

Air Quality Update

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HEALTH RISK ASSESSMENTS

The State of California and Local Air Districts Roll Out New Health Risk Assessment Procedure, Increasing Estimated Risks

The State of California and many local California air districts have now begun adopting and implementing new procedures for preparing health risk assessments (HRAs) for industrial and commercial facilities. The new procedures will impact air toxicity evaluations in four key programs: Permitting, AB 2588, California Environmental Quality Act (CEQA), and Public Noticing (including Proposition 65). Although procedures for preparing HRAs have been around for many years, the State legislature passed a bill in 1999 requiring HRAs to consider the impacts of toxic air contaminants (TACs) on children. Research has shown that children are disproportionately affected by exposure to TACs.

The bill (SB 25) is now taking effect in the form of revisions to the HRA procedures. When adding up the impacts of these revisions, calculated cancer risks will likely increase 2 to 6 times, depending on the type of pollutants emitted.

The California Office of Environmental Health Hazard Assessment (OEHHA) adopted several significant revisions. First, OEHHA incorporated new procedures to account for children's increased probability of developing cancers due to exposure to TACs, known as Age Sensitivity Factors (ASFs). Second, OEHHA incorporated new data on exposure impacts related to revised breathing rate data

for adults and children. OEHHA also updated the exposure duration guidance. HRA preparers no longer need to assume a 70-year exposure duration for residential receptors. Instead, shorter exposure durations may be used, such as 30 years. Workplace receptors may use a 25-year exposure duration.

Permitting

Air district permitting programs will incorporate the new HRA procedures for new or modified equipment when determining compliance with health risk limits. The increased toxic risk estimates may more readily trigger usage limits, the addition of TAC emission controls, and/or public notice. In many cases, default emission factors, which overestimate emissions, should be replaced with more accurate emission factors. If the thresholds are still exceeded, dispersion modeling may also be needed prior to permit application submittal.

Air Toxics “Hot Spots”

Air Toxics “Hot Spots” (AB 2588) programs will also be impacted by the new HRA procedures when larger facilities are required to prepare a new or revised HRA for the purposes of updating their facility-wide risk estimates. The impact of this will result in higher calculated risk values, making it more difficult to remain below public notification and risk reduction thresholds. Again, more accurate emission quantification and dispersion modeling may be used to demonstrate lower risks.

CEQA

CEQA projects may also be affected by the revised HRA procedures. Commercial, industrial, and larger construction projects with HRA requirements

will likely be impacted by potential increases in calculated risk values, thus affecting the public review and public notification processes. In particular, construction projects with large fleets of diesel equipment may have challenges in preparing approved HRAs.

Air Quality Tip

To prepare for the changes to the HRA procedures, if permitting projects are planned in the near future that may result in an increase in TAC emissions, facilities may wish to consider an in-house risk assessment prior to permit application submittal. Also, facilities should be as accurate as possible when providing emissions data to their local air district, since this information can be used to trigger an HRA for AB 2588 purposes. Lastly, stay abreast of your local air district’s activities related to the new risk assessment procedures.

Upcoming Training Offered by Yorke Engineering

- Bay Area Air Quality Regulations, Permitting, and Compliance Seminar: October 21 – October 22, 2015
- California Multi-Media Environmental Regulations: Permitting, Compliance, and Reporting Seminar: September 29 – September 30, 2015
<http://www.yorkeengr.com/AirQualityClasses.htm>

Upcoming Due Dates for 2015/2016

- CARB GHG Verification 9/1/2015
- CARB GHG Cap-and-Trade Annual Compliance Surrender 11/2/2015
- CARB On-Road Heavy-Duty Diesel Vehicle Reporting for Flexibility Options 1/31/2016
- Semi-Annual Title V Report Semi-Annually
- Annual Title V Compliance Certification Annually
- Title V – Application for Permit Renewal – Due 180 Days Prior to Permit Expiration

REVISED HEALTH RISK ASSESSMENTS IN THE BAAQMD

As indicated in this newsletter's cover story, the State of California and many local California air districts began rolling out new procedures for preparing HRAs for industrial and commercial facilities. The Bay Area Air Quality Management District (BAAQMD) is now using the new OEHHA guidelines for AB 2588 assessments. For permit application-related HRAs, a new team has been assembled to review and implement the new procedures in the BAAQMD Air Toxics New Source Review (NSR) Program Health Risk Screening Analysis (HRSA) Guidelines document dated January 2010 and in Regulation 2, Rule 5, NSR of Toxic Air Contaminants.



The goal of the group will be to draft changes to both the guidelines document and the regulation and schedule one or more workshops later this year. It is anticipated that the final revisions to both will be presented to the District's Board of Directors for approval and implementation in the first half of 2016.

Until the revisions are approved, the District will continue to follow the current methodology for permitting

related HRAs based on the current guidelines document and the version of Regulation 2, Rule 5 dated January 6, 2010.

With respect to AB 2588 Air Toxics "Hot Spots," the BAAQMD has estimated that 750 existing facilities may require further prioritization analyses and that 300 existing facilities may require complete HRAs. These may then require public notice or risk reduction plans if the risk thresholds are exceeded.

CARB REGISTRATION FOR FACILITIES WITH SMALL-SIZED REFRIGERATION SYSTEMS BEGINS JANUARY 1, 2016; DISTRICT ENFORCEMENT HAS COMMENCED FOR MEDIUM AND LARGE-SIZED REFRIGERATION SYSTEMS

Under the California Air Resources Board's (CARB's) Refrigerant Management Program (RMP), registration will begin January 1, 2016, for facilities with small-sized refrigeration systems and must be completed by March 1, 2016. Small-sized refrigeration systems are refrigeration systems with a full charge greater than 50 pounds but less than 200 pounds. Unlike for medium and large-sized refrigeration systems, no fees or annual reporting will be required. However, similar to the requirements for large and medium-sized systems, regular leak inspections and monitoring, leak repair within 14 days, retrofit or retirement for leaking systems, and recordkeeping is required. CARB's refrigerant program does *not* apply to heating, ventilation, and air condition-



ing (HVAC) systems, which are typically used for comfort cooling.

The BAAQMD has begun enforcement of the RMP for medium and large refrigeration systems. CARB has sent written notices to medium and large facilities statewide that may be subject to the RMP. Facilities that have received two or more written notices from CARB are being referred to the local air districts for follow-up. Currently, the BAAQMD enforcement action is on the "Notice to Comply" (NTC) level, with a focus on registration in the Refrigerant Registration and Reporting System (R3) online tool. The BAAQMD has indicated that failure to register in R3 after receiving an NTC results in referral back to CARB and that substantial penalties for failure to register and/or report may be imposed by CARB.

Yorke Engineering, LLC specializes in air quality and environmental consulting for stationary and mobile sources, including dispersion modeling, health risk assessments, permitting, emission inventories, air quality compliance systems, etc. Yorke Engineering has assisted over 450 customers, including a wide variety of industrial facilities and government organizations throughout California.