

Manganese Advisory Committee

Meeting Minutes

August 3, 2017

Location: Oregon OSHA PFO

Meeting Started: 10:00AM

Present:

Andrew Haymart (AOC)	Jenny Dresler (Oregon Farm Bureau)
Kathleen Kincade (Oregon OSHA)	David Johnson (SAIF)
Matt Svaglic (Gunderson)	Chase Meister (Gunderson)
Eileen Tanner (Covanta Marion)	Jeff Powell (Gunderson)
Reneé Stapleton (Oregon OSHA)	Trena VanDeHey (Oregon OSHA)
Heather Case (Oregon OSHA)	Jeff Adamson (Buffalo Welding)
Jeff Jackson (Oregon OSHA)	Tyson Lindekugel (ODOT)

By teleconference:

Tasha Chapman (Oregon OSHA)
Susanna Wagner (OHA Public Health)

Welcome and Introductions

The group introduced themselves.

Reneé spoke about the larger PEL (Permissible Exposure Limit) advisory group producing a list of PELs to examine for change; and how Oregon OSHA decided to proceed first on the substances Lead (Pb) and Manganese (Mn). Reneé also spoke about the expectations for this advisory committee, specifically concerning information about the fiscal impact of any PEL number change on different employers.

Discussion:

Kathleen asked for initial comments from stakeholders about the group's current experience with Manganese in their workplaces. The group mostly discussed Manganese in welding fumes. A few representatives stated that their industrial hygienists monitor Manganese exposure, but more often

compare their levels to the American Conference of Governmental Industrial Hygienists (ACGIH) recommended Threshold Limit Values (TLV) than to the current PEL.

Review of Handouts: Kathleen presented the group with multiple handouts, which are attached to these minutes. The group used these to compare Oregon and federal OSHA's current PEL ceiling limits to other neighboring state's PELs and other recommended limits such as the NIOSH REL (National Institute of Occupational Safety and Health's Recommended Exposure Limit) and the ACGIH TLV. (The basis for the ACGIH TLV is central nervous system impairment.)

Potential Exposure to Manganese: The group spoke about their potential exposures: primarily construction-related welding, repair and maintenance welding, or production-based welding. The group stated that some of them had to make adjustments to processes in order to meet the current PEL, and based on that they are confident they would have to make further adjustments (engineering improvements, administrative changes, or the use of personal protective equipment) to meet any

lowered PEL number. The group discussed the challenges of meeting a lower PEL in workplaces both in manufacturing-type settings, and in outdoor construction settings.

Context from the lab: René brought the group some statistics about compliance-related Manganese sampling from Oregon OSHA's laboratory. This included 16 years of data and approximately 1,675 samples. A comparison of the PEL (5.0) with the TLV (0.02) showed that about 56% of samples analyzed would have represented an overexposure. (This represented about 963 affected employees.) The group commented that it is easy to exceed the TLV, especially if welding occurs over the whole work day. It was noted that Oregon OSHA often takes compliance-related samples when there is reason to believe an employer is operating over the PEL. Also, Oregon OSHA looks at maintenance welding and production welding together and does not separate those statistics.

Other concerns: The group acknowledged the challenges in cost of compliance for those employers who do infrequent welding, especially for workers at small "mom and pop shops" – out of people's homes. It was noted that the industry has not seen a lot of workers compensation claims regarding Manganese overexposure which was surprising to the group. The group noted that it would be desirable to see more union representatives join in this group. They may have data regarding the health effects for motor function or other health effects connected with Manganese exposure.

History/Handout Discussion: Kathleen discussed some data from the handouts, mentioning the 1988 federal OSHA PEL-reduction/ revision project -- that included Manganese – that were later "remanded" by the courts. Federal OSHA chose to revise the PEL for Manganese fume only – not for other Manganese compounds. The group discussed the idea of and challenges associated with separating a PEL for fume from other types of exposure.

Where do we find Manganese? The group discussed where else Manganese exposure could happen besides welding. Some cited the agriculture industry -- including in pesticides and fertilizers – as well as in chemical manufacturing, electronics manufacturing, and mining. (Oregon OSHA does not have jurisdiction over mining operations.)

Toxicology: The group discussed the toxicology behind Manganese health effects included discussions of the blood/brain barrier, harm to male fertility, and increased incidence of pneumonia. It was stressed that whether or not Manganese can pass through the blood /brain barrier, there is evidence for other health effects from Manganese exposure. The group wondered about whether or not a “no adverse effect level” exists for Manganese.

Cost of compliance: The group discussed the cost of compliance, including more about how exposure to Manganese occurred. Different types of welding produce different levels of exposure. Also, the implications of chronic exposure vs. occasional irritants; and the differentiation of particle size in exposure. Some in the group commented that the fiscal impact of lowering the PEL to a Time Weighted Average (TWA) of 0.02 mg/m³ would be significant for many types of businesses.

Additional advisors: The group stated that they would like to see more people from affected businesses and unions involved in this advisory group. Oregon OSHA stated that they worked to reach out to multiple stakeholders across different industries, however there was not a lot of interest shown when they were contacted. The group mentioned different industries such as paper mills, boilermakers, pipe fitters, and iron manufacturers. Some names of companies were mentioned. Oregon OSHA also encouraged current group members to pass along our invitation and contact information to their colleagues in order to boost membership to the group, as hearing from a colleague may have a different effect on potential stakeholders than being contacted by OSHA.

Fiscal Issues: The group discussed the different fiscal issues that could come into play if a PEL were to change to the TLV of 0.02mg/m³, –or NIOSH REL of 1.0 mg/m³.

The group also asked if the economic impacts of the health effects of exposure were ever factored into a fiscal impact statement. Oregon OSHA stated that these factors are not typically included because correlating health outcomes with exposure levels is always a challenge.

Discussion regarding compliance: The group discussed different approaches to achieving compliance. Oregon OSHA mentioned that sometimes it can be a simple ventilation fix --depending on the configuration of the work space. The difference in cost between a box fan and an overhaul of the ventilation system can be significant. There was a discussion on fixing welding ventilation, with different options and prices. The idea that engineering controls could be phased in, based on size of employer, was discussed.

The use of different types of respirators and the program requirements associated with them could be significant. These are based on the level of exposure above the PEL and if over 10 times, then the type of respirator cost increases significantly.

As the group got into more substance-specific controls, they were reminded that these may be outside the scope of a simple PEL number change in the air contaminant rules.

The group also wanted to know what different businesses actually do right now: what their configurations are, build, what respirators are used, what kind of local exhaust people are using.

In Closing: Before Adjournment, Kathleen stated that the date for the next meeting had not yet been determined. The group agreed that additional information would be helpful and that more meetings would be needed. Oregon OSHA would follow up on the action items, and send out a “doodle poll” to interested members to establish the next meeting dates.

Action Items captured during the meeting:

Action Item: Kathleen will follow up to contact additional affected employers and union representatives to participate in the advisory committee and to speak to unions regarding any health data available for Manganese exposures.

Action Item: Susanna Wagner with OHA Public Health was going to examine current research regarding Manganese and find out if a ‘no adverse effect level’ exists for exposure to Manganese.

Action Item: Kathleen will reach out to Cal-OSHA to see if we can obtain the fiscal research associated with the lower PEL rulemaking.

Action Item: Kathleen will reach out to NIOSH to see if we can obtain the “criteria” documents available to see how they justified their REL of 1.0 mg/m³.

Action Item: It would be helpful for any of the participants in the advisory committee to do a cost write up regarding the cost of implementing changes in order to meet different potential PELs. The group is particularly interested in the difference in cost of compliance between 0.02 mg/m³ TLV and 1.0 mg/m³ REL.

Meeting Adjourned: 11:43

Next Meetings: Based on the doodle poll the next meetings are to be held on September 15th and September 29th