

# U.S. Department of Labor

Occupational Safety and Health Administration  
Washington, D.C. 20210



April 1, 1999

Mr. Patrick S. Casey  
Sidley & Austin  
One First National Plaza  
Chicago, IL 60603

Dear Mr. Casey:

This is in response to your letter dated February 4, addressed to Mr. Richard Fairfax, Director of the Occupational Safety and Health Administration's (OSHA's) Directorate of Compliance Programs, regarding preservation of employee exposure records as required by 29 CFR 1910.1020, OSHA's standard on access to employee exposure and medical records. Your questions are reiterated below with our responses.

Question 1:

"Does OSHA consider monitoring results for employees that show nondetectable levels for a potentially toxic or harmful physical agent to be an 'Employee exposure record' as defined in 29 CFR 1910.1020(c)(5) that employers must preserve and maintain for 30 years pursuant to 1910.1020(d)(1)(ii)?"

Yes, monitoring results that indicate that a particular exposure is nondetectable or below the limit of detection are employee exposure records that have to be preserved and maintained in accordance with 1910.1020(d)(1)(ii). A sampling result that is nondetectable or below the limit of detection does not necessarily mean no exposure or low exposure. Rather, a nondetect means that the agent was not detected by the particular sampling and analytical procedures the employer used.

Several factors can contribute to a result of "nondetectable." One possibility is that the agent is not present in appreciable quantities. Another possibility is that the agent is present at a level below the limit of detection (LOD) for the particular sampling and analytical method used (the LOD for a particular sample is the lowest concentration level that is statistically different from a blank sample. The LOD varies according to the chemical and analytical method and may be higher than the level at which adverse health effects are possible). In some cases, the presence of another chemical can interfere with effective sampling, resulting in an erroneous report of nondetectable levels. This interference may or may not be known by the employer at the time of sampling, or by the laboratory at the time of analysis. It's also possible that the employer's sampling technique or the laboratory's analytical procedure was not particularly effective, or that the chosen sampling and analytical method was not very efficient or precise for the particular agent in question. In each of the possibilities described above, the nondetectable sampling result, together with supporting documentation about the sampling and analytical method used to get that result, is a meaningful part of the employee exposure record that must be preserved.

From an employer's standpoint, a sampling result that indicates an agent is present below the limit of detection when effective sampling and analysis procedures are used is very advantageous. In this case, a nondetect suggests that the employer is effectively controlling exposure. Alternatively, records that indicate that an employer has determined exposure to an agent to be nondetectable, but the sampling or analytical method was inappropriate, may assist workers in getting improved sampling and exposure controls. Employees can use these records in discussions with employers, in collective bargaining situations, or in complaints to OSHA or NIOSH. Such exposure records can also be used to improve the detection, treatment, and prevention of occupational disease, which was one of OSHA's goals in promulgating this standard. Exposure records that indicate nondetectable exposures where a cluster of

occupational illness is later detected may indicate that a specific sampling method that was believed to be effective is not, or that exposure at the limit of detection has adverse health consequences that were previously not recognized.

Question 2:

"Does OSHA consider monitoring results for employees that show detectable levels below the applicable action levels and permissible exposure limits ('PELs') for an OSHA-regulated substance to be an 'Employee exposure record' as defined in 29 CFR 1910.1020(c)(5) that employers must preserve and maintain for 30 years pursuant to 1910.1020(d)(1)(ii)?"

Yes, employee exposure records that indicate an employee is exposed below the applicable action level or PEL are part of the employee exposure record as defined in 29 CFR 1910.1020(c)(5) that must be preserved and maintained in accordance with 1910.1020(d)(1)(ii). You are correct in your assertion that 1910.1020 does not intend to cover situations where the employer can demonstrate that the toxic substance or harmful physical agent is not used, handled, stored, generated, or present in the workplace in any manner different from typical non-occupational situations. The standard does, however, apply to occupational exposure below these levels. The preamble to the final rule clarifies:

For example, basic chemical manufacturing processes and abnormal exposures to heat, noise, and vibration are covered by the rule, but typical office working conditions are not. The applicability of the standard does not, however, depend on any showing that the level of actual exposure to a toxic substance or harmful physical agent is particularly excessive, but rather on the unique fact of occupational exposure. (45 FR 35265)

As was stated in your letter, one purpose of 1910.1020 is to preserve and make accessible medical and exposure data so that better detection and response to previously unrecognized associations between exposure and disease can be established. The preamble notes that knowledge concerning occupational disease is limited:

Few of the thousands of chemicals in the workplace have been thoroughly tested in animals for chronic toxicity, and systematic human epidemiological investigations of exposed workers have only sporadically been conducted. The history of governmental responses to occupational disease has largely been one of responding to demonstrated disease rather than establishing protective mechanisms before known disease arises. (45 FR 35269)

The preservation of exposure records for employee exposure both above and below permissible established limits is necessarily required so that relationships between occupational exposures and disease can be better understood and proactive protective measures implemented.

As you may know, OSHA is undertaking a rulemaking to revise its permissible exposure limits. The Agency's current Tables Z-1, Z-2, and Z-3 of 1910.1000 contain approximately 470 PELs for various forms (e.g., dust, fumes, vapors) of the regulated contaminants. These PELs, adopted by OSHA in 1971, reflect the results of research conducted in the 1950s and 1960s. Much new information in the past 30-40 years indicates that, in most cases, these early limits are outdated and insufficiently protective of worker health. In addition, new chemicals are constantly being introduced into the working environment, and exposure to these substances can result in both acute and chronic health effects. The availability of employee exposure and medical data related to substances used in the workplace assists OSHA in updating existing PELs and establishing limits for previously unregulated substances, which ultimately protect employees.

I hope that this letter adequately answers your questions. If we may be of further assistance, please contact Ms. MaryAnn Garrahan of OSHA's Office of Health Compliance Assistance at (202) 693-2144. Thank you for your interest in occupational safety and health.

Sincerely,

Richard E. Fairfax, Director  
Directorate of Compliance Programs