San Joaquin Valley
Air Pollution Control District

APR – 1906
Framework for Performing Health Risk Assessments

Approved By:	Arnaud Marjollet, Director of Permit Services	Date: June 30, 2015

I. Purpose

The purpose of this guidance is to provide a framework for performing health risk assessments within the jurisdiction of the San Joaquin Valley Air Pollution Control District ("District"). This policy does not cover specific or technical modelling issues that are discussed in other policies, guidance, or documents provided by the District.

II. Applicability

This policy applies to the District's Risk Management Review (RMR – APR1905), California Environmental Quality Act (CEQA), and The California Air Toxic "Hot Spots" Act (AB2588) programs.

III. Health Risk Assessment (HRA) Thresholds

Permitting RMR, and CEQA

- For permitting purposes, the District will not approve projects that result in a twenty (20) in one million or greater cancer risk, per policy APR-1905.
- For CEQA purposes, projects that result in a twenty (20) in one million or greater cancer risk should be considered to have a significant air quality impact.

AB2588

Thresholds associated with the AB2588 program:

- Significant Risk: ten (10) in one million or greater
- Risk Reduction Audit and Plan: one hundred (100) in one million or greater

IV. Implementation Date

On March of 2015, the Office of Environmental Health Hazard Assessment (OEHHA) approved the "The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments" guidance document. The District will require all health risk assessments being prepared for compliance with the District's RMR, CEQA, and AB2588 programs to use the District's policies and guidance in conjunction with OEHHA's 2015 guidance document no later than July 1, 2015. Any proposed exceptions from this implementation date must be approved by the Director of Permit Services.

V. Implementation Procedures

In order to implement the 2015 OEHHA guidance based on project specific information, the District has developed a tier approach that consists of a three tier process:

- The 1st tier is a Screening Estimate which uses the most conservative modeling and exposure parameters resulting in the highest calculated risk for children. No additional data is required from the applicant.
- The 2nd tier is a refinement of Project Specific Modeling Inputs.
- The 3rd tier is a refinement of Project Specific Exposure Parameters.

A. TIER 1 - Screening Estimate

TIER 1 is used when specific information about a project and its location relative to actual or foreseen receptors are not known. The risk assessment should utilize the HARP2 or equivalent program.

B. TIER 2 - Refined Project Specific Modeling Inputs

TIER 2 is used when specific modeling input information about the project is known. This includes AERMOD model inputs (e.g., UTMs or Lat/Long coordinates of the emission source(s) and receptor(s) under evaluation) that would refine accuracy of the modeled concentration.

Other refined AERMOD options employed in the model that are non-standard (e.g., low wind speed) and not specifically allowed by District policy must be justified and approved by the District.

C. TIER 3 - Refined Project Specific Exposure Parameters

TIER 3 is used when specific exposure parameters information about the project and effected receptors are known. This includes information about limits to the life of a project, receptor time away from home, or other project specific receptor exposure parameters. Refinements to the District default exposure parameters

require project specific justification and should be provided to the District or lead agency for review as part of the modeling documentation.

Please Note: A health risk assessment may begin at any tier level depending on the information available. District policy does not allow the use of spatial averaging, breathing rates of less than 95% for all receptors, or reductions in exposure times other than those discussed here. More information on each tier is provided below.

Table 1 – HRA Implementation Comparison

OEHHA/CARB HARP 2003 Guidance	**OEHHA/CARB HARP2 2015 Guidance**
Screening Estimate	TIER 1 Screening Estimate
• Derived OEHHA • 70-year Lifetime Exposure Period • Exposure Pathways (Inhalation, Soil, Dermal, Mother Milk, Home Grown Garden) • Deposition of 0.02	• Derived OEHHA • 70-year Lifetime Exposure Period • Exposure Pathways (Inhalation, Soil, Dermal, Mother Milk, Crops) • Deposition of 0.02
Refined	TIER 2 Refined Project Specific Modeling Inputs
In addition to options above: • Refined AERMOD Inputs • Exposure time (1 & 5 Project life) • Worker Adjustment • No Home Grown Garden – if appropriate	In addition to options above: • Refined AERMOD Inputs
	TIER 3 Refined Project Specific Exposure Parameters
	In addition to options above: • Exposure time (Actual Years) • Worker Adjustment • No Home Grown Garden – if appropriate • Time Away from Home (TAH)