North Carolina Department of Labor
Occupational Safety and Health Division
Raleigh, NC

Field Information System **CPL 2-2.66**
CPL II

Subject: Inspection Procedures for Occupational Exposure to 1,3-Butadiene (BD) Final Rule 29 CFR 1910.1051.

Discussion: This instruction establishes policies for and provides clarification of the 1,3-Butadiene standard. Where appropriate, references in this instruction to Federal Regional Administrators and Area Directors will mean OSHNC Director, Bureau Chiefs and Unit Supervisors, and references to the Field Inspection Reference Manual (FIRM) will mean the OSHNC Operations Manual. In addition, references to CPL 2-2.54, Respiratory Protection Program Manual, will mean OPN 112, Division Respiratory Protection Program.
Action: District Supervisors will ensure that this instruction is applied statewide. This is a new instruction that is effective in North Carolina on the date it is signed. It will remain in effect until canceled, revised or replaced.

Signed on original

Health Standards Officer Director
Date

DIRECTIVE NUMBER: CPL 2-2.66	**EFFECTIVE DATE:** October 30,1997
SUBJECT: 1,3-Butadiene	

ABSTRACT

Purpose:	To insure compliance officers enforce the 1,3 Butadiene standard in a uniform manner .
Scope:	OSHA wide
References:	CPL 2-2.32, 29 CFR 1913.10(b)(6), Authorization of Review of Specific Medical Information
Cancellations:	None
State Impact:	See paragraph V, Federal Program Change
Action Offices:	All Regional and Area Offices
Originating Office:	Office of Health Compliance Assistance
Contact:	Director of Office of Health Compliance Assistance 200 Constitution Ave. NW Room N 3468 Washington DC 20210 (202) 219-8036

By and Under the Authority of
Greg Watchman
Acting Assistant Secretary

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for
Inspection Procedures for Occupational Exposure to 1,3-Butadiene (BD)

Appendix B SAMPLE FORM - WRITTEN REQUEST FOR REQUIRED RECORDS

I. Purpose. This instruction establishes policies and provides clarification to ensure uniform enforcement of the Occupational Exposure to 1,3-Butadiene Standard, 29 CFR 1910.1051.

II. Scope. This instruction applies OSHA-wide.

III. References.

A. OSHA Instruction CPL 2.103, September 26, 1994, Field Inspection Reference Manual.

B. OSHA Instruction CPL 2-2.30, November 14, 1980, Authorization of Review of Medical Opinions.

C. OSHA Instruction CPL 2-2.32, January 19, 1981, Authorization of Review of Specific Medical Information.

D. OSHA Instruction CPL 2-2.33, February 8, 1982, Rules of Agency Practice and Procedure Concerning OSHA Access to Employee Medical Records-Procedures Governing Enforcement Activities.

E. OSHA Instruction CPL 2-2.46, January 5, 1989, Authorization and Procedures for Reviewing Medical Records.

F. OSHA Instruction CPL 2-2.54, February 10, 1992, Respiratory Protection Program Manual.

G. OSHA Instruction PER 8-2.4, March 31, 1989, CSHO Pre-Employment Medical Examinations.

H. OSHA Instruction PER 8-2.5, March 31, 1989, CSHO Medical Examinations.

I. OSHA Instruction STP 2.22A, May 14, 1986, State Plan Policies and Procedures Manual (SPM)

J. 29 CFR 1910.1051, Occupational Exposure to 1,3-Butadiene.

IV. Action. OSHA Regional Administrators and Area Directors shall use the guidelines in this instruction to ensure uniform enforcement of the Occupational Exposure to 1,3-Butadiene standard, 29 CFR 1910.1051.

V. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

A. Ensure that this change is promptly forwarded to each State designee using a format consistent with the Plan Change Two-Way Memorandum in Appendix P, State Plan Policies and Procedures Manual (SPM).

B. Explain to each State designee as requested the technical content of the change and the guidelines detailed in this instruction.

C. Ensure the State designees acknowledge receipt and provide preliminary notification to the Regional Administrator (RA) within 30 days from the date of this instruction of their intent to adopt an identical or equivalent policy or not to adopt such procedures.

D. Ensure that the State shall formally respond to this change with its final policy determination within 70 days in accordance with paragraph l.1.a.(2)(a) and (b), Chapter III or Part 1 of the SPM. If the State adopts identical procedures, no further plan change supplement need be submitted. If the State adopts different compliance procedures, a copy of the procedures shall be provided to the Regional Administrator within six months from the date of this directive for review.

E. Review policies, procedures, and instructions issued by the State and monitor their implementation.

VI. Background.

On November 4, 1996, OSHA amended its BD Standard (29 CFR 1910.1051) to lower the airborne concentration of BD to which workers may be exposed from the current permissible exposure limit (PEL) of 1,000 ppm as an 8-hour time-weighted average (8-hour TWA) to 1 ppm, and added a short term exposure limit (STEL) of 5 ppm, measured over 15 minutes. A summary of historical events leading up to the current standard is as follows:

In 1971, the BD standard was adopted from American Conference of Government Industrial Hygienist (ACGIH) by OSHA and required that employee exposure not exceed 1,000 ppm for an 8-hour TWA (29 CFR 1910.1000, Table Z-1).

In 1983, ACGIH classified BD as an animal carcinogen based on a study conducted by the National Toxicology Program (NTP). The following year, the National Institute for Occupational Safety and Health (NIOSH) recommended that BD be regarded as a potential occupational carcinogen and a possible reproductive hazard.

On January 5, 1984, OSHA published a Federal Register notice requesting interested parties to submit data and comments relevant to the adverse health effects resulting from BD exposure. A separate notice announced that OSHA was joining with the Environmental Protection Agency (EPA) in its request for information on BD.

Petitions for an Emergency Temporary Standard (ETS) of 1 ppm or less for workers' exposure to BD were submitted to OSHA on January 23, 1984, by representatives of the major unions involved in the production and use of BD. On March 7, 1984, OSHA denied the petitions on the ground that the Agency was still evaluating the health data to determine whether regulatory action was appropriate.

On May 15, 1984, EPA published an Advance Notice of Proposed Rulemaking (ANPR) in the Federal Register to announce the initiation of a regulatory action to determine and implement the most effective means of controlling exposures to BD.

In the October 10, 1985, Federal Register, EPA referred BD to OSHA and requested that OSHA determine whether the risks described in the EPA report may be prevented or reduced by action taken under the Occupational Safety and Health Act(OSH Act).

On December 27, 1985, OSHA published a notice in the Federal Register soliciting public comments on EPA's referral report. On April 11, 1986, OSHA responded to the EPA referral report by making a preliminary determination that a revised OSHA standard limiting occupational exposure to BD could prevent or reduce the risk of exposure.

On October 1, 1986, OSHA published an ANPR in the Federal Register to initiate a rulemaking.

On August 10, 1990, OSHA published in the Federal Register its proposed rule to regulate occupational exposure to BD. Public hearings began in January 1991, and the post-hearing period for submission of comments was extended to December 13, 1991, by the Administrative Law Judge. The comment period closed February 10, 1992.

To assist OSHA in issuing a final rule for BD, representatives of the major unions and industry groups involved in the production and use of BD submitted an outline of a voluntary agreement reached by the parties on January 29, 1996.

On March 8, 1996, OSHA published in the Federal Register the labor/industry joint recommendations and re-opened the record for 30 days to allow the public to comment.

On September 16, 1996, the record was closed on the public hearing on the proposed standard for BD. The Final Rule was published in the Federal Register on November 4, 1996.

VII. Occupational Uses of 1,3-Butadiene

The chemical BD is a toxic, flammable, and highly reactive gas that polymerizes easily. It is a colorless, non-corrosive gas that has a mild aromatic odor at ambient temperatures. BD has a simple chemical structure with low molecular weight and high chemical reactivity whichs make it a useful building block for synthesizing other products. The major consumers of BD are the rubber and plastic industries. BD is used as a chemical intermediate in the production of elastomers including the following: styrene-butadiene rubber (SBR), polychloroprene and neoprene, nitrile rubber, adiponitrile/hexaethylenediamine (an intermediate for certain nylon manufacturing processes), and ABS (acrylonitrile-butadiene-styrene) resins. The production of SBR accounts for 61 percent of total elastomer production. The majority of the SBR produced is consumed in automobile tires. SBR is also used to produce footwear, latex foam products, and wire and cable coatings. BD is also used to produce resins, chemical intermediates, and pesticides. In the U.S., an estimated total of 9,700 workers are exposed to BD in the course of their work. Although BD is a gas at ambient temperatures, it is often handled as a pressurized liquid. Pulmonary and dermal exposures can occur. The largest group of exposed workers is found in the BD end-product industry. Exposure may also occur at other types of operations such as crude BD production, BD monomer production, and transportation terminals handling BD.

VIII. Inspection Guidelines for Occupational Exposure to 1,3-Butadiene. The following guidance provides a general framework to assist the CSHO in conducting an inspection.

A. In accordance with paragraph 1910.1051 (m)(5)(i), the following records require a WRITTEN request: Objective data results, exposure measurements, respirator fit test records, and medical screening and surveillance records. The CSHO shall make a written request (see Appendix B) to examine and copy the results of the initial monitoring or any other monitoring data that the employer has relied upon to describe airborne concentrations of BD in the workplace. Exposure information should be reviewed prior to the walk-around. This provides the CSHO the basic information necessary to make the appropriate choice of PPE. Note that records required to be maintained for training (paragraphs (l)(1)-(3) available in accordance with 29 CFR 1910.1020 (previously are codified as 1910.20).

1. If the employer has relied upon objective data, additional time may be needed to locate and review this data. If the material is not readily available, the CSHO shall presume initially that a potential over-exposure exists and evaluate the work area to select appropriate entry procedures. As a time-saving measure, the CSHO should request at the opening conference that the employer begin collecting other required documents, e.g., medical surveillance records, training records, and the respiratory protection program for all affected employees. These records could be included on one written request. Appendix B contains a sample written request that CSHOs may use.

2. If the TWA and/or the STEL for BD are exceeded, the employer is required to have a written compliance plan. In accordance with paragraph (f)(2)(iii), this plan shall be furnished upon request (not a written request) to the Assistant Secretary. In addition, if exposures exceed the Action Level, the employer is required to have an Exposure Goal Program. This document can be obtained without a written request.

IX. Specific Provisions of 29 CFR 1910.1051. There are four provisions in the BD standard that are highlighted here: exemptions listed in the Scope; the Exposure Goal Program, the respirator program that includes timed replacement of cartridges or canisters; and medical surveillance for "veteran" exposed employees.

A. Paragraph (a)(2) of the BD standard includes three exemptions for an employer. The three exemptions are for situations where the likelihood of a significant exposure is quite low. The scope does not cover operations that rely upon objective data that indicate BD airborne concentrations "may not reasonably be foreseen" to release BD at concentrations above the action level (AL) or STEL under expected conditions or in any "plausible" accident. The term "objective data" does not require the employer to perform worst case testing on their product; however, an employer's one-time initial monitoring results do not qualify as objective data either. Data collected from trade associations may be used, and information provided by the manufacturer may be used. The Preamble to the standard published November 4, 1996, has a comprehensive discussion on pages 56798 and 56802. The second exemption is for work operations where BD exposure are from liquid mixtures containing 0.1% or less of BD (unless data become available that show that exposures from such mixtures are above the AL or STEL). The third exemption applies to the storage, transportation, distribution and sale of BD when it is fully contained; this exemption does not extend, however, to requirements for labels as emergency response.

B. Paragraph (g)(1) requires the employer to have an Exposure Goal Program where employee exposures are **above** the AL. Where exposures are **at or below the AL**, the employer is not required to comply with this paragraph. If the employer can show that the items listed in paragraph (g)(5)(i) thru (vi) are not feasible, effective, or necessary

to control BD exposures, the employer does not have to implement those control items. The implementation of controls has a 3 year phase-in period. The controls shall be implemented within 3 years after the effective date of the standard. This document is different from the Compliance Plan required by employers who have exposures that exceed the PELs.

C. The respirator requirements found in paragraph (h) have two areas that will be discussed, paragraph (h)(1)(ii) and paragraph (h)(4). Paragraph (h)(1)(ii) allows an employer to use respiratory protection for non-routine tasks that are performed infrequently and for which the exposure is limited in duration. Note that the employer must meet all three criteria to use a respirator in these circumstances instead of engineering controls. The employer does not have to demonstrate that engineering controls are infeasible. Meeting thse three criteria is sufficient. An example of such a task would be blowing down meter leads for 5 minutes once a year. Paragraph (h)(1)(ii) is not intended to be used for activities such as cylinder voiding and sampling because, while this task is performed infrequently, and the exposure is for a limited time, it is performed routinely. Further reading on this subject can be found in the standard's preamble on page 56814.

Paragraph (h)(4) requires that "air purifying filter elements" be changed in accordance with the schedule in Table 1 and at the beginning of each work shift. The timing begins when the cartridge or canister is opened, i.e., the seal is broken, and the time runs continuously from that point. If the employee used the respirator for only 5 minutes, the cartridge/canister must be replaced at the interval specified in Table 1 or at the beginning of each workshift.

D. Paragraphs (k)(1)(ii)(A) thru (C) implement new provisions that require medical surveillance for employees who have been exposed to BD in their past working history even if they are currently working in an area that is free of BD airborne contamination. Paragraphs (A) thru (C) describe the duration of time and exposure concentrations that make an employee eligible for continued medical surveillance. Further reading on this subject can be found in the standard's preamble on page 56823.

X. Classification and Grouping of Violations. The procedures in chapter III of the Field Inspection Reference Manual (FIRM) shall be followed. The FIRM describes the circumstances, such as proposing Willful or Criminal violations, where the CSHO or AD may need to consult the Region or the Solicitor's office.

XI. Authorization to Review Limited Medical Information. Appropriately qualified compliance personnel are authorized to review medical records and medical opinions pertinent to compliance with the 1,3-Butadiene standard. There are four CPL's that

address the limitations and procedures which must be followed. They are OSHA Instruction(s) CPL 2-2.30 (Authorization to Review Medical Opinions); CPL 2-2.32 (Access to Biological Monitoring Results); CPL 2-2.33 (Written Access Orders); and CPL 2-2.46 (Authorization to Review Specific Medical Records). In general, each of these instructions defines "qualified compliance personnel" as a field-qualified Industrial Hygienist who is at the journeyman level **or** a professional with specific training or experience in medical disciplines. In reinvented Area Offices where inspections are conducted by teams, the Team leader should ensure that a team member is so qualified.

XII. Training for OSHA Personnel.

A. For all inspections on a site where 1,3-Butadiene exposures are expected to be above the 8-hour TWA or the STEL, only experienced and properly trained CSHOs shall perform the on-site evaluations. CSHOs are expected to be knowledgeable of the:
1. Potential hazards which may be encountered at the site, including the potential hazards of 1,3-Butadiene.

2. Contents of the 1,3-Butadiene standard including Appendices A thru F.

3. Appropriate PPE to be worn. Each CSHO who will be expected to use PPE shall be trained in the proper care, use, and limitations of the PPE. Instructions for the use of respiratory protection by CSHOs are contained in OSHA Instruction CPL 2-2.54. The CSHO should be prepared to replace respirator cartridges as required in Table 1 of the BD standard.

4. Emergency procedures.

XIII. Medical Examinations for OSHA Personnel.

A. Many of the hazards that CSHOs may encounter are already regulated by the medical surveillance requirements in other OSHA standards. Regional Administrators and Area Directors are responsible for implementing the CSHO medical examination program.

B. CSHOs who are required to wear any respiratory protection shall be medically cleared via the CSHO Physical Examination procedures.

XIV. Protection of OSHA Personnel. The paramount concern addressed in this section is the protection of the CSHO. Compliance Officers are reminded about Agency

policy that requires that appropriate personal protective equipment be used when exposed to a hazard.

A. Personal Protective Equipment (PPE).

1. Regional Administrators and Area Directors shall ensure that appropriate PPE is available for the CSHO.

a. Respirators shall be selected in accordance with Table 1 of the 1,3-Butadiene standard.

b. Eye and face protection shall meet the requirements of 29 CFR 1910.133.

Appendix A

QUESTIONS AND ANSWERS ON THE 1,3 BUTADIENE STANDARD

NOTE: The page numbers referenced in the Q's and A's refer to specific pages in the November 4, 1996, Federal Register, Volume 61, Number 214.

SCOPE AND APPLICATION-Paragraph (a)

Q. Does this standard apply to construction, maritime and general industry?

A. Yes, this standard applies to all occupational exposures to 1,3-Butadiene (BD) in workplaces in construction and maritime, as well as general industry. OSHA does not believe this standard will have much impact in the construction and maritime industries. However, there may be coverage in longshoring and marine terminals if BD is present outside sealed intact containers. (FR page 56798)

Q. What conditions allow workplaces to be excluded from coverage under this standard?

A. There are three exemptions available to an employer:

(1) Where objective data are reasonably relied upon that demonstrate BD airborne concentrations will not exceed the Action Level (AL) or Short Term Exposure

Limit (STEL) either under expected conditions that will cause the greatest release, or in any plausible accident.

(2) Workplaces can be excluded from coverage under this standard where products containing 1,3-Butadiene in concentrations of 0.1% or less by volume are processed, used, or handled unless objective data or air monitoring data show that exposures can equal or exceed the action level or the short-term exposure limit;

(3) Workplaces where the transportation, sale, or distribution of liquid BD occurs in intact containers or in sealed pipelines that fully contain BD liquid or vapors are excluded from the standard. (FR page 56798)
Note that Section I. 1., Specific Provisions, of this Directive provides more explanation.

Q. Where BD is being transferred to or from containers, pipelines, railcars, tank trucks, or vehicles, such as in a polymer production facility, is this operation exempt?

A. No, this type of transfer can have high exposure potential. The operation is not exempt because the containers are not considered "sealed" as required by the standard and do not fully contain BD liquids or vapors. (FR page 56799)

DEFINITIONS-Paragraph (b)

Q. Would any amount of 1,3-Butadiene released be considered an uncontrolled significant release for emergency situation purposes?

A. Every spill or leak of BD does not automatically constitute an emergency situation. Incidents such as rupture of a container, equipment failure, or failure of control equipment could cause an uncontrolled significant release of BD. These situations would be emergency situations, because could create employee exposures that greatly exceed the PELs. The exposure must be high and unexpected. This provision is performance-based and depends on the sound judgment of an employer. OSHA did not set a specific concentration or volume of BD released that would constitute an emergency situation. (FR page 56801)

Q. What is meant by the term objective data?

A. Objective data may include: (1) information provided by a manufacturer; (2) a determination from the manufacturer that airborne concentrations will not exceed the AL or STEL under foreseeable conditions of use; (3) representative data; (4) collective industry data that are relevant to the materials, process, streams, and products; (5) manufacturers' "worst case" studies; and (6) lab studies and other

research that demonstrate an exposure cannot occur. A single employer's initial monitoring results would not be sufficient. While mathematical modeling is an option, the employer is not required to perform complex modeling. It is important to note that some work activities, such as non-routine maintenance operations, may not be fully characterized by objective data. In those cases, representative monitoring should be conducted. (FR pages 56798 and 56802)

EXPOSURE MONITORING-Paragraph (d)

Q. Can the employer use monitoring data that were obtained prior to the effective date of the standard?

A. An employer can use monitoring data that were obtained within 2 years prior to the effective date of the standard to meet the initial monitoring requirements. The data shall have been obtained under workplace conditions closely resembling the current processes, type of materials, control methods, work practices, and environmental conditions. Paragraph (d)(2)(ii) (FR page 56806)

Q. If the initial monitoring exposures indicate that the exposures are at or above the AL, but at or below the TWA and STEL, how frequently does the employer have to sample?

A. Representative monitoring shall be conducted every 12 months. Paragraph (d)(3)

Q. If initial monitoring indicates that the exposures are above the TWA or the STEL, how frequently does the employer have to sample?

A. Stated more simply, the requirements in paragraphs (d)(3)(ii) and (iii) require the employer to take a total of eight samples within a two-year timeframe. The employer can take the eight samples in less than 2 years if they choose; however, the samples must be taken at least 7 days apart, and the samples must be taken within 3 months of each other. The intent of this sampling scheme is to establish a solid baseline of exposure data. At the end of this sampling period, even if the exposures remain above the TWA or STEL, monitoring frequency can be decreased to every 6 months. In Appendix B of this standard, Table 1 is useful in understanding monitoring frequencies. (FR page 56807)

Q. What monitoring is required following a spill?

A. The standard requires that after the clean-up is completed, the employer shall monitor to ensure that BD exposures have returned to the level achieved prior to the incident. The employer can use direct-reading instruments, passive dosimeters, or other methods that meet the accuracy requirements stated in paragraph (d)(6). (FR page 56808). BD is a gas and will dissipate quickly.

REGULATED AREAS-Paragraph (e)

Q. Must physical barriers be erected to demarcate regulated areas?

A. Physical barriers are not necessary for demarcating regulated areas. Regulated areas need only to have warning signs posted in a manner that will likely minimize employee access to these areas with airborne levels above the PEL or STEL. For example, the employer could post the warning signs on movable stanchions, fixed posts or entry doors bordering the regulated areas. (FR page 56808)

Q. How must an employer, who establishes a regulated area at a multi-employer worksite, communicate the location and access restriction information to other employers with work operations at the worksite?

A. The standard requires no specific method (performance-based) by which an employer must communicate such. The employer must only ensure that all employees on a multi-employer worksite have been informed of access to the regulated area.

EXPOSURE GOAL PROGRAM-Paragraph (g)

Q. What is an exposure goal program?

A. The exposure goal program is a written plan that an employer is required to have if workplace exposures are above the AL. It is a plan describing how the employer will limit employee exposures to below the AL with specific types of engineering control methods. The Exposure Goal Program shall be effective 3 years after the effective date of the standard. Section I.2. of this Directive has additional information on this topic. (FR 56812)

Q. Must an employer institute an exposure goal program ?

A. Yes. An employer is exempt from this obligation only when all exposure levels are at or below the action level.

RESPIRATORY PROTECTION-Paragraph (h)

Q. When must an employer provide respiratory protection to employees?

A. Respiratory protection must be provided to employees under the following circumstances:

(a) during time intervals when engineering controls are being installed;

(b) where engineering controls are not sufficient to control airborne levels to or below the PEL or STEL;

(c) in emergencies; and/or

(d) during infrequent, non-routine work where exposures are limited in duration. Paragraphs (h)(1)(i) thru (iv)

Q. Does the quantitative fit test protocol require that three successive fit tests be performed to qualify an employee for respirator use?

A. Three successive fit tests are not required to qualify an employee for respirator use. The employer must ensure that an employee can be properly fitted with the appropriate type of respirator in order to attain the required fit factor for that type of respirator. Respirator Fit Testing Procedures can be found in the mandatory Appendix E.

Q. Does the standard only permit the employer to use quantitative fit testing?

A. The employer can use either quantitative or qualitative fit testing except when exposure exceeds 10 times the TWA PEL and the employee is wearing a tight-fitting full facepiece negative pressure respirator. In this case, the employer shall perform quantitative fit testing in accordance with Appendix E. All respirator wearers shall be fit tested annually. (FR page 56818)

Q. Are there any work situations when an air-purifying half-mask respirator can be used?

A. Yes, Table 1 of the standard allows a half-mask when the concentration of BD is less than or equal to 5 ppm (cartridge or canister replaced every 4 hours) and when the concentration is less than or equal to 10 ppm (cartridge or canister replaced every 3 hours).

Q. When does the time limit for replacement of cartridges and canisters begin?

A. The time limit begins when the filter seal is broken. It does not matter if an employee only used the respirator for a short time: once the time limit is reached, the cartridges and canisters must be replaced. (FR page 56818)

PROTECTIVE CLOTHING AND EQUIPMENT-Paragraph (i)

Q. When must protective clothing be worn?

A. Protective clothing shall be worn by workers in situations where dermal exposure or eye contact with BD may occur, and where employees are responding to an emergency situation. The PPE provisions are required at any exposure level of BD to protect the eyes and skin from liquefied BD or solutions containing BD. (FR page 56821)

EMERGENCY SITUATIONS-Paragraph (j)

Q. Must the employer develop a written plan for emergency situations?

A. Yes, the standard requires a written plan to include all the applicable elements of 29 CFR 1910.38 and 29 CFR 1910.120. Compliance with both standards may not be necessary. Paragraph 1910.120 (q)(1) states that employers who choose to evacuate employees during an emergency are only required to comply with 29 CFR 1910.38. Therefore, it is likely that only one of the two standards would apply in a single facility. (FR page 56821)

MEDICAL SCREENING AND SURVEILLANCE-Paragraph (k)

Q. What occupational conditions trigger the provision of the medical screening and surveillance program?

A. The medical screening and surveillance provisions are triggered under the following conditions:

(a) where employees are exposed to BD at or above the action level for 30 or more days per year;

(b) where employees are exposed to BD above the 8 hour TWA or STEL for 10 or more days per year for each employee exposed in an emergency situation;

(c) where employees have a past history of exposure to BD (see specifics in paragraphs (k)(1)(ii)(A) thru (C)).

Q. What is required in the medical evaluation of employees exposed to BD in an emergency situation?

A. The medical screening for these employees consists of a complete blood count (CBC) taken within 48 hours of exposure, and repeated monthly for the next 3 months. For any employee who has reported irritation of the eyes, nose, throat, lungs, or skin, blurred vision, coughing, drowsiness, nausea or headache, a physical exam must be provided. Continued participation in the program is a decision made by the physician or the licensed health care professional. (FR page 56822)

Q. What is covered in the medical evaluation of employees exposed to BD in emergency situations? Paragraph (k)(1)(iii)

A. The medical evaluation for these employees consists of a complete blood count with differential and platelet count provided within 48 hours of exposure, then repeated monthly for the next 3 months. If the employee reports having irritation of the eyes, nose, or throat, a medical examination must be provided. The elements of the medical examination for workers exposed in emergency situations is consistent with the medical examinations for workers exposed to BD in non-emergency situations.

Q. Must previously exposed workers, who have transferred to a work area where there is no exposure to BD, be retained in the medical screening and surveillance program?

A. Previously exposed workers who are currently employed at that establishment are covered in the medical screening and surveillance program under these circumstances:

(a) where an employee was exposed at or above the 8-hour TWA or the STEL for 30 days a year for 10 or more years;

(b) where an employee was exposed at or above the AL for 60 days a year for 10 or more years;

(c) where an employee was exposed above 10 ppm for 30 days in any past year.

Q. Who performs or administers the physical exams, health questionnaires, and medical procedures required in the standard?

A. These shall be performed by a physician or other licensed health care professional. The licensed health care professional must be legally permitted under state laws to work independently in providing all or some of the medical services required by the standard. This will be different from state to state. (FR page 56824)

Q. Are there any specific medical screening and surveillance requirements in the BD standard for employees who are required to use respiratory protection?

A. There are no specific medical requirements for employees who wear a respirator. Paragraph (k)(3)(iii) instructs the employer to comply with the Respirator Standard, 29 CFR 1910.134. This is intended to ensure uniformity for all respirator users. It also serves to separate the unique health related issues for respirator users as opposed to those for employees exposed to BD. (FR page 56825)

COMMUNICATION OF BD HAZARDS TO EMPLOYEES-Paragraph (l)

Q. How often must training be provided to those employees covered by the standard?

A. Employees shall receive hazard communication training prior to initial assignment to a job where exposure to BD may be likely. Where BD exposure is likely to exceed the AL or STEL, training shall be provided at least annually.

Q. Is the length of the training sessions specified in the standard?

A. No. However, specific topics to be covered in the training are provided in the standard.

Q. Are there any requirements for labeling or material safety data sheets (MSDS) that go beyond what is required by the Hazard Communication Standard?

A. The label and MSDS requirements are the same under the BD standard as they are under the Hazard Communication Standard.

Appendix B

SAMPLE FORM

WRITTEN REQUEST FOR REQUIRED RECORDS

(As required by (m)(5)(i))

Objective Monitoring Data (m)(1)

Exposure Masurements (m)(2)

Respirator Fit-test (m)(3)

Medical Sreening and Srveillance (m)(4)

Signature of OSHA Representative

Date of Signature

Revision Date: Feb 27 1998