



South Coast Air Quality Management District

21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

EMAILED and Hand Delivered: (May 17, 2016)

May 17, 2016

Mr. Scott Bevans
Quemetco Inc.
720 S. 7th Ave
City of Industry, CA 91745-3124

Subject: AB2588 Health Risk Assessment Approval and Risk Reduction
Quemetco Inc. (SCAQMD No.: 8547)

Dear Mr. Bevans:

This letter provides approval of the Health Risk Assessment (HRA) submitted by Quemetco pursuant to the Air Toxics “Hot Spots” Act (AB2588) and South Coast Air Quality Management District (SCAQMD) Rule 1402, including revisions made by SCAQMD staff. As noted in the HRA Summary Forms (Attachments B and C) the risks posed by Quemetco are above the public notification and risk reduction thresholds specified in Rule 1402. Quemetco is therefore required to notify the public within thirty (**30**) days and submit a Risk Reduction Plan within one hundred and eighty (**180**) days. Details regarding this HRA approval are below.

Background

In accordance with AB2588 and SCAQMD Rule 1402, SCAQMD staff notified Quemetco on December 10, 2013 that it must submit an HRA based on a November 2013 SCAQMD source test that showed elevated levels of arsenic emissions. Quemetco provided the subsequent AB2588 HRA on May 9, 2014. SCAQMD staff sent a comment letter on September 23, 2014 requiring Quemetco to revise their HRA in several areas including an assessment of potential lead impacts relative to the National Ambient Air Quality Standard, and to address minor comments from the Office of Environmental Health Hazard Assessment (OEHHA). Quemetco provided an updated HRA in January 2015.

On March 6, 2015, the SCAQMD Governing Board directed staff to update its rules affected by the March 2015 update of the AB2588 risk assessment guidelines put forth by OEHHA¹, and to require all HRAs that had not yet been approved to use the new methodology. As you are aware, these new risk assessment guidelines have used recent scientific findings that show that children

¹ http://oehha.ca.gov/air/hot_spots/hotspots2015.html

are more susceptible to cancer causing compounds than adults. For contaminants that children can be exposed to through multiple exposure routes in addition to inhalation (e.g., dermal exposure, ingestion, etc.) like arsenic, this means that HRAs using the new guidance will result in an approximately five-fold increase in residential cancer risk compared to using the previous guidance, even at the same emissions level.

On March 17, 2015, SCAQMD staff requested that Quemetco prepare a new HRA using the revised OEHHA guidelines. This revision was required to include two scenarios: 1) a baseline scenario utilizing the November 2013 SCAQMD source test input into the dispersion model, and 2) dispersion modeling that reconciled any potential differences between onsite fenceline monitoring data that became available in 2014 and source tests also available from 2014. Quemetco provided an updated HRA using the new OEHHA guidelines and software in May 2015. SCAQMD staff submitted the HRA to OEHHA for a second review due to the updated HRA methodology. While SCAQMD staff has not yet received OEHHA's comments, if there are any significant comments that materially affect the results of the HRA, SCAQMD staff will revise its approval accordingly. The May 2015 HRA as submitted by Quemetco cannot be approved without revisions since it did not include the SCAQMD source test data, it did not address the modeling-monitoring reconciliation, and it also contains several other modeling errors.

SCAQMD staff made changes to the HRA and on September 16, 2015 sent Quemetco a tentative approval of the staff-modified HRA. In that letter, staff presented Scenario 1 (risk and modeling based on the November 2013 SCAQMD source tests) and Scenario 2 (risk and modeling that reconciled onsite monitoring with the average emission rate from all source tests in 2014). On September 30, 2015, Quemetco responded to this tentative approval with comments stating that 1) the onsite fenceline monitoring data was biased because Quemetco's laboratory had not blank-corrected the arsenic data (i.e. pre-existing arsenic on monitoring filters was not subtracted from the results), 2) that certain dispersion modeling parameters should be revised, and 3) that they believe that there are additional sources of arsenic in the nearby area that may be affecting Quemetco's onsite monitors. In response to these comments, the onsite fenceline monitoring data has been corrected for pre-existing arsenic on blank filters and the dispersion modeling source parameters have been revised. In order to determine the appropriate background concentrations for arsenic and lead SCAQMD staff utilized data from its MATES IV study after reviewing available data for nearby facilities and not identifying any potential other local sources of arsenic. All of the modeling files that contain the details of this approval are available in Attachment A (on disk).

Risk Results

Scenario 1. November 2013 SCAQMD Source Test

As summarized in Attachment B, several health risk endpoints from the Scenario 1 HRA exceed thresholds specified in Rule 1402. In particular, the residential cancer risk (16 in one million) and the worker chronic hazard index (1.28) exceed the public notification thresholds, and the cancer burden (2.0) exceeds the risk reduction threshold.

Scenario 2. Average of 2014 Arsenic and Lead Source Tests and Added Fugitive Area Source. Several amendments to SCAQMD Rule 1420.1 have occurred since the November 2013 source test that place stricter, enforceable emission limits on Quemetco. For example, total point source emissions cannot exceed 0.00114 pounds per hour (i.e. 10 pounds per year) beginning in January 2015. SCAQMD staff evaluated the average 2014 emission rates for arsenic and lead from the Wet Electro-Static Precipitator (WESP) and found that they were at about the same level as required in Rule 1420.1 (emissions have decreased in 2015). The average emission rate is most appropriate to use in this instance because the health thresholds that are exceeded are long-term risks (i.e. cancer risk and chronic non-cancer risk). The average emission rate modeled for 2014 arsenic measured from the Quemetco WESP is 9.33 lbs/yr, and the average emission rate modeled for 2014 lead is 2.09 lbs/yr.

To reconcile the 2014 ambient air monitored around the facility, SCAQMD staff included a fugitive/area source (bounded by the facility property line, and excluding the parking lot and eastern tenant). The emission rate of this fugitive/area source was back-calculated using the onsite fence-line monitoring data. The back-calculated arsenic emission rate is 0.14 lbs/yr and the lead emission rate is 10.7 lbs/yr.

As summarized in Attachment C, only one health risk endpoint from the Scenario 2 HRA exceeds a threshold specified in Rule 1402. Specifically, the cancer burden (0.66) exceeds the risk reduction threshold.

Next Steps

Public Notification – Scenario 1

Scenario 1 risk levels are higher than those found in Scenario 2, and also exceed Rule 1402 public notification thresholds. In order to ensure that all of the public that may have been affected by the risks shown in this HRA are notified, Scenario 1 must be used for public notification. To satisfy the requirements of Rule 1402, Quemetco must:

- Conduct public notification based on Scenario 1 pursuant to SCAQMD Public Notification Procedures² within **30** days of approval of the HRA. Public Notice must cover all the residential and sensitive receptor addresses, and children in schools within the residential notification area contour found in Attachment D, as well as the worker receptors within the worker notification area.

Risk Reduction – Scenario 2

Because risk levels also exceed Rule 1402 risk reduction thresholds, even after considering permanent and enforceable changes that occurred in 2014, Quemetco must:

- Submit a Risk Reduction Plan (RRP) that demonstrates how risks in the future will be lower than risk reduction thresholds in Rule 1402 within **180** days of this letter; and
- Implement the RRP as quickly as feasible, but no later than three (**3**) years from the initial RRP submittal date.

² Available here: <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/public-notification-procedures.pdf>

Permit Application/CEQA

Quemetco has submitted a permit application to SCAQMD to increase daily throughput by 25%. Before the permit could be considered for approval, SCAQMD must also act as the lead agency under CEQA and prepare an Environmental Impact Report (EIR). If Quemetco chooses to continue pursuing this permit modification, the EIR must demonstrate that any future emissions from the facility will be consistent with the requirements in the RRP required pursuant to this letter, and that there will be no foreseeable future need for an additional RRP under Rule 1402.

If you have any questions regarding this letter or the attached HRA files, please contact me at (909) 396-3244. In addition, given the short timeframe for conducting public notification, please schedule a meeting with SCAQMD staff to discuss the next steps for public notification.

Sincerely,



Ian MacMillan
Planning and Rules Manager

Attachments:

- A. HRA files on disk
- B. HRA Summary Form - Scenario 1: SCAQMD Source Test (Nov 2013)
- C. HRA Summary Form - Scenario 2: 2014 Source Test Averages & Fugitive/Area Source
- D. Public Notification Area Map

cc: John DePaul, RSR Corporation
Mike Buckantz, Quemetco
Phil Fine, SCAQMD
Jill Whynot, SCAQMD
Mohsen Nazemi, SCAQMD
Kurt Wiese, SCAQMD



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HEALTH RISK ASSESSMENT SUMMARY FORM

(Required in Executive Summary of HRA)

Facility Name : Quemetco
 Facility Address: 720 S. 7th Avenue
City of Industry, CA 91746
 Type of Business: Secondary Lead Smelter
 SCAQMD ID No.: 8547

A. Cancer Risk

(One in a million means one chance in a million of getting cancer from being constantly exposed to a certain level of a chemical over a period of time)

- Inventory Reporting Year : 2013
- Maximum Cancer Risk to Receptors : *(Offsite and residence = 30-year exposure, worker = 25-year exposure)*
 - Offsite 65.9 in a million Location: (409420, 3765341)
 - Residence 16 in a million Location: (409100, 3766500)
 - Worker 2.44 in a million Location: (409400, 3765300)
- Substances Accounting for 90% of Cancer Risk: Arsenic, Benzene, and Hexavalent Chromium
 Processes Accounting for 90% of Cancer Risk: Secondary Lead Smelting
- Cancer Burden for a 70-yr exposure: *(Cancer Burden = [cancer risk] x [# of people exposed to specific cancer risk])*
 - Cancer Burden 2.0
 - Number of people exposed to >1 per million cancer risk for a 70-yr exposure 658,608
 - Maximum distance to edge of 70-year, 1×10^{-6} cancer risk isopleth (meters) 16,500

B. Hazard Indices

[Long Term Effects (chronic) and Short Term Effects (acute)]

(non-carcinogenic impacts are estimated by comparing calculated concentration to identified Reference Exposure Levels, and expressing this comparison in terms of a "Hazard Index")

- Maximum Chronic Hazard Indices:
 - Residence HI: 0.70 Location: (408940, 3765859) toxicological endpoint: Central Nervous System
 - Worker HI : 1.28 Location: (409400, 3765300) toxicological endpoint: Central Nervous System
 - Modeled Lead* : 0.001 ug/m³ Location: (409319, 3765341) *[Lead NAAQS: 0.15 ug/m³]*

*Highest onsite monitor shows 3-month rolling average concentration of 0.08 ug/m³ in 2013
- Substances Accounting for 90% of Chronic Hazard Index: Arsenic
- Maximum 8-hour Chronic Hazard Index:

8-Hr Chronic HI: 0.051 Location: (409400, 3765300) toxicological endpoint: _____
- Substances Accounting for 90% of 8-hour Chronic Hazard Index: _____
- Maximum Acute Hazard Index:

PMI: 0.22 Location: (409219, 3765141) toxicological endpoint: Developmental and Reproductive System
- Substances Accounting for 90% of Acute Hazard Index: Arsenic and Benzene

C. Public Notification and Risk Reduction

- Public Notification Required? Yes No
 - If 'Yes', estimated population exposed to risks > 10 in a million for a 30-year exposure, or an HI >1
11,126
- Risk Reduction Required? Yes No



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A. Cancer Risk

(One in a million means one chance in a million of getting cancer from being constantly exposed to a certain level of a chemical over a period of time)

- Inventory Reporting Year : 2014
- Maximum Cancer Risk to Receptors : *(Offsite and residence = 30-year exposure, worker = 25-year exposure)*
 - Offsite 40.1 in a million Location: (409320, 3765514)
 - Residence 8.1 in a million Location: (409039, 3766141)
 - Worker 1.8 in a million Location: (409419, 3765341)
- Substances Accounting for 90% of Cancer Risk: Arsenic, Benzene, and Hexavalent Chromium
 Processes Accounting for 90% of Cancer Risk: Secondary Lead Smelting
- Cancer Burden for a 70-yr exposure: *(Cancer Burden = [cancer risk] x [# of people exposed to specific cancer risk])*
 - Cancer Burden 0.66
 - Number of people exposed to >1 per million cancer risk for a 70-yr exposure 308,210
 - Maximum distance to edge of 70-year, 1×10^{-6} cancer risk isopleth (meters) 11,409

B. Hazard Indices

[Long Term Effects (chronic) and Short Term Effects (acute)]

(non-carcinogenic impacts are estimated by comparing calculated concentration to identified Reference Exposure Levels, and expressing this comparison in terms of a "Hazard Index")

- Maximum Chronic Hazard Indices:
 - Residence HI: 0.49 Location: (409039, 3766141) toxicological endpoint: Central Nervous System
 - Worker HI : 0.83 Location: (409419, 3765341) toxicological endpoint: Central Nervous System
 - Modeled Lead* : _____ Location: _____ *[Lead NAAQS: 0.15 ug/m³]*

**Highest onsite monitor shows 3-month rolling average concentration of 0.08 ug/m³ since 2013*
- Substances Accounting for 90% of Chronic Hazard Index: Arsenic
- Maximum 8-hour Chronic Hazard Index:

8-Hr Chronic HI: 0.036 Location: (409419, 3765341) toxicological endpoint: Central Nervous System
- Substances Accounting for 90% of 8-hour Chronic Hazard Index: _____
- Maximum Acute Hazard Index:

PMI: 0.11 Location: (409219, 3765141) toxicological endpoint: Central Nervous System
- Substances Accounting for 90% of Acute Hazard Index: Arsenic and Benzene

C. Public Notification and Risk Reduction

- Public Notification Required? ___ Yes NO
 - If 'Yes', estimated population exposed to risks > 10 in a million for a 30-year exposure, or an HI >1 _____ residential receptors
- Risk Reduction Required? Yes ___ No

ATTACHMENT D

Public Notification Area Map

May 17, 2016

