

Proposed Appendix B to MN Rule 5207.XXXX

Employee Standard Summary

This appendix summarizes key provisions of the standard for lead in construction that you as an employee should become familiar with.

I. Permissible Exposure Limit (PEL) -- subsection (c)

The standard sets a permissible exposure limit (PEL) of 50 micrograms of lead per cubic meter of air (50 $\mu\text{g}/\text{m}^3$), calculated as an 8-hour time-weighted average (TWA). Your lead exposure over your entire workday, when calculated as an 8-hour TWA, cannot be higher than the PEL. However, since the PEL is an 8-hour TWA, short exposures above the PEL are permitted so long as for each work-day your average exposure does not exceed the PEL.

II. Exposure Assessment -- subsection (d)

If lead is present in your workplace in any quantity, your employer is required to make an initial determination of whether any employee's exposure to lead exceeds the action level (10 $\mu\text{g}/\text{m}^3$ calculated as an 8-hour TWA). Employee exposure, as defined here, is that exposure which would occur if the employee were not using a respirator. This initial determination requires your employer to monitor employees' exposures unless they have objective data which can demonstrate conclusively that no employee will be exposed to lead in excess of the action level. Where objective data is used in lieu of actual monitoring, the employer must establish and maintain an accurate record, documenting its relevancy in assessing exposure levels for current job conditions. If such objective data is available, the employer need proceed no further on employee exposure assessment until such time that conditions have changed and the determination is no longer valid.

Objective data for surfaces and materials that is less than 0.06% lead dry weight (600 ppm) is indicative of materials that will not give lead concentrations above the action level. For this objective data to be used, lead analysis must be performed for each unique surface coating or material. Surface coating or material objective data cannot be used to replace air monitoring for exposure assessments required for the trigger tasks listed in subsection (d)(2). Objective data may be compiled from various sources, e.g., insurance companies and trade associations and information from suppliers or exposure data collected from similar operations. Objective data may also comprise previously-collected sampling data including area monitoring.

If it cannot be determined through using objective data that employee exposure is less than the action level, your employer must conduct monitoring or must rely on relevant previous personal sampling, if available. Where monitoring is required for the initial determination, it may be limited to a representative number of employees who are reasonably expected to have the highest exposure levels. If your employer has conducted appropriate air sampling for lead in the past 12 months, they may use these results, provided they are applicable to the same employee tasks and exposure conditions and meet the requirements for accuracy as specified in the

standard. As with objective data, if such results are relied upon for the initial determination, your employer must establish and maintain a record as to the relevancy of such data to current job conditions.

If there have been any employee complaints of symptoms which may be attributable to exposure to lead or if there is any other information or observations which would indicate employee exposure to lead, this must also be considered as part of the initial determination.

If this initial determination shows that a reasonable possibility exists that any employee may be exposed, without regard to respirators, over the action level, your employer must set up an air monitoring program to determine the exposure level representative of each employee exposed to lead at your workplace. In carrying out this air monitoring program, your employer is not required to monitor the exposure of every employee, but must monitor a representative number of employees and job types. Enough sampling must be done to enable each employee's exposure level to be reasonably represented by at least one full-shift air sample. In addition, these air samples must be taken under conditions which represent each employee's regular, daily exposure to lead. Sampling performed in the past 12 months may be used to determine exposures above the action level if such sampling was conducted during work activities essentially similar to present work conditions.

The standard lists certain tasks which may likely result in exposures to lead in excess of the PEL and, in some cases, exposures in excess of 50 times the PEL. These tasks are known as trigger tasks, and are described in subsection (d)(2) of the lead standard. There are level 1, level 2 and level 3 trigger tasks. Performing level 3 trigger tasks is presumed to result in the highest exposures to lead. Level 1 trigger tasks include manual demolition of structures, such as dry wall, manual scraping, and heat gun applications where lead-containing coatings or paint are present. Level 2 trigger tasks include, where lead is present, manual sanding, power tool cleaning, grinding, or sanding with dust collection systems, and spray painting with lead paint. Level 3 trigger tasks include using lead-containing mortar or lead burning, and where lead is present, rivet busting, power tool cleaning, grinding or sanding without dust collection systems, cleanup activities where dry expendable abrasives are used, abrasive blasting enclosure movement and removal, abrasive blasting, welding, torch cutting, and torch burning.

If you are performing any of these tasks, or if your employer has any reason to believe that you may be exposed to lead over the PEL, your employer must provide you, as interim protection, with appropriate respiratory protection, protective clothing and equipment, change areas, hand washing, shower facilities (for level 3 trigger tasks), eating areas, regulated areas, medical surveillance, and training until such time that an exposure assessment is conducted which demonstrates that your exposure level is below the action level. These protections are required if your exposure is determined, by air monitoring, to be at or above the action level ($10 \mu\text{g}/\text{m}^3$ as an 8-hour TWA). In addition, the standard requires that washing facilities be provided, and used, whenever you are exposed to lead. Objective data cannot be used to replace air monitoring for this exposure assessment. In addition, until an exposure assessment is done, the amount of time you can conduct dry abrasive blasting is limited to 5 hours per day, except that after January 1, 2030, you may only conduct dry abrasive blasting for 2 hours per day, until an exposure assessment is done.

If you are exposed to lead and air sampling is performed, your employer is required to notify you in writing within 5 working days of the air monitoring results which represent your exposure. If the results indicate that your exposure exceeds the PEL (without regard to your use of a respirator), then your employer must also notify

you of this in writing, and provide you with a description of the corrective action that has been taken or will be taken to reduce your exposure.

Your exposure must be rechecked by monitoring. Air monitoring must be repeated every 6 months if you are exposed at or above 10 µg/m³ as an 8-hour TWA but at or below 50 µg/m³ as an 8-hour TWA. Your employer must continue monitoring for you every 6 months until two consecutive measurements, taken at least 7 days apart, are below 30 µg/m³ as an 8-hour TWA. Air monitoring must be repeated every 3 months if you are exposed above 50 µg/m³ as an 8-hour TWA. Your employer must continue monitoring for you every 3 months until two consecutive measurements, taken at least 7 days apart, are at or below 50 µg/m³ as an 8-hour TWA.

However, whenever there is a change of equipment, process, control, or personnel or a new type of job is added at your workplace which may result in new or additional exposure to lead, your employer must perform additional monitoring.

III. Methods of Compliance -- subsection (e)

Your employer is required to ensure that no employee is exposed to lead in excess of the PEL. The standard for lead in construction requires employers to institute engineering and work practice controls, including administrative controls, to the extent feasible to reduce employee exposure to lead. Where such controls are feasible but not adequate to reduce exposures below the PEL, they must be used nonetheless to reduce exposures to the lowest level that can be accomplished by these means.

Your employer is required to develop and implement a written compliance program prior to the commencement of any job where employee exposures may exceed the PEL. The standard identifies the various elements that must be included in the program. For example, employers are required to include a description of operations in which lead is emitted, detailing other relevant information about the operation such as the type of equipment used, the type of material involved, crew size, employee job responsibilities, operating procedures and maintenance practices. In addition, your employer's compliance program must specify the means that will be used to achieve compliance and, where engineering controls are required, include any engineering plans or studies that have been used to select the control methods. If engineering and work practice controls were considered but not put in place, the program must include a report that shows how they were demonstrated not to be feasible. Also, if administrative controls involving job rotation are used to reduce employee exposure to lead, the job rotation schedule must be included in the compliance program. The program must also detail the type of protective clothing and equipment, including respirators, housekeeping and hygiene practices that will be used to protect you from the harmful effects of exposure to lead. Finally, on sites with more than one contractor, the program must describe arrangements made among contractors to inform affected employees of potential exposure to lead and of regulated areas.

The written compliance program must be made available, upon request, to affected employees and their designated representatives, the Commissioner, and the National Institute for Occupational Safety and Health (NIOSH). The program must be reviewed and updated at least every 12 months to ensure it reflects the current status in exposure control.

IV. Respiratory Protection -- subsection (f)

Your employer is required to provide and ensure your use of respirators when your exposure to lead is not controlled below the action level by other means, and as interim protection if you perform trigger tasks and an exposure assessment has not been completed. The employer must pay the cost of the respirator. Whenever you request one, your employer is also required to provide you a respirator even if your airborne exposure level is not above the action level. You might want a respirator when, for example, you have received medical advice that your lead absorption should be decreased. Or, you may intend to have children in the near future, and want to reduce the level of lead in your body to minimize harmful reproductive effects. While respirators are the least satisfactory means of controlling your exposure, they are capable of providing significant protection if properly chosen, fitted, worn, cleaned, maintained, and replaced when they stop providing adequate protection.

Your employer is required to select respirators as specified in the Respiratory Protection standard (29 CFR 1910.134). If your employer selects filtering facepiece respirators for protection against lead, they shall be N100, R100, or P100. Any respirator chosen must be approved by NIOSH under the provisions of 42 CFR part 84. Your employer may select a type of respirator that provides greater protection than that required by the standard; that is, one recommended for a higher concentration of lead than is present in your workplace.

An air-purifying respirator works by removing particles, gases, or vapors from the air you breathe, if the correct type of filter, cartridge, or canister is used with the facepiece. The typical air-purifying respirator is a negative pressure respirator because it requires the force of your inhalation to draw air through the purifying element. A powered air-purifying respirator (PAPR) is much more protective than a typical negative pressure respirator, and may also be more comfortable to wear. A PAPR has a filter, cartridge, or canister to clean the air, and a power source which continuously blows filtered air into your breathing zone. A PAPR may ease the burden of having to wear a negative pressure air-purifying respirator for long periods of time. The standard requires that your employer must provide you with a PAPR upon request. Your employer also must provide high-efficiency particulate air (HEPA) filters for PAPRs and N100, R100, or P100 filters for non-powered air-purifying respirators. In addition, if you are exposed to lead aerosols that cause eye or skin irritation at the use concentrations, your employer must provide you with a full facepiece respirator instead of a half mask respirator.

A supplied-air respirator (SAR) can also be more protective than a typical negative pressure respirator. A SAR is supplied with breathing-quality air from a source such as an air compressor or compressed air cylinder. Three types of supplied-air respirators are demand, pressure-demand, and continuous flow. The demand-type provides protection equivalent to that of a non-powered negative pressure air-purifying respirator of the same facepiece type. Greater protection is provided by either the pressure-demand or continuous-flow types because positive air pressure exists within the respirator at all times.

Your employer must implement a respiratory protection program in accordance with 29 CFR 1910.134. This program must include written procedures for proper respirator selection, medical evaluations, fit testing, use, cleaning, storage, and maintenance of respirators, and training, as well as procedures to ensure adequate air quality, quantity, and flow for supplied-air respirators.

Your employer must ensure that your respirator facepiece fits properly. Proper fit of a respirator facepiece is critical. Obtaining a proper fit on each employee may require your employer to make available two or three different mask types, in various sizes. In order to ensure that your respirator fits properly and that facepiece leakage is minimized, your employer must give you either a qualitative fit test or a quantitative fit test as specified in Appendix A of the Respiratory Protection standard.

You must also receive from your employer proper training in the use of respirators. Your employer is required to teach you how to wear a respirator, to know why it is needed, and to understand its limitations.

The standard provides that if your respirator uses filter elements, you must be given an opportunity to change the filter elements whenever an increase in breathing resistance is detected. You also must be permitted to periodically leave your work area to wash your face and respirator facepiece whenever necessary to prevent skin irritation. Before you begin using a respirator, and again if you ever have difficulty in breathing during a fit test or while using a respirator, your employer must make a medical evaluation available to you to determine whether you can safely wear a respirator. The result of this examination may be to give you a positive pressure respirator (which reduces breathing resistance) or to provide alternative means of protection.

V. Protective Work Clothing and Equipment -- subsection (g)

If you are exposed to lead above the action level, without regard to your use of a respirator, perform trigger tasks and an exposure assessment has not been completed, or if you are exposed to lead compounds such as lead arsenate or lead azide which can cause skin and eye irritation, your employer must provide you with protective work clothing and equipment appropriate for the hazard. If work clothing is provided, it must be provided in a clean and dry condition at least weekly, and daily if your airborne exposure to lead is greater than 30 µg/m³. Appropriate protective work clothing and equipment includes, but is not limited to, coveralls or similar full-body work clothing, hats or other head coverings, shoes or disposable shoe coverlets, and where needed, gloves, face shields or vented goggles, or other protective equipment. Your employer is required to provide all such equipment at no cost to you. In addition, your employer is responsible for providing repairs and replacement as necessary, and also is responsible for the cleaning, laundering or disposal of protective clothing and equipment.

The standard requires that your employer ensure that you follow good work practices when you are working in areas where your exposure to lead may exceed the action level without regard to your use of a respirator. With respect to protective clothing and equipment, where appropriate, the following procedures should be observed prior to beginning work:

1. Change into work clothing and shoe covers in the clean section of the designated changing areas;
2. Put on work garments and appropriate protective gear, including respirators, before entering the work area; and
3. Store any clothing not worn under protective clothing in the designated changing area.

Employees should follow these procedures upon leaving the work area:

1. HEPA vacuum heavily contaminated protective work clothing while it is still being worn. At no time may lead be removed from protective clothing by any means which result in uncontrolled dispersal of lead into the air;
2. Remove shoe covers and leave them in the work area;
3. Remove protective clothing and gear in the dirty area of the designated changing area. Remove protective coveralls by carefully rolling down the garment to reduce exposure to dust.

4. Remove respirators last; and
5. Wash hands, exposed arms and face.

Employees should follow these procedures upon finishing work for the day (in addition to procedures described above):

1. Where applicable, place disposal coveralls, and shoe covers with the abatement waste;
2. Contaminated clothing which is to be cleaned, laundered or disposed of must be placed in closed containers in the change room.
3. Clean protective gear, including respirators, according to standard procedures;
4. Wash hands, exposed arms and face again. If showers are available, take a shower and wash hair. If shower facilities are not available at the work site, shower immediately at home and wash hair.

VI. Housekeeping -- subsection (h)

Your employer must establish a housekeeping program sufficient to maintain all surfaces as free as practicable of accumulations of lead dust. HEPA vacuuming is the preferred method of meeting this requirement, and the use of compressed air to clean floors and other surfaces is generally prohibited unless removal with compressed air is done in conjunction with ventilation systems designed to contain dispersal of the lead dust. Dry or wet sweeping, shoveling, or brushing may not be used except where vacuuming or other equally effective methods have been tried and do not work. Vacuums must be used equipped with a special filter called a HEPA filter and be used and emptied in a manner which minimizes the reentry of lead into the workplace.

VII. Hygiene Facilities, Practices and Regulated Areas -- subsection (i)

The standard requires that washing facilities be provided and used where occupational exposure to lead occurs. In addition, change areas and lunchrooms or eating areas are to be made available to employees exposed to lead above the action level without regard to the use of respirators, and as interim protection to employees performing trigger tasks. Also, showers must be provided for employees exposed above 50 µg/m³ and as interim protection for employees who perform level 3 trigger tasks. There is an exception to this latter requirement when an employer can demonstrate that shower facilities are not feasible. Where shower facilities are required, employees must shower at the end of their work shift.

Your employer must ensure that food and beverage is not present or consumed, tobacco products are not present or used, and cosmetics are not applied, where employees are exposed to lead.

Clean change areas must be provided by your employer where employees are exposed to lead above the action level without regard to the use of respirators, and as interim protection for employees performing trigger tasks. The change area must be equipped with separate storage facilities for your protective clothing and equipment, and your street clothes to avoid cross-contamination. It is important that contaminated clothing or equipment be removed in change areas and not be brought home or into personal vehicles. Bringing lead contamination home prolongs your exposure to lead and exposes your family, as lead can accumulate in your car, house, etc. Where showers are required to be provided, employees must shower at the end of their shift.

Lunchrooms or eating areas may not be entered with protective clothing or equipment unless surface dust has been removed by HEPA vacuuming, downdraft booth, or other cleaning method. Employees exposed to lead must wash their hands, exposed arms, and faces prior to entering an eating area, eating, drinking, smoking, or applying cosmetics, and at the end of their shift.

Employers must establish regulated areas, where access is controlled by the supervisor, for work areas where employees are exposed to lead above the action level without regard to the use of respirators, and as interim protection where employees are performing trigger tasks, as required by subsection (d)(2) of the lead standard. Employers must post signs in the regulated area and ensure that any employee that enters the regulated area is provided with protective work clothing and equipment.

All of the hygiene facilities, practices, and regulated areas described above are essential to minimize additional sources of lead absorption from inhalation or ingestion of lead that may accumulate on you, your clothes, or your possessions. Strict compliance with these provisions can virtually eliminate several sources of lead exposure which significantly contribute to excessive lead absorption.

VIII. Medical Surveillance -- subsection (j)

The medical surveillance program is part of the standard's comprehensive approach to the prevention of lead-related disease. Its purpose is to supplement the main thrust of the standard which is aimed at minimizing airborne concentrations of lead and sources of ingestion. Only medical surveillance can determine if the other provisions of the standard have effectively protected you as an individual. Compliance with the standard's provisions will protect most employees from the harmful effects of lead exposure, but may not be satisfactory to protect individual employees (1) who have high body burdens of lead acquired over past years, (2) who have additional uncontrolled sources of non-occupational lead exposure, (3) who absorb lead at an unusually high rate, or (4) who have specific non-work related health-related conditions which could be aggravated by lead exposure (e.g., kidney disease, anemia). In addition, control systems may fail, or hygiene and respirator programs may be inadequate. Periodic medical surveillance of individual employees will help detect those failures. Medical surveillance is also important to protect your reproductive health, regardless of your gender.

All medical surveillance required by the standard must be performed by a physician or other licensed health care professional (PLHCP). The employer must provide required medical surveillance without cost to employees and at a reasonable time and place. The standard's medical surveillance program has two parts -- blood lead testing and medical examinations.

A. Blood Lead Testing

Initial blood lead testing must be provided to all employees prior to assignment to work where exposure to lead is or is likely to be at or above the action level. There is one exception to this requirement. If you had a blood lead test in the preceding two months, then initial blood lead testing is not required to be provided.

Initial blood testing must also be provided to all employees as interim protection, prior to performing trigger tasks, unless a negative initial determination has been made that no employee is exposed to airborne concentrations of lead at or above the action level. Blood lead test results show your blood lead level (BLL). BLL means the concentration of lead measured in whole blood, expressed as micrograms per deciliter (µg/dl).

After the initial blood lead testing, additional blood lead testing must be made available to you. One exception is if you only perform level 1 trigger tasks, and perform these level 1 trigger tasks on less than 10 days in any 12 consecutive months, then additional blood lead testing is not required to be provided. Also, if your initial BLL is at or above 10 µg/dl, you must be provided with additional blood lead testing as described in the next paragraph. There are no exceptions to this.

Unless your exposure to lead or work with lead falls under one of the exceptions described above, after the initial testing, blood lead testing under the standard must be provided on the following schedule: at least every 2 months for the first 6 months after initial placement, and also for the first 6 months after any change in task resulting in higher exposure, and at least every 6 months thereafter. If your last BLL is at or above 10 µg/dl but is below 20 µg/dl, the testing frequency must be at least every 2 months until two consecutive BLLs, taken at least 30 days apart, are below 10 µg/dl. Blood lead testing then must be provided as described in the schedule given at the start of this paragraph. If your last BLL is at or above 20 µg/dl, or you are removed from exposure to lead due to an elevated BLL, blood lead testing must be provided to you at least monthly. Monthly blood lead tests must also be provided as an interim protection if you perform level 3 trigger tasks, including a blood test taken within 3 days after discontinuing all level 3 trigger task work. Finally, blood lead tests must be provided to you at least monthly if your airborne exposure to lead is above 500 µg/m³ as an 8-hour TWA, without regard to your use of a respirator, including a blood test taken within 3 days after discontinuing all work associated with airborne exposure above 500 µg/m³ as an 8-hour TWA.

Your employer must notify you of your BLL in writing within five working days of their receipt of the test results. In addition, the PLHCP who orders your blood test will notify you of the results of your blood lead test and recommend any follow-up blood testing and/or a medical exam, based on your blood test results. The employer must also inform you that the standard requires temporary medical removal with economic protection when your BLL is at or above 30 µg/dl, or effective one year after the standard is in effect, your last two monthly BLLs are at or above 20 µg/dl, or when the average of the results of all of your blood lead tests in the last 6 months are at or above 20 µg/dl (see Medical Removal Protection subsection (k)). If you are temporarily removed, then your employer must make successive BLL tests available to you on a monthly basis during the period of your medical removal. Finally, if you have a BLL at or above 10 µg/dl, your employer must establish and implement a written elevated blood lead level response plan designed to reduce and maintain your BLL below 10 µg/dl. There is an exception to this requirement. A written elevated blood lead level response plan is not required when a blood lead level at or above 10 µg/dl is detected only in your initial blood lead testing.

B. Medical Examination and Consultation

A medical examination and consultation must be made available to you if your exposure to lead will be at or above the action level, or you will perform trigger tasks and an exposure assessment has not been completed. There is one exception to this requirement. If you only perform level 1 trigger tasks, and perform these level 1 trigger tasks on less than 10 days in any 12 consecutive months, then a medical examination is not required to be provided.

Unless your exposure to lead or work with lead falls under one of the exceptions described above, medical examinations and consultation must be made available prior to your assignment to lead work. There is an exception to this requirement. A medical examination is not required prior to assignment if you had a lead-specific medical examination in the preceding two months.

The initial examination will provide information to establish a baseline for you to which subsequent data can be compared. Medical examinations beyond the initial one must also be made available on an annual basis if your BLL is 20 µg/dl or greater at any time during the preceding year. Such a medical examination must be made available as soon as possible upon receiving a blood lead test result of 20 µg/dl or greater if you have not had a lead-specific medical examination in the last 12 months.

In addition, a medical examination or consultation beyond the initial one must be made available as soon as possible if you notify your employer that you are experiencing signs or symptoms commonly associated with lead poisoning or that you have difficulty breathing while wearing a respirator or during a respirator fit test. You must also be provided a medical examination or consultation beyond the initial one if you notify your employer that you desire medical advice concerning the effects of current or past exposure to lead on your ability to procreate a healthy child.

Finally, after the initial medical examination or consultation is provided, you must be provided with an additional medical examination or consultation as soon as possible, and then as medically appropriate, when you have been temporarily removed from exposure to lead, or your exposure to lead is otherwise limited under the medical removal protection provisions of the standard. (See Part IX, below.)

The standard specifies the minimum content of pre-assignment and annual medical examinations. The content of other types of medical examinations and consultations is left up to the sound discretion of the examining PLHCP. Pre-assignment and annual medical examinations must include (1) a detailed work history and medical history; (2) a thorough physical examination, including an evaluation of your pulmonary status if you will be using a respirator; (3) a blood pressure measurement; (4) a series of laboratory tests designed to check your blood chemistry and your kidney function; and (5) a zinc protoporphyrin (ZPP) test if your last blood lead level was at or above 20 µg/dl. In addition, at any time upon your request, a laboratory evaluation of male fertility will be made (microscopic examination of a sperm sample), or a pregnancy test will be given.

The standard does not require that you participate in any of the medical procedures, tests, etc. which your employer is required to make available to you. Medical surveillance can, however, play a very important role in protecting your health. You are strongly encouraged, therefore, to participate in a meaningful fashion. The standard contains a multiple PLHCP review mechanism which will give you a chance to have a PLHCP of your choice directly participate in the medical surveillance program. If you are dissatisfied with an examination by a PLHCP chosen by your employer, you can select a second PLHCP to conduct an independent analysis. The two doctors would attempt to resolve any differences of opinion, and select a third PLHCP to resolve any firm dispute. Generally, your employer will choose the PLHCP who conducts medical surveillance under the lead standard -- unless you and your employer can agree on the choice of a PLHCP or PLHCPs. Some companies and unions have agreed in advance, for example, to use certain independent medical laboratories or panels of PLHCPs. Any of these arrangements are acceptable so long as required medical surveillance is made available to employees.

The standard requires your employer to provide certain information to a PLHCP to aid in their examination of you. This information includes (1) the standard and its appendices, (2) a description of your duties as they relate to occupational lead exposure, (3) your exposure level or anticipated exposure level, (4) a description of any personal protective equipment you wear, (5) prior blood lead level results, (6) prior written medical opinions

concerning you that the employer has, and (7) a copy of your employer's written elevated blood lead level response plan (required when an employee's BLL is at or above 10 µg/dl).

After a medical examination or consultation the PLHCP must prepare a written opinion for your employer which must contain (1) the PLHCP's opinion as to whether you have any health-related condition which places your health, including the ability to procreate a healthy child, at increased risk of material impairment from exposure to lead, (2) any recommended special protective measures to be provided to you or any limitations to be placed on your exposure to lead, (3) blood lead test results, and (4) any recommended limitation on your use of respirators. This last element must include a determination of whether you can wear a powered air-purifying respirator (PAPR) if you are found unable to wear a negative pressure respirator. Your employer must ensure that you also receive a copy of the PLHCP's written medical opinion. In addition, the PLHCP who conducts your medical examination will explain the results of your medical examination to you and provide you with a separate written medical report within 30 days of your medical exam. This report will contain the information in the PLHCP's written medical opinion, plus additional information, including a determination of whether you should wear a PAPR instead of a non-powered (negative pressure) air-purifying respirator, any recommended follow-up blood lead testing or medical exams, and the PLHCP's opinion as to whether you have any health-related condition, work-related or not, for which you should have a further medical examination or treatment.

C. Additional Information about Medical Surveillance

The medical surveillance program of the lead standard may at some point in time serve to notify certain employees that they have acquired a disease or other adverse health-related condition as a result of occupational lead exposure. If this is true, these employees might have legal rights to compensation from public agencies, their employers, firms that supply hazardous products to their employers, or other persons. Some states have laws, including workers' compensation laws, that disallow an employee who learns of a job-related health impairment to sue, unless the employee sues within a short period of time after learning of the impairment. (This period of time may be a matter of months or years.) An attorney can be consulted about these possibilities. This is not meant in any way to either encourage or discourage claims or lawsuits. However, since results of the standard's medical surveillance program can significantly affect the legal remedies of an employee who has acquired a job-related disease or impairment, it is proper to make you aware of this.

The medical surveillance section of the standard also contains provisions dealing with chelation. Chelation is the use of certain drugs (administered in pill form or injected into the body) to reduce the amount of lead absorbed in body tissues. Experience accumulated by the medical and scientific communities has largely confirmed the effectiveness of this type of therapy for the treatment of very severe lead poisoning. On the other hand, it has also been established that there can be a long list of extremely harmful side effects associated with the use of chelating agents. The medical community has balanced the advantages and disadvantages resulting from the use of chelating agents in various circumstances and has established when the use of these agents is acceptable. The standard includes these accepted limitations due to a history of abuse of chelation therapy by some lead companies. The most widely used chelating agents are succimer and calcium disodium EDTA (Ca Na₂ EDTA).

The standard prohibits "prophylactic chelation" of any employee by any person the employer retains, supervises or controls. "Prophylactic chelation" is the routine use of chelating or similarly acting drugs to prevent elevated blood lead levels in employees who are occupationally exposed to lead, or the use of these drugs to routinely lower blood lead levels to predesignated concentrations believed to be "safe." It should be emphasized that

where an employer takes an employee who has no symptoms of lead poisoning and has chelation carried out by a PLHCP (either inside or outside of a hospital) solely to reduce the employee's blood lead level, that will generally be considered prophylactic chelation. The use of a hospital and a PLHCP does not mean that prophylactic chelation is not being performed. Routine chelation to prevent increased or reduce current blood lead levels is unacceptable whatever the setting.

The standard allows the use of “therapeutic” or “diagnostic” chelation if administered by a PLHCP in a clinical setting with thorough and appropriate medical monitoring. Therapeutic chelation responds to severe lead poisoning where there are marked symptoms. Diagnostic chelation involves giving a patient a dose of the drug then collecting all urine excreted for some period of time as an aid to the diagnosis of lead poisoning.

In cases where the examining PLHCP determines that chelation is appropriate, you must be notified in writing of this fact before such treatment. This will inform you of a potentially harmful treatment, and allow you to obtain a second opinion.

IX. Medical Removal Protection -- subsection (k)

Excessive lead absorption subjects you to increased risk of disease. Medical removal protection (MRP) is a means of protecting you when, for whatever reasons, other methods, such as engineering controls, work practices, and respirators, have failed to provide the protection you need. MRP involves the temporary removal of an employee from their regular job to a place of significantly lower exposure without any loss of earnings, seniority, or other employment rights or benefits. The purpose of this program is to cease further lead absorption and allow your body to naturally excrete lead which has previously been absorbed. Temporary medical removal can result from an elevated blood lead level, or a medical opinion. For up to 18 months, or for as long as the job the employee was removed from lasts, protection is provided as a result of either form of removal. The vast majority of removed employees, however, will return to their former jobs long before this 18-month period expires.

Your employer must remove you from work having an exposure to lead at or above the action level of 10 µg/m³, from work involving a trigger task where an exposure assessment has not been completed, and from work altering or disturbing any material containing lead at a concentration at least 0.5% by weight, on each occasion that your BLL is at or above 30 µg/dl; or effective one year after the standard effective date, your last two BLL results are at or above 20 µg/dl; or effective one year after the standard effective date, the average of the results of all of your blood lead tests conducted in the last 6 months is at or above 20 µg/dl, unless the last blood test indicates a blood lead level below 15 µg/dl, in which case you need not be removed. If you are removed from your normal job because of a high BLL, your employer must return you to your former job status when two consecutive blood lead tests, taken at least 30 days apart, both indicate that your BLL is below 15 µg/dl.

You may also be removed from exposure even if your blood lead level is below 30 µg/dl or the other criteria mentioned above, if a final medical determination indicates that you temporarily need reduced lead exposure for medical reasons. If the PLHCP who is implementing your employer's medical program makes a final written opinion recommending your removal or other special protective measures, your employer must implement the PLHCP's recommendation. If you are removed in this manner, you must only be returned when the doctor indicates that it is safe for you to do so.

The standard does not give specific instructions dealing with what an employer must do with a removed employee. Your job assignment upon removal is a matter for you, your employer and your union (if any) to work out consistent with existing procedures for job assignments. Each removal must be accompanied in a manner consistent with existing collective bargaining relationships. Your employer is given broad discretion to implement temporary removals so long as no attempt is made to override existing agreements. Similarly, a removed employee is provided no right to veto an employer's choice which satisfies the standard.

In most cases, employers will likely transfer removed employees to other jobs with sufficiently low lead exposure. Alternately, an employee's hours may be reduced so that the time-weighted average exposure is reduced to below the action level, or they may be temporarily laid off if no other alternative is feasible.

In all of these situations, MRP benefits must be provided during the period of removal -- i.e., you continue to receive the same earnings, seniority, and other rights and benefits you would have had if you had not been removed. Earnings include more than just your base wage; it includes overtime, shift differentials, incentives, and other compensation you would have earned if you had not been removed. During the period of removal you must also be provided with appropriate follow-up medical surveillance. If you were removed because your blood lead level was too high, you must be provided with a monthly blood lead test. If a medical opinion caused your removal, you must be provided medical tests or examinations that the doctor believes to be appropriate. If you do not participate in this follow-up medical surveillance, you may lose your eligibility for MRP benefits.

When you are medically eligible to return to your former job, your employer must return you to your "former job status." This means that you are entitled to the position, wages, benefits, etc., you would have had if you had not been removed. If you would still be in your old job if no removal had occurred that is where you go back. If not, you are returned consistent with whatever job assignment discretion your employer would have had if no removal had occurred. MRP only seeks to maintain your rights, not expand them or diminish them.

If you are removed under MRP and you are also eligible for workers' compensation or other compensation for lost wages, your employer's MRP benefits obligation is reduced by the amount that you actually receive from these other sources. This is also true if you obtain other employment during the time you are laid off with MRP benefits.

The standard also covers situations where an employer voluntarily removes an employee from exposure to lead due to the effects of lead on the employee's health-related condition, even though the standard does not require removal. In these situations MRP benefits must still be provided as though the standard required removal. Finally, it is important to note that in all cases where removal is required, respirators cannot be used as a substitute. Respirators may be used before removal becomes necessary, but not as an alternative to a transfer to a low exposure job, or to lay-off with MRP benefits.

X. Communication of Hazards -- subsection (I)

Your employer must include lead in their hazard communication program and training. All employees occupationally exposed to lead must be trained, prior to initial assignment and at least annually thereafter, on housekeeping and hygiene practices. Also, your employer is required to provide an information and training program for all employees exposed to lead above the action level on any day or who may experience skin or eye irritation from lead compounds such as lead arsenate or lead azide, and as interim protection for employees who perform trigger tasks. The program must train these employees regarding the specific hazards associated

with their work environment, protective measures which can be taken, including the contents of any compliance plan in effect, the danger of lead to their bodies (including their reproductive systems), and their rights under the standard. All employees must be trained prior to initial assignment to areas where there is a possibility of exposure as described above. This training program must also be provided at least annually thereafter.

XI. Signs -- subsection (m)

The standard requires that the following warning sign be posted in each regulated area, and in work areas where the exposure to lead is at or above the action level:

DANGER

LEAD WORK AREA

MAY DAMAGE FERTILITY OR THE UNBORN CHILD

CAUSES DAMAGE TO THE CENTRAL NERVOUS SYSTEM

DO NOT EAT, DRINK OR SMOKE IN THIS AREA

These signs are to be posted and maintained in a manner which ensures that the legend is readily visible, and must be in a language understandable to employees.

XII. Recordkeeping -- subsection (n)

Your employer is required to keep all records of exposure monitoring for airborne lead. These records must include the name and job classification of employees measured, details of the sampling and analytical techniques, the results of this sampling, and the type of respiratory protection being worn by the person sampled. Such records are to be retained for at least 30 years. Your employer is also required to keep all records of blood lead testing and medical examination results. These records must include the name of the employee, the PLHCP's written opinion, and a copy of the results of the examination. Medical records must be preserved and maintained for the duration of employment plus 30 years. However, if the employee's duration of employment is less than one year, the employer need not retain that employee's medical records beyond the period of employment if they are provided to the employee upon termination of employment.

Recordkeeping is also required if you are temporarily removed from your job under the medical removal protection program. This record must include your name and unique identifier, the date of your removal and return, how the removal was or is being accomplished, and whether or not the reason for the removal was an elevated blood lead level. Your employer is required to keep each medical removal record only for as long as the duration of an employee's employment.

In addition, the standard requires that your employer keep records of their annual review of their written compliance program, and written elevated blood lead level response plans, for three years. They are also required to keep records of any training required by this standard for three years.

The standard requires that if you request to see or copy environmental monitoring, blood lead level monitoring, or medical removal records, they must be made available to you or to a representative that you authorize. Your union also has access to these records. Medical records other than BLL's must also be provided upon request to you, to your PLHCP or to any other person whom you may specifically designate. Your union does not have access to your personal medical records unless you authorize their access.

XIII. Observation of Monitoring -- subsection (o)

When air monitoring for lead is performed at your workplace as required by this standard, your employer must allow you or someone you designate to act as an observer of the monitoring. Observers are entitled to an explanation of the measurement procedure, and to record the results obtained. Since results will not normally be available at the time of the monitoring, observers are entitled to record or receive the results of the monitoring when returned by the laboratory. Your employer is required to provide the observer with any personal protective devices required to be worn by employees working in the area that is being monitored. The employer must require the observer to wear all such equipment and to comply with all other applicable safety and health procedures.

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