South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4182
(909) 396-2000 • www.aqmd.gov

EMAILED and MAILED: October 8, 2015

October 8, 2015

Mr. Mark Olson
Gerdau - Rancho Cucamonga Mill
12459-B Arrow Route
Rancho Cucamonga, CA 91739

Subject: AB2588 Revised Health Risk Assessment (HRA) Approval
Gerdau – Rancho Cucamonga Mill (SCAQMD No.: 18931)

Dear Mr. Olson:

This letter provides a final approval of the HRA submitted by Gerdau pursuant to AB2588 and South Coast Air Quality Management District (SCAQMD) Rule 1402, including revisions made by SCAQMD staff. The risks in the HRA have been revised by SCAQMD staff to reflect the recently updated guidance from the state Office of Environmental Health Hazard Assessment (OEHHA)[1] that was incorporated into Rule 1402 in June 2015. As noted in the HRA Summary Form attached to this letter, reported risks are above public notification and risk reduction levels specified in Rule 1402. Gerdau will be required to notify the public within 30 days of approval of the HRA and submit a Risk Reduction Plan within 180 days of approval of the HRA.

Background

In accordance with the Air Toxics "Hot Spots" Information and Assessment Act (AB 2588) and SCAQMD Rule 1402, the SCAQMD staff notified Gerdau on April 24, 2013 that it must submit a HRA based on information from its most recent priority score and Air Toxics Inventory Report (ATIR). The HRA prepared pursuant to this request was submitted on September 20, 2013, subsequently reviewed by SCAQMD staff and sent back for revision to Gerdau on February 14, 2014. Specifically, staff requested that the amended HRA include a reconciliation of dispersion modeling results with results from onsite monitoring data and corrections to a variety of modeling parameters. A second draft HRA was submitted by Gerdau on April 21, 2014. On November 20, 2014 SCAQMD staff requested that the HRA again be revised to provide additional information regarding potential exceedances of National Ambient Air Quality Standard (NAAQS) for lead, clarification of how historical and projected future throughput increases above the HRA base emission inventory year could impact risk, and other clarifications to the modeling and text of the HRA.

[1] Available here: http://oehha.ca.gov/air/hot_spots/riskguidancedraft2014.html

The third draft of the HRA was submitted by Gerdau on January 20, 2015. Subsequently, OEHHA revised its HRA guidance document on March 6, 2015, and SCAQMD updated its Rule 1402 on June 5th, 2015. Due to these changes, SCAQMD staff recalculated the risks using the new HARP2 software available from the state Air Resources Board[2].

SCAQMD tentatively approved the HRA on August 7, 2015, and due to the substantial change in risk from the new OEHHA guidance, Gerdau was provided two weeks to review and comment on the results. Minor modifications have been made to this final approved HRA based on comments received from Gerdau on August 24, 2015. In particular, the modeling was updated to utilize the most recent version of HARP (version 15197) for the cancer burden analysis and to ensure that the meteorological dataset was consistent for all health risk calculations. These minor modifications did not significantly alter the health risk results in comparison to the tentatively approved HRA.

Risk Results and Next Steps

Several health risk endpoints from the recalculated HRA exceed thresholds specified in Rule 1402. A map showing the areas with health risk levels that exceed public notification thresholds is attached to this letter. In addition, the residential cancer risk (52.7 per million), the cancer burden (3.08), the worker chronic hazard index (3.19), and the acute hazard index (3.04) all exceed the risk reduction thresholds in Rule 1402. Because of these rule exceedances, Gerdau must:

- Conduct public notification pursuant to SCAQMD Public Notification Procedures[3] within 30 days of this letter; and
- Submit a Risk Reduction Plan (RRP) within 180 days of this letter; and
- Implement the RRP as quickly as feasible, but no later than three years from the initial RRP submittal date.

In addition, SCAQMD staff notes that the HRA modeling demonstrates that the modeled lead concentration is higher than the National Ambient Air Quality Standard in a small area to the south of the facility. As you are aware, the SCAQMD recently adopted Rule 1420.2 (Emissions Standards for Lead from Metal Melting Facilities) to address potential lead emissions from Gerdau and other facilities. The RRP should specify how the facility intends to meet the requirements and timelines specified in the adopted rule in addition to the RRP requirements of Rule 1402.

[2] Available here: http://www.arb.ca.gov/toxics/harp/harp.htm
[3] Available here: http://www.aqmd.gov/docs/default-source/planning/risk-assessment/public-notification-procedures.pdf

If you have any questions regarding this letter, please contact me at (909) 396-3244. In addition, given the short timeframe for conducting public notification and the large population that must be notified, please schedule a meeting with SCAQMD staff to discuss the next steps for public notification.

Sincerely,

Ian MacMillan
Planning and Rules Manager

Attachment: HRA Summary Form
Public Notification Areas Map

cc: Joe Hower, Environ
Jill Whynot, SCAQMD
Susan Nakamura, SCAQMD
Victoria Moaveni, SCAQMD
Wing Ko, SCAQMD

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HEALTH RISK ASSESSMENT SUMMARY FORM

Facility Name : Gerdau
Facility Address: 12459-B Arrow Route
Rancho Cucamonga, California
Type of Business: Steel Mini-Mill
SCAQMD ID No.: 18931

A. Cancer Risks

(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)

1. Inventory Reporting Year : 2011
2. Maximum Cancer Risks : *(Offsite and residence = 30-year exposure, worker = 25-year exposure)*
   a. Offsite 883.34 in a million Location: Fenceline Point 4194; (450761.9 m, 3772573.6 m)
   b. Residence 52.70 in a million Location: Point 1351; (451800 m, 3773300 m)
   c. Worker 23.18 in a million Location: Point 974; (450700 m, 3772500 m)
3. Substances Accounting for 90% of Cancer Risk: Cr(VI), Dioxins-w/o, Diesel Exhaust PM, Cadmium, Lead
   Processes Accounting for 90% of Cancer Risk: EAF baghouse vents, melt shop fugitive, diesel light towers
4. Estimated Population Exposed to Specific Risk Levels for a 70-year exposure
   a. 1 to <10 in a million 1,134,193
   b. 10 to <100 in a million 27,012
   c. >100 in a million 0
   d. Total >= 1 in a million 1,161,205
5. Cancer Burden: 3.08
   Cancer Burden = (cancer risk) x (number of people exposed to specific cancer risk)
6. Maximum Distance to Edge of 70-year, 1 x 10^{-6} Cancer Risk Isopleth (meters) 28,000

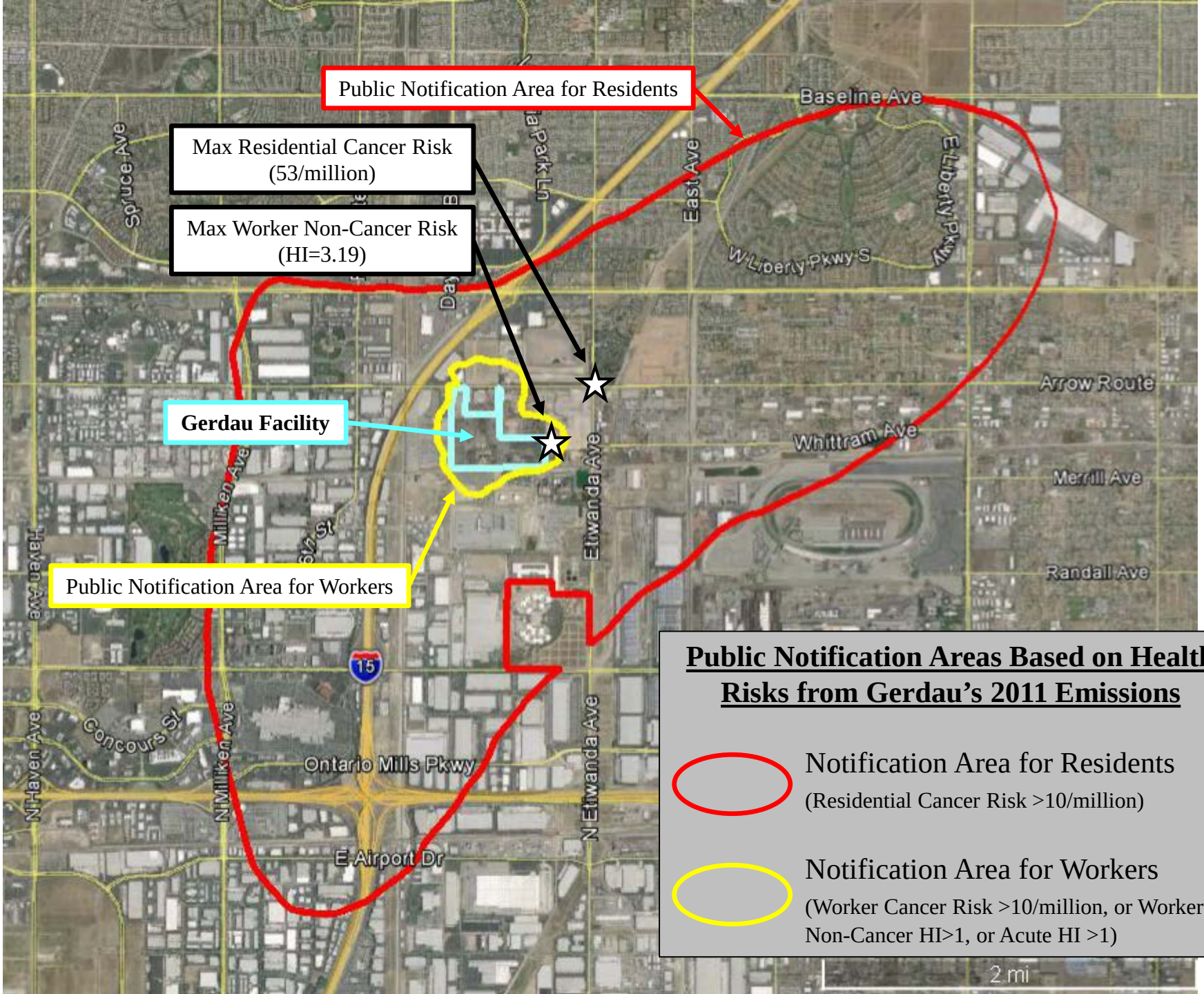
B. Non-Cancer Risks

[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")

1. Maximum Non-Cancer Chronic Health Risks:
   a. Residence HI: 0.53 Location: 451800 m, 3773300 m toxicological endpoint: CNS
   b. Worker HI : 3.19 Location: 451300 m, 3772800 m toxicological endpoint: CNS
   c. Lead NAAQS: 0.31 µg/m^3 Location: 450761 m, 3772573 m
2. Substances Accounting for 90% of Chronic Hazard Index: Manganese, Arsenic
3. Maximum 8-hour Chronic Hazard Index:
   8-Hour Chronic HI: 1.42 Location: 451300 m, 3772800 m toxicological endpoint: CNS
4. Substances Accounting for 90% of 8-hour Chronic Hazard Index: Manganese
5. Maximum Acute Hazard Index:
   PMI: 3.04 Location: 450869.2 m, 3772854.1 m toxicological endpoint: IMMUN
6. Substances Accounting for 90% of Acute Hazard Index: Nickel

C. Public Notification and Risk Reduction

1. Public Notification Required? **Yes**
   a. If 'Yes', estimated population exposed to risks > 10 in a million for a 30-year exposure, or an HI >1
   23,929
2. Risk Reduction Required? **Yes**


Public Notification Area for Residents
Max Residential Cancer Risk (53/million)
Max Worker Non-Cancer Risk (HI=3.19)
Gerdau Facility
Public Notification Area for Workers
Baseline Ave
East Ave
E Liberty Pkwy
W Liberty Pkwy S
Arrow Route
Whittram Ave
Merrill Ave
Randall Ave
Etiwanda Ave
N Etiwanda Ave
Milliken Ave
N Milliken Ave
Haven Ave
N Haven Ave
Concours St
Ontario Mills Pkwy
E Airport Dr
15
Spruce Ave
2 mi
Public Notification Areas Based on Health Risks from Gerdau's 2011 Emissions
Notification Area for Residents
(Residential Cancer Risk >10/million)
Notification Area for Workers
(Worker Cancer Risk >10/million, or Worker Non-Cancer HI>1, or Acute HI >1)