



## **LEAD EXPOSURERS At FIRING RANGES An UPDATE**

A few years ago, Risk Management Services issued a similar Risk Management Bulletin voicing concerns about this topic. At that time we alerted our members of the potential for an OSHA Citation for lead exposures and discussed several recommendations that should be implemented.

OSHA's Lead standard (1910.1025) applies to “...**all occupational exposure to lead**...”. This would include exposure to lead used in ammunition, especially when police officers are firing their weapons at a firing range.

The current standard requires all employers to conduct an initial determination to establish potential exposures to lead, which may exist at or above the action level. The “action level” for exposure to lead is 30 micrograms per cubic meter of air averaged over an 8-hour period. A second level of exposure, called the “Permissible exposure level (PEL)”, is set at 50 micrograms per cubic meter of air averaged over an 8-hour day. No employees may be exposed to lead at concentrations that exceed the PEL.

### **WHAT SHOULD I DO?**

Ask yourself these questions:

- Do my police officers use a firing range for qualification purposes?
- Does this qualification occur at least annually?
- Do my police officers use someone else's firing range?
- Does my police department have it's own firing range?
- Do I permit other agencies to use my department firing range?
- Is the firing range indoors?, Outdoors?

If you have answered “**YES**” to any one of these questions, then your police officers have a potential for lead exposure and you **must** conduct an initial determination to establish the level of exposure.

### **WHAT'S NEXT?**

You may have to have an industrial hygienist or other qualified person conduct air samples of the firing range during actual “live firing” conditions. The purpose of this sampling procedure is to determine whether or not there is exposure to lead at or above the “action level”. If the initial

monitoring reveals employee exposure to be below the action level, the measurements need not be repeated, unless condition change at the site.

There then exists three possibilities:

1. ***Negative initial determination:*** This means that there is no employee exposure at or above the action level. The only thing you have to do is to make a written record of the determination. This must include the results obtained, the date of the determination, the location, and the names and social security numbers of the employees monitored.
2. ***Exposure at or above the action level, but below the PEL:*** This means exposures between 30 and 50 micrograms per cubic meter of air averaged over an 8-hour period. In this case, you must repeat the monitoring at least every 6 months and continue to do so until at least two consecutive measurements are below the action level. Then you can discontinue the monitoring.
3. ***Exposure above the PEL:*** In this case, you must repeat the monitoring at least quarterly until at least two consecutive measurements are below the action level.

**YOU WANT TO MAKE CERTAIN THAT ANY EXPOSURE TO LEAD IS AT OR BELOW THE ACTION LEVEL AT ALL TIMES.** If it is not below the action level, then you must begin doing other steps to reduce exposures to your employees.

#### **WHAT IF I AM ABOVE THE PERMISSIBLE EXPOSURE LEVEL (PEL)?**

You must implement engineering **and** work practice controls (including administrative controls) to insure that no employee is exposed above the permissible exposure level (PEL) for more than 30 days in any year. This should be a simple administrative control action for police departments. The Range Safety Officer may be the one police officer that has a significant exposure in terms of total days per year.

For employees exposed to levels above the PEL for less than 30 days per year, you may use any combination of engineering, work practice, (including administrative controls), and respiratory controls to reduce and maintain employee exposure to lead to or below 50 micrograms per cubic meter of air.

Additionally, you may want to consider the following guidelines:

- 1 If the facility is owned and operated by the town, it would be logical and appropriate to have personal air sampling performed to establish if air quality is a problem during range operations.
- 2 If sampling is to be performed, contract with a qualified third party. If you are using OSHA Consultative Services, you should take side-by-side samples and send your samples to a laboratory of your choosing to compare the results with that being reported by OSHA.
- 3 If the facility you use is not yours, i.e.: county or private range, you should determine if samplings has been performed, obtain a copy of the results of the sampling, or an acknowledgement from the owner/operator that the facility meets or exceeds acceptable Safety and Health standards for occupational exposure to lead (below the PEL).

For additional information contact risk management services at **1- 800-228-0986** and select **“safety and risk control”** from the available options.

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