

Federal Aviation Administration, Airspace Branch, ANM-520, 1601 Lind Avenue SW, Renton, Washington 98055-4056. Communications must identify the notice number of this NPRM. Persons interested in being placed on a mailing list for future NPRM's should also request a copy of Advisory Circular No. 11-2A, which describes the application procedure.

### The Proposal

The FAA is considering an amendment to Title 14 Code of Federal Regulations, part 71 (14 CFR 71) to modify Class D airspace at Colorado Springs USAF Academy Airstrip, CO. The USAF Academy has seen substantial development adjacent to the airfield in recent years causing the VFR traffic pattern altitude to be increased to 7800' MSL (1000' AGL). In the interest of safety at this high intensity student training area, it is considered reasonable and necessary to have a 1000' Class D airspace area above the standard VFR traffic pattern. The 1000' of Class D area allows a student pilot a safety area of 500' above the standard VFR traffic pattern and still have 500' from overflights of the USAF Class D airspace. This proposal would satisfy the requirement of a 1000' safety area by increasing the Class D airspace area from 8600' MSL to 8800' MSL.

The area would be depicted on aeronautical charts for pilot reference. The coordinates for this airspace docket are based on North American Datum 83. Class D airspace areas designated as surface areas are published in Paragraph 5000 of FAA Order 7400.9E dated September 10, 1997, and effective September 16, 1997, which is incorporated by reference in 14 CFR 71.1. The Class D airspace designation listed in this document would be published subsequently in the Order.

The FAA has determined that this proposed regulation only involves an established body of technical regulations for which frequent and routine amendments are necessary to keep them operationally current. It, therefore, (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034; February 26, 1979); and (3) does not warrant preparation of a Regulatory Evaluation as the anticipated impact is so minimal. Since this is a routine matter that will only affect air traffic procedures and air navigation, it is certified that this rule, when promulgated, will not have a significant economic impact on a substantial number of small entities

under the criteria of the Regulatory Flexibility Act.

### List of Subjects in 14 CFR Part 71

Airspace, Incorporation by reference, Navigation (air).

### The Proposed Amendment

In consideration of the foregoing, the Federal Aviation Administration proposes to amend 14 CFR part 71 as follows:

### PART 71—DESIGNATION OF CLASS A, CLASS B, CLASS C, CLASS D, AND CLASS E AIRSPACE AREAS; AIRWAYS; ROUTES; AND REPORTING POINTS

1. The authority citation for 14 CFR part 71 continues to read as follows:

**Authority:** 49 U.S.C. 106(g), 40103, 40113, 40120; E.O. 10854, 24 FR 9565, 3 CFR 1959-1963 Comp., p. 389.

#### § 71.1 [Amended]

2. The incorporation by reference in 14 CFR 71.1 of the Federal Aviation Administration Order 7400.9E, Airspace Designations and Reporting Points, dated September 10, 1997, and effective September 16, 1997, is amended as follows:

*Paragraph 5000 General.*

\* \* \* \* \*

#### ANM CO D Colorado Springs USAF Academy Airstrip, CO [Revised]

Colorado Springs USAF Academy Airstrip, CO  
(Lat. 38°58'11" N, long. 104°48'47" W)

That airspace extending upward from the surface to and including 8,800 feet MSL within a 3-mile radius of the USAF Academy Airstrip, excluding that airspace within the Colorado Springs, CO. Class C airspace area. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective date and time will thereafter be continuously published in the Airport/Facility Directory.

\* \* \* \* \*

Issued in Seattle, Washington, on April 6, 1998.

**Joe E. Gingles,**

*Acting Assistant Manager, Air Traffic Division, Northwest Mountain Region.*

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## DEPARTMENT OF LABOR

### Occupational Safety and Health Administration

#### 29 CFR Part 1910

[Docket No. H-71]

RIN 1218-AA95

### Methylene Chloride; Notice of Motion for Reconsideration; Proposed Rule

**AGENCY:** Occupational Safety and Health Administration (OSHA), Department of Labor.

**ACTION:** Notice of motion for reconsideration; proposed rule.

**SUMMARY:** The Occupational Safety and Health Administration (OSHA) has received a motion for reconsideration of certain provisions of its standard regulating occupational exposure to methylene chloride (MC), 62 FR 1494 (Jan. 10, 1997). The motion, filed jointly by the International Union, United Automobile, Aerospace and Agricultural Implement Workers of America, UAW, the Halogenated Solvents Industry Alliance, Inc., and others asks OSHA to amend the methylene chloride standard by adding to the medical surveillance provisions of the standard a provision for temporary medical removal protection benefits for employees who are temporarily removed or transferred to another job because of a medical determination that exposure to methylene chloride may aggravate or contribute to the employee's existing skin, heart, liver, or neurological disease; and modifying certain startup dates for employers in certain identified application groups, i.e., who use MC in certain work operations. The standard currently requires employers with fewer than 20 employees to complete installation of engineering controls by April 10, 2000 and larger employers to do so by earlier dates. The motion asks that the April 10, 2000 startup date for engineering controls be applied to some additional small- and medium-sized employers in the identified application groups. Shorter startup date extensions are requested for the larger employers in those same application groups. The parties to the motion further request that respirator use to achieve the 8-hour time-weighted-average permissible exposure limit not be required before the engineering control startup dates for the employers covered by the motion.

OSHA tentatively concludes that the amendments are appropriate and are supported by the rulemaking record. Accordingly, OSHA is hereby proposing to amend the MC standard with the

modifications the parties have recommended. OSHA is reopening the rulemaking record for the methylene chloride standard for 30 days for the limited purpose of receiving public comment on the proposed amendments.

**DATES:** Comments concerning the proposed rule must be postmarked or transmitted by fax on or before June 3, 1998. Comments concerning the collection of information requirements must be postmarked or transmitted by fax on or before July 6, 1998.

**ADDRESSES:** Comments are to be submitted in quadruplicate to: The Docket Office, Docket No. H-71, Room N-2625, United States Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210, telephone (202) 219-7894. Comments of 10 pages or fewer may be transmitted by fax to (202) 219-5046, provided the original and three copies are sent to the Docket Office thereafter. The hours of operation of the Docket Office are 10:00 a.m. to 4:00 p.m.

**FOR FURTHER INFORMATION CONTACT:** Bonnie Friedman, Director, OSHA Office of Public Affairs, U.S. Department of Labor, Room N3647, 200 Constitution Avenue, NW., Washington, DC 20210, telephone (202) 219-8151.

**SUPPLEMENTARY INFORMATION:**

**INFORMATION COLLECTION REQUIREMENTS:**

This proposed rule contains collection of information requirements in 29 CFR 1910.1052, "Methylene Chloride," in paragraphs (j)(11)(B) and (j)(14)(i), (ii), and (iv). Under these requirements employers must provide certain employees with additional medical examinations beyond those now required under the standard. The proposed rule would not change the requirement in the existing standard that employers provide the employee with a copy of the written medical opinion for each medical examination required by the standard. Because it requires additional medical examinations than does the current rule and, for some of those examinations, the provision of more information about the results, the proposed rule imposes additional collection of information requirements on employers than the current standard. The Paperwork Reduction Act of 1995, 44 U.S.C. 3507(d), and 5 CFR 1320.11 require Federal agencies to submit collections of information contained in proposed rules to the Office of Management and Budget (OMB) for review. OSHA has submitted the appropriate request to OMB for approval. OSHA currently has approval for the collection of information requirements in the existing Methylene

Chloride standard under OMB Control Number 1218-0179.

OSHA invites comments on whether the proposed collection of information:

1. Ensures that the collection of information is necessary for the proper performance of the functions of OSHA, including whether the information will have practical utility;
2. Estimates the projected burden accurately, including whether the methodology and assumptions used are valid;
3. Enhances the quality, utility and clarity of the information to be collected; and
4. Minimizes the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques, or other forms of information technology, e.g., permitting electronic submission of responses.

**Title:** Methylene Chloride (MC) (29 CFR 1910.1052).

**Description:** The purpose of this standard and its information collection requirements is to protect employees from adverse health effects associated with occupational exposure to MC. The current standard requires employers to monitor employee exposure to MC, inform employees of monitoring results, and notify employees of corrective action to be taken. Employers are also required to provide medical surveillance to employees who are exposed to MC above the action level. Employers must also provide information and training to employees on the following: health effects of MC, specifics regarding use of MC in the workplace, the content of the standard, and means the employees can take to protect themselves from overexposure to MC.

In response to a motion for reconsideration by the United Auto Workers (UAW), the Halogenated Solvents Industry Alliance, Inc., and others, the Agency is proposing to add paragraphs (j)(9)(i) (A) and (B), (j)(10), (j)(11), (j)(12), (j)(13), and (j)(14), dealing with medical removal protection, medical removal protection benefits, voluntary removal or restriction of an employee, and multiple health care professional review to the MC standard.

**Respondents:** The respondents are employers whose employees have occupational exposure to MC, Chemical Abstracts Service Registry Number 75-09-2, in general industry, construction and shipyard employment, approximately 92,000 respondents.

**Estimate of Burden Hours:** OSHA estimates that the total burden for the

proposed MC collection of information provision will be 619 burden hours.

**Estimate of Costs:** OSHA estimates that the total cost for the first year will be \$60,515 for the collection of information provision.

Interested parties are requested to send comments regarding this information collection to the Office of Information and Regulatory Affairs, Attn. OSHA Desk officer, OMB New Executive Office Building, 725 17th Street, NW, Room 10235, Washington, DC 20503. Commenters are encouraged to send a copy of their comments on the collection of information to OSHA along with their other comments.

Comments submitted in response to this notice will be summarized and/or included in the request for Office of Management and Budget approval of the final information collection request: They will also become a matter of public record. Copies of the referenced information collection request are available for inspection and copying in the OSHA Docket office and will be mailed immediately to any person who requests copies by telephoning Adrian Corsey at (202) 219-7075 extension 105. For electronic copies of the MC information collection request, contact OSHA's WebPage on the Internet at <http://www.osha.gov/> and click on "Federal Register Notices". Then click on "Type of Publication", then "Notices", and lastly "1998". Copies of the request are also available at the OMB docket office.

## I. Background

On January 10, 1997, OSHA issued a standard regulating occupational exposure to methylene chloride (MC). 62 FR 1494. The standard was designed to reduce both the risk that worker exposure to MC will cause cancer and the risk that MC will cause or aggravate certain other adverse health effects. The standard reduced the prior 8-hour time-weighted-average permissible exposure limit (8-hour TWA PEL) to MC from 500 parts per million (ppm) to 25 ppm. It also set a short term exposure limit (STEL) of 125 ppm averaged over a 15 minute period.

The 8-hour TWA PEL was set at 25 ppm to reduce, to the extent feasible, the risk that workers exposed to MC would contract cancer. Data showing that MC exposure presents a risk of cancer included animal bioassay data, studies detailing the metabolism of MC to carcinogenic products in humans, and epidemiological studies suggesting an elevated risk of biliary cancer and astrocytic brain cancer in MC-exposed workers. The agency used a physiologically-based pharmacokinetic

(PBPK) model to estimate the cancer risk. OSHA's final risk assessment estimated that, at the prior 8-hour TWA PEL of 500 ppm (a level that the Agency found was considerably higher than the level at which most affected workers were currently exposed, see 62 FR 1565), lifetime occupational exposure to MC could result in approximately 125 cancer deaths per 1000 exposed workers. 62 FR 1563, Table VII. At the new 8-hour TWA PEL of 25 ppm, OSHA estimated that the excess cancer risk would be reduced to approximately 3.6 deaths per 1000 workers. *Id.* OSHA concluded that a significant risk to workers remains at an exposure level of 25 ppm but set the 8-hour TWA PEL at that level because it was the lowest level for which OSHA could document feasibility across all the affected application groups. 62 FR 1575.

The STEL was set at 125 ppm to minimize the adverse health effects caused by acute exposure to MC. Central nervous system (CNS) depression has been observed at MC concentrations as low as 175 ppm. CNS depression is characterized by fatigue, difficulty in maintaining concentration, dizziness, and headaches. These consequences of MC exposure constitute material impairments of health and, by reducing workers' coordination and concentration, can lead to workplace accidents. Also, MC is metabolized to carbon monoxide (CO) and therefore causes health impairment similar to that caused by direct exposure to CO. Carbon monoxide blocks the oxygen binding site on hemoglobin, producing carboxyhemoglobin, or COHb. Elevated COHb levels reduce the supply to oxygen to the heart and can aggravate pre-existing heart disease and lead to heart attacks. Physical exertion increases the concentration of COHb in MC-exposed workers and thus increases the risk of a heart attack, particularly to persons with silent or symptomatic cardiac disease, who may be susceptible to very small increases in COHb due to an already impaired blood supply to the heart.

The liver and skin are also susceptible to acute effects from MC exposure. Chlorinated hydrocarbons as a class (of which MC is a member) are generally toxic to the liver. However, animal studies indicate that MC is among the least hepatotoxic of this class of compounds. The limited amount of human data that are available is inconclusive but supports the hypothesis that MC is toxic to the liver. 62 FR at 1515. Prolonged skin contact with MC also causes irritation and skin burns. 62 FR at 1609.

Employers must achieve the 8-hour TWA PEL and the STEL, to the extent feasible, by engineering and work practice controls. If such controls are unable to achieve the exposure limits, and during the time they are being implemented, employers must provide, at no cost to employees, and ensure that employees use, appropriate respirators. The standard does not permit the use of air-purifying respirators to protect against MC exposure because MC quickly penetrates all currently available organic vapor cartridges, rendering air-purifying respirators ineffective after a relatively brief period of time. Therefore, when respiratory protection is required, the standard provides that atmosphere-supplying respirators must be used.

The standard requires employers to provide medical surveillance to employees who are exposed to MC either (1) at or above the action level on 30 or more days per year or at or above the 8-hour TWA PEL or STEL on 10 or more days per year; (2) at or above the 8-hour TWA PEL or STEL for any time period where an employee who has been identified by a physician or other licensed health care professional as being at risk from cardiac disease or from some other serious MC-related health condition requests inclusion in the medical surveillance program; or (3) during an emergency. The medical surveillance must include a comprehensive medical and work history that emphasizes neurological symptoms, skin conditions, history of hematologic or liver disease, signs or symptoms suggestive of heart disease (angina, coronary artery disease), risk factors for cardiac disease, MC exposures, and work practices and personal protective equipment used during such exposures. The standard's medical surveillance procedures focus on MC's noncarcinogenic health effects because a medical surveillance program cannot detect cancer at a preneoplastic state. 62 FR at 1589. However, the standard's medical surveillance provisions can lead to early detection of cancer and to higher survival rates from early treatment.

OSHA found that the standard was both technologically and economically feasible in all of the industrial applications that use MC. However, the Agency recognizes that larger employers are better able than smaller ones to absorb or pass through the costs associated with compliance with the standard. To avoid placing an undue economic burden on small businesses, OSHA provided for later startup dates for small employers. Larger employers were given until April 10, 1998 (one

year after the standard's effective date) to complete installation of engineering controls to achieve the PEL and STEL, while employers with fewer than 20 employees were given a total of three years, or until April 10, 2000, to do so. Employers with fewer than 20 employees were also given more time than larger employers to comply with the other provisions of the standard. In addition, intermediate startup dates were established for polyurethane foam manufacturers with 20–99 employees because OSHA anticipated that firms in that group could have somewhat higher capital expenditures to meet the requirements of the standard.

## II. The Motion for Reconsideration

The motion filed by the parties asks OSHA to reconsider two aspects of the standard: (1) The agency's decision not to include medical removal protection benefits in the medical surveillance provisions of the standard; and (2) the start-up dates for engineering controls and for use of respirators to achieve the 8-hour TWA PEL for employers using MC in certain specific applications.

Those applications are:

- Polyurethane foam manufacturing;
- Foam fabrication;
- Furniture refinishing;
- General aviation aircraft stripping;
- Formulation of products containing methylene chloride;
- Boat building and repair;
- Recreational vehicle manufacture;
- Van conversion;
- Upholstery; and
- Use of methylene chloride in construction work for restoration and preservation of buildings, painting and paint removal, cabinet making and/or floor refinishing and resurfacing.

The motion requests that the standard's current final engineering control startup date of April 10, 2000, which now applies to employers with fewer than 20 employees, be applied also to employers in the specified application groups with 20–49 employees and to foam fabricators with 20–149 employees. (In referring to an employer's number of employees, the parties to the motion explain that they intend for the number of employees to refer to the total number or workers employed by the particular employer, not the number who work at a particular facility or the number that use methylene chloride in their work.) The motion requests shorter extensions of the engineering control dates for larger employers in these application groups. The parties further request that respirator use to achieve the 8-hour TWA PEL not be required before the

engineering control startup dates for the employers covered by the motion.

In evaluating the motion, OSHA notes that the parties are not seeking to modify the fundamental protections provided to workers by the standard. They are not challenging the 8-hour TWA PEL or the STEL or the requirement that those limits be met, to the extent feasible, through engineering and work practice controls. Nor are the parties seeking modifications of the provisions in the standard for regulated areas, protective work clothing and equipment, hygiene facilities, hazard communication, employee information and training, and recordkeeping. Moreover, the extensions of the startup dates that they seek would not change the standard's current final compliance deadline of April 10, 2000 but would merely give additional employers the benefit of that startup date. The parties suggest that their proposed changes to startup dates will enhance long-term worker protection by enabling employers to use their resources effectively and efficiently in developing permanent engineering solutions to reduce MC exposures in their workplaces. The parties' proposed addition to the medical surveillance provisions of the standard—a provision for medical removal protection benefits—is also designed to enhance worker protection by encouraging worker participation in medical surveillance. Thus, the parties believe that the amendments they seek will promote worker protection while minimizing employers' compliance burdens.

### III. Medical Removal Protection Benefits

OSHA set the permissible exposure limits for methylene chloride to eliminate significant risk, to the extent feasible, to workers exposed to MC. However, individuals vary in their response to chemical exposures. Some may see their health impaired, or preexisting medical conditions aggravated, at an exposure level that does not provoke such effects in most workers. Medical surveillance can identify those workers who exhibit signs or symptoms of illnesses that could be aggravated by exposure to a toxic substance and lead to treatment or reduction in exposure. OSHA has therefore provided for medical surveillance whenever it has issued a new standard for a single toxic substance.

Medical surveillance can result in a medical opinion that particular workers should be removed from their present jobs have their work activities otherwise

restricted. This can lead to concern among workers that participation in medical surveillance could cost them their jobs. A worker who fear that medical surveillance may endanger his or her livelihood may be reluctant to consent to medical tests or to provide complete and accurate information during a medical examination. If employees whose health could be significantly impaired by continued MC exposure withhold their full cooperation, they might continue to be exposed to MC without being aware that such exposure poses a risk to their health. To avoid having the potential loss of a job act as a disincentive to workers participating in the standard's medical surveillance program, OSHA has, in certain of its toxic chemical standards, provided for medical removal protection benefits (MRPB). MRPB provisions require that an employer who must remove an employee from continued exposure to a chemical or otherwise restrict an employee's exposure to that chemical must maintain the employee's earnings and other employment rights and benefits for a specified time.

When it has included MRPB provisions in earlier standards, OSHA has delineated as specifically as possible the medical conditions that trigger removal. Where possible, the Agency has specified objective removal criteria. For example, the lead standard (29 CFR 1910.1025) requires that an employee be removed from exposure above the action level when an employee's blood lead concentration exceeds a certain value. Similarly, the cadmium standard (29 CFR 1910.1047) lists objective biological monitoring criteria that trigger medical removal.

OSHA has also, however, recognized that medical removal is sometimes appropriate without regard to specific biological markers when, in the judgment of a physician or other licensed health care professional, removal is necessary to protect the health of the employee. Thus, in addition to objective removal criteria, the lead and cadmium standards provide for medical removal based on the discretion of a health care professional. The lead standard requires medical removal "on each occasion that a final medical determination results in a medical finding, determination, or opinion that the employee has a detected medical condition which places the employee at increased risk of material impairment to health from exposure to lead." Under the cadmium standard, an employee must be removed if a written medical opinion determines that removal is justified by "biological

monitoring results, inability to wear a respirator, evidence of illness, other signs or symptoms of cadmium-related dysfunction or disease, or any other reason deemed medically sufficient \* \* \*." The formaldehyde standard (29 CFR 1910.1048) contains no objective criteria for medical removal but provides for removal "if the physician finds that significant irritation of the mucosa of the eyes or of the upper airways, respiratory sensitization, dermal irritation, or dermal sensitization result from workplace formaldehyde exposure and recommends restrictions or removal."

In the proposed MC rule, OSHA solicited comment on whether it should provide for medical removal protection benefits in the final rule. 56 FR at 57043 (Nov. 7, 1991). A number of commenters urged the Agency to do so on the basis that MRPB would encourage employee participation in medical surveillance. In the final rule, OSHA found, as it had in the earlier standards discussed above, that MRPB would increase employee participation in medical surveillance. However, the Agency declined to include such a provision in the standard because it did not believe it could offer substantive guidance to medical professionals as to when it would be appropriate to remove an employee from further MC exposure or to return a removed employee to the workplace. 62 FR at 1595.

The parties to the motion for reconsideration believe they have drafted a provision that is narrowly tailored to diseases that MC exposure may aggravate and that limits the scope of the provision in a way that avoids any undue economic burden on small employers. Under their proposal, MRPB would be required only when a physician or other licensed health care professional (PLHCP) determines that the employee's exposure to MC would contribute to or aggravate the employee's existing cardiac, hepatic, neurological (including stroke), or skin disease. The parties note that the heart, liver, central nervous system, and skin are the organs and systems that OSHA identified in the standard as being particularly susceptible to MC-induced noncarcinogenic health effects. They believe that physicians and other licensed health care professionals will be able to render an informed judgment as to whether MC exposure will contribute to or aggravate an existing disease affecting these systems or organs.

The parties further propose, in paragraph (j)(10), that the standard require the PLHCP to presume that MC exposure below the 8-hour TWA PEL

will not aggravate an existing disease of the heart, liver, central nervous system, or skin. Under the proposal, a PLHCP who recommends removal of an employee who is exposed below the 8-hour TWA PEL must cite specific medical evidence to support the recommendation. Absent such evidence, the employer need not remove the employee.

When a medical determination indicates removal, the parties' proposal requires the employer to either transfer the employee to comparable work where MC exposures are below the action level or remove the employee from MC exposure. For each employee thus removed or transferred, the employer must maintain the employee's earnings, seniority, and other employment rights and benefits for up to six months. The employer may cease paying MRP benefits before the end of the six-month period upon receipt of a medical determination that the employee's exposure to MC will no longer aggravate any existing cardiac, hepatic, neurological, or dermal disease, or upon receipt of a medical determination concluding that the employee can never return to MC exposure above the action level.

The parties also propose inclusion of provisions that OSHA has routinely included in previous standards that provided for MRPB. These provisions (1) allow an employer to condition an employee's receipt of MRPB on participation in follow-up medical surveillance; (2) provide for a diminution of MRP benefits to offset any workers' compensation indemnity payments the employee receives for the same period of time; (3) provide an offset of such benefits against compensation from a publicly or employer-funded compensation program or income the employee receives from other employment that is made possible by virtue of the employee's removal, and (4) require the employer to pay MRP benefits if it voluntarily removes or restricts an employee due to the effects of MC exposure on the employee's medical condition.

The current standard provides for the employer to select the PLHCP who conducts medical surveillance. Under the parties' proposal, the health care professional selected by the employer would make the medical determination whether to recommend that an employee be removed. The parties also, propose to include a provision that allows employees the option to have the recommendation of the employer-selected health care professional reviewed by a health care professional

or the employee's choice. If the two health care professionals disagree, they jointly designate a third, who must be a specialist in the field at issue and whose written opinion is the definitive medical determination under the standard. The parties note that, in previous standards that have provided for MRPB, OSHA has included similar provisions for multi-step review to strengthen the basis for medical removal determinations and to increase employee confidence in those determinations.

The parties have also recommended a provision designed to avoid an undue burden that could result if a small business would need to provide medical removal protection benefits to more than one employee at the same time. Paragraph (j)(11)(i)(B) of their proposal states that if the employer receives a recommendation for medical removal of an additional employee and comparable work that does not involve exposure to MC at or above the action level is not available, the employer need not remove the additional employee if the employer can demonstrate that removal and the costs of MRP benefits to that employee, considering feasibility in relation to the size of the employer's business and the other requirements of this standard, make further reliance on MRP an inappropriate remedy. In such a case, the employer may retain the additional employee in the existence job until transfer or removal becomes appropriate, provided: (i) The employer or the PLHCP informs the additional employee of the risk to the employee's health from continued MC exposure; and (ii) the employer ensures that the employee receives medical surveillance, including a physical examination, at least every 60 days.

OSHA has carefully considered the parties' proposal in light of its earlier concern that a MRPB provision must provide sufficient guidance to licensed health care professionals as to when medical removal is indicated. OSHA concludes that the MRPB provision recommended by the parties delineates with sufficient specificity the circumstances that can trigger medical removal protection benefits. First, the provision requires MRPB only if the PLHCP finds that the employee has an identifiable disease of one or more specific organs that are known to be susceptible to MC exposure. Second, by providing for a rebuttable presumption that such a disease will not be aggravated by exposure to MC below the 8-hour TWA PEL, the parties' proposal ensures that the physician or other health care professional will take into account the level of methylene chloride

to which the worker is exposed. OSHA believes that, with these constraints, the parties' proposal will improve employee confidence and participation in medical surveillance while providing adequate guidance to the physicians and other licensed health care professionals who will be conducting medical surveillance and making recommendations for medical removal under the standard.

OSHA also believes that the ancillary provisions of the MRPB program recommended by the parties are appropriate. The parties have patterned their recommendation on the existing OSHA standards that provide for MRPB. OSHA agrees that provisions it has routinely included as part of a MRPB program, including those providing for a multi-step review process, should be included in the methylene chloride standard. OSHA continues to believe that multi-step review is vital to ensuring employee confidence in medical removal determinations and is a necessary part of any standard that provides for medical removal protection benefits.

The one provision in the parties' proposal with no direct counterpart in earlier standards that provide for MRPB is the provision in proposed paragraph (j)(11)(i)(B) that would allow an employer who has already removed one or more employees under paragraph (j)(11) to retain an additional employee in the existing job despite a removal recommendation if removal would result in undue economic burden. In such a situation, the parties propose that the employer must provide enhanced medical surveillance to the employee and must ensure that the employee who is not removed is fully informed of the health risk presented by continued MC exposure.

OSHA agrees with the parties that, in the limited circumstances specified in this provision, it is appropriate to allow an employer to retain an employee in his or her present job, even when the PLHCP has recommended removal, provided the employer ensures that the employee receives the more frequent medical surveillance specified in the proposed provision and is fully aware of the health risk. Frequent medical surveillance and full information will enable the employer and employee to take steps to minimize the risk under existing workplace conditions, by, for example, implementing those controls that are in place and strictly following work practices that are designed to minimize the employee's MC exposure. Thus, the parties' proposal provides additional protection to those workers who would be retained in their current jobs under paragraph (j)(11)(i)(B).

**IV. Extensions of Startup Dates**

The motion for reconsideration requests that the standard's current final engineering control startup date of April 10, 2000, which is limited in the final standard to employers with fewer than 20 employees, also apply to employers in the specified application groups who have 20-49 employees and to foam fabricators who have 20-149 employees. According to the parties employers in these application groups and size categories, like those with fewer than 20 employees, have limited resources with which to develop and implement engineering controls and will be able to use those resources more efficiently if

given additional time to develop and install effective controls and to take advantage of the compliance assistance that OSHA plans to offer. The motion requests shorter extensions of the engineering control dates for larger employers in these application groups.

The parties further request that respirator use to achieve the 8-hour TWA PEL (currently required by Aug. 31, 1998 under a partial stay issued by OSHA on Dec. 18, 1997, 62 FR 66275) not be required before the engineering control startup dates for those employers covered by the motion. They contend that workers would be better protected if these employers can concentrate their limited resources on

implementing effective engineering controls rather than diverting part of those resources to interim and expensive respiratory protection that would no longer be needed a short time later, once full compliance with the 8-hour TWA PEL and STEL is achieved by engineering controls.

The following chart shows the startup dates requested by the motion for reconsideration. Where the startup date for a provision has already passed, the chart lists that provision as being "in effect." For the reasons discussed below, OSHA is now proposing to adopt the startup dates requested by the parties to the motion.

PROPOSED STARTUP DATES

	Employers with fewer than 20 employees	Polyurethane foam mfrs. with 20 or more employees	Selected applications <sup>1</sup> with 1-49 employees and foam fabricators with 1-149 employees	Selected applications <sup>1</sup> with 50 or more employees and foam fabricators with 150 or more employees	All other employers with 20 or more employees
Engineering controls to achieve 8-hour TWA PEL and STEL.	April 10, 2000 (unchanged from current standard).	October 10, 1999 <sup>2</sup> ....	April 10, 2000 <sup>2</sup> .....	April 10, 1999 <sup>2</sup> .....	In effect.
Respirators to achieve 8-hour TWA PEL.	April 10, 2000 <sup>2</sup> .....	October 10, 2000 <sup>2</sup> ....	April 10, 2000 <sup>2</sup> .....	April 10, 1999 <sup>2</sup> .....	In effect.
Respirators to achieve STEL.	In effect .....	In effect .....	In effect .....	In effect .....	In effect.
All other provisions .....	In effect .....	In effect .....	In effect .....	In effect .....	In effect.

<sup>1</sup> As described earlier, the selected applications are furniture refinishing; general aviation aircraft stripping; product formulation; use of MC-based adhesive for boat building and repair, recreational vehicle manufacture, van conversion, or upholstery; and use of MC in construction work for restoration and preservation of buildings, painting and paint removal, cabinet making, or floor refinishing and resurfacing.

<sup>2</sup> Under a partial stay issued on December 18, 1997 (62 FR 66275) these dates are now December 10, 1998 for engineering controls and August 31, 1998 for respirators to achieve the 8-hour TWA PEL.

OSHA generally agrees that worker protection against MC exposure will best be achieved if employers develop and install effective engineering controls as soon as practicable. OSHA has long recognized that engineering controls are superior to respiratory protection as a means of protecting workers against inhalation of toxic chemicals. Engineering controls protect workers by reducing the airborne concentrations of methylene chloride to or below permitted limits. Their effectiveness does not, unlike respirator use, depend on the respiratory protection functioning as designed or on employers effectively supervising employees to ensure that they use and maintain respiratory equipment consistently and properly. Respirators also may present safety hazards by limiting workers' mobility, vision, and ability to communicate.

The agency also recognizes that employers require a reasonable amount of time to develop and install engineering controls. Engineering controls, such as local exhaust

ventilation, must be properly designed and installed if they are to work efficiently. The parties request that OSHA help employers in the application groups for which relief is sought to develop effective engineering controls by offering compliance assistance that will give those employers guidance as to appropriate engineering controls and avoid the uncertainty and expense that would result if each employer were to attempt to design and implement its own controls. OSHA agrees that compliance assistance would help employers use their resources more efficiently and plans to offer such assistance. Already, OSHA has developed Fact Sheets for a number of applications that identify engineering controls and work practices that employers can use to protect their employees against MC exposure. OSHA has also developed a small entity compliance guide and has started conducting a series of outreach seminars on the MC standard in various cities around the country. OSHA intends to add to this information base to further

help employers to develop engineering controls that would be both effective and feasible to implement in their facilities.

Although OSHA has long recognized the superiority of engineering controls, respirator use is necessary when engineering and work practice controls cannot achieve the required exposure levels. The Agency has consistently required that respirators be used when feasible engineering and work practice controls cannot achieve permissible exposure limits. OSHA also requires the use of respirators for interim protection while engineering controls are being developed and installed. For most toxic chemicals, air-purifying respirators, which are relatively inexpensive, provide effective protection at most workplace exposure levels. However, air-purifying respirators do not provide effective protection against MC exposure because MC quickly penetrates all currently available organic vapor cartridges. Therefore, when respirators are required under the MC standard,

atmosphere-supplying respirators must be used.

Atmosphere-supplying respirators are a relatively expensive type of respiratory equipment, requiring the employer not only to purchase the respiratory equipment itself but also to install an air compressor and associated ductwork or rent cylinders containing breathing air. In light of the relatively high cost associated with the atmosphere-supplying respirators required by the MC standard, OSHA agrees with the parties that the standard should permit employers in the identified application groups to concentrate their limited resources on developing permanent engineering solutions rather than diverting part of those resources to interim respiratory protection to achieve the 8-hour TWA PEL.

OSHA further notes that the parties' proposal will provide workers with significant interim protection before the final compliance deadline of April 10, 2000 or by whatever earlier date controls are required. First, under the parties' proposal, the STEL will go into effect as scheduled, and employers will be required to ensure that some combination of engineering controls, work practice controls, and respiratory protection reduce exposures below that level. Workers will therefore be protected against acute health effects associated with high short-term exposure to MC. Moreover, reduction of short-term exposures to below the STEL will, in many cases, help reduce 8-hour time-weighted average exposures as well and will thereby provide workers with some interim protection against the chronic effects of MC exposure.

The parties' proposal will also not delay compliance with the requirement that employers implement feasible work practices to reduce MC exposures. Such controls can achieve significant reductions in MC exposures in many workplaces at low cost. Early implementation of work practice controls will also enable employers to evaluate the extent to which exposures can be reduced by such controls and will enable them to better determine the nature and extent of the engineering controls they will need to achieve the 8-hour TWA PEL and STEL. Furthermore, the remaining protections of the standard (regulated areas, protective work clothing and equipment, hygiene facilities, hazard communication, employee information and training, and recordkeeping) will take effect as currently scheduled for all employers.

In many workplace situations, adherence to careful work practices will achieve substantial reductions in MC

exposures. In its Fact Sheets, OSHA has identified feasible work practices for several of the application groups (furniture refinishing, polyurethane foam manufacturing, construction work) for which the parties seek relief. Many of the identified work practices would be feasible for and useful to facilities in other application groups as well. To facilitate widespread dissemination of the information on work practices in the Fact Sheets, OSHA is listing them below.

#### A. Furniture Refinishers

##### Keep MC Vapors Contained

- Keep the door to mixing/storage areas closed at all times.
- Store and transport MC only in approved safety containers.
- Properly label all MC containers to indicate their contents, hazards, and proper use, storage and disposal. Read these labels and follow the directions.
- Keep solution containers closed tightly when not in use.
- Avoid unnecessary transfer or movement of stripping solutions.
- Keep dip tanks and reservoir tanks covered when not in use.
- Keep the stripping solution at the appropriate temperature (often around 70° F). At this temperature, wax in the solution will form a vapor barrier that prevents the solution from evaporating too quickly. If the temperature is too high or too low, the wax will not form a vapor barrier.
- Do not let sludge dry on the stripping table. Place the wet sludge in sealed containers for later recovery or disposal, or dry it using proper engineering controls (e.g., local exhaust ventilation) to capture the MC vapors.

##### Avoid Breathing MC Vapors

- Turn on the dip tank or stripping table ventilation system at least an hour before work begins or leave it on overnight.
- Avoid breathing air directly above the stripping solution and dip tank. Do not lean over the tank when working.
- Avoid breathing the air directly above the furniture during manual stripping. Do not lean over an area covered with stripper.
- Do not work or stand between solution-covered furniture and the exhaust system.
- Turn the solution-recycling system off when it is not being used.
- Do not rely on the odor of MC to warn you of overexposure. People cannot smell MC until vapor concentrations are above 300 ppm, which is 12 times higher than the 8-hour time-weighted-average permissible

exposure limit of 25 ppm. Also, you sense of smell can quickly get used to the odor of MC so that you stop noticing it.

- If you become dizzy, light-headed, or have other symptoms of MC exposure, go immediately to an area with fresh air.

##### Minimize the Chance of Spills and Leaks

- Develop and follow your facility's procedures for detecting MC leaks from process equipment, holding tanks, and spill control devices.
- Frequently inspect process equipment, holding tanks, and spill control devices for cracks, loose parts, and other possible sources of leaks.
- Where spills occur, follow procedures for containing them.
- Clean up all spills and leaks as quickly as possible.
- Place rags, waste, paper towels, or absorbent used to clean spills in a closed container (preferably a non-aluminum, all metal safety container) immediately after use.
- Make sure that leaks are repaired and spills cleaned up by employees who are trained in proper cleanup methods. These employees should wear appropriate personal protective equipment.

##### Take Extra Precautions in Low and Confined Spaces

MC vapors are heavier than air, so they tend to move to low, unventilated spaces such as tanks and maintenance pits.

- Do not enter or lean into a storage tank, dip tank, or low-lying confined area until it has been completely aired out and tested. Wear proper PPE and follow the appropriate confined space entry procedures outlined in OSHA's Permit Required Confined Spaces standard (29 CFR 1910.146).
- Use a long-handled tool to pick up items that you drop into a confined space or low-lying area.

#### B. Polyurethane Foam Manufacturers

##### Keep MC Vapors Contained

- Keep the doors to the pouring and cooling areas closed at all times.
- Store and transport MC only in approved safety containers.
- Properly label all MC containers to indicate their contents, hazards, and proper use, storage and disposal. Read these labels and follow the directions.
- Keep MC containers closed tightly when not in use.
- Avoid unnecessary transfer or movement of MC.
- Keep the openings on the sides of the tunnel closed when it is not in use.

This keeps MC vapors from escaping and ensures that the makeup air system at the end of the tunnel runs well.

#### Avoid Breathing MC Vapors

- Turn on local exhaust ventilation systems in the tunnel and cooling rooms at least an hour before work begins or leave them on overnight.
- Turn on the general ventilation system in the cooling room at least an hour before work begins or leave it on overnight.
- Avoid breathing air directly above cooling foam.
- When possible, minimize the amount of time spent near the cooling foam and tunnel openings because these areas are likely to have the highest levels of MC vapors.
- Do not work or stand between cooling foam and the exhaust system.
- Do not rely on the odor of MC to warn you of overexposure. People cannot smell MC until vapor concentrations are above 300 ppm, which is 12 times higher than the 8-hour time-weighted-average permissible exposure limit of 25 ppm. Also, your sense of smell can quickly get used to the odor of MC so that you stop noticing it.
- If you become dizzy, light-headed, or have other symptoms of MC exposure, go immediately to an area with fresh air.

#### Minimize the Chance of Spills and Leaks

- Develop and follow your facility's procedures for detecting MC leaks from process equipment, holding tanks, and spill control devices.
- Frequently inspect the tunnel and other equipment for cracks, loose parts, and other possible sources of leaks.
- Clean up all spills and leaks as quickly as possible.
- Place rags, waste, paper towels, or absorbent used to clean spills in a closed container (preferably a non-aluminum, all metal safety container) immediately after use.
- Make sure that leaks are repaired and spills cleaned up by employees who are trained in proper cleanup methods. These employees should wear appropriate personal protective equipment.

#### Take Extra Precautions in Low and Confined Spaces

MC vapors are heavier than air, so they tend to move to low, unventilated spaces.

- Do not enter or lean into a low-lying confined area until it has been completely aired out and tested. Wear proper PPE and follow the appropriate

confined space entry procedures outlined in OSHA's Permit Required Confined Spaces standard (29 CFR 1910.146).

- Use a long-handled tool to pick up items that you drop into a confined space or low-lying area.

#### C. Construction Work

##### Keep MC Vapors Contained

- Store and transport MC products only in approved safety containers.
- Properly label all MC containers to indicate their contents, hazards, and proper use, storage and disposal. Read these labels and follow the directions.
- Keep MC product containers closed tightly when not in use.
- Avoid unnecessary transfer or movement of MC products.

##### Avoid Breathing MC Vapors

- Avoid breathing the air directly above areas covered with MC. Do not lean over an area covered with MC.
  - Do not work or stand between MC-covered areas and the exhaust system.
  - Do not rely on the odor of MC to warn you of overexposure. People cannot smell MC until vapor concentrations are above 300 ppm, which is 12 times higher than the 8-hour time-weighted-average permissible exposure limit of 25 ppm.
- Also, your sense of smell can quickly get used to the odor of MC so that you stop noticing it.
- If you become dizzy, light-headed, or have other symptoms of MC exposure, go immediately to an area with fresh air.

#### Minimize the Chance of Spills and Leaks

- Develop and follow procedures for containing MC spills or leaks.
- Frequently inspect MC product containers for cracks or other possible sources of leaks.
- Clean up all spills and leaks as quickly as possible.
- Place rags, waste, paper towels, or absorbent used to clean spills in a closed container (preferably a non-aluminum, all metal safety container) immediately after use.
- Make sure that leaks are repaired and spills cleaned up by employees who are trained in proper cleanup methods. These employees should wear appropriate personal protective equipment.

#### Take extra Precautions in Low and Confined Spaces

MC vapors are heavier than air, so they tend to move to low, unventilated spaces.

- Do not enter or lean into a low-lying confined area until it has been completely aired out and tested. Wear proper PPE and follow the appropriate confined space entry procedures outlined in OSHA's Permit Required Confined Spaces standard (29 CFR 1910.146).

- Use a long-handled tool to pick up items that you drop in area where MC is being used.

#### V. Preliminary Economic and Regulatory Flexibility Analysis

OSHA is proposing to revise paragraph (j), Medical Surveillance, of the final rule governing occupational exposure to methylene chloride (MC) (29 CFR 1910.1052) to add medical removal protection benefits to the rule. This preliminary economic analysis estimates the costs of complying with the proposed MRP provisions and then assesses the economic feasibility and potential economic impacts of these costs on firms in the affected sectors. The information used in this analysis is taken from the exposure profile, industry profile, and economic impacts analysis presented in the Final Economic Analysis (Ex. 129) that accompanied OSHA's final rule for methylene chloride (Federal Register Vol. 62, 7, pp. 1494 to 1619). Relying on the data developed for the analysis to support this proposed revision to the final rule ensures analytical consistency and comparability across the two economic analysis documents.

OSHA's final MC rule did not contain medical removal protection provisions. The revisions being proposed today respond to a motion for reconsideration filed by the United Auto Workers (UAW), the Halogenated Solvents Industry Alliance, Inc., and others. As requested in that motion, OSHA is proposing to add paragraphs (j)(9)(i) (A) and (B), (j)(10), (j)(11), (j)(12), (j)(13), and (j)(14), dealing with medical removal protection, medical removal protection benefits, voluntary removal or restriction of an employee, and multiple health care professional review, respectively, to the final rule. Medical removal protection (MRP) would apply only under certain limited circumstances, i.e., medical removal protection would be required only if a physician or other licensed health care professional finds that exposure to MC may contribute to or aggravate the employee's existing cardiac, hepatic, neurological (including stroke), or dermal disease. The proposed rule instructs the physician or other licensed health care professional to presume that a medical condition is unlikely to require removal from exposure to MC,



unless medical evidence indicates to the contrary, if the employee is not exposed to MC at concentrations above the 8-hour TWA PEL of 25 ppm. The physician or other licensed health care professional may also recommend removal from exposure to MC for any other condition that would, in the health care professional's opinion, place the employee's health at risk of material impairment from exposure to MC, but MRP would only be triggered by a finding that exposure to MC may contribute to or aggravate the employee's existing cardiac, hepatic, neurological (including stroke), or dermal disease.

Any employee medically removed must (1) be provided with comparable work where MC exposures are below the action level, or (2) be completely removed from MC exposure. The employee's total pay, benefits and seniority must be maintained throughout the period of medical removal protection, even if the only way to remove the employee from MC exposure is to send him or her home for the duration of the medical removal protection period. The employer may reduce the amount paid to the removed worker to the extent that the worker's previous pay has been offset by other compensation (such as worker's compensation payments) or by wages from another job made possible by the medical removal.

The proposal would require employers to maintain medical removal protection benefits for up to six months. Medical removal protection may be terminated in less than 6 months if a medical determination shows that the employee may return to MC exposure, or a medical determination is made that the employee can never return to MC exposure.

In situations in which no comparable work is available for the medically removed employee, the proposal would allow the employer to demonstrate that the medical removal and the costs of medical removal protection benefits, considering feasibility in relation to the size of the employer's business and the other requirements of this standard, make reliance on medical removal protection an inappropriate remedy. In such a situation, the employer may retain the employee in the existing job until transfer or removal becomes appropriate, provided that the employer ensures that the employee receives additional medical surveillance, including a physical examination at least every 60 days until removal or transfer occurs, and that the employer or PLHCP informs the employee of the risk

to the employee's health from continued MC exposure.

In conducting this economic analysis, OSHA has estimated the number of workers with the four listed types of conditions (neurological, hepatic, cardiac, and dermal disease) that can trigger MRP. OSHA has assumed that medical removal protection would be extended only to employees exposed above the PEL, as reflected by the presumption. This analysis also assumes that all employers will provide medical removal protection whenever a physician or other licensed health care provider recommends removal, i.e., OSHA has not quantified the number of times small firms may retain an employee for whom a removal recommendation has been made in the employee's existing job due to the employer's financial inability to remove the employee. Because some very small firms may find that medical removal protection is infeasible in their circumstances but this cost analysis assumes that all such employees will be removed, OSHA believes that this analysis is likely to overestimate the costs associated with MRP.

#### *Cost of Medical Removal Protection Provisions*

OSHA's estimates of the costs of the proposed medical removal protection provisions are calculated based on the number of workers eligible for medical removal protection times the frequency of the medical conditions that would trigger medical removal protection in the exposed population times the costs of medical removal protection for each type of medical condition.

#### *Number of Workers Eligible for Medical Removal Protection Under the Proposal*

Because of the presumption stated explicitly in the proposed revisions, medical removal protection will be limited in almost all cases to employees exposed to MC at concentrations above the PEL of 25 PPM as an 8-hour TWA. The Final Economic Analysis (Ex. 129) estimated that approximately 55,000 employees in all affected application groups are currently exposed above 25 ppm. This estimate is used here to calculate the number of employees potentially eligible for medical removal protection during the year in which medical removal protection would be in effect but the engineering control requirements of the rule would not yet be in effect for some of the application groups. Once the implementation of engineering controls is required, OSHA assumes, for the purposes of this analysis, that 10 percent of those employees previously exposed to an 8-

hour TWA above 25 ppm (5,500 employees) would continue to be exposed to an 8-hour TWA above 25 ppm.

OSHA believes that reliance on these assumptions will lead to an overestimate of the number of employees eligible for medical removal protection because some firms will have implemented controls and lower the exposure of their employees well before the final standard requires them to do so. Once the standard requires employers to implement engineering controls, OSHA's Final Economic Analysis (Ex. 129) estimated that the exposure of almost all employees would be reduced to MC levels below 25 ppm as a 8-hour TWA. To capture all costs potentially associated with the proposed medical removal protection provisions, OSHA has assumed for this analysis that some employees will continue to be exposed above 25 ppm.

#### *Frequency of Medical Removal Protection Under the Proposed Provisions*

The proposed changes to the occupational exposure to methylene chloride standard allow for medical removal protection in the event that exposure to methylene chloride "may contribute to or aggravate existing cardiac, hepatic, neurological (including stroke), or skin disease." Medical removal protection does not apply if the condition is such that removal from MC exposure must be permanent.

OSHA believes that MC-induced or aggravated neurological symptoms (other than stroke) occur infrequently and that when such protection is triggered by neurological manifestations (other than stroke), the period of time involved in the removal will be relatively brief. OSHA also believes that MC-induced or aggravated heart conditions or strokes are likely to result in permanent medical removal, and thus that employers will not incur the costs of medical removal protection in these cases. This analysis therefore focuses on medical removal protection for MC-induced or aggravated dermatitis or abnormal hepatic conditions. Each of these conditions is likely to resolve with time, proper treatment, or both, and these are therefore the conditions likely to result in a determination that temporary medical removal protection, rather than permanent removal, is needed.

Because the proposal would provide for medical removal protection in situations where exposure to MC contributes to or aggravates the listed condition, this analysis focuses on the frequency with which each covered

condition occurs in the working population, and not simply on the frequency with which MC causes these conditions. For the first year after the MRP provisions are in effect, OSHA has no evidence that hepatic conditions are more prevalent in workplaces that use MC than in the general working age population and therefore assumes that the prevalence of hepatic conditions will be the same as in the general working age population (18-65). OSHA estimates that 5 percent of the working population will be found on evaluation to have hepatic conditions sufficiently abnormal to trigger medical removal.

For dermatitis, which is seldom a lasting condition, OSHA similarly assumes, in the absence of evidence to the contrary, that the prevalence in the MC-exposed workforce is the same as the rate in the general working age population. For dermatitis, Vital and Health Statistics (National Center for Health Statistics, 1995) reports that, in 1993, the prevalence of dermatitis was 2.93 percent for persons between 18 and 45 and 2.18 percent for persons between 45 and 65. Weighting using the BLS data cited above, OSHA finds that 2.7 percent of the MC-exposed workforce will be found on the first required medical evaluation to have dermatitis and will be medically removed.

After the proposed standard has been in effect for the first year, OSHA assumes that the prevalence of dermatitis will continue at the same rate. For liver conditions, OSHA assumes that most of the conditions that triggered removal in the first year will have been resolved and that the number of older cases that flare up and have to be treated again, combined with new cases that trigger medical removal, will occur at a combined rate 1/5 that of the initial rate.

**Costs of Medical Removal Protection**

Employers incur three kinds of costs for medical removal protection: costs for medical evaluations not already required; costs resulting from changing the employee's job, such as those related to retraining and lost productivity; and, where alternative jobs that do not involve MC exposure are not available, the costs of keeping a worker who is not working on the payroll.

Employers may incur costs for medical evaluations (over and above those already required for medical surveillance) for two reasons: to determine if the employee can return to work, and to determine, using multiple PLHCP review, whether the initial medical determination was correct. Because the proposal allows employees to be removed from medical removal

protection status only on the basis of a new medical determination, every instance of medical removal protection will require one additional examination. OSHA estimated the cost of a medical examination at \$130 in the Final Economic Analysis (Ex. 129). Every case of medical removal protection would require at least one additional medical evaluation. In addition, OSHA estimates that 10 percent of all removed cases will require a second medical evaluation either for the purpose of multiple health care professional review or because the first examination showed that the employee could not yet be returned to normal duty.

The largest MRP-related costs in almost all cases will be the cost of paying for time away from work for the removed employee. OSHA estimates that the typical dermatitis case will involve 6 days away from work. BLS (BLS, Occupational Injuries and Illnesses: Counts, Rates, and Characteristics, 1994) reports that, in 1994, the typical lost worktime case of dermatitis involved 3 days away from work. OSHA allowed an additional three days to allow time for a return-to-work determination to be made. For medical removal for hepatic conditions, OSHA estimates that a 4-week period of medical removal will normally be sufficient to provide for stabilization and a return to the normal range for the typical case of elevated liver enzymes. Because almost no cases will be resolved in less than 4 weeks and a small number of cases (such as those involving serious liver disease) may take much longer to resolve, OSHA's cost estimate estimates 5 weeks as the average period of medical removal for these cases.

For the short-term medical removal associated with dermatitis, OSHA has conservatively assumed that the employee will be paid full wages and benefits even though not at work. For the longer term medical removal associated with hepatic conditions, OSHA estimates that, in firms with more than 20 employees, alternative jobs not involving exposure to MC will be found for affected employees. OSHA estimates the costs of moving employees to alternative jobs as equivalent to the loss of 20 person hours in lost productivity and/or retraining expenses. For firms with fewer than 20 employees, OSHA expects that there may be more difficulty finding alternative positions both because fewer alternative positions are available and because more positions in the establishment are likely to involve exposure to MC.

For the very small firms in furniture stripping, where all jobs may involve

exposure to MC, OSHA has assumed that all cases of medical removal will involve removing employees from work entirely, and thus that employers will incur the full costs of the employee's wages and benefits for the five weeks the employee is medically removed. Firms with fewer than 20 employees in other application groups tend to be somewhat larger than in furniture stripping and will therefore be more likely to have work that does not involve exposure to MC at levels above the action level. For example, in such small-business-dominated application groups as printing shops, and in small cold cleaning and paint stripping operations, exposure to MC tends to involve only a single employee and is commonly intermittent even for that employee. For establishments with fewer than 20 employees in application groups other than furniture stripping, OSHA estimates that 50% will be able to find alternative employment and 50% will need to send the employee home because alternative jobs without MC exposure cannot be found.

**Annualized Cost Estimates**

Table 1 shows OSHA's estimated annualized costs for firms in each application group. The total annualized costs for medical removal protection are estimated to be \$920,387 per year for all affected employers. The greatest costs are in the cold cleaning application group, the all other industrial paint stripping application group, the construction application group, and the furniture stripping application group. All of these application groups have annualized MRP costs in excess of \$100,000 per year.

**TABLE 1.—ANNUALIZED COSTS OF MRP FOR METHYLENE CHLORIDE APPLICATION GROUPS**

Application group	Annualized costs (\$)
Methylene Chloride Manufacturing .....	70
Distribution/Formulation of Solvents .....	6,597
Metal Cleaning:	
Cold Degreasing and Other Cold Cleaning .....	307,216
Open-Top Vapor Degreasing .....	2,709
Conveyorized Vapor Degreasing .....	378
Semiconductors .....	1,147
Printed Circuit Boards .....	0
Aerosol Packaging .....	2,875
Paint Remover Manufacturing ..	593
Paint Manufacturing .....	823
Paint Stripping:	
Aircraft Stripping .....	9,662

TABLE 1.—ANNUALIZED COSTS OF MRP FOR METHYLENE CHLORIDE APPLICATION GROUPS—Continued

Application group	Annualized costs (\$)
Furniture Stripping .....	80,579
All Other Industrial Paint Stripping .....	206,619
Flexible Polyurethane Foam Manufacturing .....	4,296
Plastics and Adhesives Manufacturing and Use .....	52,639

TABLE 1.—ANNUALIZED COSTS OF MRP FOR METHYLENE CHLORIDE APPLICATION GROUPS—Continued

Application group	Annualized costs (\$)
Ink and Ink Solvent Manufacturing .....	182
Ink Solvent Use .....	53,298
Pesticide Manufacturing and Formulation .....	541
Pharmaceutical Manufacturing .....	3,576
Solvent Recovery .....	0
Film Base Manufacturing .....	0

TABLE 1.—ANNUALIZED COSTS OF MRP FOR METHYLENE CHLORIDE APPLICATION GROUPS—Continued

Application group	Annualized costs (\$)
Polycarbonate Manufacturing ...	0
Construction .....	115,297
Shipyards .....	18,652
<b>Total, All Application Groups .....</b>	<b>920,387</b>

Source: Office of Regulatory Analysis; OSHA; Department of Labor.

TABLE 2.—SCREENING ANALYSIS TO IDENTIFY POSSIBLE ECONOMIC IMPACTS OF THE PROPOSED MC STANDARD'S MEDICAL REMOVAL PROVISIONS

Application group	Number of affected establishments	Annualized costs of compliance	
		as percent of sales	as percent of profit
Manufacture of MC .....	4	0.0000	0.0004
Distribution/Formulation of Solvents .....	320	0.0003	0.0046
Metal Cleaning:			
Cold Degreasing and Other Cold Cleaning .....	23,717	0.0001	0.0021
Open-Top Vapor Degreasing .....	278	0.0001	0.0016
Conveyorized Vapor Degreasing .....	45	0.0001	0.0014
Semiconductors .....	239	0.0000	0.0002
Printed Circuit Boards .....	141	0.0000	0.0000
Aerosol Packaging .....	50	0.0001	0.0012
Paint Remover Manufacturing .....	80	0.0001	0.0015
Paint Manufacturing .....	49	0.0001	0.0027
Paint Remover Use (Paint Stripping):			
Aircraft Stripping .....	300	0.0001	0.0017
Furniture Stripping .....	6,152	0.0154	0.2977
All Other Industrial Paint Stripping .....	35,041	0.0000	0.0010
Flexible Polyurethane Foam Manufacturing .....	100	0.0003	0.0093
Plastics and Adhesives Manufacturing and Use .....	3,487	0.0000	0.0000
Ink and Ink Solvent Manufacturing .....	15	0.0000	0.0003
Ink Solvent Use .....	11,869	0.0004	0.0098
Pesticide Manufacturing and Formulation .....	60	0.0001	0.0018
Pharmaceutical Manufacturing .....	108	0.0000	0.0004
Solvent Recovery .....	35	0.0000	0.0000
Film Base .....	1	0.0000	0.0000
Polycarbonates .....	4	0.0000	0.0000
Construction .....	9,504	0.0027	0.0705
Shipyards .....	25	0.0025	0.0655
<b>All Application Groups .....</b>	<b>91,624</b>	<b>0.0014</b>	<b>0.0296</b>

Source: Office of Regulatory Analysis; OSHA; Department of Labor

*Economic Impacts*

Table 2 combines the cost data from Table 1 and the economic profile information provided in the Final Economic Analysis for the Methylene Chloride rule (Ex. 129) to provide estimates of the potential impacts of these compliance costs on firms in affected application groups. The proposed medical removal protection is clearly economically feasible: on average, annualized compliance costs amount only to 0.0014 percent of estimated sales and 0.03 percent of profits. For all but one application

group—furniture stripping—compliance costs are less than 0.07 percent of profits, and less than 0.003 percent of the value of sales. Even in furniture stripping, the annualized costs of medical removal protection are still only 0.015 percent of sales and 0.3 percent of profits. Impacts of this magnitude do not threaten the economic feasibility of firms in any affected application group. If highly unusual circumstances were to arise that pose such a threat, the proposed standard allows specifically for the cost impact to be considered on a case-by-case basis.

OSHA's cost methodology for this proposal tends to overestimate the costs and economic impacts of the standard for several reasons. First, OSHA has not taken into account cost savings that employers will realize from the extended startup dates that are being proposed. As discussed above, by extending the startup date for the use of respirators to achieve the 8-hour TWA PEL, this proposal will enable some employers to avoid using respirators at all because they will achieve the 8-hour TWA PEL by means of engineering controls before the date that respirator

use is required. Such employers will achieve significant cost savings as compared to the current standard. OSHA has not, however, attempted to quantify those savings.

Other aspects of OSHA's methodology also tend to result in cost overestimates. OSHA's use of general population prevalence data to estimate the prevalence of conditions that might lead to medical removal overestimates costs by ignoring the possibility that workers in MC establishments may be healthier than the general population, i.e., it ignores the "healthy worker" effect. OSHA has also assumed that all unusual hepatic conditions will lead to medical removal, when in many cases no

medical removal protection will be necessary. Finally, OSHA has also included in its cost estimate all cases involving medical removal, when it is in fact likely that some smaller firms would be able to argue that the cost of extending MRP benefits to an additional employee would make reliance on MRP an inappropriate remedy and thereby avoid removing that additional employee, as allowed by the proposal.

*Regulatory Flexibility Screening Analysis and Certification*

Tables 3 and 4 provide a regulatory flexibility screening analysis. As in the analysis for all firms in Table 2, OSHA used the cost data presented in Table 1

in combination with the data on small firms presented in the Final Economic Analysis (Ex. 129). Table 3 shows annualized compliance costs as a percentage of revenues and profits using SBA definitions of small firms for each relevant SIC code within each application group. This analysis shows that costs as a percentage of revenues and profits are slightly greater than is the case for all firms in the SIC, but still average only 0.0017 percent of revenues and 0.035 percent of profits. The most heavily impacted industry is furniture stripping, but the impacts in this group are the same for all firms in the group because all furniture stripping firms are small using the SBA definition.

TABLE 3.—SCREENING ANALYSIS OF POTENTIAL ECONOMIC IMPACTS ON SMALLER FIRMS (SMALL ESTABLISHMENTS AND FIRMS AS DEFINED BY SBA UNDER SECTION 3 OF THE SMALL BUSINESS ACT)

Application group	Number of small establishments affected	Costs as a percentage of profits for small firms	Costs as a percentage of sales for small firms
Manufacture of MC .....	0	NA	NA
Distribution/Formulation of Solvents .....	278	0.0005	0.0072
Metal Cleaning:			
Cold Degreasing and Other Cold Cleaning .....	22,365	0.0003	0.0067
Open-Top Vapor Degreasing .....	262	0.0003	0.0051
Conveyorized Vapor Degreasing .....	42	0.0002	0.0044
Semiconductors .....	185	0.0000	0.0002
Printed Circuit Boards .....	109	0.0000	0.0000
Aerosol Packaging .....	47	0.0002	0.0019
Paint Remover Manufacturing .....	77	0.0001	0.0026
Paint Manufacturing .....	62	0.0002	0.0045
Paint Remover Use (Paint Stripping) .....	77	0.0001	0.0026
Aircraft Stripping .....	173	0.0004	0.0088
Furniture Stripping .....	6,152	0.0154	0.2977
All Other Industrial Paint Stripping .....	33,044	0.0001	0.0029
Flexible Polyurethane Foam Manufacturing .....	49	0.0001	0.0034
Plastics and Adhesives Manufacturing and Use .....	3,281	0.0002	0.0031
Ink and Ink Solvent Manufacturing .....	11	0.0000	0.0004
Ink Solvent Use .....	9,210	0.0005	0.0106
Pesticide Manufacturing and Formulation .....	49	0.0001	0.0034
Pharmaceutical Manufacturing .....	15	NA	NA
Solvent Recovery .....	24	0.0000	0.0000
Film Base .....	0	NA	NA
Polycarbonates .....	0	NA	NA
Construction .....	9,086	0.0033	0.0866
Shipyards .....	0	NA	ONA
All Application Groups .....	84,573	0.0017	0.0352

NA=No small firms in this application group.  
Source: Office of Regulatory Analysis; OSHA; Department of Labor.

TABLE 4.—SCREENING ANALYSIS OF POTENTIAL ECONOMIC IMPACTS ON FIRMS WITH FEWER THAN 20 EMPLOYEES

Application group	Number of small establishments affected	Costs as a percentage of profits for small firms	Costs as a percentage of sales for small firms
Manufacture of MC .....	0	NA	NA
Distribution/Formulation of Solvents .....	139	0.0018%	0.0322%
Metal Cleaning:			
Cold Degreasing and Other Cold Cleaning .....	9,223	0.0005	0.0110
Open-Top Vapor Degreasing .....	0	NA	NA
Conveyorized Vapor Degreasing .....	11	0.0005	0.0132
Semiconductors .....	0	NA	NA
Printed Circuit Boards .....	20	0.0000	0.0000
Aerosol Packaging .....	10	0.0006	0.0072
Paint Remover Manufacturing .....	34	0.0003	0.0114

TABLE 4.—SCREENING ANALYSIS OF POTENTIAL ECONOMIC IMPACTS ON FIRMS WITH FEWER THAN 20 EMPLOYEES—  
Continued

Application group	Number of small establishments affected	Costs as a percentage of profits for small firms	Costs as a percentage of sales for small firms
Paint Manufacturing .....	7	0.0006	0.0194
Paint Remover Use (Paint Stripping) .....	34	0.0003	0.0114
Aircraft Stripping .....	75	0.0011	0.0335
Furniture Stripping .....	5,900	0.0155	0.3034
All Other Industrial Paint Stripping .....	25,441	0.0002	0.0042
Flexible Polyurethane Foam Manufacturing .....	8	0.0010	0.0386
Plastics and Adhesives Manufacturing and Use .....	498	0.0013	0.0264
Ink and Ink Solvent Manufacturing .....	3	0.0002	0.0022
Ink Solvent Use .....	5,395	0.0011	0.0237
Pesticide Manufacturing and Formulation .....	40	0.0010	0.0386
Pharmaceutical Manufacturing .....	0	NA	NA
Solvent Recovery .....	17	0.0000	0.0000
Film Base .....	0	NA	NA
Polycarbonates .....	0	NA	NA
Construction .....	9,085	0.0044	0.1596
Shipyards .....	0	NA	NA
All Application Groups .....	55,907	0.0026	0.0644

NA=No small firms in this application group.  
Source: Office of Regulatory Analysis; OSHA; Department of Labor.

As noted in the discussion of costs, firms with fewer than 20 employees are much more likely to incur greater costs for medical removal protection because such firms may have difficulty in finding a job that does not involve exposure to MC at levels above the action level. OSHA therefore examined annualized compliance costs as a percentage of sales and profits for firms with fewer than 20 employees.

Table 4 shows the results of this analysis. For the typical affected firm with fewer than 20 employees, the annualized costs of medical removal protection represent 0.0026 percent of sales and 0.064 percent of profits.

Furniture stripping has the greatest potential impacts—annualized costs are 0.016 percent of sales and 0.3 percent of profits for firms in this application group. These impacts do not constitute significant impacts, as envisioned by the Regulatory Flexibility Act. However, because unusually prolonged medical removal without an alternative job within the establishment might present problems for these very small firms, the proposed standard includes a provision requiring special consideration of the economic burden imposed by medical removal protection when an employer would otherwise need to provide MRP benefits to more than one employee.

This provision ensures that impacts are not unduly burdensome even in rare and unusual circumstances. Therefore, based on its analyses both of impacts and small firms using the SBA definitions, and of very small firms with fewer than 20 employees, OSHA

certifies that the proposed MRP provisions will not have a significant impact on a substantial number of small entities.

**VI. Public Participation**

Comments should be submitted to the OSHA Docket Office by June 3, 1998.

Note: OSHA is only reopening the record for comments on the two issues raised in the Motion for Reconsideration: the compliance dates and medical removal protection. It is not reopening the record or requesting comments on any other issues pertaining to the methylene chloride standard.

Authority and Signature: This document was prepared under the direction of Charles N. Jeffress, Assistant Secretary of Labor for Occupational Safety and Health, U.S. Department of Labor, 200 Constitution Avenue, NW., Washington, DC 20210.

**List of Subjects in 29 CFR Part 1910**

Chemicals, Hazardous substances, Occupational safety and health.

Signed at Washington, DC, this 29th day of April, 1998.

**Charles N. Jeffress,**  
*Assistant Secretary of Labor.*

Part 1910 of title 29 of the Code of Federal Regulations is proposed to be amended as follows:

**PART 1910—[AMENDED]**

1. The general authority citation for subpart Z of CFR 29 part 1910 continues to read, in part, as follows:

**Authority:** Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, and 657); Secretary of Labor's Order No. 12-71 (36 FR 8754), 8-76 (41 FR 25059), 9-83 (48 FR 35736), 1-90 (55 FR 9033), or 6-96 (62 FR 111), as applicable; and 29 CFR Part 1911.

\* \* \* \* \*

2. Section 1910.1052 would be amended by revising paragraphs (j)(9)(i) (A) and (B) and paragraph (n)(2), and by adding paragraphs (j)(10), (j)(11), (j)(12), (j)(13), and (j)(14) as follows:

**§ 1910.1052 Methylene Chloride.**

\* \* \* \* \*

(j) Medical surveillance.

\* \* \* \* \*

(9) Written medical opinions.

(i) \* \* \*

(A) The physician or other licensed health care professional's opinion concerning whether exposure to MC may contribute to or aggravate the employee's existing cardiac, hepatic, neurological (including stroke) or dermal disease or whether the employee has any other medical condition(s) that would place the employee's health at increased risk of material impairment from exposure to MC.

(B) Any recommended limitations upon the employee's exposure to MC, including removal from MC exposure, or upon the employee's use of respirators, protective clothing, or other protective equipment.

\* \* \* \* \*

(10) Medical Presumption. For purposes of this paragraph (j) of this section, the physician or other licensed health care professional shall presume,

unless medical evidence indicates to the contrary, that a medical condition is unlikely to require medical removal from MC exposure if the employee is not exposed to MC above the 8-hour TWA PEL. If the physician or other licensed health care professional recommends removal for an employee exposed below the 8-hour TWA PEL, the physician or other licensed health care professional shall cite specific medical evidence, sufficient to rebut the presumption that exposure below the 8-hour TWA PEL is unlikely to require removal, to support the recommendation. If such evidence is cited by the physician or other licensed health care professional, the employer must remove the employee. If such evidence is not cited by the physician or other licensed health care professional, the employer is not required to remove the employee.

(11) Medical Removal Protection (MRP). (i) Temporary medical removal and return of an employee.

(A) Except as provided in paragraph (j)(10) of this section, when a medical determination recommends removal because the employee's exposure to MC may contribute to or aggravate the employee's existing cardiac, hepatic, neurological (including stroke), or skin disease, the employer must provide medical removal protection benefits to the employee and either:

(1) Transfer the employee to comparable work where methylene chloride exposure is below the action level; or

(2) Remove the employee from MC exposure.

(B) If comparable work is not available and the employer is able to demonstrate that removal and the costs of extending MRP benefits to an additional employee, considering feasibility in relation to the size of the employer's business and the other requirements of this standards, make further reliance on MRP an inappropriate remedy, the employer may retain the additional employee in the existing job until transfer or removal becomes appropriate, provided:

(1) The employer ensures that the employee receives additional medical surveillance, including a physical examination at least every 60 days until transfer or removal occurs; and

(2) The employer or PLHCP informs the employee of the risk to the employee's health from continued MC exposure.

(C) The employer shall maintain in effect any job-related protective measures or limitations, other than removal, for as long as a medical

determination recommends them to be necessary.

(ii) End of MRP benefits and return of the employee to former job status.

(A) The employer may cease providing MRP benefits at the earliest of the following:

(1) Six months;

(2) Return of the employee to the employee's former job status following receipt of a medical determination concluding that the employee's exposure to MC no longer will aggravate any cardiac, hepatic, neurological (including stroke), or dermal disease;

(3) Receipt of a medical determination concluding that the employee can never return to MC exposure.

(B) For the purposes of this paragraph (j), the requirement that an employer return an employee to the employee's former job status is not intended to expand upon or restrict any rights an employee has or would have had, absent temporary medical removal, to a specific job classification or position under the terms of a collective bargaining agreement.

(12) Medical Removal Protection Benefits. (i) For purposes of this paragraph (j), the term medical removal protection benefits means that, for each removal, an employer must maintain for up to six months the earnings, seniority, and other employment rights and benefits of the employee as though the employee had not been removed from MC exposure or transferred to a comparable job.

(ii) During the period of time that an employee is removed from exposure to MC, the employer may condition the provision of medical removal protection benefits upon the employee's participation in follow-up medical surveillance made available pursuant to this section.

(iii) If a removed employee files a workers' compensation claim for an MC-related disability, the employer shall continue the MRP benefits required by this paragraph until either the claim is resolved or the 6-month period for payment of MRP benefits has passed, whichever occurs first. To the extent the employee is entitled to indemnity payments for earnings lost during the period of removal, the employer's obligation to provide medical removal protection benefits to the employee shall be reduced by the amount of such indemnity payments.

(iv) The employer's obligation to provide medical removal protection benefits to a removed employee shall be reduced to the extent that the employee receives compensation for earnings lost during the period of removal from either a publicly or an employer-funded

compensation program, or receives income from employment with another employer made possible by virtue of the employee's removal.

(13) Voluntary Removal or Restriction of an Employee. Where an employer, although not required by this section to do so, removes an employee from exposure to MC or otherwise places any limitation on an employee due to the effects of MC exposure on the employee's medical condition, the employer shall provide medical removal protection benefits to the employee equal to those required by paragraph (j)(12) of this section.

(14) Multiple Health Care Professional Review Mechanism. (i) If the employer selects the initial physician or licensed health care professional (PLHCP) to conduct any medical examination or consultation provided to an employee under this paragraph (j)(11), the employer shall notify the employee of the right to seek a second medical opinion each time the employer provides the employee with a copy of the written opinion of that PLHCP.

(ii) If the employee does not agree with the opinion of the employer-selected PLHCP, notifies the employer of that fact, and takes steps to make an appointment with a second PLHCP within 15 days of receiving a copy of the written opinion of the initial PLHCP, the employer shall pay for the PLHCP chosen by the employee to perform at least the following:

(A) Review any findings, determinations or recommendations of the initial PLHCP; and

(B) Conduct such examinations, consultations, and laboratory tests as the PLHCP deems necessary to facilitate this review.

(iii) If the findings, determinations or recommendations of the second PLHCP differ from those of the initial PLHCP, then the employer and the employee shall instruct the two health care professional to resolve the disagreement.

(iv) If the two health care professionals are unable to resolve their disagreement within 15 days, then those two health care professionals shall jointly designate a PLHCP who is a specialist in the field at issue. The employer shall pay for the specialist to perform at least the following:

(A) Review the findings, determinations, and recommendations of the first two PLHCPs; and

(B) Conduct such examinations, consultations, laboratory tests and discussions with the prior PLHCPs as the specialist deems necessary to resolve the disagreements of the prior health care professionals.

(v) The written opinion of the specialist shall be the definitive medical determination. The employer shall act consistent with the definitive medical determination, unless the employer and employee agree that the written opinion of one of the other two PLHCPs shall be the definitive medical determination.

(vi) The employer and the employee or authorized employee representative may agree upon the use of any expeditious alternate health care professional determination mechanism in lieu of the multiple health care professional review mechanism provided by this paragraph so long as the alternate mechanism otherwise satisfies the requirements contained in this paragraph.

\* \* \* \* \*

(n) Dates.

\* \* \* \* \*

(2) Start-up dates.

(i) Initial Monitoring required by paragraph (d)(2) of this section shall be completed according to the following schedule:

(A) For employers with fewer than 20 employees, within 300 days after the effective date of this section.

(B) For polyurethane foam manufacturers with 20 to 99 employees, within 255 days after the effective date of this section.

(C) For all other employers, within 150 days after the effective date of this section.

(ii) Engineering controls required under paragraph (f)(1) of this section shall be implemented according to the following schedule:

(A) For employers with fewer than 20 employees: within three (3) years after the effective date of this section.

(B) For employers with fewer than 150 employees engaged in foam fabrication; for employers with fewer than 50 employees engaged in furniture refinishing, general aviation aircraft stripping, and product formulation; for employers with fewer than 50 employees using MC-based adhesives for boat building and repair, recreational vehicle manufacture, van conversion, and upholstery; for employers with fewer than 50 employees using MC in construction work for restoration and preservation of buildings, painting and paint removal, cabinet making and/or floor refinishing and resurfacing: within three (3) years after the effective date of this section.

(C) For employers engaged in polyurethane foam manufacturing with 20 employees or more: within thirty (30) months after the effective date of this section.

(D) For employers with 150 or more employees engaged in foam fabrication;

for employers with 50 or more employees engaged in furniture refinishing, general aviation aircraft stripping, and product fabrication; for employers with 50 or more employees using MC-based adhesives in boat building and repair, recreational vehicle manufacture, van conversion and upholstery; and for employers with 50 or more employees using MC in construction work for restoration and preservation of buildings, painting and paint removal, cabinet making and/or floor refinishing and resurfacing: within two (2) years after the effective date of this section.

(E) For all other employers: within one (1) year after the effective date of this section.

(iii) Employers identified in paragraphs (n)(2)(ii) (B), (C), and (D) of this section shall comply with the following requirements listed in this paragraph by the dates indicated:

(A) Use of respiratory protection whenever an employee's exposure to MC exceeds or can reasonably be expected to exceed the 8-hour TWA PEL, in accordance with paragraphs (c)(1), (e)(3), (f)(1) and (g)(1) of this section: by the applicable dates set out in paragraphs (n)(2)(ii) (B), (C) and (D) of this section for the installation of engineering controls.

(B) Use of respiratory protection whenever an employee's exposure to MC exceeds or can reasonably be expected to exceed the STEL in accordance with paragraphs (e)(3), (f)(1), and (g)(1) of this section: by the applicable dates indicated in paragraph (n)(2)(iv) of this section.

(C) Implementation of work practices (such as leak and spill detection, cleanup and enclosure of containers) required by paragraph (f)(1) of this section: by the applicable dates indicated in paragraph (n)(2)(iv) of this section.

(D) Notification of corrective action under paragraph (d)(5)(ii) of this section: no later than (90) days before the compliance date applicable to such corrective action.

(iv) Unless otherwise specified in this paragraph (n), all other requirements of this section shall be complied with according to the following schedule:

(A) For employers with fewer than 20 employees, within one (1) year after the effective date of this section.

(B) For employers engaged in polyurethane foam manufacturing with 20 to 99 employees, within 270 days after the effective date of this section.

(C) For all other employers, within 255 days after the effective date of this section.

\* \* \* \* \*

[FR Doc. 98-11797 Filed 5-1-98; 8:45 am]

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## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 60 and 63

[AD-FRL-6003-6]

RIN 2060-AH94

#### Standards of Performance for New Stationary Sources: General Provisions; National Emission Standards for Hazardous Air Pollutants for Source Categories: General Provisions

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

**SUMMARY:** This action amends the General Control Device Requirements (40 CFR 60.18) which were issued as a final rule on January 21, 1986, and the Control Device Requirements (40 CFR 63.11) which were issued as a final rule on March 16, 1994. This action amends the flare provisions contained in these requirements to include operating specifications for flares that contain substantial amounts of hydrogen in their waste streams. EPA believes that hydrogen-fueled flares meeting the operating specifications in this amendment will achieve the same control efficiency, i.e., 98 percent or greater, as flares complying with the existing flare specifications. Further, these specifications will result in reduced emissions of carbon monoxide, nitrogen oxides, and carbon dioxide formed during the combustion of supplemental fuel necessary for hydrogen-fueled flares to comply with existing regulations.

Because these amendments are only adding specifications for hydrogen-fueled flares and do not otherwise alter the level of pollutant reduction required for flares used to comply with the requirements of the Clean Air Act, the EPA does not anticipate receiving adverse comments. Consequently, the proposed revisions to the promulgated rule are also being issued as a direct final rule in the final rules section of this **Federal Register**. If no relevant adverse comments are received by the due date for comments (see **DATES** section), no further action will be taken with respect to this proposal, and the