

# Manganese Advisory Committee

## Meeting Minutes

### February 1, 2018

**Location:** Oregon OSHA Portland Metro (Tigard) Field Office

**Meeting convened:** 10:02 AM

**Present:**

Bud Affolter (Streimer)	Sue MacMillan (Oregon DEQ)
Braden Bicknell (Honeywell)	Les Nelson (ESAB Welding and Cutting)
Wayne Boyle (Oregon OSHA)	Larisa Palmentere (Bullseye Glass)
Joe Bray (Harder Mechanical)	Jeff Powell (Gunderson)
Heather Case (Oregon OSHA)	Russ Reasoner (Oregon OSHA)
Tasha Chapman (Dept. of Consumer & Business Services)	Kevin Rohrer (Gunderson)
Aaron Corvin (Oregon OSHA)	Mike Stanislawski (Grainger)
Jenny Dressler (Oregon Farm Bureau)	Renée Stapleton (Oregon OSHA)
Gina Facca (Vigor Industrial)	Alden Streatly (AGC)
Jeff Jackson (Oregon OSHA)	Matt Svaglic (Gunderson)
David Johnson (SAIF Corp.)	Eileen Tanner (Covanta Marion)
Stefan Johnson (Streimer)	Trena VanDeHey (Oregon OSHA)
Kathleen Kincade (Oregon OSHA)	Susanna Wegner (Oregon Health Authority)
Levi Knapp (Charter Mechanical)	Faith Wescott (Gunderson)
Tyson Lindekugel (Ore. Dept. of Transportation)	Michael Wood (Oregon OSHA)
	Chuck Worley (L&M Welding)

**By Teleconference:**

Steve Eversmeyer (NW Natural)  
Mike Jewett (Huntair)  
Eric Wareham (Western Equipt.)  
Susan Fiore (Hobart Brothers)  
Rebecca Zeger (Redbuilt)

**Welcome and Introductions**

Renée welcomed the group and thanked everyone for their time and continued commitment to this rulemaking process.

Group members present and on teleconference introduced themselves.

**Report on Oregon OSHA's research:**

Since the last meeting, Jeff Jackson (Oregon OSHA Occupational Health Consultant) and Matt Kaiser (Oregon OSHA Health Compliance Officer) compiled historical Manganese exposure data from the Oregon OSHA laboratory, the Washington DOSH laboratory, and other sources. They began with over 6,600 raw data points -- showing actual exposure measurements for manganese -- then categorized these exposures on the basis of specific, welding-related tasks.

Jeff explained their research methodology and shared a PowerPoint presentation showing the results of their data analysis.

The main idea behind the evaluation was to create a table modeled on *Table 1: Specified Exposure Control Methods When Working with Materials Containing Crystalline Silica* in the new Silica Standard (*Division 2/Z, OAR 437-002-1035 through 1065*, effective July 1, 2018.)

The table would be based on welding-related tasks (the most common route of exposure to manganese in Oregon) and would specify the controls necessary to stay below a certain exposure limit for that task— based on the historical data. These specified controls, if implemented as required, would be considered a “safe harbor” for employers -- without the necessity of air-monitoring.

### **Discussion of presentation:**

Some group members said that access to this historical data could help employers to anticipate typical exposures and to choose proper respiratory protection. Representatives from Oregon OSHA stressed that this research data was not yet official guidance from Oregon OSHA regarding the use of respirators for task-based exposures.

Some indicated that it was not uncommon to extend welding tasks beyond 8-hour shifts. Jeff answered that although there was no data about extended work shifts in this presentation, the controls applied after a certain period of time that was typically less than 8 hours.

Some mentioned that they are testing the use of low-manganese wire. This would be expected to reduce potential manganese exposures; but, Jeff cautioned that using it may not be sufficient to reduce exposures below the new, lower permissible exposure limit (when that limit is determined.)

Oregon OSHA again asked for employer members to consider sending their confidential exposure monitoring data to be added to the analysis, particularly for those tasks with less robust databases. (Jeff mentioned that he had just received access to more data from Federal OSHA.)

Renée commented that the information in the presentation may take some time to consider and that the group could contact Jeff to answer questions about the research.

### **General discussion:**

Some group members stated that Oregon OSHA’s welding codes for general industry -- specifically, Division 2/Q, 1910.252 and several of the OARs in that division -- have a number of “issues” that should be considered as part of this rulemaking. Issues include:

- Updating ventilation recommendations
- Updating respirator selection language
- Addressing the inclusion of several substances (such as Lead and Beryllium) that now have their own substance-specific rules
- Addressing rules here about confined space that are confusing and are not as protective as the Confined Space Standard in Division 2/J.

Some commented that they would like to see a (substance-specific) manganese standard similar to the silica standard (in Division 2/Z -- that go into effect in July, 2018.)

The manganese or general welding rules could include a 'safe harbor' table – correlating certain tasks with specific controls that employers must use. Additionally the group identified that it would be helpful to see what other states and agencies are contemplating regarding manganese.

[As mentioned previously, Oregon OSHA staff has had conversations with personnel at the National Institute of Occupational Safety and Health (NIOSH) who confirmed that they are actively working on developing a new recommended exposure limit (REL) for Manganese. They anticipate submitting their recommendations for public comment sometime in 2018.

Also, a review of California OSHA's website revealed that their Health Effects Advisory Committee (HEAC) – which convenes quarterly to evaluate hazardous substances and recommend exposure limits based on health effects and feasibility -- included a discussion of a PEL update for manganese at their December 12, 2017 meeting. Support documentation and meeting minutes are available at <http://www.dir.ca.gov/dosh/doshreg/5155Meetings.html>.]

A few group members indicated that they do tank welding and other types of confined space welding. Concerning the issue of confined spaces, the group suggested creating a sub-committee -- that people in the larger advisory group could "self-select into," if interested – to consider separate issues about confined space welding. This group would likely include those involved with tank or tanker manufacturing, boilers, and non-dry-dock ship welding. Some in the group pointed out that ANSI Z49.1, *Safety in Welding, Cutting, and Allied Processes* is available for free on the internet. (See "Action items.")

Some emphasized the importance of hazard communication with any 'safe harbor' tasks in the rules.

The group discussed whether there should be both a respirable and an inhalable PEL. Some pointed out that around 98% of exposure to manganese when welding is respirable; however, most of the inhalable exposure would come from grinding.

Some wanted to emphasize that a new PEL must be technically feasible for employers. Some stated that a PEL of 0.1 mg/m<sup>3</sup> sounded feasible – especially if correlated with "safe harbor" tasks. Also, achieving a PEL of 0.02 mg/m<sup>3</sup> using only local exhaust ventilation was said to be challenging.

The group discussed whether the controls required for the "safe harbor" tasks should be more protective than the PEL. Some felt that these controls should simply match the standard, so that Oregon OSHA does not "push employers" into one option over the other. Having an easy to follow procedure -- like the safe harbor concept -- was said to be valuable to employers.

Some pointed out that welding includes exposure not only Manganese but also to other substances that are potential carcinogens. NIOSH has a policy not to recommend an exposure level (an REL) for cancer-causing agents unless these thresholds would protect 100% of the population. If no such level has been identified, NIOSH recommends that these exposures be limited to the “lowest feasible concentration.”

Some suggested creating a feasibility spreadsheet to use when considering new rule language and asked for a phase-in period (in the rules’ effective dates) for some requirements to allow time for installation of engineering controls.

**Roundtable:**

After a brief break, the group reconvened and participated in a “roundtable discussion” giving everyone an opportunity to speak. Kathleen asked each member of the group to consider any other information they would need, and their thoughts on the potential rule changes. The following points were noted:

- A next step might be further analysis of data presented, or doing analysis with more data received from employers.
- There are some parts of Subdivision 2Q that the group could start work on in terms of drafting amendments.
- A reminder that the presentation and the tables of data are all drafts and not final information.
- Are there capture velocity studies for ventilation? (See “Action items.”)
- Some stated that they will be going back to their workplaces to see exactly what tasks they are doing.
- Some stated that they will continue doing air monitoring, but that the table may be helpful in filling information gaps.
- Some want to think more about the data. They like the idea of a safe harbor being more protective and want to make sure the exposure data is truly representative.
- Some expressed that they came to learn and were excited about all the new information.
- Some pointed out that there are many new innovations for respiratory protection and lower cost ways to achieve higher protective factors.
- Some expressed that they wanted the standards to be consistent across different tasks as some employers do a wide range of tasks.
- Some said they wanted to use Jeff’s tables to guide their monitoring right now. Oregon OSHA staffers cautioned that employers must still do sampling to confirm the data.
- There was a discussion about on bench top studies vs. controlled environment testing vs. actual exposure.
- Some pointed out that for the construction industry, safe harbors would be particularly useful.
- There was a discussion about the impact of the use of shielding gas on exposure, when arc welding.
- Renée asked for volunteers for the confined space subcommittee. (See “Action items.”)
- Michael thanked everyone for a good discussion.

**Action Items:**

Oregon OSHA will post the following on the [Manganese PEL Advisory Committee Topic page](#):

- These minutes.
- Jeff's presentation and draft table.
- A link to ANSI Z49.1, *Safety in Welding, Cutting, and Allied Processes*.

Renee will follow up with those who volunteered to be on the confined space subcommittee.

Jeff will continue work on a new engineering controls column for the Table.

Other staffers at Oregon OSHA will work on the anticipated revision of the Division 2/Q rules.

Kathleen will research information about capture velocity for different types of ventilation methods used in welding.

Kathleen will initiate a doodle poll (sent to all committee contacts) for a confined-space-in-welding-sub-committee meeting prior to the next full committee meeting.

**Meeting Adjourned:** 12:00PM

**Next (full committee) Meeting:** To be determined.