

LOSS CONTROL DATA GUIDE

Revised OSHA Permissible Exposure Limits

Soon after adoption of the Occupational Safety and Health Act of 1970, the Occupational Safety and Health Administration (OSHA) promulgated Permissible Exposure Limits (PELs) for many hazardous and/or toxic substances.

Since then, however, industrial experience, new developments in technology, and available scientific data clearly indicate that, in many instances, these PELs are now obsolete and inadequate, and require revision.

To address this need, OSHA amended its existing Air Contaminants Standard, 29 CFR 1910.1000, including Tables Z-1, Z-2, and Z-3. The amendment makes more protective 212 PELs listed in these Tables, sets new PELs for 164 substances not previously regulated, and retains numerous other PELs unchanged. PEL changes include revising the PELs, inclusion of Short Term Exposure Limits (STELs) to complement the revised PELs, establishing a designation for “skin” to protect against exposure by skin contact, and the addition of ceiling limits as appropriate.

Highlights of the revised Standard include:

- Risk reduction and feasibility – OSHA reviewed health, risk, and feasibility evidence for all 428 substances for which changes to the PEL were considered. In

each instance where a revised or new PEL was adopted, OSHA determined that the new limits substantially reduced significant risk of material health impairment among workers, and that the new PELs were technologically and economically feasible.

- Protection – The revised PELs will protect workers from a wide variety of adverse health effects, such as cancer; cardiovascular, kidney, and liver damage; lung disease; narcosis; respiratory effects; and sensory irritation. Additional occupational health protection will be provided to approximately 4.5 million workers, at an annual cost of approximately \$150 per employee protected.
- Other standards – OSHA will continue its practice of rulemaking for individual substances when substance - specific regulations are necessary and appropriate. OSHA will also continue its efforts to develop generic regulations to cover additional provisions required to supplement the PELs in CFR 1910.1000.
- Coverage – OSHA has determined that it is appropriate to limit this rulemaking to the General Industry sector. This segment involves the largest number of workers and will result in the greatest benefit. Application to the Construction, Maritime and Agriculture segments will require examination of feasibility for these

sectors and may require some modifications to this rule because of differences among these sectors. OSHA will pursue coverage for these sectors as part of second stage rulemaking, and has informally notified the Advisory Committee on Construction Safety and Health of its plans.

The final Regulation covers a total of 600 substances, including the following:

- Addition of PELs for 164 new substances.
- Adoption of more protective PELs for 212 substances.
- No changes for 52 substances that were considered in this rulemaking.
- No change to existing PELs for 3 substances where some industry segments are not covered by the individual (6b) regulation (benzene, cotton dust, and formaldehyde).
- No changes for PELs for 160 substances that were not evaluated during this rulemaking.

Compliance Dates

March 1, 1989 – Effective date.

September 1, 1989 – Compliance with new or revised PELs, using any control method. “Skin” designations in Final Rule Limits column become effective. Start of OSHA enforcement of the Standard.

December 31, 1992 – Compliance with new or revised PELs, using engineering control methods.

December 31, 1993 – If planned OSHA regulation regarding revision to methods of compliance is not completed by 12/31/91, the 12/31/92 compliance date will be delayed one year.

Contact your local Great American Loss Prevention Specialist for additional information.

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