

DRAFT

Cal/OSHA Advisory Meeting General Industry Lead Standard – Title 8, Section 5198 Tuesday, April 21, 2015 Oakland, CA

Welcome: Juliann Sum, Chief

Meeting Chairs: Steve Smith, Bob Nakamura, Peter Scholz

Notes: Mike Horowitz, Valerie Royo

Attendees:

Name

Affiliation

Bailey, Jerry	U.S. Battery Manufacturing Co.
Banaee, Sean	Southern California Edison
Bateson, Gail	Worksafe
Campbell, Terry	U.S. Battery
Coyle, Patricia	California Department of Public Health --OHB
Deems, Mary	California Department of Public Health
Delp, Linda	UCLA--LOSH
Dunnegan, Jim	Varian Medical Systems
Durand, Kate	SF Dept. of Public Health
Fagrey, Steve	PDCA
Gottesfeld, Perry	Occupational Knowledge International
Harrington, David	Cal/OSHA Consultation
Heramb, Brian	Sempra Energy Utility, San Diego
Jones, David	AGC of California
Kernazitskas, David	Occupational Safety and Health Standards Board
Kosnett, Michael	University of Colorado, Denver
Manley, Gerry	RSR Corporation
Materna, Barbara	California Department of Public Health--OHB
McAllister, Scott	M&M Occupational H&S Services
Muzaffar, Saeher	California Department of Public Health
Napier, Dan	DNA Industrial Hygiene
Papanek, Paul	CalOSHA Medical Unit
Pedroza Jr., Ismael	Trojan Battery Company
Pena, Larry	Southern California Edison, Co.
Pettijohn, Julie	California Department of Public Health-- OLPPP
Smith, Kim	Caltrans, Division of Eng. Services
Spielman, Howard	CIHC
Thompson, Kevin	Cal-OSHA Reporter

Trang, Jora

Worksafe

Treanor, Elizabeth

Phylmar Regulatory Roundtable

Vork, Kathleen

Cal-EPA, OEHHA

Weinberg, David B.

Wiley Rein LLP--Battery Council International

Weir, Jay

AT&T

Wells, Vickie L.

County & City of San Francisco, Department of Public Health

Werbelow, Frank

DPR Construction

Introduction

Steve Smith Welcomed participants and introduced Cal/OSHA staff.

Juliann Sum Cal/OSHA Acting Chief, opened the meeting by welcoming the attendees to the meeting

Steve Smith reviewed the history of the lead advisory process up to this point, and discussed the planned agenda of the meeting. He reviewed the intent of advisory meetings as part of Cal/OSHA's process in developing a proposal to the Standard Board. He envisions a final meeting in the fall to discuss both drafts, and then getting a proposal to the Board by the end of the year.

Bob Nakamura Reviewed the highlights of past efforts to revise the lead standards in California.

Overview of Draft Changes

Peter Scholz Reviewed the one-page summary sheet of main draft changes: draft hygiene requirements triggered by exposure to lead, not exposure over the PEL; the 'threshold amount of lead work' concept; the reduced AL and PEL; the elevated BLL investigation; reducing the MRP level; and the protection of reproductive health. Peter also went over the flowchart, reviewing again the draft changes in overview.

Steve Fagry Why has the PEL gone from 50 $\mu\text{g}/\text{M}^3$ to 10 $\mu\text{g}/\text{M}^3$?

Peter Scholz We're responding to the new science which indicates that workers' BLLs should be kept below 10 $\mu\text{g}/\text{dl}$.

Perry Gottesfeld To clarify: you mean in the middle box 'exposed over the AL or conducting a threshold amount of lead work', not 'and'. This should be clear.

Vickie Wells So if I test, and I'm under the AL, I still need to do these four things if I am conducting a 'threshold amount of lead work'? I consider that very problematic.

Howard Spielman 'Occupational Exposure' is still undefined in this standard.

Peter Scholz This is an existing issue with the standard. I think we would be opening a can of worms if we tried to address this. But I am open to being educated; please propose some language.

Dan Napier I think this is a problem.

Scott McAllister I've run into employers saying they've done the monitoring and say they don't have a problem. There needs to be guidance telling employers what occupational exposure means.

Michael Kosnett I haven't run into problems with people not understanding what occupational exposure means. But if people are 'altering or disturbing', that should definitely be part of 'occupational exposure'.

Howard Spielman Occupational exposure is a workplace disturbance of a lead-containing material that causes an inhalation or ingestion exposure. I don't think it would be too hard to add this in the draft. I do a lot of legal work, and this word 'exposure' really gets twisted around in the courtroom. It's a simple fix that could easily be put in there, to make life easier.

Dan Napier The term is vague and overly broad.

Steve Smith This is a federal term. We would have to talk to them about this. We will run this language past them, but we may run into problems. We won't want to jettison the important gains of this standard over this existing language. It's not our main goal.

Jay Weir The 'threshold amount of lead' is a problem. What about 'walking by' lead cable?

Howard Spielman Under 5155(e)(3) there is language that stipulates that the person supervising the air monitoring must be competent in industrial hygiene practice. This should be in the lead standard too. We think this is important quality assurance, particularly if we are going to be sampling for lead at lower levels. It is similar to having a licensed physician oversee the lead medical program. Does anyone here disagree with this? If it is done poorly, people are going to get sick. If the Division doesn't see the value of putting this in here, I want to know why.

Gerry Manley RSR has very publically supported the lowering of BLLs. From what I am hearing, we are losing focus on where we wanted to be at the beginning. Let's focus on what we came here to accomplish. And everything that we keep adding on, let's ask whether it adds to what we are trying to accomplish.

Basic Hygiene

Peter Scholz Let's look at (i) on page 10 of the draft—(i)(1) and (i)(5). In the draft (i)(1) there is a prohibition on food, drink and cosmetics where there is occupational exposure to lead. There is an exception for drinking water where ambient levels are at or below the PEL. Also (i)(1)(a) requires washing stations (formerly 'lavatories') in compliance with Section 3366. In (i)(1)(b) requires washing. (i)(5) requires the cleaning of hygiene facilities.

David Weinberg Does (i)(1) apply at the AL? or are we prohibiting people from having coffee at their desk in an office adjacent to a lead work area, where someone might one day find some small amount of lead on the surface. It would be clearer if this were tied to the AL. Establishing a clear threshold is important. We've had huge Prop 65 suit due to low level exposure to lead on an engine purported

caused by battery terminals.

Dan Napier Your agency has to understand that these rules go beyond whether you will cite on certain language in certain situations. People use these for guidelines. So they need to not be overly vague, they should be precise. If some people find very low levels of lead, some people will take the issue much further than it needs to go.

Michael Kosnett I don't think it is a problem. I think that if this standard applies to you – if you have occupational exposure to lead—then you should have basic hygiene available. I'm not comfortable having an air level trigger for these hygiene requirements. We've had multiple cases where there was lead poisoning and there was no airborne lead – for example, polishing brass.

Terry Campbell Dr. Kosnett, how do you see the correlation between air lead and blood lead?

Michael Kosnett Both air levels and ingestion predict blood lead levels. Therefore both need to be controlled. That's what we've been trying to do.

Paul Papanek We found many facilities in LA County where air levels were low, but BLL were high. But they were always disturbing though.

David Weinberg I don't have a problem with you requiring this where there is altering or disturbing. What I want to avoid is having this triggered (basic hygiene) where there might be a molecule of lead present.

Steve Smith Today you would be required to do all the other things currently required by the standard where there is occupational exposure to lead. If you think there should be air monitoring for lead, then you should take away the food and drink.

David Weinberg But sampling every once in a while to make sure there is no lead is not a problem.

Steve Smith So you would trigger it at 'threshold amount of lead work' or at the AL?

David Weinberg I just want minimum disruption in the office.

Vickie Wells In the past the standard wasn't triggering things just based on 'occupational exposure', now you are. So you need to either trigger it on something else, or come up with a definition of 'occupational exposure'. David's right: it's going to be very difficult to delineate occupational exposure. I'm thinking of our public safety officers firing weapons: there are clearly places where there is occupational exposure, but there are other offices where they are not using weapons. And there is no clean definition in the standard. I don't want to take away peoples' water and coffee in all office areas.

Peter Scholz I disagree -- the standard currently requires a whole number of things at 'occupational exposure.' But I hear what you are saying, and maybe we need to rethink this.

Kim Smith We are trying to ensure that contractors are following Title 8. So if there is so much room for interpretation it becomes problematic. We have to bring issues up to the DRB (Dispute Resolution Board) and they say 'nope' you can't hold a contractor to that, because there is no clear definition. So the language affects other people.

Howard Spielman There are some situations where people are likely to ingest lead, but not exceed the AL –handling lead sheet. So how do we protect these people – this is what we trying to get to here.

Perry Gottesfeld In (i)(1) ‘General’ you left in ‘are exposed to lead,’ but in training (l)(1) you say ‘occupational exposure to lead.’ I think you should be consistent.

Peter Scholz The issue I’m concerned about is that we have real cases of people getting exposed in the absence of airborne exposure. My example is the use of lead-containing grease—no airborne exposure at all. The current standard would require no hygiene protections. Protecting employees with significant exposures, but no airborne exposures—that is what we gain from this language.

Steve Smith I heard the recommendation that the prohibition of food and drink should be triggered on the AL and ‘altering and disturbing.’ The hand washing prohibition is also in another standard.

Michael Kosnett If that’s the case, then the ‘8 hrs. in the 30 day period’ shouldn’t apply for the prohibition of food and drink, so maybe not ‘threshold amount of lead work,’ but ‘altering and disturbing.’

David Kernazitskas Could you put a definition of ‘occupational lead’ in a guidance document?

Dan Napier I agree very with Michael Kosnett. Many times you see serious exposure without airborne exposure. For example: one individual smoking at work, or workers cooking food on a steel plate over their lead bath.

Brian Heramb Shouldn’t (i)(5) include some reference to these facilities being required by this Section? so it could not be interpreted to refer to all hygiene facilities? and is it focused on ‘cleanliness’ or on minimizing lead contamination?

Scott McAllister I think this is a very important part of the regulation, especially for emerging industries and small employers. For example, recycling operations which receive batteries. When we inspected them, most of these small employers had no idea lead was an issue for them. This is a regulation that the Division can use as a general violation.

Threshold Amount of Lead Work

Peter Scholz This is a new concept. Let’s look at how it is defined and how it is used. The definition has been changed based on input we got last time. Peter reviewed the definition and how it applied in (g)(1), (j)(1), (l)(1)(B), and (m)(2).

Brian Heramb How did you arrive at these time limit exceptions?

Peter Scholz The ‘30 days’ in the exception here originally came from the fact that it sat alongside the AL definition and the 30 days at or above the action level used in (j)(1)(A) to trigger medical surveillance.

But in (j)(1)(A) that has changed from 30 to 10 days. So, what it morphed into was an attempt to define what a significant amount of lead work is – 8 hrs. over a 30 day period.

Scott McAllister In (l)(1) it looks like the employee is exposed before they get trained. So it looks like 'potential' needs to go back in here.

Elizabeth Treanor Hazard communication requires training before initial assignment. This needs to be consistent with this.

Sean Banaee How should the cumulative amount of exposure be measured, when you are counting over 30 days?

Larry Pena Individuals and supervisors rotate through jobs, so this may be hard to track.

Vicky Wells I still have a problem with this definition. I understand the need to take account of more than the airborne exposure. And I would have no problem with writing an assessment to look at whether skin exposure or ingestion are contributing to exposure. But I think it is going to be really hard to determine who alters or disturbs for 8 hours. We have a lot of people who spend time at the firing range. Are they 'altering or disturbing' for the period they are at the range, or just when they are firing the gun? Many of our guys spend more than 8 hours/month at the outdoor range qualifying on their weapons. We've done air monitoring and it's well below the AL. We've done wipe sampling and we don't have a problem. We've done BLL testing and it's not a problem. But, as currently written, the standard would require PPE and medical surveillance. PPE can't be worn when firing weapons. Nor does it make sense to do medical surveillance based on the BLLs we've seen. This will be a huge burden. You need to change this so that if exposures are below the AL, there needs to be an assessment by a qualified person as to whether there are additional sources of exposure.

How are you going to keep track of people that solder periodically. Are they going to log their solder time? We have to be careful about how widely we cast the net with this definition. We want to capture everyone who has exposure, but we don't want to put burdensome requirements on people that don't have exposure.

Peter Scholz This is an example of what you said earlier – airborne exposures are below the AL, but they are arguably doing a 'threshold amount of lead work'. And the BLLs are low. But this draft would be requiring a lot of additional protections. This is a very helpful comment.

This is an example of what you said earlier – airborne exposures are below the AL, but they are arguably doing a 'threshold amount of lead work'. And the BLLs are low. But this draft would be requiring a lot of additional protections. This is a very helpful comment.

Jay Weir We see the same thing in splicing lead cable. The disturbance is a short period of time. How do I time the exposure? The exposure is when you open and close it. We would have to put 12 – 17,000 splicers in medical surveillance. We don't have the exposure, because we have done the testing.

Peter Scholz So you are bringing up the issue of the practicality of timing the 'altering and disturbing.'

Dan Napier In support of these comments: would it be helpful to more clearly define 'occupational exposure'?

Scott McAllister In my experience outdoor ranges don't have the same problems that indoor ranges do. When it comes to torching scrap metal, this going to be hard to enforce. The employer would have to know actually how long someone is torch cutting. The employer is going to say: "I have no idea of how to measure this." Also, torch cutting on lead materials for 7 hours and 59 minutes a month should not go unprotected.

Brian Heramb regarding the use of the 'threshold amount of lead work' for posting signs. Our work splicing cables is not at fixed sites. So this may not always be practical. Also should the wording of the signs be changed to focus on cardiovascular effects since that seems to be driving the PEL lower.

Peter Scholz We've heard that from CDPH. This is newly-created wording from the feds that went through as part of the GHS Hazcom revisions.

Howard Spielman It now says 'causes damage'. It sounds absolute, which is a problem.

Terry Campbell It says the language shall be in a language understandable to employees. So if you have one employee who speaks only Tagalog, you would have to have that sign.

Michael Kosnett I am sensitive to what Vicky brought up. Maybe there could be an opt-out for medical surveillance for employers that have shown low BLLs.

Also you can high exposures on fewer than 10 days a year and still get no BLL testing under the current draft language. We would agree that that is not good. But the draft language is a compromise – we don't want to overdo it on one hand, but avoid potential exposures on the other hand.

Peter Scholz Thank you for that comment. We have an imperfect standard now. And the draft language we are offering is also imperfect. It doesn't address all possible exposure scenarios. But that's not an argument for sloppy work. So we do appreciate the comments we've gotten. And we will think hard about how we are going to get to a more helpful, protective standard without causing more problems for those people who want to follow what the standard says.

Steve Smith On this issue: if you have better language, please propose it to us. We have been trying to come up with something for a year now.

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Brian Heramb Could there be flexibility on signs? Maybe using other forms of written notification, so that not every location needs to be posted.

Kim Smith I agree with that. But just be careful, there may be requirements in the Labor Code that have info. access requirements.

Jay Weir The "0.5 % by weight" in the definition of 'threshold amount of lead work': why is that?

Peter Scholz Lead is required to be reported on SDSs at 0.1%. So we felt the definition could not be below that number. We initially had it at 1%, but, last time we met, we got feedback that people wanted it at 0.5% instead. One reason is that for non-ferrous metals –brasses and bronzes—0.5% is the level at which lead starts to be intentionally added.

Michael Kosnett The Title 17 definition of ‘de minimus amount of lead’ is set at less than 0.5% lead. Also EPA and HUD rules define lead-based paint at 5000 ppm.

Action Level and PEL

Peter Scholz We did go over this last time. But we thought we would be remiss if we didn’t give people a chance again to give your thoughts on this issue.

Howard Spielman Does this mean in a single day?

Peter Scholz Yes, a ‘day’ is defined in the Labor Code as being from anytime on a calendar day to the same time on the next calendar day. For example: 2PM on Monday to 2PM on Tuesday.

David Weinberg We very much appreciate a lot of the changes in the draft. You’ve done a good job focusing on a lot of things we’ve talked about this morning. But this issue of setting the AL at a level that is not detectable continues to be a problem.

Peter Scholz This issue came up last year. And the representative from Forensic Analytical pointed out that these levels are reachable by analytical methods that are readily available. We believe we have that base covered.

Jim Dunnegan Is that something that you can spell out in the standard: what method to use at what flowrate?

Vicky Wells I would put it in a voluntary appendix, since there are new methods coming out all the time.

Sean Banaee There are two methods – the flame method and ICP; the second one has higher precision and sensitivity. But the flowrates are pretty much the same.

Terry Campbell So this number does not take into account the sources of the exposure?

Peter Scholz No, it does not. Like all OSHA chemical exposure standards, it is a personal breathing-zone results irrespective of the source.

Terry Campbell I’m thinking about ambient levels that can’t be controlled by the employer.

Pat Coyle I have some information on that from Kathy Vork. The most recent average ambient air level in the SCAQMD is 0.006 µg/M³. That is a really low ambient air level.

Terry Campbell But some numbers can be significant in Central LA.

Michael Kosnett Most of the levels are below 0.15 µg/M³. Most of the times ambient levels are not going to be a significant factor with respect to an AL of 2.0 µg/M³.

Sean Banaee A unique feature of lead is that the body shows no tolerance for it at any level. There is evidence that even very low levels have a deleterious effect.

David Weinberg What is it that makes CalOSHA believe that the 10 µg/M³ level is a material impairment to health? What are you pointing to as evidence?

Steve Smith The data that we got from the CDPH.

David Weinberg What is the basis for your conclusion that 10 µg/M³ is feasible for the regulated community?

Steve Smith We are in an advisory capacity here. And we are welcoming any advice that you might have on this. We will put together our rulemaking documents that will describe what we think is feasible at that point.

David Weinberg What kind of information do you want? We are shooting in the dark when you don't tell us how you are going to make the feasibility determination. If you tell us that, we can provide the information. As a practical matter there limits on what certain companies can do. On the financial side there are feasibility limits on what companies can spend. We want to know how you want to make these determinations and then we can work together to come up with the information. We need a framework. Thirty years ago the Fed OSHA did an extensive analysis of feasibility.

Steve Smith We don't have the same burden that Fed OSHA has to conduct a full-blown financial feasibility analysis. We try to assess as best we can the economic and technical feasibility of the regulation and its potential impact on stakeholders. So we try to get advice from stakeholders through meetings like this, before rulemaking, to gather this information. We don't have particular parameters or guidelines like federal OSHA that we can give you. But if you have provided feasibility information to other regulatory agencies in California, it's no different from what we are doing here.

David Weinberg It is different. It is a different standard from what other regulatory bodies in the State of California have. We are not trying to throw this process into a legal morass. Our goal is to come up with a way of analyzing these issues in a way that's sensible. It's your responsibility to make these judgements. We understand that you may not have the resources that the federal government has. But you still have to work to say how you are going to make those determinations, and not to say that it is up to you guys to tell us what is feasible. That's not an appropriate approach.

Steve Smith We are seeking advice from you. And we are going to articulate what we are going to put forward in the way of feasibility. But it's not going to be a full-blown economic feasibility analysis like the feds do. That is not our obligation to do that in the State of California. We are obligated, as best we can, to identify the feasibility concerns and issues on the economic and technical side. You can look at the proposals that we put forward to get a sense of what that is. It's not a very complex analysis that we do.

David Weinberg But there has been no analysis to date. We want to sit down and schedule a meeting with you. I understand that you are not going to have a consultant run an analysis like the feds do.

We're not talking about that. We are talking about a handful of battery factories. The second question is the issue of SECALs or some other recognition of feasibility for particular industries with particular issues. We'd like to know where you are on that issue. The feds have done this in a number of standards. They have recognized in advance, areas where it is not feasible to meet the PEL. We think it makes sense and would like to talk to you about it. We don't know why it hasn't been addressed in this draft.

Elevated BLL Investigation

Peter Scholz The concept is that if the worker has a BLL of 10 µg/dl or higher, the employer is mandated to do an IIPP investigation of the possible causes and how they can be controlled.

Vicky Wells I think this is a good idea. But the standard needs to be modified to make it clear we are focusing on non-occupational causes. When I've done these, 9 times out of 10, the source is non-occupational. And we don't want to get involved in the control of non-occupational exposures.

Jim Dunnegan I second that. I have issues with non-occupational exposures among employees.

Michael Kosnett I recognize people might not want to tell you. But you want the employer to ask, so that the employee can be educated on the issue. To say that you can't ask about non-occupational sources is too constrictive. For example: Trojan Battery does this now, and it works well.

Jay Weir But we're crossing the line into Title 17.

Steve Fagre But wouldn't they have an occupational exposure? or they wouldn't be tested in the first place.

Howard Spielman This could be handled by putting into (2.) that the employer is responsible for correcting any occupational deficiencies.

Dan Napier I agree with Howard. In my experience, almost every case of an elevated BLL is due to non-occupational exposure. The problem is this exposure becomes the responsibility of the employer.

Gerry Manley RSR Quemetco has the lowest BLLs in the world of secondary smelting. We have 240 employees and an average BLL of 9.7 µg/dl. So we have 120 employees above 10 µg/dl; 120 employees are below 10 µg/dl. Those 120 above 10 µg/dl have to get blood lead samples every two months. So every time an employee comes back above 10 µg/dl, I'd have to do an investigation. So that would 720 investigations a year for me. Are you aware that this is what you are calling for?

Peter Scholz No, this is good to hear. So we'll have to think of some language that would allow grouping of employees.

Steve Smith What do you do now? Do you do investigations when someone has an abnormal BLL?

Gerry Manley We have our own number that we consider elevated. We didn't get to these numbers by accident. But you're creating a bureaucratic and administrative nightmare. Because someone is going to

ask me for a particular evaluation and if something is missing from it, I'll get a citation. This is probably going to be one of the most burdensome things in this whole regulation. If you want a formal investigation, you are going to have to take into account that there is just not one right answer. Because what we are doing is working.

Michael Kosnett Everyone respects the strong work that RSR has done to control exposures. Do you know what the people above 10 µg/dl are doing differently than those below 10 µg/dl?

Gerry Manley In general, it has nothing to do with air exposures; it has everything to do with hygiene. The emphasis of air exposures is just so misplaced.

Michael Kosnett I'm sensitive to what Gerry is saying. Maybe the investigations could be grouped by exposure groups.

Jay Weir 3203 says you have to investigate everything. I think the reference to 3203 is the problem.

Steve Smith Our intent was that when an employee first goes above 10 µg/dl, there should be an investigation as to why. Would a different jump say from a 5 to 12 trigger an investigation for you?

Gerry Manley Yes, that would get our attention. But that is a far cry from what you are proposing.

Steve Smith The intent is not to snow you with paperwork. The intent is to get employers to focus on getting all employees below 10 µg/dl.

Gerry Manley Why not just strike reference to 3203, because you are defining what you want here.

Steve Smith I think we are getting hung-up on the word 'investigation'. I suspect companies like yours are doing the evaluations we are looking for. That is kind of the model we want other companies to follow.

David Weinberg Why is the trigger set at 10 µg/dl when people are returned off MRP at 15 µg/dl?

Steve Smith Because it is seen as preventative – to stop BLLs getting higher, close to the removal level.

David Weinberg The battery companies have pretty aggressive follow-up when people show higher BLLs. The battery industry has an average BLL of about 13 µg/dl. But the concern may grow out of the formality of this requirement—a paper trail, an administrative burden.

Terry Campbell We would do something like this as a preventative measure that has nothing to do with the regulation. Because we are trying to avoid getting into the regulation. So now we would have to drop our in-house preventative measures to 5 µg/dl. It becomes an administrative nightmare. We would like to be able dictate what the policy and procedures are rather than have them dictated to us. But I understand your side of the fence: "but how do we know everyone is going to do that?"

Steve Smith We are just trying to set a floor. And we think you are already at this floor. But we want everybody to be at that floor. And, yeah, we are regulatory—we want it in some formal fashion. We are trying to make it onerous. We will work on the language.

Barbara Materna Another approach suggested by Washington State was to look at jumps in BLLs of 5 µg/dl to trigger an investigation.

Training

Peter Scholz I want to draw people's attention to (I)(1)(D) which is new language describing when the training should happen. The intent of the language is to target training to when it is most needed.

Vicky Wells I think targeted training, when needed is great. As long as you understand that this is most likely to be undocumented on-the-job training, coaching, and supervision. Yes, we want to see it happen, but the documentation is most likely not going to be there. I'm a little worried about the recordkeeping requirements.

Kim Smith To 'piggy back' on that: I am also thinking about a lot of the AT&T guys: anytime you have people 'bouncing' from place to place, documenting training is going to be very difficult. So this needs to be fleshed out better; are we talking about tailgate meetings?

Jay Weir Again, this falls into the 3203 comment I made earlier: We document the annual training. What you are looking for here is documented 'observation'. We are already required under 3203 to do the periodic training already.

David Harrington This is to address small businesses, to direct them to teachable moments. The language of annual training is very big business-oriented. Obviously, we don't want any more recordkeeping than necessary.

Brian Heramb Maybe we should look at the respirator standard training language. It requires training when deficiencies in employee knowledge are evident, or exposures or job operations have changed.

SECALs

Michael Kosnett SECALs are included in the cadmium standard. It stands for Separate Engineering Control Action Level. The PEL for cadmium is 5 µg/M³. But federal OSHA realized that in some situations an industry could not meet the PEL using engineering controls. So they said we want you to use engineering controls to get to the SECAL. And then respirators can be used to meet PEL. I think that is being done now, frankly —respirators are part of the way employers meet the PEL. And I don't see CalOSHA saying you need to revamp your engineering controls; you can't use respirators. But the SECAL is an explicit acknowledgement that certain exposures cannot be brought below the PEL using only engineering controls.

Peter Scholz It does not eliminate the responsibility that the employer meet the PEL. It provides a 'safe harbor' for the amount of engineering controls that the employer is mandated to implement.

David Weinberg That's exactly right. It allows CalOSHA to define what is feasible in certain areas – for example, in the battery area, on the pasting line. (For Industry) it avoids the uncertainty of, sometime in the future, an inspector coming in and saying: "You're above the PEL. And it is feasible for you to have

done something else.” And then you are forced to litigate that. It may not have happened in California, but it certainly has happened in other jurisdictions. Around the country there are areas where there are the greatest identifiable problems. The workers are still being protected, but the expense of reaching the levels you are talking about from an engineering standpoint, is so great that some companies can’t get there. We understand that this involves sitting down and getting specific about certain processes and criteria. But we think it makes all the sense in the world to include it in the rule.

Michael Kosnett You might be able to move this standard forward without specifying what all the SECALs are. If you read the cadmium preamble, it explains the rationale for the SECALs; this could be included in the standard.

David Weinberg I think that we could work with you to identify some areas with respect to the battery industry, and some general criteria to use to allow some flexibility in other areas.

Steve Smith Look at the language here under Compliance. Subsection (e)(1)(A) talks about controlling to the extent feasible with engineering and work practice controls. (B) talks about respirators. And (C) is language left over from the 70’s, where it talks about, in all cases, meeting $150 \mu\text{g}/\text{M}^3$ by engineering controls. Are you talking about restoring something like that?

David Weinberg I think we’re talking about different language used in the cadmium and other federal standards. It needs to be certain areas of the plant, and certain processes. Employees coming into those areas of the plant would have to wear additional equipment. But it would fit in this section. And it would give more meat to the clause in (1)(A): “except to the extent that the employer can demonstrate that such controls are not feasible..” What we would doing is establishing a presumption. So that it is not resolved within the context of a particular enforcement case.

A very big part of this, for all industries, is being able to plan and operate with what the regulations are – with a specific sanction. Rather than this ambiguous question where, if I’m over the PEL, I’m going have to defend it as ‘not feasible’. We’d much rather have a little more specificity about the areas that you recognize that reaching the PEL you set is not feasible. It relieves some of the concern that otherwise exists about how low that PEL is set. Because ‘feasibility’ will be more clearly defined.

Peter Scholz It seems to me that the downside for you guys is the loss of flexibility. It seems that (e)(1) doesn’t give you a safe harbor, but –in the face of there being no problems with CalOSHA on this issue for the last 30 years—what you giving up is a lack of flexibility. You are (with SECALs) being mandated to get to a certain level with engineering controls.

David Weinberg Assuming that those controls are based on a judgement of what is feasible, that kind of inflexibility is what we can live with. The idea is that the uncertainty is eliminated.

Peter Scholz And you are not going to run into problems with your members having different financial abilities to implement engineering controls?

David Weinberg We’re going to have to talk about it. There are going to be some areas where people are going to be able to say that this area is not feasible for everybody. There are going to be some companies which are going to have other concerns, and maybe that can addressed by working out

some criteria. And that something that the battery industry both nationally and locally can be comfortable with.

Perry Gottesfeld OSHA standards are not updated very frequently and the battery industry has made considerable progress on all of these measures. Maybe there could be a time limit on SECALs – after so many years it could revert back to the PEL.

Pat Coyle Does the cadmium standard have a phase-out for SECALs?

David Weinberg It does not. I don't think that any of the federal standards have a phase out of SECALs.

Paul Papanek Do you have a suggested number?

David Weinberg We are talking about numbers that are below 50 $\mu\text{g}/\text{M}^3$, in the 30's and 40's. I don't think that there many places in the battery industry that are over 50 $\mu\text{g}/\text{M}^3$.

Gerry Manley Are we looking for low BLLs or are we looking for low exposures? Keep your eye on the prize.

Steve Smith I understand that there is control on the feasibility issue. But I don't think that our folks have been out there trying to force the engineering controls.

Terry Campbell Going along with what Jerry said, we pride ourselves on our decreasing BLLs. We did that by focusing almost exclusively on hygiene and housekeeping. We don't see a huge correlation between air levels and BLLs of employees. Focusing on one issue has allowed us to drop BLLs much faster and more efficiently than focusing on air levels.

Peter Scholz What does that cause you to think about SECALs?

Terry Campbell There is definitely a place for them. There are some places where engineering controls expenditure would be huge. The SECAL allows us a way to get our BLLs lower. In California we just recently started our oxide mill (second mill ?), but in Georgia our mill has seen significant improvements in BLLs through housekeeping and hygiene measures with PPE. We took over that plant and the levels went from 30 to 50 $\mu\text{g}/\text{M}^3$. But now they are in the teens within a year and a half. And that was strictly focusing on housekeeping, hygiene and PPE. The air leads in this facility were pushing 30 $\mu\text{g}/\text{M}^3$.

Michael Kosnett I've said SECALs merits attention. But the current draft PEL does not achieve the goal of keeping BLLs as low as we want them to be. A PEL of 10 $\mu\text{g}/\text{M}^3$, according to our modeling, would result in a 50 percentile BLL of 15 $\mu\text{g}/\text{dl}$ and a 95th-percentile level of 30 $\mu\text{g}/\text{dl}$. And that's why the initial recommendation from CDPH was 2 $\mu\text{g}/\text{M}^3$. But now many people who support protecting workers will support a level of 10 $\mu\text{g}/\text{M}^3$ with the understanding that better hygiene and housekeeping and PPE use will help get us to that goal.

'Initial BLLs'

Brian Heramb What is the time frame is for providing blood lead testing and medical surveillance? What does 'initial' mean?

Pat Coyle The medical exam is required 'prior to assignment' and that is usually when the first blood lead gets drawn.

Peter Scholz Brian, are you saying that 'prior to assignment' would be clearer than 'initial'?

Howard Spielman 'Prior to assignment' has a lot of merit to it since a person might have a pre-existing non-occupational elevated BLL, which would then be caught.

Temporary Removal

Michael Kosnett I'm glad to see that the draft language requires removal from a 'threshold amount of lead work.' But it occurs to me that it would be better to say removal from work 'altering or disturbing material known to contain lead at 0.5%' . And leave out the 'threshold amount' because that still would allow exposure up to 8 hours per 30 day period.

Perry Gottesfeld Maybe it should be based on 'occupational lead exposure'.

Michael Kosnett I like the specificity of using 'altering and disturbing' etc.

(c)(3) and Medical Surveillance of Long-term Respirator Wearers

Scott McAllister I recommend that (c)(3) be struck out. If you can't do that for some reason, I recommend that there be a stepped-up respirator medical surveillance for employees wearing respirators for a long time on a daily basis. The medical surveillance doesn't say anything about that. The respirator standard doesn't cover this because people are getting questionnaires reviewed by 3M's computer and there is no real doctor looking at them. In the industrial world, a good percentage of people are at risk of all kinds of maladies; half of them will be medically obese.

The (c)(3) language is in no other standard. It should be gone. It says that the protection factor of the respirator can be taken into account in determining what the employee is exposed to.

Adjourned.