

Monsanto

FROM (NAME & LOCATION)

R. T. Hammann, LP&S, Texas City 0-22, Ext. 3234

DATE

November 11, 1983

cc.

D. N. Campbell

SUBJECT

Comments on MFI Contractor
Health and Safety Guidelines

G. W. Daues

C. M. Hancock

S. G. Pappas

REFERENCE

TO

: R. H. Joslin
St. Louis GSWG

The proposed MFI Guidelines for Contractor Safety and Occupational Health was reviewed with Dan Campbell. Overall this document was well done and shows that a lot of time and thought was given to its preparation. The comments that we have on the procedure are as follows:

1. Item 1, top of Page 2: Suggest dropping "use of breathing air" as it is redundant since you already list "respiratory protection."
2. Item 4: Suggest this addition to the duties - assure compliance with established safety standards.
3. Item 12: Is it necessary for Monsanto to check contractor's supply of breathing air? Feel that this would make us vulnerable in case of third party suits.
4. Item 16: Question the need for this. It should be the contractor's responsibility.
5. Item 19: Recommend that the following be added after the first sentence. "The injury will be thoroughly investigated and a formal report will be issued following Monsanto's site procedures."


R. T. Hammann

/dgb

SC

16425

LAM024326

Monsanto

FROM
(NAME-LOCATION-PHONE) R. H. Joslin - G5WG - (4-8650)

DATE : November 1, 1983
SUBJECT : MFI CONTRACTOR
HEALTH & SAFETY GUIDELINE
REFERENCE :
TO : S. G. Pappas - 1890

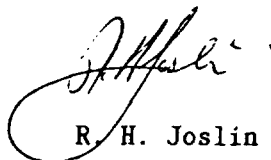
C. F. Callis - G5WA
C. M. Hancock - 1890
R. Marquez - 1200
S. D. Paul - G2WB
M. F. Weishaar - G5WA

Attached is a proposed MFI Guideline which addresses contractor safety and occupational health considerations. It has been developed to identify a minimum and consistent health and safety program for contractors at all MFI sites.

Since this guideline covers both health and safety, I would appreciate your assistance in getting a copy to the appropriate people at both Texas City and Chocolate Bayou for review and comment.

We would like to have each plant's comments by Wednesday, November 16, 1983.

Thanks very much.



R. H. Joslin

RHJ/hsg
Attachment

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LAM024327

MFI CONTRACTOR HEALTH & SAFETY

GUIDELINE

SCOPE

The following guideline sets forth safety and occupational health considerations for contractor personnel working on MFI property including those performing services administered by either the site or CED. The issues addressed are felt to be among those most critical to contractor relations at MFI sites today. These are not all inclusive and may be expanded in the future to better assist site management in consistently dealing with health and safety questions that arise. This guideline cannot be expected to cover every situation, but it provides a framework within which sound field decisions can be made. Their use will complement the existing EPS Guideline "Non-Company Personnel on Company Sites" (July, 1979) and the contract supplementary conditions available at individual locations.

OBJECTIVE

It is the continuing intent of MFI to exhibit proper concern for employee health and safety in the execution of contract work performed at MFI locations. MFI is continuing to strive for significant improvement in safety and health performance in all facets of manufacturing operations. Poor safety practice and/or disregard of worker safety and health by contractors working on company property will distract from that goal. MFI expects, in its relations with contract service companies, that work performed on our property will not only be of high quality, but will also be done in a safe and healthful manner.

PROCEDURES

In dealing with contract personnel on a Monsanto site, the following elements apply:

1. Once the need for contractor services is determined, the person requesting services should consult the site safety and health professionals and define those safety/health requirements called for to properly execute the work (i.e., what is expected of the contractor and Monsanto).

"General conditions", "specific conditions", and a description of specific hazards involved with the work should be reviewed with the prospective contractor(s) prior to submission of bids and be incorporated into the written contract. Provision for the following items must be considered:

- Handwritten:* *Respiratory*
- RESPIRATORY PROTECTION
 - BIOLOGICAL HEALTH MONITORING
 - USE OF BREATHING AIR
 - SPECIAL PROTECTIVE CLOTHING
 - SUPERVISION OF CONTRACT EMPLOYEES
 - CONTRACTOR SAFETY/HEALTH ORIENTATION
 - HYGIENE FACILITIES
 - EXPOSURE MONITORING
 - EMERGENCY MEDICAL CARE
 - INJURY REPORTING
 - USE OF PERMIT SYSTEMS
2. All services performed on company property by outside contractors shall be covered by written contracts.
3. In all contractor work on company property, contractor supervision is expected to maintain responsibility for the safety and health of his employees. Monsanto will advise the contractor of known safety, environmental, and health hazards associated with the workplace in order that the contractor may carry out his obligations. Monsanto will also advise on the appropriateness of special protective clothing and equipment specific to operating areas in which contract personnel will work.
4. A Monsanto Contract Administrator shall be assigned at each site to:
- COORDINATE ALL CONTRACTOR ACTIVITY ON SITE
 - BE FAMILIAR WITH ALL WRITTEN CONTRACTS
 - EXPLAIN SAFETY AND OCCUPATIONAL HEALTH HAZARDS ASSOCIATED WITH THE WORKPLACE (ORIENTATION)
 - APPRISE CONTRACTOR OF HIS RESPONSIBILITIES AND RESTRICTIONS WHILE ON SITE
 - *Assure compliance with established safety standards*
- (Local purchasing agent should not be considered the Contract Administrator. Maintenance supervisor or project engineer would normally assume this role.)
5. A Monsanto Representative shall be assigned to closely monitor each contractor's work on site and be primarily responsible for communication with the contractor. He will be in daily contact with the contractor or supervisory representative on job progress and scheduling.
6. Since Monsanto cannot be responsible for contractor compliance to all state and federal regulations governing health and safety, we will utilize, when possible, those contractors who have demonstrated a high degree of familiarity with laws/standards and have a history of good safety performance.

7. Each Monsanto location shall develop a general contractor safety and health orientation training program to convey Monsanto's commitment to health and safety, contractor general obligations, and plant rules/procedures. As a minimum, the following areas must be included:

- GENERAL PLANT POLICIES
- SITE SAFETY AND HOUSEKEEPING OPERATIONS
- BASIC PROTECTIVE EQUIPMENT USAGE
- PERSONAL HYGIENE PRACTICES
- GENERAL INDUSTRIAL HYGIENE

Supplementary information along with basic orientation information shall be reviewed with all contract employees upon first entry to the site. Monsanto Contract Administrator along with safety and health staff should coordinate the orientation sessions.

8. Prior to beginning work in the field, Monsanto Representative and area supervision -- if work is in or adjacent an existing unit -- shall apprise the contractor of known industrial hazards (including chemical health hazards) and safety procedures specific to the assigned work area. Relevant permit procedures (i.e., hot work, tank entry, lock-out, etc.) should also be discussed to avoid any later misunderstanding on applicability.
9. Contractor shall furnish and require the use and wearing of proper personal protective equipment and clothing by its employees. Special work clothing such as goggles, gloves and other body, face, and head protection must be used as directed by the Monsanto Contract Administrator or Monsanto Representative. If the contractor does not have the specific equipment, the task shall be delayed until such equipment can be obtained by the contractor. Personal protective clothing and equipment shall not be supplied by Monsanto.
10. Use of respiratory protective devices requires proper written standard operating procedures, selection and fitting, training, assignment, cleaning and disinfection, storage, inspection and repair, surveillance, periodic evaluation, medical approval, and NIOSH approval when available per current OSHA regulations. Accordingly, each contract employee who may have need to wear a respirator shall be properly fitted and trained in its use prior to beginning work. If the contractor is not capable of properly fitting and training his employees, Monsanto will, upon written request, provide such services. Contractor, however, shall be responsible for furnishing the proper devices to his employees and assuring that they have been medically certified to wear the equipment. The appended "Respirator Certification Assurance Form Letter" should be used to obtain written verification from the contractor.

In the event contract employees have not been fitted and respiratory protection is deemed necessary, only positive pressure, supplied air equipment can be used. In all cases, location policy regarding facial hair in the sealing area of respirators must be adhered to by the contractor.

11. Contractor shall assure that medical facilities are available for his employees. All medical services (e.g., routine physicals, pre-placement exams, etc.) shall be provided by the contractor with the exception of:

- EMERGENCY TREATMENT WHERE THE SEVERITY OF THE INJURY DICTATES IMMEDIATE ATTENTION ON-SITE. MONSANTO WILL PROVIDE FIRST AID TREATMENT ONLY TO THE EXTENT NECESSARY TO STABILIZE THE CONDITION OF THE CONTRACT EMPLOYEE FOR TRANSPORT TO THE CONTRACTOR'S MEDICAL SERVICE.
- UNIQUE BIOLOGICAL MONITORING OF BODY FLUIDS AS REQUIRED BY MONSANTO WHEN HANDLING OR EXPOSED TO SELECT PROCESS CHEMICALS. MONSANTO WILL UNDER THESE SITUATIONS CONDUCT APPROPRIATE TESTS AND PROVIDE THE CONTRACTOR'S MEDICAL SERVICE THE DATA AND AN EVALUATION OF THE RESULTS AS THEY RELATE TO OCCUPATIONAL EXPOSURE SPECIFIC TO MONSANTO PROCESSES. CONTRACTOR SHALL BE MADE AWARE OF THESE PROVISIONS PRIOR TO BIDDING WITH SUCH REQUIREMENTS WRITTEN AS PART OF THE CONTRACT. WHERE "BASE-LINE" DATA ON CONTRACT EMPLOYEES IS REQUIRED PRIOR TO WORKING IN AN AREA, SUFFICIENT LEAD TIME FOR COLLECTION AND ANALYSIS OF SAMPLES WILL BE NEEDED IN SCHEDULING THE WORK.

12. It is preferred that breathing air for respirator usage be supplied by the contractor and tested -- each cylinder -- for adequate oxygen content prior to being brought into the plant. If this is not feasible, Monsanto will furnish breathing air. In all cases, Monsanto will additionally test each cylinder of breathing air for oxygen content -- *Is this necessary* -- whether Monsanto or contractor supplied.
13. Contract personnel delivering or picking up materials in the plant must have and use appropriate protective equipment consistent with the hazards of the material being transferred and the work procedures of the area being entered.
14. Contractor operations shall be periodically audited to determine if the contractor is making proper use of tools, equipment, and that their operations cannot endanger Monsanto personnel and property.

Typically, the audit team would consist of:

- MONSANTO REPRESENTATION
- CONTRACTOR SUPERVISORY REPRESENTATIVE
- SITE SAFETY/HEALTH STAFF MEMBER
- MONSANTO AREA SUPERVISOR

Follow-up surveys shall be conducted to ascertain compliance with recommendations previously put forth to the contractor.

15. All contractor tools and equipment on site shall, as a minimum, conform to plant standards. Such standards and specifications shall be communicated to contractor prior to equipment usage. Monsanto shall have the right to refuse or restrict the use of tools, equipment, or chemicals on the site. Monsanto's equipment or tools should not be loaned to contractor's employees.
16. To ensure that contractor eating facilities are separate from work areas, kept clean, and have proper washing facilities, each location shall institute an eating area permit system requiring industrial hygiene approval.
17. Contractor, at a minimum, must comply with proper plant procedures for securing permits involving hot work, tank entry, breaking into pipelines, lock-out, etc. Permits will be coordinated through the Monsanto representative. Monsanto will isolate equipment and test atmospheres prior to any contractor confined space entry. Monsanto and contractor must agree on whose responsibility it is to provide fire watches before contract work commences.
18. Employee change and shower facilities, if required, will be furnished by contractor. Monsanto shall have the right to inspect facilities to help ensure satisfactory hygiene conditions.
19. Monsanto Representative shall be immediately notified of any OSHA recordable injury sustained by contract employees. Contractor shall provide copies of OSHA 200 summary log (or equivalent) upon request of Monsanto Representative. Each Monsanto location should track the injury/illness experience of contractors working on site and bring poor performance to the contractor's attention for corrective action.
20. Monsanto may conduct area monitoring of chemical/physical agents to identify potential hazards created by existing processes so that the contractor can be made aware of appropriate precautions to be taken while working in the area.

The injury will be thoroughly investigated and a formal report will be issued following Monsanto site procedures.

In situations where personnel (industrial hygiene) monitoring is required by OSHA standards for substances to which contract employees may reasonably be exposed, the contractor shall be advised of his legal obligation prior to entering the plant and within the context of the contract. Monsanto will provide necessary monitoring services upon written request of the contractor. Monsanto sampling instruments shall not be loaned to or used by contract personnel.

21. Each contractor shall have a competent responsible supervisor in charge at the site at all hours during which his workers are employed. To maintain the independent contractor status, Monsanto shall avoid supervising or controlling contract employees.

Where it is not feasible, because of the nature of services rendered or expertise needed, to have contract supervision present, it must be recognized that Monsanto may -- and probably will be -- assigned total responsibility for the safety and health of these people while they are performing those services. Accordingly, every effort should be made by Monsanto to treat contract employees in the same manner as company employees in terms of safety and health practices. It must be emphasized, however, that direct supervision of contract employees by Monsanto is considered a last resort and to be practiced on a limited basis.

22. Failure to comply with the contract agreement or supplemental conditions may result in removal of the violator from the plant and/or contract termination.
23. Where a contract employee creates a known imminent danger situation, the Monsanto Representative shall take immediate action to stop the work. In all cases, the Monsanto Representative shall bring any violation of normal safe practices to the contractor's attention and insist that immediate corrective action be taken. Upon request of the Monsanto Contract Administrator, the contractor will remove any worker violating any plant operations and safety rules. (Two reprimands on an employee would normally be tolerated before dismissal from the plant. The severity of the infraction will, however, impact any final decision on employee removal.)

S. D. Paul
27 September 1983

SC 16432

LAM024333

RESPIRATORY CERTIFICATION ASSURANCE FORM LETTER

RE: Contract No. _____

Monsanto Plant: _____

Dear

It has been determined that your employees may be required to wear respirators in the performance of the subject contract. Monsanto Company requires that any employee of a contractor who might use respiratory equipment must be medically certified for respirator use.

In 29 CFR 1910.134, OSHA has adopted standards regarding proper respiratory protection including requirements regarding respirator written standard operating procedures, selection and fitting, training, assignment, cleaning and disinfection, storage, inspection and repair, surveillance, periodic evaluation, medical approval, and NIOSH approval when available. Section 1910.134(b)(10) recommends that a physician determine whether each employee wearing a respirator is physically able to perform the work while using the respiratory equipment.

In order to fulfill Monsanto's requirement regarding medical certification, the statement at the bottom of this letter must be executed and returned. I must receive this assurance of respirator certification before on-site work may proceed under the subject contract.

Very truly yours,

We (I) certify that all employees assigned by the undersigned to work at the referenced Monsanto Company site in tasks which have been identified as possibly requiring the use of respirators have been medically certified by a physician on a current basis for use of such equipment.

COMPANY: _____

BY: _____

TITLE: _____

DATE: _____

LAM024334

mine and mill. NIOSH conducted an industrial hygiene survey of the study talc mine and a neighboring talc mine known to contain asbestos fibers. Silica exposures were found to be very low, well below NIOSH's recommended PEL for silica. Radon daughter measurements made by the Mine Enforcement Safety Administration (MESA) showed only nil to trace levels. Dement and Zumwalde found that exposure characteristics between the study mine and neighboring mine were substantially similar:

"In fact, the airborne dust samples from the mine and mill studied by NIOSH and maintained by the company to be asbestos free were found to contain a *higher* proportion of positively identified asbestiform amphiboles largely due to a higher tremolite content. All other fiber characteristics, such as [a] median length, diameter, aspect ratio, and proportion less than 5 μ m in length, were not statistically different at the 0.5 level" (Ex. 84-181, p. 10).

The NIOSH study cohort (Brown et al.) consisted of all white males employed sometime during 1947-1959. Vital status of the 398 cohort members was determined as of June 30, 1975. Comparison was made to age, calendar period, and cause-specific mortality rates of U.S. white males. Significant increases in lung cancer mortality (9 observed deaths versus 3.3 expected) and non-malignant respiratory disease mortality (8 observed versus 2.9 expected) were observed. One death from mesothelioma occurred. Since the individual who died from mesothelioma had previously worked in the construction industry, his death could not be definitely ascribed to his exposure to tremolite or anthophyllite. Of the 10 individuals who died from respiratory system cancer, 3 had previously worked for other New York State talc companies.

NIOSH investigators also addressed the potential confounding effects of cigarette smoking. In their opinion, a cohort of heavy smokers would have no more than a 49% increase in lung cancer risk in relation to all U.S. white males. Because they observed a greater increase in lung cancer risk, almost a 3-fold risk, they judged that cigarette smoking was unlikely to account for the observed excess lung cancer risk among these talc miners and millers exposed to asbestos. The cross-sectional morbidity survey conducted by NIOSH in 1975 found a 48% prevalence of smoking, a prevalence similar to that of U.S. males. Brown, Dement, and Wagoner stated that "exposures to asbestiform tremolite and anthophyllite stand out as the prime suspected etiologic factors" associated with the observed excess risks of lung

cancer and respiratory disease. They concluded that "exposures to talcs from the Gouverneur mining area are associated with an increased risk of bronchogenic cancer and non-malignant diseases of the respiratory system" (Ex. 84-181).

As measured by optical microscopy, average air concentrations of fibers greater than 5 μ m in length ranged from 1.7 f/cc to 9.8 f/cc as an 8-hour time-weighted average for 6 different job titles in the mine. In the mill, average air concentrations for such fibers ranged from 1.5 f/cc to 8.4 f/cc as an 8-hour time-weighted average for 18 different job titles. (Ex. 84-181, pp. 7-10).

In addition to the excess mortality from lung cancer and non-malignant respiratory disease observed by Kleinfeld et al. and Brown et al., numerous studies of talc miners and millers exposed to asbestos contained in talcs have established that these workers have a high prevalence of pleural thickening, pleural calcification, decrements in pulmonary function, and fibrosing lung disease (Dreessen, 1933; Dreessen and Dalla Valle, 1935; Siegel et al., 1942; Schepers and Durkan, 1955; Messite et al., 1959; Kleinfeld et al., 1963, 1964, 1964, 1964, 1965, 1965, 1973; Meurman et al., 1974; Kiviluoto et al., 1964; Ahlman et al., 1972; Porro et al., 1942; Ex. 84-181). Many of these studies were conducted in the same geographic area as the studies by Brown et al. and Kleinfeld et al.

A cross-sectional morbidity study of the same company whose mortality experience was studied by Brown and colleagues was performed by NIOSH investigators (Gamble, Fellner, and DeMeo, Ex. 84-181). As discussed above, NIOSH considered that this company's workforce was exposed to asbestos contained within talc. NIOSH observed markers of asbestos exposure in the lungs of these workers in addition to respiratory symptoms and lung function decrements. Of 156 male miners and millers, 121 participated in the survey. Respiratory questionnaires, chest X-rays, and spirometric testing were administered to participating workers. Comparison of respiratory morbidity was made to 9347 coal miners, 1097 potash miners, chrysotile asbestos workers and synthetic wool textile workers. OSHA considers that one of the major strengths of Gamble et al.'s cross-sectional morbidity study was the choice of comparison populations. Because talc, coal, and potash miners are likely to be similar in many non-occupational factors that may affect respiratory morbidity, the likelihood of observed differences in respiratory morbidity being due to specific

workplace exposures of the talc workers rather than other risk factors for lung disease is greatly increased. Comparisons with the coal and potash miners were stratified by age, height, smoking status, and duration of employment in mining.

Compared to coal miners and potash miners, the talc workers with no previous occupational exposure within other talc mines and mills had statistically significant increases in pleural thickening and a higher prevalence of pleural calcification. When all talc workers were combined without regard to previous occupational exposure to talc, increased prevalences of cough, phlegm production, dyspnea, pleural thickening, pleural calcification, and irregular opacities on the X-rays were observed in talc workers compared to one or both mining control groups.

In addition, talc workers had significantly decreased pulmonary function (FEV1 and FVC). Decreased lung function was associated with increased cumulative exposures and lengths of exposure.

Talc workers had a similar prevalence of respiratory symptoms when compared to chrysotile asbestos workers and a much higher prevalence of symptoms when compared to synthetic wool textile workers. In contrast, pleural thickening was four times as common in talc workers compared to the chrysotile workers. Smoking was not found to be associated with the observed radiographic changes in talc workers.

Regarding their studies of morbidity and mortality of workers exposed to talc containing asbestos, NIOSH concluded:

"A thorough review of the available literature demonstrated that findings of the present studies are in agreement with those of other studies of occupational groups exposed to the same or similar minerals or mineral mixtures. This is especially true for occupational exposures to anthophyllite asbestos. These findings make it imperative that workers from the mine and mill studied, herein, be routinely observed using medical surveillance criteria established in the OSHA and MSHA asbestos standard. Furthermore, all provisions of these standards should be followed during the production and subsequent use of these talcs" (Ex. 84-181, p. 33).

Stille and Tabershaw (Ex. 84-196) of Tabershaw Occupational Medicine Associates studied all male workers employed sometime during 1948-1977 at the talc mine and mill studied by NIOSH. A total of 708 men were eligible for the study, and vital status as of December 12, 1978 was ascertained for 672 of the men. Of the 708 men, 53

Table 17

Estimated Costs of Respirator Program
for ETS with PEL of 0.5

Industry Segment	Total Costs (\$)		6-mo. average Cost/employee
	1 - year	6 - months	
Primary Manufacturing	6,404,965	4,143,242	481
Secondary Fabricators	13,547,224	9,435,532	548
Automotive Aftermarket	1,620,197	1,027,864	251
Shipbuilding/repair	626,266	324,526	533
Construction	36,329,740	19,634,236	973
Total	58,528,412	34,565,402	708

Table 18

ETS Compliance Costs Compared
to Sales by Industry Segment

Industry Segment	Cost/Sales
Primary Manufacturing	.003
A/C Pipe & Sheet	.002
Friction Materials	.008
Asbestos Paper	.003
Paints, Coatings and Sealants	.005
Gaskets, Seals and Packings	.001
Textiles	.014
Secondary Fabricators	.011
Cement Sheets	.072
Paper Products	.011
Packings and Gaskets	.010
Textiles	.014
Automotive Aftermarket	
Rebuilding and Refacing	.0004
Shipbuilding/Repair	.0001
Construction	.0004

Note: Sales values are for 1977 and 1978. Values for Primary Manufacturing and Secondary Fabricators were taken from 84-003; values for the Automotive Aftermarket were taken from U.S. Industrial Outlook, 1983; and values for Shipbuilding/Repair and Construction were taken from the 1982/83 Statistical Abstract. The value for Construction was adjusted by subtracting the value for Highway & Streets and Residential and adding the value for Demolition/Wrecking.

BILLING CODE 4510-26-C

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