

Brandon Carroll

From: Carol Allen <CAllen@baaqmd.gov>
Sent: Thursday, November 29, 2018 7:10 PM
To: Brian Schuster
Subject: RE: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Categories: Important

From: Brian Schuster <BSchuster@esassoc.com>
Sent: Thursday, November 29, 2018 12:57 PM
To: Carol Allen <CAllen@baaqmd.gov>
Subject: RE: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Carol,

Another question, sorry!

The district has a non-cancer threshold of 1.0 Hazard Index for both acute and chronic HI. However, neither the HRA guidelines nor the CEQA guidelines specify which pollutants and sources should be assessed for acute HI. In my experience, HRAs always include cancer and chronic impacts of DPM, PM2.5 concentrations, and sometimes cancer and chronic impacts of gasoline combustion in vehicles (from TACs speciated from TOG emissions). Less clear is whether acute HI from GDFs should be calculated (e.g. benzene evap), or whether acute HI from gasoline or diesel combustion (in vehicles or stationary sources) should be calculated.

So my questions are:

1. Generally, what is the district's guidance with regard to calculating acute HI for sources/pollutants? If a new or modified source emits a TAC that has an acute health effects value, then the project HRA should include an assessment of acute hazard index. Acute HI can be summed by target organ. I would make the same recommendation for a CEQA analysis.
2. Should acute HI be calculated for TACs associated with TOG emissions at GDFs? Currently, for the purposes of our toxic new source review program, we are still using our 2010 HRA calculation procedure for GDFs, which does not include an analysis of acute HI. However, GDFs do emit compounds such as benzene that have acute health effects values. Therefore, to be complete, and to ensure that you are using consistent calculation procedures for all parts of your CEQA assessment, I would recommend that you do include an assessment of the acute HI for GDF emissions based on the newest HRA guidelines (2015 OEHHA Guidelines).
3. Should acute HI be calculated for diesel exhaust from vehicles or stationary sources (like generators)? Diesel PM from IC engines is considered to be a TAC and is used as a surrogate to evaluate the combined impacts of all individual TACs found in diesel engine exhaust. However, diesel PM from IC engines does not have an acute health effects value. Therefore, you cannot calculate an acute HI for diesel PM from IC engines. For other types of diesel combustion sources (diesel fired boilers or gas turbines), we use the individual TAC compounds to evaluate health impacts and some of these do have acute health effects values and should be evaluated for acute HI.
4. Should acute HI be calculated for gasoline exhaust from vehicles or stationary sources? Gasoline engine exhaust includes compounds that have acute health effects values. Therefore, as with Part 1, I would recommend that a CEQA HRA include these types of emissions in an acute HI analysis.

Thanks again,

Brian

From: Brian Schuster
Sent: Tuesday, November 27, 2018 7:32 PM
To: 'Carol Allen' <CAllen@baaqmd.gov>
Subject: RE: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Thanks Carol.

From: Carol Allen <CAllen@baaqmd.gov>
Sent: Tuesday, November 27, 2018 7:18 PM
To: Brian Schuster <BSchuster@esassoc.com>
Subject: RE: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Yes, I expect very small emissions and health risks from diesel fuel dispensing due to the low vapor pressure of diesel fuel.

Carol

From: Brian Schuster <BSchuster@esassoc.com>
Sent: Tuesday, November 27, 2018 5:48 PM
To: Carol Allen <CAllen@baaqmd.gov>
Cc: Alison Kirk <AKirk@baaqmd.gov>
Subject: RE: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Thanks Carol. I presume you meant to say "very small"?
-Brian

From: Carol Allen <CAllen@baaqmd.gov>
Sent: Tuesday, November 27, 2018 5:36 PM
To: Brian Schuster <BSchuster@esassoc.com>
Cc: Alison Kirk <AKirk@baaqmd.gov>
Subject: RE: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Brian,

Diesel fuel dispensing is exempt from District permitting requirements due to the very low vapor pressure of the diesel fuel. Sources that are exempt from District permit requirements are not subject to Rule 2-5, which only applies during the PERMITTING of new or modified sources. Therefore, the Air District HRA procedures don't specifically discuss diesel fueling at gas stations.

For CEQA purposes, you may want to include diesel fuel dispensing emissions to provide a full and complete analysis of the project. However, I would expect toxic emissions and the associated health risks from diesel fuel dispensing to be very.

Carol Allen

From: Brian Schuster <BSchuster@esassoc.com>
Sent: Tuesday, November 27, 2018 5:17 PM
To: Carol Allen <CAllen@baaqmd.gov>

Cc: Alison Kirk <AKirk@baaqmd.gov>

Subject: RE: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Carol,

I have another question if you can help out.

Is the district's gas station guidance specifically for *gasoline* dispensing, versus *diesel* dispensing? Does the district recommend calculating health risks from diesel dispensing (since most gas stations also have diesel pumps)? Are there actually any health risks associated with diesel dispensing?

Thanks,
Brian

From: Brian Schuster

Sent: Monday, July 23, 2018 3:28 PM

To: 'Carol Allen' <CAllen@baaqmd.gov>

Subject: RE: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Great, thank you Carol. I appreciate your time.

-Brian

From: Carol Allen <CAllen@baaqmd.gov>

Sent: Monday, July 23, 2018 2:23 PM

To: Brian Schuster <BSchuster@esassoc.com>

Subject: RE: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

See below, my response is in red.

Carol

From: Brian Schuster <BSchuster@esassoc.com>

Sent: Monday, July 23, 2018 12:22 PM

To: Alison Kirk <AKirk@baaqmd.gov>; Carol Allen <CAllen@baaqmd.gov>

Cc: Tina Su <TSu@esassoc.com>; Karl Heisler <KHeisler@esassoc.com>

Subject: RE: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Carol (and Alison),

Thank you for the detailed response. This helps clarify things quite a bit, and I appreciate your explanation for the BAAQMD's guidance with regard to gas stations.

Regarding the "hypothetical" example, I am referring to a real project. This is the [Johnson Drive Economic Development Zone SEIR](#) for the City of Pleasanton, which ESA completed in 2015. BAAQMD commented on the Draft EIR (see attached letter). Per direction from the city, we are redoing the health risk assessment to include a quantitative screening-level analysis of construction and operational risk on nearby offsite sensitive receptors. Operational sources include a proposed Costco Wholesale store (diesel delivery trucks), a proposed Costco gas station, and diesel truck trips associated with additional retail, hotel, and industrial uses. There is also an existing preschool/childcare center within the project site, which we will also be analyzing. In addition, there are nearby cumulative sources including 580, 680, and various permitted stationary sources. So the gas station is only one of a number of TAC sources for which we will be assessing risk.

Based on your response below, it sounds like your recommendation for this project is to use the 2015 OEHHA guideline methods for all TAC sources and receptors (including the gas station), given that it represents the more stringent standard for assessing risk to sensitive receptors in the area. Please confirm. **Yes, I concur. CSA**

Thanks,
Brian

From: Alison Kirk <AKirk@baaqmd.gov>
Sent: Monday, July 23, 2018 10:47 AM
To: Brian Schuster <BSchuster@esassoc.com>
Cc: Phil Martien <PMartien@baaqmd.gov>; Sukarn Claire <SClaire@baaqmd.gov>; David Vintze <DVintze@baaqmd.gov>; Henry Hilken <HHilken@baaqmd.gov>; Pamela Leong <PLEong@baaqmd.gov>; Carol Allen <CAllen@baaqmd.gov>; Tina Su <TSu@esassoc.com>; Karl Heisler <KHeisler@esassoc.com>
Subject: RE: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Hello Brian,

Carol Allen, Assistant Manager in Engineering answered your questions below.

Thank you Carol!

Alison Kirk
x5169

From: Carol Allen
Sent: Monday, July 23, 2018 10:26 AM
To: Alison Kirk <AKirk@baaqmd.gov>
Cc: Phil Martien <PMartien@baaqmd.gov>; Sukarn Claire <SClaire@baaqmd.gov>; David Vintze <DVintze@baaqmd.gov>; Henry Hilken <HHilken@baaqmd.gov>; Pamela Leong <PLEong@baaqmd.gov>
Subject: RE: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Alison,

I can answer these questions.

1. What version of the OEHHA guidelines does the district recommend for assessing risk from gas stations?
We use the procedure outlined in the Air District's 12-7-2016 HRA Guidelines. This is a hybrid approach that uses the newer health effects values identified in Table 2-5-1 and the 2003 OEHHA risk calculation procedures.
2. If the 2003 version is recommended over the 2015 version, what is the district's rationale?
When Rule 2-5 was revised in December 2016, the Air District did not have sufficient data to properly evaluate the socioeconomic impacts of the 2015 OEHHA guideline changes on gasoline dispensing facilities. We deferred full implementation of the 2015 OEHHA Guidelines for gas stations until we received updated emission factors and updated industry wide health risk assessment guidelines from the California Air Resources Board. This rationale is explained in more detail in the staff report for the 12-7-2016 revision of Regulation 2, Rule 5: http://www.baaqmd.gov/~media/files/planning-and-research/public-hearings/2016/reg-2-rule-5/0205_sr_102516-pdf.pdf?la=en The District is currently working with CARB on the updated emission factors and HRA Guidelines for gas stations and is gathering the data needed to evaluate the socioeconomic impacts of the 2015 Guideline changes on gas stations. The Air District plans to revise the Air District's HRA guidelines for gasoline dispensing facilities once these issue are resolved.

3. Is the attached document from 2016 the most recent set of district guidelines? Yes.

Regarding the hypothetical project with an emergency generator and a gas station, I am not aware of any project where this has occurred. I will discuss this with the appropriate staff to see if this is indeed possible. However, Regulation 1-102 More than One Emission Standard states "Where a person is subject to more than one emission standard for the same air contaminant, the more stringent shall apply." In applying this regulation to your hypothetical example, I would recommend using the more stringent HRA calculation procedures for the project, if the sources in the project were subject to two different HRA calculation procedures.

Carol Allen
Assistant Manager
Engineering Division

From: Alison Kirk
Sent: Friday, July 20, 2018 1:17 PM
To: Carol Allen <CAllen@baaqmd.gov>
Cc: Phil Martien <PMartien@baaqmd.gov>; Sukarn Claire <SClaire@baaqmd.gov>; David Vintze <DVintze@baaqmd.gov>; Henry Hilken <HHilken@baaqmd.gov>
Subject: FW: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Hello Carol,

Could you refer me to the correct person to answer these questions?

Thanks so much in advance.

Alison Kirk
x5169

From: Brian Schuster [<mailto:BSchuster@esassoc.com>]
Sent: Friday, July 20, 2018 12:28 PM
To: Phil Martien <PMartien@baaqmd.gov>; Alison Kirk <AKirk@baaqmd.gov>; Sukarn Claire <SClaire@baaqmd.gov>
Cc: Tina Su <TSu@esassoc.com>; Karl Heisler <KHeisler@esassoc.com>
Subject: BAAQMD HRA guidelines - 2015 vs. 2003 OEHHA guidance

Hello Phil, Alison, and Sukarn,

I am not sure which of you can help answer my question; please direct me to the appropriate person if necessary.

I wanted to ask about the district's guidance regarding the use of the 2015 OEHHA guidelines for HRAs. According to the district's 2016 NSR guidelines (attached), the district recommends using the 2015 OEHHA guidelines for all sources *except* gasoline dispensing stations. For gas stations, the district recommends the 2003 OEHHA guidelines. The main differences between the guidelines are exposure parameters for receptors, such as breathing rates, exposure frequencies, exposure durations, etc. It seems odd to me that the exposure parameters should depend on the source, even though the receptors are the same, so I wanted to ask.

My questions are:

1. What version of the OEHHA guidelines does the district recommend for assessing risk from gas stations?
2. If the 2003 version is recommended over the 2015 version, what is the district's rationale?
3. Is the attached document from 2016 the most recent set of district guidelines?

Take for example a hypothetical project with an emergency generator and a gas station, located next to a residential neighborhood. What is the district's guidance for calculating risk to the nearby residential receptors? Should the same residential receptor have one set of exposure parameters for estimating risk associated with the generator (i.e. the 2015 guidelines), and a separate set of exposure parameters for estimating risk associated with the gas station (i.e. the 2003 guidelines)?

If this is easier to discuss on the phone, please let me know and we can set up a time to talk.

Thanks,
Brian

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