

HRA Capacity Building Session: Part 2

March 29, 2022

Meeting Notes

- What about the cumulative risks? HRA is project by project, but every little bit overlies.
 - CARB: That is one of the things we need to address – currently health risk assessment is source by source or facility by facility. CARB doesn't currently have policies or procedures for how to do that, and currently evaluating how we are going to do that.
- It sounds like the "risk" is already determined? Does that standard for risk get upgraded when new info comes in? Does California monitor cancer cases?
 - CARB: HRA is intended to predict the probability of cancer risk and the probability of non-cancer chronic and acute health effects, but it is hard to directly connect results from a HRA to actual cancer cases. The results of the HRA are compared to a standard and that standard is determined by each of the air districts individually. Yes, a pre-existing standard is determined by each of the air districts individually, there is an allowable level of risk.
- Say a project was proposed in 2008, HRA for the project showed no risk, but close to threshold. Project fell through but comes back in 2022 – do they have to do a new HRA?
 - CARB: Must talk to the air district about this, but they shouldn't use the old HRA. OEHHA revised the HRA calculation methodology in 2015, and it significantly changed residential cancer risk scores. Also, if they didn't model using AERMOD, the air district would likely want them to go back and remodel using AERMOD.
- Calculating prioritization score, receptors outside the facility (source) property boundary – how do you calculate prioritization score if receptor is inside the facility property boundary?
 - CARB: If the receptor is onsite (and an employee of the facility), their exposure regulated by Cal OSHA; however, if there are non-employee receptors within facility property boundary, they are included in the risk assessment.
- In the screening assessment, isn't the product of the emission rate and the unit risk factor divided by the distance to a receptor? If the distance to a receptor is multiplied by the emission rate x unit risk factor, then the risk would increase with increasing receptor distance.
 - CARB: yes, misstated, I apologize.
- If I am the receptor and I am right outside the facility boundary, how can I calculate my experience?
 - CARB: I can contact you and run through the prioritization guidelines and talk about how to assess risk properly. The calculation is fairly easy to do – it will give you an idea if any one facility should do more to quantify their impact, if they should do an HRA.
- Is the emissions rate based on a peak? Average? Annual emissions?
 - CARB: will double check, but believe it is annual emissions (lb/yr)

- Is HRA done if any one receptor has a health risk of 10 or more?
 - CARB: Don't differentiate receptor type, work site exposure from residential exposure – go to nearest receptor and calculate that score. HRA is based on the highest score at the nearest receptor.
- What are the rules for determining receptor distance (to source)? Is the source defined the middle of building? Edge of building?
 - CARB: As far as the calculation goes, likely won't find much difference between middle of building or edge of building. If you follow the CAPCOA guidelines, use distance from source to nearest property boundary, and distance from the nearest property boundary to nearest receptor; however, can calculate from center of source. Most cases want to use the most conservative number. Four different versions of how to accomplish scoring - districts calculate using all methods and then use the most conservative number.
- Is OEHHA using data from NIH (to determine health values)?
 - OEHHA: The bulk of our health values (cancer or non-cancer) are from animal studies that were done by a variety of organizations (a lot are government studies), we also base health values on human data if we have it; most of the time those are occupational studies because those are people that are exposed to a single chemical that you can zero in on for a long period of time at relatively high levels. NIH doesn't do the kind of studies we would need to develop health values.
- Are we going to see historical data in health risk analyses? Will it capture a 40-year exposure at a particular location?
 - OEHHA: The facility HRA's that get done according to the guidance manual are basically a snapshot in time, reflecting a particular emissions inventory year, weather conditions at the time – historical data aren't reflected in the HRA
- Does OEHHA get cooperation from facilities to do occupational studies?
 - OEHHA: Occupational studies are usually conducted by government agencies like NIOSH
- CARB provided a link for the HARP tool: <https://ww2.arb.ca.gov/resources/documents/harp-risk-assessment-standalone-tool>
- Follow-up: Moses Huerta is interested in knowing if local air district has a training program
 - CARB: good idea to contact South Coast directly. Can follow-up with Matt if South Coast doesn't have a training class.
- For a project's Health Risk Assessment, are they required to actually show the whole equations? Or do they just show the results of the calculation and we are to assume they did it correctly?
 - CARB: No specific requirement that they show the calculations, they do have to show results of calculations, also must provide input and output files (printed and electronically). Do not assume calculations were done correctly – always good to look over things to ensure they're done it properly.
 - OEHHA: When OEHHA reviews HRAs, HARP2 files and AERMOD files have to be included so they can rerun through HARP2 to make sure results are accurate.

- Asking for clarification: when you are doing HRA's – what was the comment on using the same method?
 - CARB: The reason for coming up with this methodology is to have a single method for calculating cancer and non-cancer risk, so everyone is using the same method to determine risk.
- How do you assess historic exposures as well as new exposures (say someone has moved)? Cancer rates in communities don't match cancer rates from HRAs.
 - CARB: HRA doesn't take historical data into account, calculation methodology not intended to do that. We calculate risk by making assumption that receptors have lived in the community for 30 years. We don't have a way to look an individual's change in exposure. Why disconnect between HRA and actual? HRA methodology designed to look at one facility, not cumulative risk from multiple facilities. CARB is evaluating how to look at cumulative risk.
- Why do we keep following the old way of doing HRA's when they aren't serving our communities?
 - May 10 discussion to talk about this exact thing – assessing cumulative health impacts
- Communities are very concerned because we have historic (polluted, EJ) communities that are being renamed, data is disappearing (e.g. Midway Village, Hunters Point). The most vulnerable and most toxic communities are not included on OEHHA's map.
 - CARB: CARB is working on a number of tools to help communities understand their exposure and what the risks are. Working on tools to help people understand the rates of emissions in your communities.
 - OEHHA: We do recognize that some of these historical built environments need to be addressed in our HRAs. OEHHA is working on the framework with CARB and other Cal EPA agencies – coordinating to develop the science to fit into the regulation to protect the public health – very much on OEHHA's radar and on the federal governments radar (US EPA is also working on this).
- Auntie lost cousin at age of 5, cousin had a tumor that couldn't be operated on – she lived right next to the Hunter's Point shipyard; lost another cousin to lung cancer after years of working in construction; cement plant operating in community without a permit, Recology next to a homeless shelter; knows 6 women who have died of breast cancer. Something needs to be done. Where are the risk assessments?
 - CARB: We wish we could provide an answer. We need to get to the point where we can understand community level exposure.
 - CARB: We're working with the districts to take a break, pause, deconstruct the program and see what is happening. What is not working? Sometimes the regulatory construct isn't there to address some of these concerns and that is a problem. What tool's do we have in the toolbox? What needs to be changed? Individual state policies? The statute itself?
 - OEHHA: ...data informed decisions. Even OEHHA hears the Bay View Hunters Point concerns, as well as other communities...AB 617 has helped OEHHA get to the community-level information that has been "missing"
 - CARB: We need to implement the changes we've been talking about

- Participants are interested in learning about the Air District's role in HRA's
- Flagging them, why Risk Assessment are useless to our impacted communities. Useless to us.
- I work for an air district reviewing CEQA projects. Many times I recommend HRAs for residential projects near a freeway or existing source of TACs. Or HRA for construction off road equipment. Consultants in their env docs would dismiss this and say construction is temporary and HRAs are based on 30-70 year exposures. But some construction projects happen for months even years. Please CARB consider putting out new guidance about HRAs in construction or near freeways. Maybe update the 2005 Land Use Handbook. That would be great. Thanks.
- What options has CARB developed instead of Risk Assessments? Would like to have a better understanding of the other options (beside HRAs) that are available to understand what is happening in our communities. I personally feel there needs to be a course correction in how we assess risk so that we can bring real relief to our people.
- Will you please make the notes and the presentation slides available to attendees?
- I believe HRAs take into account infants and their breathing rates or the 0-2 year timeframe so it may capture toxic exposure (construction). Having updated guidance on mobile-based HRAs or construction I think is overdue. We refer to state guidance when it comes to these studies.
- "Environmental justice impacts are discussed in Section 4.12 of this SEIR. Due to the significant and unavoidable Class I impacts in air quality, hazards, and noise, and the location of high-density minority and poverty areas near the refinery and along the pipeline route, the Project would disproportionately affect minority and low-income populations at levels exceeding the corresponding median for the area in which the Project is located." This sums up what we are fighting for. Special interests and politics factor in. This particular statement likely will not make an impact on the final decision made on this project.