

**REVIEW OF CREMATION SERVICES INC.
AB2588 HEALTH RISK ASSESSMENT (HRA)**

September 21, 2022

Emissions Inventory Facility ID: 95039

Toxics Emissions Inventory Year: 2016

Review Conducted by: Peter Ossowski, SDAPCD

As required by the California Health and Safety (H&S) code, section 44360, the San Diego County Air Pollution Control District (District) requested a Health Risk Assessment (HRA) from Cremation Services Inc. on October 20, 2020, for the facility at 2570 Fortune Way in Vista based on emissions that occurred in calendar year 2016. Cremation Services Inc. submitted an HRA to the District on April 8, 2022. The District provided our comments on the HRA along with comments provided from the Office of Environmental Health Hazard Assessment (OEHHA) to Cremation Services Inc. on July 14, 2022. Cremation Services Inc. submitted a revised HRA to the District on August 11, 2022. Subsequently, the District revised and approved the HRA on September 21, 2022.

The following are the results of the District revised HRA.

Summary of District Revised Risk Assessment Results:

Cancer at Point of Maximum Impact (PMI)	48.48 in one million
Cancer at Maximum Exposed Individual Resident (MEIR)	0.20 in one million
Cancer at Maximum Exposed Individual Worker (MEIW)	12.95 in one million
Chronic Noncancer Health Hazard Index at PMI	2.35
Chronic Noncancer Health Hazard Index at MEIR	0.01
Chronic Noncancer Health Hazard Index at MEIW	1.46
8-Hour Noncancer Health Hazard Index at MEIW	0.96
Acute Noncancer Health Hazard Index at PMI	0.95
Acute Noncancer Health Hazard Index at MEIR	0.04
Acute Noncancer Health Hazard Index at MEIW	0.95
Sub-Chronic Lead Exposure Risk at Maximum Offsite Concentration (MOC)	<0.12 $\mu\text{g}/\text{m}^3$
Population Excess Cancer Burden	0.0

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The facility's sources include:
Incinerators

Summary of Health Impacts by Pollutant and Source:

The Cancer risk at the MEIW is primarily due to hexavalent chromium (86%), arsenic (11%), and cadmium (2%).

The Cancer risk at the MEIW is due to Stack 1 (39.4%) and Stack 2 (60.6%).

The Chronic HHI at the MEIW is primarily due to mercury (64%) and arsenic (36%).

The Chronic HHI at the MEIW is due to Stack 1 (39.2%) and Stack 2 (60.8%).

The revised HRA concludes that worker cancer risk and worker chronic non-cancer HHI does exceed the significant risk thresholds specified in District Rule 1210.

Location of Receptors at Maximum Exposure Points:

Universal Transverse Mercator (UTM)	X (m)	Y (m)
Cancer Risk at the (PMI)	479026	3667895
Cancer Risk at the (MEIR)	479790	3668220
Cancer Risk at (MEIW)	479013	3667890
Chronic Non-Cancer Health Hazard Index (PMI)	479026	3667895
Chronic Non-Cancer Health Hazard Index (MEIR)	479790	3668220
Chronic Non-Cancer Health Hazard Index (MEIW)	479013	3667890
8-hour Chronic Non-Cancer Health Hazard Index (MEIW)	479046	3667895
Acute Non-Cancer Health Hazard Index (PMI)	479046	3667895
Acute Non-Cancer Health Hazard Index (MEIR)	480190	3667620
Acute Non-Cancer Health Hazard Index (MEIW)	479046	3667895

UTM was used for the geographic coordinate system with the World Geodetic System of 1984 (WGS84).

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Changes to the Revised HRA

Receptors were added to the neighboring suites occupied in 2016.

AERMOD – Version 19191 was used in the District revision.

Notification-Triggering Isopleths

Worker Cancer Notification Isopleth



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Worker Chronic Non-Cancer Health Hazard Index Notification Isopleth

