REVIEW OF REVISED HUNTINGTON INGALLS AB2588 HEALTH RISK ASSESSMENT (HRA)

February 4, 2021

Emissions Inventory Facility ID: 5056

Toxics Emissions Inventory Year: 2014

Review Conducted by: Michael Kehetian, SDAPCD

Huntington Ingalls submitted a Health Risk Assessment (HRA) for the 2014 calendar year dated August 9, 2019, to satisfy the requirements of AB2588 "Hot Spots." The District provided comments to Huntington Ingalls on September 28, 2020. In response, Huntington Ingalls resubmitted a revised HRA on November 25, 2020. The initially submitted and revised HRA were both based on an unapproved 2014 Toxics Emission Inventory. The District updated the revised HRA submittal with approved 2014 emissions.

Summary of District Revised Health Risk Assessment Results:

Maximum Individual Excess Lifetime Cancer Risk	33.2 in a million
Maximum Residential Excess Lifetime Cancer Risk	1.73 in a million
Maximum Occupational Excess Lifetime Cancer Risk	3.50 in a million
Maximum Chronic Non-Cancer Health Hazard Index	0.65
Maximum Residential Chronic Non-Cancer Health Hazard Index	0.08
Maximum Occupational Chronic Non-Cancer Health Hazard Index	0.30
Maximum 8-Hour Occupational Non-Cancer Health Hazard Index	0.13
Maximum Acute Health Hazard Index	2.27
Maximum Public Park Acute Health Hazard Index	1.85
Maximum Residential Acute Health Hazard Index	0.34
Maximum Occupational Acute Health Hazard Index	1.07
Population Excess Cancer Burden	2.0E-04

Summary of Health Impacts:

Cancer risk at the Maximum Exposed Individual Resident (MEIR) is due to diesel particulate matter (42%), hexavalent chromium (28%), cadmium (17%), and nickel (10%).

The Chronic Health Hazard Index (HHI) at the MEIR is mainly due to nickel.

The 8-Hour HHI at the MEIW is due to nickel.

The Acute HHI is due to nickel from abrasive blasting and welding.

The revised HRA concludes that acute risk exceeds the public notification level of 1.0 specified in District Rule 1210.

Modelling:

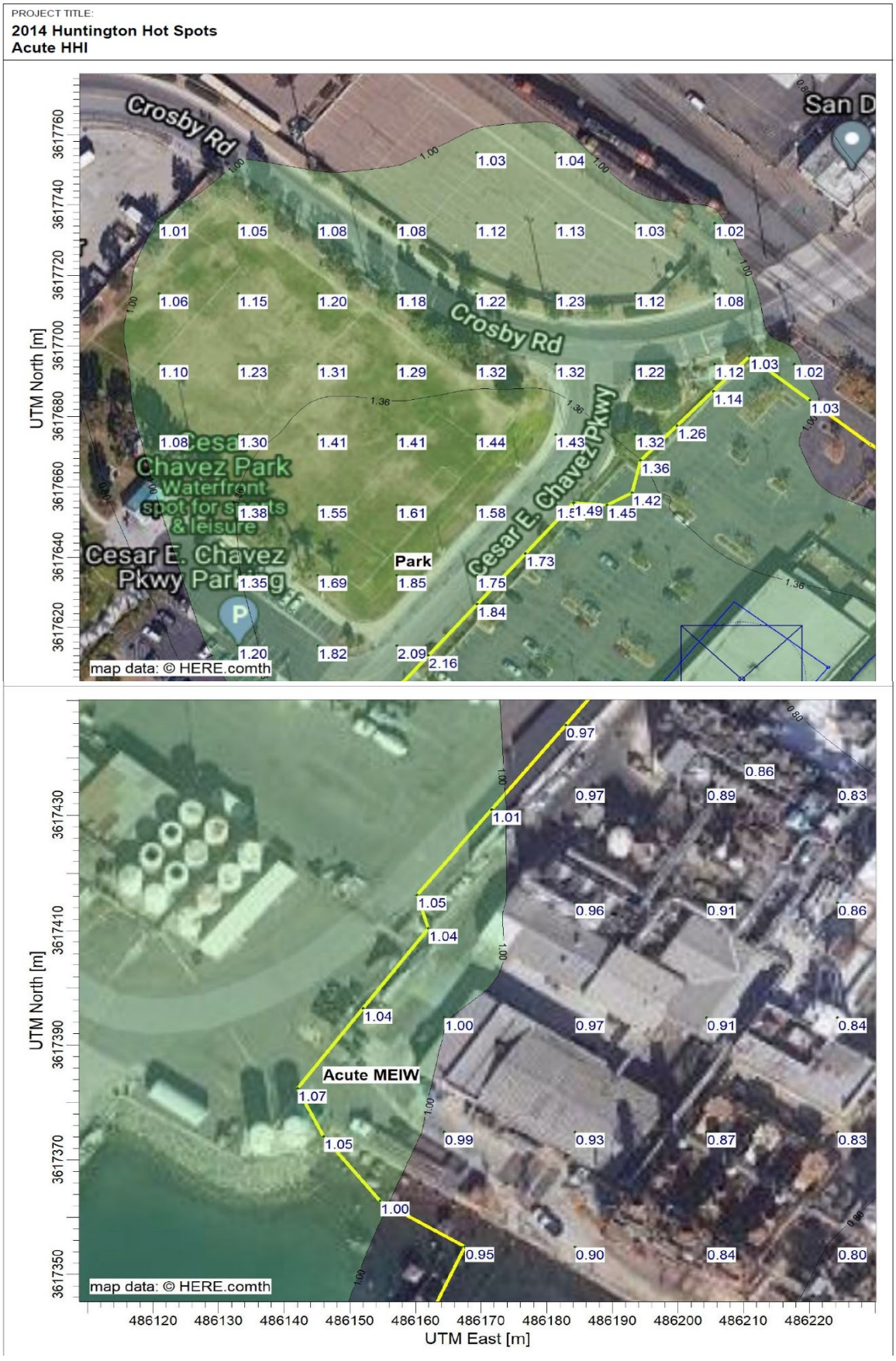
The meteorological data set used in the modeling is the San Diego Perkins Elementary station (U* adjusted, 2010 – 2012). Urban dispersion coefficients were used.

Hour of Day Scalars (HROFDY).

1. For Daytime Operation (6 AM to 3 PM); WAF = (9 hrs/day) / (8 hrs/day) x (7 days/week) / (5 days/week) = 1.575.
2. For Ship-Based sources (6 AM to 11 PM); WAF = (17 hrs/day) /(8 hrs/day) x (7 days/week) / (5 days/week) = 2.975.
3. For the Blasting Pit only, (10 PM to 5 AM); WAF = (8 hrs/day) / (8 hrs/day) x (7 days/week) / (5 days/week) = 1.4.

HARP Risk Calculations:

1. 70-year Residential Cancer Risk, ARB Risk Management Policy (RMP) for Cancer Burden.
2. 30-year Residential Cancer Risk, RMP Method.
3. 25-year Worker Cancer Risk, OEHHA Derived Method.
4. Deposition Rate of 0.05 m/s.
5. Residential Exposure Pathways: Inhalation, Soil, Dermal, Mother's Milk.
6. Fraction of Time at Home applied only for ages greater than or equal to >=16 years old.
7. Worker Exposure Pathways: Inhalation (8-hr breathing rates, Moderate intensity), Soil Ingestion, and Dermal Contact (Warm).


PROJECT TITLE:
2014 Huntington Hot Spots
Acute HHI
Crosby Rd
Cesar E. Chavez Park
Waterfront
spot for sports
& leisure
Cesar E. Chavez
Pkwy Parking
Park
Cesar E. Chavez Pkwy
Acute MEIW
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