First Meeting of the Health Effects Advisory Committee (HEAC) for Permissible Exposure Limits for Airborne Contaminants in the Workplace California Code of Regulations, Title 8, Section 5155

December 6, 2016
Elihu Harris State Building
1515 Clay Street
Oakland, California

HEAC Members present

Michael Bates, MS, PhD, Adjunct Professor, Divisions of Epidemiology & Environmental Health Sciences, University of California, Berkeley, CA

Eric N. Brown, DrPH, CIH, CSP, Tri Alpha Energy, Irvine, CA (Industrial Hygiene)

Michael N. Cooper, MS, MPH, CIH, Principal Scientist, Mcooperconsulting LLC, Eagle, ID

Will Forest, Santa Cruz County Department of Public Health

Sarah Janssen, MD, PhD, MPH, Occupational Medicine Department, Kaiser Permanente, San Francisco, CA

Linda Morse, MD, FACOEM, Kaiser Permanente Medical Center, retired, San Francisco, CA

Patrick Owens, MSPH, CIH, Shell Oil Martinez Refinery, Martinez, CA

Mark Stelljes, PhD, SLR International Corp., Martinez, CA

Public and Interested Parties

Cecilia Stoddard, IH Manager, Dow Chemical
Elizabeth Treanor, Director, Phylmar Regulatory Roundtable
Diana Graham, Keller & Heckman Law Firm
Mitch Seaman, Legislative Advocate, California Labor Federation
Kashyap Takore, Toxicologist, California Department of Public Health, HESIS
Jennifer McNary, Industrial Hygienist, California Department of Public Health, HESIS
Kathleen Vork, Staff Toxicologist, OEHHA, Cal/EPA
David Granberg, Worksafe
Dan Leacox, Leacox and Associates
Bruce Wick, California Professional Association of Specialty Contractors (CALPASC)
Bob Nocco, Chevron

Cal/OSHA Standards Board

David Kernazitskas

Division of Occupational Safety & Health

Chief Juliann Sum, , Deputy Chief Eric Berg, Garrett Keating, Steve Smith, Kevin Graulich, Susan Eckhardt and Mike Horowitz

Steve Smith opened the meeting, introducing the Division personnel present and stating it was a great pleasure to restart the reconstituted PEL Health Effects Advisory Committee (HEAC) process after its long hiatus since 2012. The previous HEAC began in 2007. The new committee members are listed on the roster handout. Six members are returning from the previous committee and there are six new members.

Eight committee members present introduced themselves.

Mike Cooper, said he was a returning, recycled member, having started in 2001 with the advisory committee that preceding the most recent one. He is a private consultant.

Patrick Owens is also a returning member who works at Shell. After more than 20 years at Shell as an industrial hygienist, he is now a safety engineer.

Linda Morse retired from Kaiser Permanente six or seven years ago and now teaches at UCSF, sees patients at a small clinic and is happy to be a returning member.

Eric Brown is an industrial hygienist with ten years consulting and ten years with the electrical industry, and currently is director of EH&S at a plasma research company.

Michael Bates is a faculty member at the Division of Environmental Health Sciences at the School of Public Health at UC Berkeley. He is an environmental and occupational epidemiologist who teaches epidemiologic research methods. His extensive current research in Kenya and Nepal focuses on the health effects of household particulate air pollution arising from the burning of firewood indoors. He is also interested in particulate emissions from burning of kerosene as the potential cause of a lot of health harm. He also has carried out probably the largest epidemiological study of hydrogen sulfide exposure. This study was done at Rotorua, a New Zealand city that sits on a large geothermal source of hydrogen sulfide emissions. H2S is a potential topic for this committee. Bates is originally from New Zealand.

Mark Stellejes is also a recycled second generation returning member. He has been a private consulting toxicologist doing risk assessments for more than 25 years.

Will Forest is a returning member who has worked with or on the PEL advisory committee for almost the last 30 years. From 1984 through 2003 he worked for HESIS which filled a consulting role for the committee. He joined the committee as an individual after beginning to work for Santa Cruz County in 2003. Currently he works for County of Santa Cruz Health Department.

Sarah Janssen is an occupational physician with Kaiser Permanente in San Francisco with an extensive background in environmental health.

[Members who could not attend included returning members Howard Spielman and Jim Unmack and new members Kent Pinkerton and Bob Harrison.]

Juliann Sum gave introductory and welcoming remarks. She said she was excited to restart this process after the hiatus. Science moves on, but we weren't, so I'm glad we have this chance to catch up. Sum said she was an industrial hygienist in the 1980's and then became a lawyer, later working in both professions at UC Berkeley. Now she coordinates what happens at Cal/OSHA but reminisces fondly about her experiences working in industrial hygiene, envying the committee members for being able to get deeper into the science. Cal/OSHA is very excited to have been able to bring on a staff toxicologist full time, Garrett Keating, who is highly qualified with an extensive background that we are very confident will coordinate well with your expertise to work on these issues. Though I can't stay for the rest of the meeting, I want to thank you all for being part of this restart process. We are very focused on transparency, so please bring forward any concerns to Garrett, Eric, myself or any other staff. As we do this I want to find ways to make what you are doing more available to the public. I'm thinking of new ways to clarify the regulations, using our internet presence for that.

Smith reminded people to sign the attendance sheets and to pick up copies of the various handouts on the tables at the back of the room. These handouts include the roster and procedures of the committee and a list of the substances addressed by the former committee and where these chemicals are in the process. There will be ample opportunity for all to have a say, both committee members and non-member attendees.

Smith said the previous committee met from 2007 to 2012, holding 17 meetings. Procedures for the new committee have been streamlined a little. The purpose of this meeting is to go over the new procedures, introduce the members, and talk about how we move forward. As in the past, there will be quarterly meetings for this group. But now that we have better staff support, we will try to move a little more expeditiously than in the past. I've gone through a number of these committees over the years. This is a program that Cal/OSHA prides itself on, with California being one of the few states that actively attempts to update permissible exposure limits. We look forward to using the advice that you provide us to do that in an expeditious and scientific manner to adopt PELs that appropriate for California workers and employers.

Cooper asked about the increased resources that had been mentioned. Smith pointed to Garrett Keating, "this is the resources, right there!" For us, Smith said, it has been almost 30 years since we had a toxicologist on staff. In the past, as you know, we have relied on the volunteer resources of independent toxicologists to help us, as well as toxicologists from HESIS and OEHHA and other agencies. With Keating, Cal/OSHA should be able to get more work done on the staff level without burdening volunteers so much, Smith said. The committee should be more in an advisory role and less in the actually drafting of things, as took place before.

Dan Leacox asked if there had been contracts and MOUs for services with HESIS and OEHHA and if these arrangements were still in place.

Smith explained that HESIS was still a resource that will still provide assistance. The OEHHA contract of about five years ago was actually done through HESIS. That type of arrangement is still a possibility, but we don't have a specific relationship right now.

Patrick Owens asked about the feasibility committee. Smith said that would be addressed in discussion of the agenda item on procedures, which Cal/OSHA intended to be more streamlined.

Garrett Keating said being new to the Division but generally familiar with the functioning of scientific committees, he was a little intimidated by the amount of yeoman's work done by the previous committee members in drafting documents and presenting them at committee meetings. This was a lot of participation. As we get into the new procedures, you will see a lot of those activities will now be done by staff. I want to focus first on the document review process, for it will define how the committee will operate.

Keating said with the new procedures staff will be preparing the draft summaries. Reviewing the documents, compiling all existing regulatory standards for a chemical, and then reviewing the literature; these are the three basic components of the previous summaries. A new component of the summary will be a conducting a feasibility assessment, as well. I hope to have assistance with this new component from both staff and committee members. But the compilation of the document is a task I will be doing. A major part of that is the revision recommendation, again, drafted by myself. In that process we do have the assistance of other agencies like HESIS that may be reviewing and researching the same chemical.

Keating said he was interested in getting feedback about committee members' areas of interest and expertise, and their willingness to be available for questions about the literature. I know many of you worked with Bob Barish previously as you were drafting up documents, so if you want to think about this as sort of a role reversal. I'd appreciate any insights into that. Some committee members did exhaustive literature searches that took a long time and delayed some summary documents. So this is an area for committee input; if you can identify an important area, be it an issue of concern with a particular chemical or an endpoint relevant to its use that might help define the literature search.

Once the document is submitted to the committee, Keating will be looking for advice in three areas. One is adequacy of the compiled information both in regard to the breadth of the existing OEL information—US only or world-wide—and then of course the literature summaries he produces. That will be very important for you to evaluate from your own personal knowledge if I've compiled reports that are relevant to the chemicals' modes of action and use. Second, is to evaluate the scientific basis of the recommendation. This is going to be a key point. In our interpretation of the studies and other risk assessments and the adjustments we make to it. We will have to give a clear identification of what is important, of what the uncertainties are, and what assumption we are making about the health effects of the chemical. So I'm looking for committee members to focus on that. Previously the committee worked with a weight of evidence standard for making these determinations. The drafters did that when they prepared their summaries. These draft documents coming before the committee will ask committee members to do that. In reviewing past minutes I saw there came a point after multiple

appearances of the chemical before the committee that it was time to finalize the document. I saw in the minutes that Bob would survey the committee. If no objections were heard, that was the recommendation that was moved on. I'm assuming that is how we will proceed with summaries I bring forward. And then feasibility of current control measures to achieve the PEL, possible substitution, analytical practicality, and guidance on usage. The feasibility factor I've left out here is economics. I don't know that I will bring economics initially into a draft document. A big driver of costs will be what level of PEL standard we propose. Feasibility of current control methods to achieve a PEL, that's what's interesting, what is state of the art now, in the field, can that be used to achieve a lower PEL? Possible substitutions? I'm not sure how that plays into the feasibility debate, but I've seen it discussed in the minutes. I've seen analytical practicality mentioned in the minutes as well.

Availability of staff during the process is a question for later in the discussion, said Keating, but as I bring documents to the committee, I do want to work with committee members to find out when I can agendize items when you are available. While the minutes show we have not always had a quorum, there is expertise we need for certain discussions, depending upon the chemical. I'll have to work with committee members off-line to find out about availability. These are my points on the past process; I'd appreciate any comments from past members about what they've heard or on anything I may have left out. As I've said, it's quite a role reversal. Past members did all of the work that I'm proposing to do instead. Bob Barish had to sort of herd committee members, and it is quite different here. I'm hoping to still herd committee members but in a different way, getting their input for my work and go to them for questions. As I understand it, the thinking about this position is that this is a long list of PELs, and that as time and science marches on, these standards need to be revisited, and a staff toxicologist could facilitate that. This is a lot of review that requires input and perspective from others.

Will Forest said this was a very large task. I am jazzed, psyched that Cal/OSHA now has a toxicologist that can take on a large part of that role. There is an opportunity to do more than you can do so I want to offer our services to also be doing that work. It is very generous but perhaps overly optimistic to take on that work by yourself.

Cooper said that looking where the bottleneck is, back when Bruce Wallace chaired the committee, you had multiple folks in teams or pairs preparing documents. When there was a glitch and one of them was not able to prepare it, the others could step in and the flow kept going. Even with your qualifications, the bottleneck will come from your office and desk out to the committee. It seems like it will take some time to get the mechanisms moving in that direction. I'm assuming that bottlenecks will not be coming from our colleagues, for example OEHHA. Still it is a lot of material on your desk.

Smith said HESIS will again be in a support role as before, so they will be helping Garrett as they can. Our other industrial hygiene staff in Research and Standards will be helping a lot on the feasibility side so that Garrett can focus on the risk assessment side. As you suggested, in the past for a particular substance there seemed to be an interest by a couple of members who wanted to take the lead on that chemical. That can certainly continue in some fashion as resources that Garrett looks to, as the members who may see the initial draft of what he is developing and who will provide initial input. In the past you guys would go down the list and select chemicals you had particular expertise or interest in.

While that kind of communication may still take place, we don't want to burden you as we did before with you doing the drafting of documents and presenting to the rest of the group. More staff resources will be provided for those functions, but where there are substances that some committee members have particular expertise and interest in, that might be the subcommittee, so to speak, that Garrett might work with initially and then bring to the rest of the group.

Owens said one of the bottlenecks was getting scientific documents, papers and original articles. So we would go through Bob. If we want to review a chemical, how will we get access to documents?

Keating said his understanding was that publicly available documents obtained by us will be transferred to committee members. Probably by sending a link. There may be resources the Division will want to obtain, such as purchasing from a journal. Under copyright we may not be able to issue these. Were you able to get documents from Bob?

Chorus of several voices saying generally yes, or they would get documents on their own.

Forest said copyright law would not interfere with distributing to this committee.

Michael Bates said the University of California has enormous resources, and he could get just about anything he wants. Others also chorused that they could help in getting scientific literature. Smith said HESIS also had ability to obtain documents.

Sarah Janssen said that in her experience one could often get permission to use a document published in a journal by contacting the lead scientific author whose contact information is always at the top of the publication.

Keating said that he will have identified studies by the time he brings a chemical to the consideration of the committee. If he is working with a subcommittee, he could get critical documents to the interested members who can then be fully engaged at the full committee meeting. Otherwise, at the first meeting a chemical is discussed, a member could say they question the interpretation of a research paper, and can I get a copy. A question of efficiency; how many reviews a year were we thinking?

Smith said in the past we were only able to get to and complete three or four chemicals. Maybe we can get a few more.

Kathleen Vork noted that many of the chemicals on the list had OEHHA reference exposure levels which you may want to piggyback on.

Leacox said the perception of how the committee worked before is that committee members would do some research, develop a proposal or a rationale and present that to the Division, and of course the Division ultimately decides what it is going to recommend to the Board. In this process you have the Division members developing a rationale before the issue comes to the committee, which flips the role. My first question is how much will you reach out on substances where there is a lot of research or you have out there a research community or product steward for a substance? In the development of that document, how much will you reach out to them and inquire on their expertise on a substance before it

even comes to a committee? Are you available to meet with stakeholders at that point, will you be reaching out at that point?

Keating said the guidelines for assessments are open public sources and documents, and other agency assessments as well. In the initial assessment, I think that is what I would rely on. In interpretation of some of those findings I would consult with committee members but I'm not sure under what format what you are describing would proceed. Start a review of a chemical, consult with someone off line about the health effects and get their interpretation? Again, if it is something publicly sourced, I think it would be premature to have the private outreach you describe before bringing the proposal to the committee.

Smith said the stakeholders for each chemical would be researched and we'd reach out to them to include them in this process. As in the past we will invite the stakeholders on those substances to attend the meetings and provide input. In particular, on issues like feasibility we are going to rely on those stakeholders to provide a lot more of that input to us through this advisory process. How the stakeholders interact with the committee and with the staff is unchanged. It is a public meeting and we will try to reach out and get the most input we can. Stakeholders in the past have volunteered extra resources or sometimes stakeholders will have unpublished data they want provide or expertise they want to input. As in the past, I think that will be offered and evaluated on a case-by-case basis. We will still have those opportunities. We will still try to get that stakeholder involvement as best we can.

Keating said he didn't mean to exclude stakeholders. The process will be demanding of his time to get these reviews done, I'm not sure how much time there will be to call and reach out to people. But of course anyone who comes to me with ideas and suggestions for input will be welcomed. But if the question was if I am going to actively reach out to stakeholders before I begin to review the literature, that would be difficult to do.

Leacox said he like Steve's answer of it being case-by-case. You could save yourself a lot of time by getting early input rather than later input. The perception of moving that decision making—because one assesses and makes decisions—moving that forward and having that excluded from any input or potential engagement looks one way versus that there is the potential to engage at that point. To the extent you can at least keep that out there where it looks reasonable, and there might be some reason that it would be offered that it is available, it has a much better perception to it. That is how I take your answer, that it is kind of case-by-case. To bring up one other thing: On the subject of substitutions, you made a comment that you weren't sure how that plays into the process. I'd like you to take a quick look at that. When you are studying a PEL, the presumption is as protective as possible to the extent feasible. When you say it is feasible because there is a substitution, you have entered the realm of a product ban if it goes past a limit that's feasible for that substance. When you say it is feasible because there is a substitution, you are effectively implementing a product ban at that point. I question whether or not that goes beyond the authority for setting PELs. Just beware of that.

Smith said this was partly jumping a little ahead in the agenda and we would get more into this topic later.

Linda Morse said reaching out to stakeholders was handled quite smoothly in the previous HEAC. Stakeholders had ample opportunity to have input at appropriate points. To do it in advance of anything going before the committee would be a mistake that would lead to bad views of what the committee and staff was doing. My second comment is that in the draft here it would be useful to have a section, in the first submission to the committee at least, that lists controversies so we get a heads up as to what the problem areas are. For example, is it that is no way to monitor this stuff, so how are we going to set up a PEL? That kind of thing. And then it would be useful if the committee members would also get the articles related to those controversies; that would also be useful. There might be two big epidemiological studies that come to totally opposite views. That would be a controversy that should come before the committee. That we could all read those studies and analyze them.

Keating said he would identify those in the rationale of his recommendation. I would have to be explicit about the choice of one study over another.

Cooper said he agreed with Morse that stakeholder input had been well-handled. One of Bob Barish's comments to the previous committee was that stakeholder outreach took an inordinate amount of his time. I just wanted to let you know that Bob was not drafting documents; he was fielding communications and requests. He communicated to the committee that that was a major portion of the time involved. But there are some controversial chemicals out there that some of us would be interested in seeing resolution on some of those. For example, if you were to address beryllium, there are a lot of stakeholders but it might be very helpful from a public health standpoint and an occupational exposure limit standpoint to address something like that. I don't think the committee would shy away from something like that. I don't know who is deciding on the priority list, but possibly there are some opinions of some of our committee and audience members, if the list was open for adjustment.

Diana Graham asked, now that you have moved the FAC into HEAC, if the stakeholders don't see anything before the committee does, are you going to make decisions about the PEL and the feasibility at the same time? When will the stakeholders have an opportunity?

Smith said we will discuss the procedures a little further on. We will try to flesh this out for you a little better. So hold that thought.

Keating noted that there would continue to be the expectation that committee members would voluntarily make a statement of conflict of interest when such situations arose. We just expect committee members to acknowledge if they represent an organization, or their company manufactured a chemical under consideration that might affect a bias in their interpretation. In the past, as a chemical came before the committee, or was on the list, committee members would voluntarily come forward. People would not remove themselves from discussions, but they wouldn't draft the proposals.

Keating said he wanted to move on to the policy and procedure update, one of the handouts for today's meeting. This document is now a one page description of the key steps of the committee. The key difference is this is it identifies HEAC as absorbing the role of the PEL revision and feasibility. The way it

is written is Cal/OSHA will do this and staff will do that, which previously were HEAC roles. Now HEAC has largely an advisory role.

Smith explained why we are doing that. Something that is different is that there is more explicit outreach to interested parties. There are several references to discussions with interested parties as it pertains to feasibility. In the past members of the FAC brought that with their own backgrounds. The FAC no longer being constituted, we are going to need to reach out to interested parties, bring them into meetings, and have them weigh in on feasibility. The plan is to have an initial feasibility assessment in the draft proposal done by staff. Everything else is pretty straight forward. Feasibility is spelled out under the content of advisory meetings. The key issues in number 3 are unchanged. These are the criteria we use in reviewing a substance that go into our prioritization process. Those are the core evidence of a serious hazard and substantial change in the PEL value.

Leacox said, for clarification purposes, that it says in the P&P, "substantial change in the value of an OEL," and distinguished the values of other agencies from the PEL here. I was a little confused by this until I went back and realized what you meant: the substantial change in the value of an OEL set by some other agency. So if you just refer to it as an OEL, I think you could avoid confusion. That is the second bullet point under 3A. It says OEL in the previous P&P.

Keating agreed to make the revision.

Cooper said in regard to the third bullet in the same section, it was his understanding that there was very limited data available on that particular bullet point. I don't know if that has changed significantly, I just wondering how that is to be addressed, as you don't want to put something out there that you are not going to do. Are there other identified resources or groups that are going to be putting forth some information?

Keating said what Cooper is referring to is the fact that before the committee took on a substance they wanted to know its relevance—if it is being used in California, the number of exposed workers. This is a fair question. Previously they used toxic release data, TSCA data--really broad national data about usage. For very few of our chemicals was that information available. There is another data base I'll talk about later. But that is definitely something I picked up on in the minutes; a lot of committee members doing all this work wanted to know that it mattered. Any advice others have on this, I'd welcome it. But we discuss this a little bit later.

Elizabeth Treanor said one of the recommendations Phylmar Regulatory Roundtable made was that companies already have to provide under RMP and other requirements what chemicals they are using at their location. So someplace in the state government there is information on how widely used these chemicals are. If there would be some way of connecting with that information…that would be a great way of finding out that. I think that should be elevated, depending upon how widespread a chemical is it should be higher on the priority list compared to a chemical that might be more hazardous but not used as much.

Keating said he has been looking for usage data since he began with the Division in July. CERS (California Environmental Reporting System) is a large Cal/EPA data source for a number of regulatory programs. CERS consolidates several regulatory requirements on businesses that have developed over the last 20 years dealing with workplace chemical reporting, underground storage tank emissions, some safety emergency response planning. I've been looking at workplace chemical reporting. Every workplace in California has to develop a Hazardous Material Management Plan (HMMP) and report that initially to the local fire department. This was done at the county level until CERS was adopted, when Cal/EPA began to consolidate and centralize this data. We've been trying to get access to that database as a state agency. I've been trying to gain access to these consolidated workplace chemical lists so we could see what's being used statewide.

Jannsen asked if the CERS focused on what chemicals are stored at a workplace. Keating agreed.

Brown noted that CERS was new and this is the first year CERS was actually required, so it is not really up to date. It is going to be, but not right now.

Owens said the requirements are also for materials, not necessarily the compounds. Now you are supposed to report the compounds in that material, the percentage. But you are reading off a safety data sheet on which the percentages may sometimes be broad ranges. So that is a limitation.

Keating agreed. So we were given access as a restricted state-wide agency. I've been able to look at files for individual workplaces. Some are large, like Tesla, but some are small, like a dry cleaner. It can be very detailed, with quantities. Or it can be very mixture or substance, almost product based with very little detail.

Owens noted that you are reporting the largest quantity in a building, and average quantities. I think the TSCA inventory may be better. These have unit CAS numbers. We will find more toxicity studies with CAS numbers.

Keating said he had a handout for later in the meeting that addresses these issues. So let's move to the next agenda item on substance summary format and provision of reference materials.

Cooper asked if the new process resulted in three readings of a proposed PEL.

Keating said it seemed there had been no formal number of readings and wouldn't be in the future. Instead the number of readings would be determined by the review and the interests of the committee.

Smith said past members would recall that some substances went through quickly with two or three readings while others got hung up in multiple discussions. You have to take it case-by-case as to what the issues are and how complex the discussion. We are going to try to expedite the discussion as we can, but if something warrants a great deal of discussion, then it warrants a great deal of discussion. Later on when we talk about priority listings, you'll still see substances that are so complex or controversial that we may say these substances need their own committee, a substance-specific committee like the one Susan Eckhardt is doing on lead. Lead has never gone to the HEAC though we are looking at lowering the PEL for lead. Lead has gone to its own committee that had six meetings. So there are

situations where we use committees dedicated to one substance like health specific standards for lead or arsenic that are more complex than simply setting a PEL. Often we will use such a committee rather than use your resources in HEAC.

Leacox said, looking at the Policy and Procedures document that we had, part of the content that you don't find in this one is that there a few places that address the evidence threshold. It talks about a weight of evidence approach and an attempt at consensus, or, if you don't get that, at least noting the different opinions. None of that is in here. What should we tell folks is happening on that point?

Smith said some of the seven pages of the previous document were condensed or left off when we went to this one page outline format. Many meetings and hours were spent on developing that P&P. But we are trying to get the broader goals and not get down in the weeds as much with this document. We still will be using that type of guidance; we are just not putting it down in this one pager, basically. How we look at the weight of evidence will continue on. A lot of this will come up in discussions on the committee. With our staff making recommendations, it isn't as necessary to be as detailed in this procedures document. I think it will be characterized in minutes as we move forward.

Bob Nocco said that streamlining a document doesn't necessarily mean you are streamlining a process. The better you can define a process, regardless if it is one page or ten pages, the better off the committee is served.

Leacox said a colleague inquired of Keating about the role of this document and walked away with the understanding that it replaced the previous document.

Smith said it does replace it.

Leacox said if it isn't in the new version, then it is lost. I think that is the perception.

Smith said the original P&P was historical background, as to how the previous committee used that document. It is a historical reference; we won't take it down. It is still on the web page; as you see we have meeting minutes going back to 2001 on our web page. We provided a lot of resources, and we've made sure they are still there. So the older P&P will still be there, although it won't be the document that guides us. Comments on this document are welcome. If you see something that really needs to be flushed out or restored, then make that point.

Leacox said he would make that suggestion on this point. There wasn't really a lot words in that document but there a few key words.

Bates said it would be helpful to see that document. Smith said it was on the web page and Keating said it was here at the meeting in a binder if someone wants to look at it. Bates said he understood from what has been said that the previous document is not wrong, it has simply been condensed, a summary. In that case it would be very helpful for new members to see it.

Smith said he had not wanted to overwhelm new members. He didn't want to scare new members off with 15 years of committee meeting minutes, procedures documents and the previous prioritization

lists. It is all on our web page. We try to be as transparent as we can and we are going to continue that as far as posting agendas, the roster of committee members, this procedures document as our guidance document, basically.

Owens suggested putting down the time that would be allotted to non-committee members that want to bring evidence and present data. Bob Barish struggled with that sometimes, allocating and scheduling that. It wasn't fair. So putting it down and saying you will have "x" minutes may be more fair. Morse interjected, "but not more than that," and Owens agreed.

Morse suggested the word "brief" might be a term useful for guidance. There was some murmurings about whether "brief" was an adequate term. Owens said it might help go through it faster. We get a lot of interested parties such as manufacturers.

Cooper said there is a trade group for anything you could think of out there somewhere. Morse said they all had a half hour presentation. Forest said that they all had on-going studies about to be published.

Keating said it seemed to him that to assess feasibility that did sort of happen at the FAC.

Smith said that happened more in the HEAC than in the FAC.

Forest said that one thing he found very helpful in the previous committee was to require submissions be in writing. An awful lot of our meeting time—during meeting time ideally we should be trying to make decisions—was hijacked by presentations which should really have been done in another format—in writing, ahead of the meeting so that at the meeting, we could actually talk about it and reach decisions.

Brown said he had attended most of the old HEAC meetings. What was lacking was the understanding of the FAC process and the way they resolved questions. If the FAC role is going to be done here in HEAC, it is important for us to be brought up to date on what the FAC did and how they reached their conclusions. There is not really anything on the template about stakeholders' economic costs.

Owens thought that one of the HEAC members was also a FAC member.

Smith said that a lot of members attended both meetings.

Morse said so there is no current HEAC member who was on the FAC. Cooper stated he attended FAC meetings and knows how it worked.

Smith said a difficulty in trying to portray this as a procedures document is that HEAC will still be looking primarily at the health effects. But we will have an agenda item of the meeting to have a discussion on feasibility. This doesn't necessarily mean that you HEAC members have to have feasibility input; we are trying to still have input from stakeholders and interested parties to still obtain advice on feasibility issues. That is where we will make sure that the summary document has a portion of information that we have gathered or done research on to describe what we preliminarily see as feasibility issues. As

previous members will recall, your summary documents did have information on things like analytical methods, or what the industry uses. Things like that. There were elements of feasibility already in the HEAC summary documents. We are not tasking you with being the primary advisors on feasibility, but we are using a portion of the meeting to solicit information from HEAC members if you have it, also from the broader audience of stakeholders and interested parties. Feasibility will be a meeting agenda item.

Graham said if you want stakeholder information in writing before the meeting, which makes sense, they would need to see the background document before the meeting with enough time to provide that written input. Is that your plan, to put it up on the web a reasonable length of time before the meeting?

Smith said we try to give several weeks' notice of documents such as the agenda and summary so that people can see what's there so stakeholders as well as HEAC members will have enough time to submit information if they wish and/or be prepared to come to the meeting to provide input. For example, if there is an agenda item that is going to solicit information on feasibility, that will be a broader discussion in the room. This is our attempt to do that; we didn't feel the previous process got us that input. We are hopeful that putting it on the agenda of the HEAC meeting will streamline our process while still getting us valuable input and advice on feasibility concerns from members here and from stakeholders. Typically our guidance was to get documents out six weeks before a meeting. I think that is still a reasonable timeframe to see what the substances are and what the draft summary is. As mentioned, there can be off-line discussion between Garrett and committee members towards setting up the agenda and drafting the summary. For transparency for all members and stakeholders, we'll try to get these documents up as we have in the past. This does not preclude if people want to submit more information, we can add to that closer to the meeting. But we want to give people plenty of notice so people can come prepared to provide input at the meeting.

Keating noted that the prioritization list gives an idea to HEAC members and stakeholders about which chemicals will be discussed at future meetings, so the list can provide advance notice for preparation of input by stakeholders and members. Also, discussion of substances will generally span several meetings, so there will be multiple opportunities, a longer window, for input.

Graham said that the way this was written a PEL and its feasibility could be discussed in just one meeting. So if information is not available beforehand, that could be a problem.

Smith said he liked the optimism, but he did not anticipate that decisions would be made in one meeting. He noted that two advisory groups prior to this one there had been one committee. A concern had developed that there wasn't enough discussion or input from stakeholders about feasibility. Based on that concern, we went to the two committee approach. We as the ones getting advice did not see that we got a lot of use from the second committee. It took a lot of staff resources to have the additional meetings. Sometimes we didn't get the stakeholders we hoped to participate, and we didn't get the discussion that we thought we would have on feasibility. So we wanted to reduce the burden on ourselves and the stakeholders by streamlining the process by having feasibility as an agenda item for the HEAC meeting. One less meeting, one less group of committee members and hopefully still have

everybody still have the opportunity to provide us the advice that we need with this more streamlined and focused approach. That was our intent and goal.

Cooper said he would summarize the past in this way. HEAC met several times and didn't have the data needed to do their jobs. It was a very difficult process. The same questions were being asked, like "we don't have any data; we don't know; where's the resource to get this information?" With the present proposal it seems Garrett and staff will be assisting in finding this information. But the former system was not effective.

Treanor asked if the name of the committee shouldn't be changed, given its additional function. We are really "HEFAC". We are back to what it used to be called; wasn't it "Permissible Exposure Limit Committee?"

Smith and others corrected that impression: it was ACAC, "Airborne Contaminants Advisory Committee."

Treanor suggested a name change like that would let people know the committee was all encompassing.

Smith said we didn't want to burden this committee with requiring the committee to give advice on feasibility, so we didn't want to add the FAC designation to the acronym. That an agenda item for a meeting will be a discussion about feasibility does not mean that you as a committee must come to a consensus about what the feasibility issues are. We will solicit information on feasibility concerns from stakeholders and all interested parties and yourselves if you can. But we are not going to add that to your plate though a discussion will be on the agenda.

Leacox suggested adding a section in the procedures document addressed to stakeholders informing them how to input to the process, come to the meeting. But make it clear it is the Division that will be deciding what it will be recommending to the Board. Some folks may get the idea, particularly from the past process; that they are here to convince the committee. Make it clear that it is all about advising the Division. Please come if you have information but also we take information off-line before and after the meeting so as to not make the meeting closure of the process. You could talk about protecting the committee's time. To the extent it is clear to stakeholders that the Division is deciding, that becomes acceptable. You may have to change the perception of the committee role a little bit. If you do that you can get some folks to relax about the changes as well as protect the committee time. "Here's how to engage with us…"

Smith summarized, "how to participate in the process."

Leacox said he thought the reality was better than the perception.

A lunch break was held, with the meeting resuming at about 1:05 PM

Keating reminded people that the old standardized format of summary documents was available on the web site in the historical section though it was not a handout for this meeting. Next on the agenda is review of the priority list. The handout today shows the status of chemicals the previous committee

rated as Priority 1 or Priority 2, etc. The front of the document is mostly completed. The backside lists chemicals that were discussed by the prior committee with some degree of documentation ready to go.

Smith noted the handout used larger font so it was necessary to use 11X14 paper. What you see on the first page is the substances completed by HEAC in the last round and have gone through rulemaking. The column on the right shows the date the new PEL went into effect and gives you a link to the rulemaking documents. The last one adopted listed there is NMP. Actually the two above it, hydrogen chloride and naphthalene, were adopted later, in 2015. Those were the last two adoptions. You will see five more substances that completed the HEAC and FAC meetings and are basically with the Division in various forms of pre-rulemaking or rulemaking. So benzyl chloride, tetrabromoethane and trichloroethylene are in pre-rulemaking. We have drafted the supported rulemaking documents and have either submitted them to the Standards Board or are about to submit them following some final internal review. Western Red Cedar and wood dust have been noticed for rulemaking, with a public hearing held last spring. We have one year—until February-- to complete that rulemaking for those two substances. The final three substances that were essentially completed—n-propanol, cyclohexane and trimellitic anhydride—had HEAC recommendations but there had been no FAC feasibility discussions. We feel that these are the substances we can agendize shortly and bring them back to the committee. We can give you the previous HEAC recommendations, any new information since then, and, as we discussed in our process, provide an agenda item where we are going to reach out to the affected stakeholders and invite them to this meeting, make sure we get a feasibility discussion, and provide a feasibility summary. We will probably agendize those three substances for the next meeting or so.

Smith said as you turn the page you will see the substances that didn't get completed by the last HEAC but are in various stages of consideration. These can be considered again. As we've done in the past we can go through the priority list, including these substances and try to resurrect what we can where these chemicals are in the process. If they are still a priority one, we will move them forward. Most of these remaining substances were priority 1 substances. Some were discussed and HEAC decided to do other things, while for some other substances the discussion tailed off. We can reconsider these substances. It is incumbent upon Garrett to take the priority list and update it. A revised priority list will be completed for the next meeting or so. The revised list will include the substances we want to reconsider as well as new substances we want to add in accordance with the criteria outlined in our procedures.

Janssen asked where the priority list was. Keating said he had a copy with him but had not provided it as a handout. It is on the website around the material from 2008, he said. He acknowledged that the list should be moved to a more prominent place on our web page. Several HEAC members asked for the list to be sent out, which Keating agreed he would do.

Smith said that on the bottom of our web site you will find a link to the previous committee's web page. When you go to the last meetings in 2011 and 2012, right at the top of the page, the status document, the priority list and the P&P we discussed earlier. As soon as we finalize the new procedures document and status list of what the committee is working on and the new priority list, we will put these documents at the top of the web page.

Cooper said it would be extremely helpful if CAS numbers would be put on these documents.

Smith said if you look at the 2011-2012 meetings, there is a spreadsheet with 200 plus chemicals. Basically the last HEAC committee got to some 20 priority 1 chemicals. We anticipate we are probably not going to give you a list with 200 chemicals again. We are going to give you a more realistic list with maybe 60 priority 1 and priority 2 chemicals. Having priority 3 and 4 chemicals listed did not really serve a useful purpose. We won't remove the old list from the web page, but moving forward you'll see a smaller, more realistic list of chemicals we might actually get to in this committee process.

Keating noted that the criteria for prioritization are in bullet 3: evidence of potential hazard, change in OEL value, these are the criteria we will use to revise the priority list.

Cooper asked about estimated dates for the five chemicals that were mentioned that were at the pre- or regular rulemaking stage.

Smith reiterated that Western Red Cedar and wood dust had gone to public hearing in March, 2016 so that rulemaking has to be concluded by February, 2017. That is the one year clock for all state regulation adoption. You can see the proposal on the Board's web site. The other three chemicals were in pre-rulemaking procedures. Our staff has drafted the supporting rulemaking documents. The documents have been submitted to the Board for two of the chemicals and we will be shortly submitting the third. This stage is basically a review process between our staff and the Board staff that finalizes the rulemaking documents and gets the package ready for public notice, which we expect will occur in 2017.

Bates said it would be good to see, in relation to the prioritization criteria, the reasons chemicals are on the priority list. This information potentially would facilitate discussion of the appropriateness of priority order, that is, we could reprioritize.

Keating noted that the procedures call for the committee to annually review the priority list. So what you suggest is anticipated. Your other question about information on the basis of prioritization, Bob Barish did bold facts relative to prioritization into the spread sheet—although these notes can be a little difficult to interpret.

Smith said the information was summarized as best as we could for each chemical as to why they were ranked the way they were. You'll see in the six point font tiny notes information on usage in California, or what the OEL change was that may have triggered interest in the chemical. There is a variety of reasons for how a chemical got to the priority list. We as a staff have done this update a few times and brought it to the committee. There has always been a discussion about the appropriateness of the rankings. There was always opportunity for folks to provide input on updates to the priority list, and that's what we will do again.

Leacox noted as a clarification that there has been a change to official dates for rules to become effective; now it is first of the next quarter, no longer the first of the next year as had earlier suggested.

Smith said the earlier reference concerned wood dust and how the rulemaking cycle has to be completed within a 12 month period after the public notice is issued by the Board.

Bates commented on the priority justifications on the current list (he was examining Keating's binder copy). It is very cryptic; is there a more extensive explanation available.

Smith said Bob Barish's notes probably had more information.

Bates said it would be ideal to have more, information and Mark Stelljes suggested additional columns be added to the spread sheet that would identify by check mark the prioritization criteria that applied to each chemical. Even better, Stelljes said, would be a link to some document that supports that.

Keating said prioritization was most often based upon new knowledge of health effects, and sometimes usage data, although that was often hard to find. It also seems that all the sensitizers are called out on this list. So we will do this internally and bring the revised list to the next meeting.

Smith said we can adjust the list to meet your needs the best we can. But as I noted, we are already down to six point font. There are some agencies that spend all their time listing substances. We are trying to move beyond the list and actually get substances into a regulatory process. Most of our staff work is hopefully not making a perfect list. Hopefully the list will help guide us on what substances to get advice on and move forward on. So it is not going to be a perfect list.

Forest asked if his memory was correct that in 2006 or 2007 there was a public process that substantially formed that list.

Smith agreed. We had a lot of discussion in several meetings on the content of the list and the spread sheet columns.

Forest said, leaving aside the question of how good the list was, there was lots of input from stakeholders.

Smith concurred. We are not trying to deviate from that advice. We are still moving forward on those same concepts. Since that time Bob had brought the list back to the committee once or twice for updating—adding new substances, adjusting the priority of a substance by moving it down, or moved something up. It's a living list.

Cooper said Forest's memory was correct. The public process part, for example, included Worksafe providing a very long and extensive list and there were a couple of nuances that the committee talked about.

Leacox recalled a large report from OEHHA. Cooper remembered some larger consulting groups having input.

Shifting gears, Owens recalled that the documents that the committee would write would often be rewritten by Bob, and this would take him significant time. Is Garrett going to do that?

Smith replied that the HEAC documents were not in a format suitable for the Board, so, yes, there is some extra staff work over and above the HEAC summary document and minutes. Those are important resources, but as I said for the three remaining substances, there is a lot of work that staff does to

provide supporting documents that the rulemaking procedures require. Initial Statement of Reasons, Notice Summary and things like that. In the eventual Standards Board issuance of the Public Notice when the matter is open for formal public comment, we still include the HEAC members, stakeholders and other interested parties. But HEAC is not involved in the drafting of these rulemaking documents; that is a staff process of getting the wording right.

Keating moved to the last agenda item, but wanted to flip the order because some committee members had to leave at 2:00 PM. So I'd like to get to what I am calling "expertise scheduling," which is how the committee wants to be scheduled and communicated with. For certain reviews I'll identify the key studies and key toxicological issues for which I think we'll need specific committee members. I'd like to work with their schedules. I've heard from several members that there are going to be sizeable blocks of time that they may not be available. That leads to the question, do you want a fixed meeting recurring date or are you OK with more flexible scheduling allowing me to give you a range of options. The other thing I could do is reorder reviews. If key committee members for our top priority chemicals are not available, we could just re-agendize.

Forest said he preferred a fixed schedule better. Historically we have utilized a fixed, recurring schedule such as second Tuesday of every third month. We put that on our schedule and plan for it. If things come up and a lot of people can't make it, then we readjust.

Stelljes said he thought it was better to know well in advance when the meetings are scheduled so you can try to play around that.

Smith asked if there were any preferences. Today is the first Tuesday of the month.

Various voices signified assent to the first Tuesday of meeting months be the date.

Bates said he would prefer the start time of meetings be earlier than today's 10:30. He preferred 9 AM.

Smith said one of the reasons for the 10:30 AM start was we have some members coming in from out of town.

Leacox suggested 10 AM was OK.

Janssen said that the nice thing about 10:30 AM was you could get a 10:00 AM BART parking space.

Cooper pointed out that the first Tuesday in June would conflict with the American Industrial Hygiene Conference and Exposition.

Smith said there would not be a meeting on the first Tuesday in June June as it conflicted with the IH conference. Smith said the next meeting would be Tuesday, March 7th at 10 AM, ending at 3 PM, roughly. Another option that someone mentioned is video conference for some Southern California HEAC members; Cal/OSHA has video conference capability at some of its offices. It is an option, but not one that Smith preferred.

Keating said the meeting conflict for June would be addressed later.

Forest recalled that there had been rules to get out summaries six weeks before meetings.

Smith said we would still strive to provide HEAC members and stakeholders with the key agenda items and documents six weeks out. When we know earlier than that, such as the March 7th date, we will post earlier than that. For example, if the next agenda includes talking about an updated priority list, the draft list will be posted. And if we will talk about these three substances previously reviewed by the old HEAC, those summary documents will be posted ahead of time.

Forest said he wanted to offer an alternative to the six week time frame which had been based upon the fact that HEAC members were preparing the draft summaries in their spare volunteer time. The six weeks was to help the volunteer HEAC members structure their time so the summaries would be completed before the scheduled meeting. But if Garrett is going to be doing most of these things, it is not going to be as broken up into three month quarterly meeting periods. It would be good to have things posted farther ahead of the next meeting. If there is input from stakeholders, they have more lead time and they can get their input in so that it is also available to everyone. Garrett will be able to look further ahead.

Smith said his recollection was at the end of meetings wasn't there a discussion about what would come at the next meeting? Sometimes that didn't happen, but we had an idea of what substances we would have at the next meeting. As you said, in a few weeks here we could put up a tentative agenda on our web page. For example, we would say we are going to talk about n-propanol, cyclohexane and trimellitic anhydride. We may not post the final summary documents, but at least we will let people know what will be discussed on March 7th.

Keating said if we decide on a fixed template we could put up incomplete versions earlier. Sections, and then some key statement about the type of review I am doing—cancer or non-cancer—sort of big picture questions.

Brown wondered about the efficacy of this process where you are working like a crazy man the whole time while the rest of us sort of mill about during the time between meetings. Then we have a little bit of review and then we have a sit down meeting. There is this huge lag time. When we were dealing with the IIPP issue in California, and federal was considering something similar, there was a wiki where stakeholders could review current documents and submit comments or additional documents for review. Has something like this been considered to revamp this process?

Smith said that goes back to the earlier discussion of having, for lack of a better term, a subcommittee of HEAC members who have already done a lot of work on a substance. These members will be discussing the pertinent issues with Garrett during this time between meetings. So there will be off-line discussion, so I don't see this as a static time. There will be opportunities to have on-going discussions, just not on our web page.

Brown said this is the difference in perspective between a closed process and a completely open process. Completely open processes, such as use of a wiki, are harder to criticize, so that is why the idea was originally conceived. I guess maybe food for thought.

Smith said he thought our process was pretty open and transparent. There are 16 years of minutes and summary documents that show what we've been doing. Most stakeholders that worked with us know we are open for off-line discussion. We post Garrett's phone number and email on the web page. Stakeholders are not shy about using that information. There is opportunity for on-line continuing provision of advice. Garrett is the conduit, if there is information received that he wants to provide to the committee as well. He'll do that; it is kind of an on-going thing, not a static thing. There is always information being provided by stakeholders and various committee members. Though not an instantaneous wiki transmission of information, it is through our staff.

Keating asked past members how often they had interacted with Bob Barish.

Stelljes said it depended on the chemical. He thought he talked to Bob once during his drafting of a document. This was probably because I had a good data base available.

Owens said he had conversed with Bob at least an hour every two weeks.

Keating thought he could communicate with members adequately using status reports. But I don't think we can get a wiki.

Morse said it could be tried.

Leacox said the experience with wikis is not very satisfying, just loading a document somewhere. It doesn't mean anyone has read it. It would not be useful form of input for my clients. It sounds great, but…

Brown said wikis are basically registered users who post their concerns. Not all users post documents. They would list concerns which would later be discussed at the actual meetings.

Stelljes asked if the same results couldn't be accomplished by just emailing Garrett. How is that different?

Brown said it was the openness of the process, that everyone would see the concerns of the individual or interest group.

Smith said that in the past when a stakeholder provided us a letter or a scientific document they wanted us to consider, then it was sent out to the committee.

Brown said he was trying to avoid the three month lag. Say a pertinent point was brought up by "Tom", and Tom writes in the wiki, "this point doesn't make sense, and by the way, have you considered this." Garrett could immediately jump on that to make adjustments to the mother document. There would be a document history on the side. So it is addressed quickly rather than waiting another three months.

Smith said that with our limited electronic means we try to do that through email. As you can tell by the environment here, we only have so much electronic resources available to us. For example, people have asked us to web cast meetings, but we simply don't have that capability.

Cooper asked if for March, 2017, the basic plan is to discuss n-propanol, cyclohexane and trimellitic anhydride? We'll get information on these three players at some point in advance?

Keating said, "Yes." I will spend time upgrading the existing summary documents for these three substances.

Smith said that the main emphasis would be to ensure the committee had enough data. The current summaries for these three substances are already up on the web site. We will revisit them, and make a stab at the feasibility issues as well for the broader discussion. At least initially we can provide the summary from before which we will update six weeks ahead of time with any new information. If we can get it into the right form we will try to do that.

(Stelljes and Janssen leave meeting at about 1: 55 PM)

Forest said if these chemical summaries come to them as updated versions in the old form, we would have the understanding that this is not the way they are all going to come.

Keating moved the discussion to the topic of chemical usage, a major component of prioritization decisions. There is a handout illustrating the data sources we have been using: CERS, TRI and CDR. I did a preliminary run on each of the three chemicals. For the first one I only have data for San Diego County. As a CERS user I can look at individual locations in California, but I can't look for a chemical in aggregate. San Diego County put their CERS data on a public web site, so you can work with that. Using CAS numbers, CERS seemed to have a greater number of reports. The data for TRI and CDR are sorted for the state of California from national data. TRI is release data—air and water and off-site releases. CDR data is pounds of a chemical manufactured or imported. As someone pointed out, CERS data is HMMP stored on site chemicals. These databases have different motivations. CERS data comes from an emergency response background, with the need to know where chemicals were stored in the event of accidents. TRI is releases to the environment and TDR is chemicals being used in manufacturing. Some of these are limited by SIC code, by industry sector. Particularly TRI. Only industries in those sectors have to report. The other two databases are more comprehensive. I hope to report back more on this at the next meeting but I wanted to inform the committee of what I've done to date. TRI and CDR were used previously by Bob and others. CERS data is relatively new. But we are always looking for new ideas on usage analysis. This is being driven by past committee input on chemical prioritization and assignment when committee members might say, "I don't think anyone is using that in California, or not used widely." Committee members could use a true assessment of chemical usage. I welcome any additional ideas on this topic.

Leacox said you've clarified for me that the point of usage data is not just for prioritization but also for the need to have a rational discussion about feasibility. That's where it belongs in the document.

Keating said that usage data was a prioritization driver at the moment, but it is also relevant for feasibility discussions.

Owens said you may want to reach out purchasers, suppliers and manufacturers for quantities. You might be able to find sales data.

Mike Horowitz noted that for some chemicals there may be additional data sources that may be more specific than say TRI. For example, TCE had such great attention from EPA over the last 20 years that air quality management districts had to permit its use. So the AQMDs had a lot of usage data within their permit data. However, when pursued further the data proved inaccurate because most of the permitted users had long since stopped using the chemical. But depending upon the chemical, there are sometimes other potential resources that can provide information about usage.

Leacox said that from the industry perspective, providing this information is difficult. When industries gather at association meetings, often the first thing you get is prohibition on sharing certain data because of anti-trust laws. Finding aggregated data is often very difficult.

Mitch Seaman said it sounds like there isn't really a great way to find out who the stakeholders are and who the workers are who are being exposed to these chemicals. But wasn't there a California Senate Bill 193 that required a lot of this information to be collected by HESIS. I know there were a lot of amendments to it that limited the bill's scope, but it was a response to this struggle we had with diacetyl when we were trying to find employers that used it. Some intern was on the phone calling people they thought may have used diacetyl. This didn't work very well at all. It took a few attempts, but there was legislation to improve access to this information regarding which employers and which manufacturers were using these chemicals. My understanding was that the idea was to help deal with the issue in some way. I don't know if there is any way the process of putting a chemical on a priority list makes it rise to the level of information that we would have access to under the terms of this legislation. I'm fearful we may not have any way of finding out whether or not anyone is exposed to this, or if anyone is exposed to this.

Keating said someone else can speak to SB 193. I do want to say that I cannot aggregate the CERS data but it can be aggregated by Cal/EPA. They have done that for other agencies. The database is set up to do it, but at the moment I can't do it. I'm trying to get the ability to do this from Cal/EPA, but at the moment it is very difficult to do.

Jennifer McNary said that HESIS and the California Department of Public Health have the authority to request customer lists from chemical manufacturers for specific chemicals. We can't do it proactively. The authority is limited to certain circumstances, only when new hazard information has come to light.

Leacox said it has a fairly narrow scope—a diacetyl type situation. It is not a tool to research substances.

Smith said that as HESIS sets up their program, it can be a resource in some situations. It's just not something right this minute.

Leacox said that there might be special circumstances, but the legislation was not useful as something systematic. A point of clarification: What is really difficult is to quantify, and aggregate, quantity data. It

is not too hard to find out about uses generally; it is when you try to take the next step to quantify how much in California, that you run into difficulty.

Seaman asked if this meant there were ways to find out this general non-quantified usage information.

Horowitz said there were general industrial hygiene resources that in very broad terms describe the industries that utilize different chemicals. Cold calls could be made to these identified industries to try to elicit more quantifiable usage data. But this is often frustrating.

Seaman asked if that kind or reaching out to employer effort could be enshrined in the process so that at least the affected workforce could be identified.

Smith said it is always true for this and other Division advisory processes that we always try to reach out to the affected stakeholders on the industry side and exposed employees on the worker side and on the technical effort side. Some substances are easier than others. You can't readily find the stakeholders for some obscure chemicals. But we are always making the effort to reach out to those stakeholders.

Keating said that Cal/EPA has offered to do analysis for him but he has been negotiating for broader access. But their offer for case-by-case analysis still exists. Cal/EPA also has some privacy issues regarding the database. They became more open when I explained that we don't need specific site information, just overall usage information. They have been receptive, so there may be more opportunities to work with this database.

Cooper noted that this was a huge data mining problem; people spend their careers assembling this kind of information. I'd be really surprised if Cal/EPA comes back willing to release information on the 25 chemicals we may want to do. As Leacox noted, after prioritization, usage data related to worker exposures is almost secondary.

Leacox said maybe for feasibility.

Owens said from CERS you get the company that has purchased a chemical with this safety data sheet. You could do searches by CAS number to find the manufacturer. If I buy chemical X from company Y, I report to CERS that this chemical in this quantity over the minimum quantity was purchased from company Y and is on site for so many days. Excel exports that data. You get all the CAS numbers there in separate fields.

Keating said you might be entering CERS as a business. There are different access categories. I'm a regulator, you are a business.

Owens suggested Cal/EPA could customize Keating's access. The information includes chemicals purchased or stored.

Keating said he would mention that. As a regulator you see that the local CUPA has visited the site, you've got the map. I don't know how many businesses are as specific about the amounts stored and purchased as you suggest. I can't search by CAS number. At the moment I only have the ability to search

an individual location and get inventory data by location. I could export a lot of files…I will report where I stand on this at the next meeting. That completes the agenda. We move on to recap and any other items people want to bring up.

Leacox said the old P&P document on page 4 very importantly said the documentation would strive to illuminate levels of risk associated with different levels of exposure. What tends to happen once you articulate a health based number is that to a lot of folks it starts to look like a very bright line between safe and unsafe. This can make the feasibility discussion very difficult. So where the P&P said that to the extent you could illuminate the gradient of risk, this could greatly facilitate discussion of not only the number being proposed, but of the counterproposals as well. A wonderful example is gluteraldehyde. Mr. Cooper, you unlocked that whole thing. There was a number, a very bright line. The difference that made it feasible was so close, given the health effects data of such minimal difference. It was a silly difference to get stuck on. Once that was understood, the stakeholders involved came to consensus. Until that point it was a silly battle. It was out of that experience that this made its way into the P&P.

Forest asked what was wanted of the committee between now and March.

Keating said first of all the proposed meeting schedule would have to be confirmed, so check your calendars. If members could look at the prioritization and indicate any chemicals they have an interest in, that would help. For the moment we are looking at a fixed priority list. We didn't get into format today, but if you want to take those three drafts, and scan them to see how they seem to you. Though the format may change due to the nature of a chemical's nature, it will help me to have basically a fixed format.

Bates asked about if the three chemicals were selected as examples of three categories.

Keating said he would say three different formats. Previous committee members took the template, and that is what they came up with. Some of them adhered closely to the template, others did different things. Key elements in the template: summarization of chemical properties, usage, summarization of occupational exposure limits, studies, literature review and then proposed PEL.

Cooper said the committee did gel on a particular format, but you've selected those elements that were historically parts of that and which were moved forward. Will's probably is the closest to the agreed format.

Forest said that was because it was the newest.

Cooper said, "Exactly."

Keating said the committee should expect three drafts with updated health information and some feasibility information. And then the prioritization list amended as people have discussed. Those are the things I will get to you before the meeting. The former HEAC did approve the recommendations for these three chemicals, which, as past members know, went through several rounds. But we might as well take one last look at the proposed PELs, particularly for new members, and also for any new information.

Smith said that new information may lead the committee to reconsider. For example, we revisited the proposed PEL for TCE after the HEAC had made its recommendation. New data caused us to go with a lower limit. Those things do happen. If there is any data that you want to re-evaluate, then we will do that. But if the recommendations are still valid, we will move forward with that.

Morse asked for a set of emails and phone numbers to be sent out. Keating agreed to do that.

Cooper reminded Keating to update the priority list with CAS numbers.

Brown joked that this was the least amount of homework he had to take home ever. He asked if Garrett wanted any assistance with the priority list.

Keating said he could use some help with making the factors that Bob had chosen more explicit. The health effects literature review I think I can do. But let me think about it and get back to you, Eric. I appreciate the offer.

Kathy Vork said regarding prioritization that she was aware of incipient action by the air resource board that would impact whether certain chemicals related to the VOC issue would be used more frequently which might make priorities rise or lower based upon usage. That is just another thing to throw into the pot.

Cooper reminded all that it was agreed that the distinction between OEL and PEL was going to be clarified in the P&P document.

Keating noted that some committee members had inquired about parking. I've already raised it, and will do so again.

Meeting was adjourned and all were reminded to email in any additional comments on the items discussed.