N.A.	SPECIFIC GRAVITY (H ₂ O = 1)	N.A.
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (%)	
VAPOR DENSITY (AIR = 1)		EVAPORATION RATE (_____ = 1)	
SOLUBILITY IN WATER			
APPEARANCE AND ODOR White Woven Fabric - No Odor.			

SECTION IV FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (Method used)	FLAMMABLE LIMITS	Let	Uet
EXTINGUISHING MEDIA Non-flammable			
SPECIAL FIRE FIGHTING PROCEDURES			
UNUSUAL FIRE AND EXPLOSION HAZARDS			

See Section II and OSHA regulation effective 6/7/72. May cause pulmonary disease.	
Avoid breathing excessive dust when handling, fabricating and applying.	

SECTION VI REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Avoid breathing excessive dust.
INCOMPATIBILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII CHEMICAL REACTIVITIES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	
N.A.	
WASTE DISPOSAL METHOD	
Vacuum clean dust and lint from cutting or machining. Place waste in closed containers.	

SECTION VIII SPECIAL PROTECTION INFORMATION		
RESPIRATORY PROTECTION (Specify type) U.S. Bureau of Mines approved respirator - See OSHA Part 1910 & 1910.93a, 6/7/72.		
VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General Control with dust collection equipment to within TLV.	OTHER
PROTECTIVE GLOVES		EYE PROTECTION
OTHER PROTECTIVE EQUIPMENT		

SECTION IX SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE	
maintain good housekeeping practices.	
OTHER PRECAUTIONS	

TX0399

WAGE AND LABOR STANDARDS ADMINISTRATION
Bureau of Labor Standards

FOR FURTHER INFORMATION, CONTACT THE BUREAU OF LABOR STANDARDS
WASHINGTON, D.C. 20366

SECTION I

MANUFACTURER'S NAME Johns-Manville Corp. & Subsidiaries		INTERNATIONAL TELEPHONE NO. 303-770-1000, Extn. 2020
ADDRESS P. O. Box 5108, Denver, Colorado 80217		
CHEMICAL NAME AND SYNONYMS	TRADE NAME AND SYNONYMS J-M #352 Cement	
CHEMICAL FAMILY See Section II	FORMULA See Section II	

SECTION II HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR COFF FILLER		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES					% TLV (Units)
Chrysotile Asbestos Fiber					Approx. 100
For TLV, see cony Federal Register, 6/7/72, Vol. 37, No. 110. 8-hour time weighted average 5 fibers/mL greater than 5 microns in length. Coiling concentrations not to exceed 10 fibers/mL.					

SECTION III PHYSICAL DATA

BOILING POINT (°F)		SPECIFIC GRAVITY (H ₂ O = 1)	
VAPOR PRESSURE (mm Hg)		PERCENT VOLATILE BY VOLUME (°F)	
VAPOR DENSITY (A.R.T.)		EVAPORATION RATE (1 = 1)	
SOLUBILITY IN WATER			
APPEARANCE AND ODOR Gray (white) fiber - No Odor			

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	LeI	UeI
EXTINGUISHING MEDIA Non-Flammable			
SPECIAL FIRE FIGHTING PROCEDURES			
HAZARDOUS REACTION AND EXPLOSION HAZARDS			

TX0400

Section II and OSHA regulation 6/7/72.	
May cause pulmonary disease by inhalation.	
Avoid breathing excessive dust when handling, dumping, mixing, etc. See caution label on bag.	

SECTION VI REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Avoid breathing excessive dust.
INCOMPATIBILITY (Materials to avoid)		None	
HAZARDOUS DECOMPOSITION PRODUCTS		None	
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	Avoid breathing excessive dust.

SECTION VII SPILLAGE PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	
Vacuum clean spillage. Repair broken bags. If sweeping is necessary, wet down spillage. Use approved respiratory equipment when required.	
WASTE DISPOSAL METHOD	
Place waste in closed containers. Dispose of waste in closed containers. Avoid breathing excessive dust.	

SECTION VIII SPECIAL PROTECTION INFORMATION		
RESPIRATORY PROTECTION (Specify type)		
U.S. Bureau of Mines approved respirator - See OSHA Part 1910 & 1910.93a, 6/7/72.		
VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General) Control with mechanical dust collection equipment to within 1LV.	
PROTECTIVE GLOVES		EYE PROTECTION
OTHER PROTECTIVE EQUIPMENT		

SECTION IX SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE	
Maintain good housekeeping practices. Vacuum clean waste and place in closed containers.	
OTHER PRECAUTIONS	
SEE CAUTION LABEL ON BAG.	

TX0401

WAGE AND LABOR STANDARDS ADMINISTRATION
Bureau of Labor Standards

Product Name: J-1 Thermobestos Pipe & Block
Manufacturer: Johns-Manville Corp., 2001
Address: P.O. Box 5100, Denver, Colorado 80217

SECTION I

Product Name: J-1 Thermobestos Pipe & Block		Manufacturer: Johns-Manville Corp., 2001	
Address: P.O. Box 5100, Denver, Colorado 80217		Telephone: 303-770-1000, Ext. 2020	
Chemical Name and Synonyms		Trade Name and Synonyms	
		J-1 Thermobestos Pipe & Block	
Chemical Formula		Formula	
		See Section II	

SECTION II HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS	N.A.		BASE METAL	N.A.	
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL		
ADDITIVES			PLUS COATING OR COAT FILL		
OTHERS			OTHERS		
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES					% TLV (Units)
Chrysotile Asbestos Fiber					by weight 7
Natural Diatomaceous Earth					by weight 51
TLV - Asbestos - See Federal Register, 6/7/72, Vol. 37, No. 110- 8-hour time-weighted average 5 fibers/cc or more than 5 microns in length. Ceiling concentrations not to exceed 10 fibers/cc.					
TLV - Diatomaceous Earth - no limit					

SECTION III PHYSICAL DATA

BOILING POINT (°F)		SPECIFIC GRAVITY (H ₂ O = 1)	0.21
VAPOR PRESSURE (mm Hg.)		PERCENT VOLATILE BY VOLUME (H ₂ O = 1) @ 100°C	12
VAPOR DENSITY (AIR = 1)		EVAPORATION RATE	
SOLUBILITY IN WATER			
APPEARANCE AND ODOR	White solid block - no odor		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method used)	FLAMMABLE LIMITS	Let	Uet
EXTINGUISHING MEDIA	Non-Flammable		
SPECIAL FIRE FIGHTING PROCEDURES			
UNUSUAL FIRE AND EXPLOSION HAZARDS			

See Section II and OSHA regulation 1910.101, 6/7/72.	
Avoid breathing excessive dust when sanding, drilling, machining, installing, etc. See caution label on package.	

SECTION III. PHYSICAL AND CHEMICAL HAZARDS			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	Avoid breathing excessive dust.
INCOMPATIBILITY (Mixtures or solids)		None	
HAZARDOUS DECOMPOSITION PRODUCTS		None	
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	Avoid breathing excessive dust.

SECTION IV. TOXICITY INFORMATION	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED N. A.	
WASTE DISPOSAL METHOD	

SECTION V. SPECIAL PROTECTION INFORMATION		
RESPIRATORY PROTECTION (See U.S. Bureau of Mines approved respirator-See OSHA Part 1910 & 1910.93a, 6/7/72.)		
VENTILATION	LOCAL EXHAUST	SPECIAL
	MECHANICAL (General) Control to within TLV with dust collection equipment.	OTHER
PROTECTIVE GLOVES		EYE PROTECTION
OTHER PROTECTIVE EQUIPMENT		

SECTION VI. SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING Maintain good housekeeping practices. Vacuum or wet down waste when cleaning. See NIMA Safe Practices for Handling and Applying Thermal Insulation Products.	
OTHER PRECAUTIONS SEE CAUTION LABEL.	

TX0403

1521-22 ד' ה'י

PART 10--ARTICLES CONDITIONALLY
 100% FREE OF 10% REDUCED
 RATE, 20%

Also "Withdrawal of Supplies and
Equipment for Aircraft" -

In need - age with section 800(d), Title Act of 1930 extended 10 U.S.C. included the Department of Commerce has issued a regulation of April 10, 1970, by which it has been determined that a standard allows privileges to aircraft registered in the United States and engaged in foreign trade substantially reciprocal to those provided for in sections 800 and 17 of the Trade Act of 1930, as amended 10 U.S.C. 1607, 1617. The same provisions are therefore hereby extended to aircraft registered in Poland and engaged in foreign trade effective as of the date of such notification.

Accordingly, paragraph (1) of § 10.59, customs regulations, is amended by the insertion of Poland in appropriate alphabetical order and the number of this Treasury Decision in the same column headed "Treasury Decisions" in the list of nations in that paragraph. (Stats. 800, 817, 821, 86 Stat. 690, as amended, 67, as amended, 759; 19 U.S.C. 1500, 1517, 1521)

[SEAL] EDWIN F. RAINS,
Acting Commissioner of Customs.

Approved: May 25, 1972.

EUGENE T. ROSSIDES,
Assistant Secretary of the
Treasury.

(FR Doc. 72-6572 Filed 6-6-72; 8:50 am)

T11C 20—L500R

Chapter XVII.—Occupational Safety and Health Administration, Department of Labor

PART 1910—OCCUPATIONAL SAFETY
AND HEALTH STANDARDS

Standard for Exposure to Asbestos Dust

On December 7, 1971, an emergency temporary standard concerning exposure to asbestos fibers was published in the FEDERAL REGISTER (36 F.R. 23297). In accordance with section 6(c)(3) of the Williams-Steiger Occupational Safety and Health Act of 1970, a notice of proposed rulemaking regarding a permanent standard for exposure to asbestos fibers was published in the FEDERAL REGISTER on January 12, 1972 (37 F.R. 460). The notice invited interested persons to submit both orally and in writing, data, views, and arguments concerning the proposal.

On or about January 23, 1972, the Advisory Committee on Asbestos Dust was established and requested to make written recommendations with regard to the proposed standard on asbestos. On or about February 1, 1972, the Department of Health, Education and Welfare transmitted to the Department of Labor a criteria document containing Recommendations

tions for an Occupational Exposure Standard for Asbestos by the National Institute for Occupational Safety and Health (NIOSH), the importance and value of the receipt of the recommendations and their wide dissemination and implementation. On 11 and 12 February 1972, the Advisory Committee on Asbestos held a public hearing on the recommendations and discussed the Asbestos and Silica Standards. The Assistant Secretary of Labor for Occupational Safety and Health.

But went to the matter of rule making, and during which on March 11 (around 17, 1972, for the purpose of receiving oral data, views, and arguments concerning the proposed standard. On or about March 31, 1972, the presiding hearing examiner certified to the Assistant Secretary of Labor for Occupational Safety and Health the record of the proceeding. The record includes prehearing written comments, a transcript of the oral presentations made at the hearing, and numerous exhibits received during the course of the hearing or within the period allowed after the close of the hearing.

The proposed standard dealt with (1) permissible concentrations of asbestos fibers; (2) methods of compliance; (3) training; (4) monitoring; (5) medical examinations; and (6) recordkeeping. Each of these major proposals elicited comments, arguments, objections, and counterproposals. They all have been examined and considered.

1. *Acceptable concentrations of asbestos dust.* The proposed standard would limit occupational exposure to 8-hour time-weighted average (TWA) airborne concentrations of asbestos dust not exceeding five fibers longer than five micrometers per milliliter. Concentrations above five fibers but not to exceed 10 fibers (ceiling concentration) would be permitted up to 15 minutes in an hour, but for not more than 5 hours in any one 8-hour day.

NIOSH in effect has recommended that the five-fiber TWA and 10-fiber peak concentrations be permitted only for 2 years; thereafter, TWA concentrations should be not more than 2 fibers per cubic centimeter (cm^3) of air, and peak concentrations should not exceed 10 fibers/ cm^3 , with no time restriction. Numerous objections and counterproposals have been made, with regard to both the limits of asbestos fiber concentrations and the time periods to comply with them. Some, for example, have recommended return to a 12-fiber standard of an earlier day; i.e., a level adopted under the Walsh-Healey Public Contracts Act in 1960. Others have recommended a two-fiber standard to become effective in 6 months, then a one-fiber standard for 2 years, and finally a zero-fiber standard after 3 years. These recommendations give a fair indication of the wide spread of the counterproposals.

No one has disputed that exposure to asbestos of high enough intensity and long enough duration is causally related to asbestosis and cancers. The dispute is as to the determination of a specific level below which exposure is safe. Various studies attempting to establish quantitative relations between specific levels of

exposure to asbestos fibers and the appearance of adverse biological manifestations, such as asbestosis, lung cancer, and mesothelioma, have given rise to controversy as to the validity of the measurement methods used and the reliability of the relations attempted to be established. Because of the long lapse of time between onset of exposure and biological manifestations, we have now evidence of the consequences of exposure, but we do not have, in general, accurate measures of the levels of exposure occurring 20 or 30 years ago, which have given rise to these consequences. There are also controversies concerning the relative toxicity of the various kinds of asbestos, and varying hazards in different workplaces.

It is fair to say that the controversy has centered in the area between a two-fiber TWA concentration and five-fiber TWA concentration, with variations on the time needed for compliance. Many employers support a five-fiber TWA. Most medical opinion is divided between a two-fiber standard and a five-fiber standard.

In view of the undisputed grave consequences from exposure to asbestos fibers, it is essential that the exposure be regulated now, on the basis of the best evidence available now, even though it may not be as good as scientifically desirable. An asbestos standard can be re-evaluated in the light of the results of ongoing studies, and future studies, but cannot wait for them. Lives of employees are at stake.

It is concluded that there should be one minimum standard of exposure to asbestos applicable to all workplaces exposed to any kind, or mixture of kinds, of asbestos. Reasons of practical administration preclude a variety of standards for different kinds of asbestos and of workplaces. Also, while the evidence tends to show that crocidolite, for instance, is more harmful than chrysotile, the evidence is not sufficient to establish separate standards for varieties of asbestos.

Because there must be one standard governing exposure to all varieties of asbestos, and in workplaces apparently more hazardous than others; because some present employees with regular exposure to asbestos have probably already accumulated great doses of asbestos fibers, due to higher levels of exposure in the past; because it appears that levels of exposure which may be safe with regard to asbestosis are not safe with regard to mesothelioma; because the statute requires the protection of every employee, even of one who may have regular exposure to asbestos during a working life which may reach, or even exceed, 40 years; and because of several other considerations which have been urged and are reflected in the record of the proceeding, the conflict in the medical evidence is resolved in favor of the health of employees. As of July 1, 1976, TWA concentrations of asbestos fibers lower than 5 micrometers will not be allowed to exceed two fibers/cc., with a ceiling value of 10 fibers/cc. The current TWA concentrations of five fibers, and

ceiling concentrations of 10 fibers/cc. will be required until July 1, 1976, during what will be a transitional period during which employers will be required to make the needed changes for coming into compliance with the more stringent standard.

The reasons are that the many work environments due to the wide variety of standard (e.g., manufacturing, industrial and office installation, etc.) will meet various degrees of difficulty in complying with the standard. In some plants, extensive rework and relocation of equipment may be needed. It appears, however, the delay in the effective date of the two-tier standard will provide all employers a reasonable time to comply. At the same time, so long as the ceiling limit is complied with, no harm is reasonably expected to result from exposures during the transitional period.

2. Methods of compliance. It has been pointed out by many persons, that protection against asbestos fibers is best obtained by controlling the generation of fibers first, and secondly, by controlling the dispersion or release of fibers into the ambient air of the workplaces. Therefore, the standard requires feasible technological controls and appropriate work practices as the primary means of compliance. Rotation of employees as a way of meeting the TWA concentration requirement is allowed only in stated exceptional circumstances, because, as a general rule, it would be difficult to implement. Periodic protective equipment, such as respirators, cannot be relied upon because, among other reasons, they may be so uncomfortable as to be burdensome, except for short periods of time. Therefore, it is expected that respirators and shift rotation will be used during the period necessary to install engineering controls and to train employees in sound work practices. But, after technological compliance has been achieved, their use must be limited to special work situations and emergencies. Where both are practicable, shift rotation is required.

3. Labeling. The proposed standard stopped short of requiring labeling asbestos and asbestos-containing products. The proposed standard would have required only warning signs at locations where asbestos hazards are present. However, labeling, rather than warning signs, has proven to be a point of controversy. Both NIOSH and the Advisory Committee on Asbestos Dust recommended labels for asbestos products and containers, and these recommendations became very controversial in the course of the proceeding. Many counterproposals have been made as to the language of the warning as well as to the products to be subject to the labeling requirements. Employers, in general, strongly contend that (1) finished products which effectively entrap asbestos

fibers, so that there would not be release in the normal use of the products, should not be required to be labeled, and (2) words such as "asbestos" and "hazard" are unacceptably alarming.

In the discussions on monitoring, the standard has been criticized as being too strict. The proposed standard would have required personal monitoring and environmental monitoring. Many issues have been raised concerning the availability and reliability of monitoring instruments, the nature of monitoring, and conditions in which monitoring should be required. The adopted standard takes the objections into consideration. It requires periodic monitoring at intervals no longer than 6 months, thus allowing considerable time and discretion, and prescribes the use of the membrane filter method, which is an acceptable method for determination of asbestos fibers.

It has also been recommended that employees or their representatives should have an opportunity to observe the monitoring. The recommendation has been accepted.

5. Medical examinations. The proposed standard would only require an appropriate medical examination on a periodic basis. The generality of the proposal has attracted many objections and also many helpful comments. The recommendations of NIOSH and of the Advisory Committee on Asbestos Dust were much more specific with respect to both frequency and type of medical examinations to be required. The comments vary as to the class of employees to be examined and as to the frequency of the examinations.

The adopted standard requires medical examinations both at the beginning and the termination of employment exposed to concentrations of asbestos fibers, and also requires annual medical examinations of every employee exposed to airborne concentrations of asbestos. It has been pointed out that in certain industries, such as construction, an employee may work for several employers during the same year. Accordingly, the standard does not require either preemployment, or termination, or periodic examination of any employee who has been examined in accordance with the standard within the past year.

One question which has been raised goes to whether the employer or the employee should be allowed to choose the examining physician. The standard gives the option to the employer. Since some employers already have a medical examination program in operation, and, also, have medical departments with some expertise in the diagnosis of asbestos-related diseases, it seems more reasonable to permit them to utilize the present programs and expertise, than to permit an employee to choose a private general practitioner.

6. Records. The standard, as proposed and as adopted, requires maintenance of records of the names and of medical examinations. A lot of the controversy in this area has revolved around the question whether an employer should be allowed to have access to the results of the required medical examinations, the comprehension of those who have provided reasons employer access is not in the expectation that some employers will use the medical examinations as a means of screening employment applicants, and worse, as grounds for dismissal of current employees, who show signs of being affected by exposure to asbestos. Since the purpose of the medical examinations is to monitor the health of employees exposed to the hazards of asbestos, employees cannot in reason be granted the privilege of refusing to disclose to their employers results of occupational exposure. It does not make sense to require employers to provide medical examinations if they cannot know and use the results of the examinations. For these reasons the standard provides that employers may have a restricted access to some medical information.

On the other hand, there is no intention to allow employers to abuse medical information obtained pursuant to the Act, to the detriment of employees. Therefore, the administration of the medical records requirement will be closely watched, and, in cases of abuse, appropriate action will be considered.

The issues discussed above are believed to be the major ones. Numerous other issues have been raised in the rulemaking proceedings. Some have been referred to incidentally. Many recommendations, for instance, about work practices, are so obviously meritorious that their adoption needs no exposition here. Other recommendations and many concerns have not been adopted for a variety of reasons which should be manifest. Several, for instance, have recommended the use of respirators only pursuant to a variance, or in cases of emergency and occasional short-term exposures. The recommendation with respect to variances undoubtedly has many merits, but is considered administratively impractical.

Accordingly, after consideration of the whole record of the proceeding, and pursuant to sections 6 (b) and (c) and 8(c) of the Williams-Steiger Occupational Safety and Health Act of 1970 (34 Stat. 1593, 1599; 29 U.S.C. 655, 657), 29 CFR 1910.4, and to Secretary of Labor's Order No. 12-71 (36 F.R. 3734), Part 1910 of Title 29 of the Code of Federal Regulations is amended as set forth below.

(1) Section 1910.93 is amended by revising Table G-3 to read as follows:

TX0405

Sample	Field Notes	Weight	10/20
Quartz			
Quartz (calculable).....		22.7	100.00%
Quartz (total dust).....		55.50 ± 3	100.00 ± 10
			55.50 ± 3
Crystalline Silicates			
Value calculated from the count for micro-formulae for quartz.....			
Transparency: Use to the value calculated from the formulae for quartz.....			
Amorphous, including natural diatomaceous earth.....	20		60mg MS
			55.50 ± 3
Silicates (less than 1% crystalline silicates)			
Mica.....	20		
Soapstone.....	20		
Talc.....	20		
Portland cement.....	20		
Gypsum (natural).....	15		
Coarse dust (respirable fraction less than 5% SiO_2).....			2.4mg MS or 10mg MS
For more than 5% SiO_2			55.50 ± 3
Inert or Non-Inert Dust			
For non-inert dust.....	15		5mg MS
Total dust.....	50		15mg MS

Notes: Conversion factor—
mg per 100 g of dry matter = 100 times meter
of the refractometer.

* Millions of organisms per gram of sample based on
impurities or sediment counted by a turbidity technique.

† The percentage of protein is shown in the formula
is the amount of nitrogen from a protein sample, except
in those instances in which other methods have
been shown to be more precise.

‡ As determined by the gravimetric method at
430°C plus correction for moisture.

§ Both of these methods yield percent nitrogen for the
application of this unit and are to be determined from
the fraction passing a sizer-sifter with the following
characteristics:

Aerodynamic diameter (unit diameter sphere)	Percent passing selector
2	90
2.5	75
3.5	50
5.0	25
10	0

The measurements under this note refer to the use of an A1 C instrument. If the respirable fraction of coal dust is determined with a M1 C, the exposure corresponds to that of 4.4 Mc/M in the table for coal dust is 4.5 Mc/M.

2. A new § 1910.90a is added to Part 1910, reading as follows:

§ 1910.93a 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. **.2 m**

(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 (c) of this section.

(2) Standard effective July 1, 1976:
The 8-hour time-weighted average air-
borne concentration 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 (c) of this section.

(3) *Coaling concentration.* No employee shall be exposed at any time to airborne concentrations of asbestos fibers in excess of 10 fibers, lower than 5 nucleotetramers, per cubic centimeter of air, as determined by the method prescribed in paragraph (c) 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.

(9) See § 1910.6 concerning the availability of ANSI Z39-1971, 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.

(u) **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)(iii) 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 required for the use of respirators or shift rotation of employees, except:

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

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

(iv) Where both respirators and personnel rotation are allowed by subdivisions (i), (ii), or (iii) of this subparagraph, and both are practicable, personnel rotation shall be preferred and used.

(2) Where a respirator is permitted by subparagraph (1) of this paragraph, 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. 6344, Mar. 25, 1972), and shall be used in accordance with subdivisions (i), (ii), (iii), and (iv) of this subparagraph.

(i) *Air purifying respirators.* A reusable or single use air purifying respirator, or a respirator described in subdivision (ii) or (iii) of this subparagraph, shall be used to reduce the concentrations of airborne asbestos fibers in the respirator below the exposure limits prescribed in paragraph (b) of this section, 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.

(ii) **Powered air purifying respirators.** A full facepiece powered air purifying respirator, or a powered air purifying respirator, or a respirator described in subdivision (iii) of this subparagraph, shall be used to reduce the concentrations of airborne asbestos fibers in the respirator below the exposure limits prescribed in paragraph (b) of this section, 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.

(iii) 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 paragraph (b) of this section, when the ceiling or the 8-hour time-weighted average airborne concentrations of asbestos fibers are reasonably expected to exceed 100 times those limits.

(iv) **Establishment of a respirator program.** (a) The employer shall establish a respirator program in accordance with

the requirements of the American National Standards Practices for Respiratory Protection, ANSI Z96.2-1969, which is incorporated by reference herein.

b. Sec. 1910.9 concerning the availability of ANSI Z96.2-1969 and the maintenance of an historic file in connection therewith. The address of the American National Standards Institute is given in § 1910.103.

(c) No employee shall be assigned to tasks requiring the use of respirators if, based upon his most recent examination, an 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 paragraph (b) of this section.

(4) Change rooms: (i) At any fixed place of employment exposed to airborne concentrations of asbestos fibers in excess of the exposure limits prescribed in paragraph (b) of this section, the employer shall provide change rooms for employees working regularly at the place.

(ii) 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.

(iii) 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 X (magnification) (1 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 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 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 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.

(ii) Sign specifications. The warning signs required by subdivision (i) of this

subparagraph of all signs to the following: "Caution: Asbestos. Exposure to asbestos dust may cause lung disease and cancer." The signs shall display the following legend in the lower panel, with lettering in boldface type, in accordance with the guidelines in this subdivision.

Legend	Font
Asbestos.....	14 point Gothic, Gothic or Black
Dust Hazard.....	14 point Gothic, Gothic or Black
Avoid Breathing Dust	14 point Gothic
Wear A Sealed Protective Equipment	14 point Gothic
Do Not Remain In Area Unless Your Work Requires It	14 point 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—(i) Labeling. Caution labels shall be affixed to all raw materials, mixtures, or in waste, debris, and other products containing asbestos fibers, or to their containers, except that no label is required where a box, bag, or other container has been modified by a laminar 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 paragraph (b) of this section will be released.

(ii) Label specifications. The caution labels required by subdivision (i) of this subparagraph 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, consumed 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 paragraph (b) of this section shall be collected and disposed of in sealed impermeable bags, or other closed, impermeable containers.

(i) Record keeping—(1) Type and records. Every employer shall maintain records of any personal or environmental monitoring required by this section. Records shall be maintained for a period of at least 3 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.

(1) *Employment.* Every employer and former employer shall have reasonable access to the records and is subject to the limitations of paragraph (1) of this part with respect to the confidentiality of the information.

(2) *Employment notification.* The employer shall have a system and at any time to determine concentrations of asbestos fibers in air of the kinds prescribed in paragraph (c) of this section shall be notified in writing of the exposure as soon as practicable but not later than 5 days of the finding. The employee shall also be timely notified of the corrective action being taken.

(3) *Medical examinations.*—(1) *General.* The employer shall provide or make available at his cost, medical examinations relative to exposure to asbestos required by this paragraph.

(2) *Preplacement.* The employer shall provide or make available to each of his employees, within 30 calendar 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 1 second (FEV₁).

(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 exposed 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 1 second (FEV₁).

(4) *Termination of employment.* The employer shall provide, or make available, within 30 calendar 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 1 second (FEV₁).

(5) *Recent examinations.* No medical examination is required of any employee, if adequate records show that the employee has been examined in accordance with this paragraph within the past 1-year period.

(6) *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 examina-

tions. 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 to the employee and employer, to the Assistant Secretary of Labor for Occupational Safety and Health, the Director of NIOSH, to authorized physician and medical consultants of either of them, and upon the request of an employee or former employee, to his physician. The 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.

3. A new § 1910.19 is added to Subpart B of Part 1910, reading as follows:

§ 1910.19 Asbestos dust.

Section 1910.93a shall apply to the exposure of every employee to asbestos dust in every employment and place of employment covered by § 1910.12, § 1910.13, § 1910.14, § 1910.15, or § 1910.16, in lieu of any different standard on exposure to asbestos dust which would otherwise be applicable by virtue of any of those sections.

Effective date. Paragraph (b)(2) of § 1910.93a shall become effective July 1, 1975. All other provisions of §§ 1910.93a, 1910.93, and 1910.19 shall become effective July 7, 1972. The current emergency temporary standard remains in effect until July 7, 1972.

(Secs. 6, 8, 84 Stat. 1503, 1509; 29 U.S.C. 655, 657; 29 CFR 1910.4; Secretary of Labor's Order No. 12-71, 36 FR 8754)

Signed at Washington, D.C., this 2d day of June 1972.

G. C. GUENTHER,
Assistant Secretary of Labor.

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Title 41—PUBLIC CONTRACTS AND PROPERTY MANAGEMENT

Chapter 9—Atomic Energy Commission

PART 9-1—GENERAL

Subpart 9-1.1—Procurement Regulations

MISCELLANEOUS AMENDMENTS

The changes made in AECPR Subpart 9-1.1, Procurement Regulations, have been made in order to establish the AECPR Temporary Regulations, which are a part of the AEC Procurement Regulations System. The AECPR Temporary Regulations implement and supplement the FPR Temporary Regulations. They also contain policies and procedures initiated by the AEC which are to be effective for a period of 6 months or less. The AEC Procurement

Instruction section has been revised accordingly. Minor editorial changes have also been made.

1. Section 9-1.101 *Scope of subpart*, is revised to read as follows:

§ 9-1.101 Scope of subpart.

This subpart describes the Atomic Energy Commission Procurement Regulations and the AECPR Temporary Regulations. It also describes exclusions from the AECPR as contained in the AEC Procurement Instructions.

2. Section 9-1.102 *Establishment of AEC Procurement Regulations*, is revised to read as follows:

§ 9-1.102 Establishment of the AEC Procurement Regulations and the AECPR Temporary Regulations.

§ 9-1.102-1 AEC Procurement Regulations.

(a) The AEC Procurement Regulations (AECPR) are hereby established.
(b) These regulations implement and supplement the Federal Procurement Regulations (FPR) and are a part of the Federal Procurement Regulations System.

(c) The effective date of FPR issuances throughout AEC will be the date indicated in the respective issuances unless otherwise provided in the AEC Procurement Regulations.

(d) The effective date of AECPR issuances throughout AEC will be the date indicated in the respective issuances.

§ 9-1.102-2 AECPR Temporary Regulations.

(a) The AECPR Temporary Regulations are hereby established.

(b) These regulations implement and supplement the Federal Procurement Regulations Temporary Regulations. They also contain policies and procedures initiated by the AEC which are expected to be effective for a period of 6 months or less.

(c) The effective date of the FPR Temporary Regulations issuances throughout AEC will be the date indicated in the respective issuances unless otherwise provided in the AECPR Temporary Regulations.

(d) The effective date of the AECPR Temporary Regulations issuances throughout AEC will be the date indicated in the respective issuances.

(e) The AECPR Temporary Regulations are a part of the AEC Procurement Regulations and the Federal Procurement Regulations System. All references to the AEC Procurement Regulations or AECPR in §§ 9-1.103 through 9-1.109 of this subpart shall be deemed to include the AECPR temporary regulations.

3. Section 9-1.103 *Authority*, is revised to read as follows:

§ 9-1.103 Authority.

The AEC Procurement Regulations are prescribed by the General Manager, Assistant General Manager for Administration, or the Director, Division of Contracts of the AEC, pursuant to the authority of the Atomic Energy Act of 1954, and the Federal Property and Administrative Services Act of 1949.