

MAJOR REGULATIONS STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

DF-131 (NEW 11/13)

STANDARDIZED REGULATORY IMPACT ASSESSMENT SUMMARY

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<p>1. Statement of the need for the proposed major regulation.</p> <p>The California Department of Industrial Relations' (DIR) Division of Occupational Safety and Health (DOSH, also known as Cal/OSHA) is proposing a series of revisions to its Title 8 occupational lead standards for Construction (section 1532.1) and General Industry (section 5198). The proposed revisions are designed to mitigate adverse health effects for employees who have occupational exposure to lead. The existing Title 8 regulations are based on lead toxicity information and medical and epidemiological data that is now over 40 years old. More recent evidence suggests that even very low levels of lead exposure may have harmful health effects. Such adverse health effects include high blood pressure, heart disease, decreased kidney function, lower birth weight, reproductive, and neurological effects. The proposed regulations are designed to mitigate more recently recognized adverse health effects from lower levels of exposure to lead. In particular, the proposed revisions are designed to maintain employee blood lead levels (BLLs) below 10 µg/dL, whereas existing regulations were designed to maintain employee blood lead at levels below 40 µg/dL, a level four times higher.</p>		
<p>2. The categories of individuals and business enterprises who will be impacted by the proposed major regulation and the amount of the economic impact on each such category.</p> <p>It is estimated that, in the course of their duties, approximately 228,000 California employees are exposed to potentially harmful lead exposure levels. Approximately 85,000 of these employees are or will be covered under the Construction regulation (section 1532.1) and about 143,000 are or will be covered under the General Industry regulation (section 5198). The proposed standards are designed to benefit this group of California employees.</p> <p>Employees are exposed to lead in a large cross section of the California economy. Estimates suggest that additional compliance costs may be incurred by approximately 97 sectors (categorized by 6-digit NAICS code). 51 of these sectors are in Construction and 46 are in General Industry. In Construction, 67% of the affected workers and businesses are specialty trade contractors, 11% are in heavy and civil engineering construction, and 10% are in building construction. In General Industry, 76% of affected individuals and entities are in justice, public order, and safety activities, 7% are in fabricated metal product manufacturing, and 6% are merchant wholesalers (e.g. scrap metal recycling).</p>		
<p>3. Description of all costs and all benefits due to the proposed regulatory change (calculated on an annual basis from estimated date of filing with the Secretary of State through 12 months after the estimated date the proposed major regulation will be fully implemented as estimated by the agency).</p> <p>Direct compliance costs are estimated to be approximately \$248.4 million per year in year 1 and \$195.4 million per year in subsequent years, and direct benefits are estimated to range from \$27.9 million in year 1 increasing to \$1.26 billion per year by year 45, when the full effect of the proposed revisions is realized.</p> <p>Compliance costs categories (with year 2+ annual costs) include air monitoring (\$3.7 million), engineering controls (\$37.5 million), respiratory protection (\$4.1 million), personal protective equipment (\$5.7 million), basic and advanced hygiene (\$84.4 million), medical surveillance (\$52.0 million), medical removal protection (\$19.9 million, year 1 only), and training (\$8.0 million).</p> <p>Benefits categories that are directly quantified include all-cause mortality, hypertension, non-fatal heart attack, and depression/anxiety.</p>		
<p>4. Description of the 12-month period in which the agency estimates the economic impact of the proposed major regulation will exceed \$50 million.</p> <p>The proposed regulation is expected to have economic impacts that exceed \$50 million in the first 12-month period of implementation, as well as subsequent years. This initial year will require industry to train staff to carry out the requirements of the proposed regulations, estimated to cost \$248.4 million. During this first year of implementation, costs may be incurred for monitoring, training, equipment, and effective protocol and policies to ensure compliance with the provisions.</p>		

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5. Description of the agency's baseline:

Both the direct costs and benefits, as well as the macroeconomic impacts of the proposed regulations, are evaluated relative to a baseline scenario. It is assumed that under the baseline that occupational lead requirements remain as they currently are. For example, the baseline scenario assumes that all employers are in compliance with the current permissible exposure limit of 50 $\mu\text{g}/\text{m}^3$ and all other requirements of the standards. The costs and benefits associated with the proposed regulation are therefore interpreted as the incremental costs and benefits associated with lowering the PEL, action level, and all the other proposed regulatory changes. For the macroeconomic assessment, the baseline is assumed to follow the California Department of Finance's conforming forecast for the California economy. All macroeconomic results are presented relative to the model baseline that was calibrated to this forecast.

6. For each alternative that the agency considered (including those provided by the public or another governmental agency), please describe:

- a. All costs and all benefits of the alternative
- b. The reason for rejecting alternative

Alternative 1 - More stringent regulatory requirements For the more stringent regulatory alternative, we assume that the permissible exposure limit is set at 2 $\mu\text{g}/\text{m}^3$, rather than the proposed level of 10 $\mu\text{g}/\text{m}^3$. This change would both increase the compliance costs for regulated entities and potentially increase employee benefits by reducing even low-level occupational exposure to lead. The total compliance costs for Construction, \$104.5 million in year 1 and \$84.4 million in subsequent years, are nearly identical to the compliance costs under the proposed regulation. In General Industry, the compliance costs nearly double relative to the proposed regulation to \$281 million (year 1) and \$203 million (year 2+) with the lower PEL. Additional benefits from the lower PEL are likely but could not be quantified due to a lack of reliable evidence from the research literature. For this reason, the alternative was rejected.

Alternative 2 - Less stringent regulatory requirements: For the less stringent regulatory alternative, we assume that the current occupational lead requirements remain as they are. There would be no additional compliance costs beyond what firms are already required to do under existing regulations. However, there would also be no additional benefits for California employees working in occupations with lead exposure. The status quo was rejected as a result of the empirical evidence of improved worker health achieved via the proposed regulations.

7. A description of the methods by which the agency sought public input. (Please include documentation of that public outreach).

From February 23, 2011 through November 10, 2015, Cal/OSHA held six advisory committee meetings to determine what amendments should be proposed for sections 1532.1 and 5198. The meetings were open to the public. Representatives from industry, labor, occupational medicine, and government agencies participated. These meetings, held prior to the rulemaking process, provided opportunity for stakeholder comments and for solicitation of alternatives to the proposed regulation. In addition, a symposium, co-sponsored by CDPH-OLPPP and UC Berkeley, was held on November 13, 2013 to present the science behind CDPH-OLPPP's recommended revisions to the lead standards. Attendees included representatives from industry, labor, occupational medicine, and government agencies. In October 2018, meetings were held with several state government agencies to discuss the proposed revisions. After the revisions to the regulation are formally proposed, a public comment period will be held as provided for in the Administrative Procedure Act (APA).

8. A description of the economic impact method and approach (including the underlying assumptions the agency used and the rationale and basis for those assumptions).

Direct compliance costs were estimated by multiplying blood lead level exposure estimates developed by staff members of DOSH and OLPPP by unit compliance costs acquired from the literature and DIR staff.

Direct benefits were calculated as follows: first DIR staff calculated the number of exposed employees, by range of exposure level. Second, employee BLLs associated with these exposure levels were modeled. Next, cohort studies of health effects from lead were used to estimate the number of cases of select health damages that would be avoided under the proposed regulation. Cost estimates from the literature were used to quantify the value of these avoided health damages.

Economy-wide impacts of the proposed regulation were estimate using the BEAR computable general equilibrium model of the California economy.

Agency Signature



Date

5-6-19

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