



South Coast Air Quality Management District

DRAFT

**SCAQMD Guidelines for Participating in the Rule
1402 Voluntary Risk Reduction Program**

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ACRONYMS AND ABBREVIATIONS

AB 2588	Air Toxics "Hot Spots" Information and Assessment Act of 1987
ATIR	Air Toxics Inventory Report
HI	Hazard Index
HRA	Health Risk Assessment
MICR	Maximum Incremental Cancer Risk
OEHHA	California Office of Environmental Health Hazard Assessment
RRP	Risk Reduction Plan
Rule 1402	SCAQMD Rule 1402 – Control of Toxic Air Contaminants from Existing Sources
SCAQMD	South Coast Air Quality Management District
TAC	Toxic Air Contaminant

QUICK REFERENCE OF TERMS

Action Risk Level	MICR of twenty-five in one million (25×10^{-6}), cancer burden of one half (0.5), a total acute or chronic HI of three (3.0) for any target organ system at any receptor location, or the National Ambient Air Quality Standard (NAAQS) for lead.
Notification Risk Level	MICR of ten in one million (10×10^{-6}), a total acute or chronic HI of one (1.0) for any target organ system at any receptor location, or the more stringent of either the NAAQS for lead or applicable ambient lead concentration limit in a SCAQMD rule.
Significant Risk Level	MICR of one hundred in one million (100×10^{-6}) or a total acute or chronic HI of five (5.0) for any target organ system at any receptor location.
Voluntary Risk Threshold	Estimated health risk level after accounting for implementation of voluntary risk reduction measures designed to result in a risk below the following: MICR of ten in one million (10×10^{-6}), a total acute or chronic HI of one (1.0) for any target organ system at any receptor location, or the more stringent of either the NAAQS for lead or applicable ambient lead concentration limit in a SCAQMD rule.

INTRODUCTION

The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) established a statewide program to inventory air toxics emissions from individual facilities as well as requirements for risk assessment, public notification of potential health risks, and risk reduction. South Coast Air Quality Management District (SCAQMD) Rule 1402 – Control of Toxic Air Contaminants from Existing Sources (Rule 1402) implements various aspects of AB 2588 and includes public notification and risk reduction requirements for facilities that are above set thresholds.

Rule 1402 includes a provision to allow facilities to participate in the Voluntary Risk Reduction Program. The Voluntary Risk Reduction Program was developed based on comments from some industry representatives that wanted the opportunity to voluntarily reduce their health risk beyond the Action Risk Level to below the Notification Level in lieu of the standard process. The Voluntary Risk Reduction Program is an alternative to complying with the traditional AB 2588 and Rule 1402 approach that provides qualifying facilities an opportunity to reduce health risks below the Notification Risk Level with a Modified Public Notification approach that does not require distribution of individual letters and public meetings. The Modified Public Notification will be placed on the SCAQMD's website in the AB 2588 Annual Report in lieu of traditional Public Notification (Please refer to the SCAQMD's "Public Notification Procedures for Facilities Under the Air Toxics "Hot Spots" Information and Assessment Act (AB2588) and Rule 1402"). This Program will achieve risk reductions both sooner and beyond what is required in the traditional Rule 1402 process as it focuses on implementation of risk reduction measures immediately.

Under Rule 1402, facilities that meet the eligibility requirements and elect to participate in the Voluntary Risk Reduction Program must submit a Voluntary Risk Reduction Plan. The Voluntary Risk Reduction Plan identifies the risk reduction measures that a facility will implement to achieve risk reductions below the Voluntary Risk Threshold. The SCAQMD "Guidelines for Participating in the Rule 1402 Voluntary Risk Reduction Program" (Guidelines) specify the procedures for preparing, approving, and demonstrating implementation of the Voluntary Risk Reduction Plan. As discussed in more detail below, the purpose of these Guidelines are to specify:

1. The procedures an owner or operator must follow in preparing a Voluntary Risk Reduction Plan pursuant to paragraph (h)(2) of Rule 1402;
2. The information that the Executive Officer will use when approving or rejecting the Voluntary Risk Reduction Plan pursuant to (h)(3) of Rule 1402; and
3. The information required in the Final Implementation Report for the Voluntary Risk Reduction Plan

PREPARING A VOLUNTARY RISK REDUCTION PLAN

The owner or operator is responsible for preparing a Voluntary Risk Reduction Plan that identifies the risk reduction measures that shall be implemented in order to reduce the impact of the total facility emissions below the Voluntary Risk Threshold. Rule 1402 defines the Voluntary Risk Threshold as the estimated health risk level after accounting for implementation of voluntary risk reduction measures designed to result in a risk below the following: MICR of ten in one million (10×10^{-6}), a total acute or chronic HI of one (1.0) for any target organ system at any receptor

location, and the more stringent of either the NAAQS for lead or applicable ambient lead concentration limit in a SCAQMD rule. Only those risk reduction measures that are needed to reduce facility risks below the Voluntary Risk Threshold need to be identified in the Voluntary Risk Reduction Plan.

The Voluntary Risk Reduction Plan shall include:

1. Facility Information
 - Name
 - SCAQMD Facility Identification Number (FID)
 - Location (i.e., address and UTM coordinates in WGS84)
 - E-mail address to confirm receipt
 - Facility plot plan
 - Property boundaries
 - Horizontal scale
 - Building heights (for building downwash calculations)
 - Source locations including elevations
2. Current Facility Risk Characterization
 - Increases or decreases in facility emissions, by toxic air contaminant (TAC) with CAS number, for each device and process compared to the previously approved HRA
 - Files listed in Table 1 must be provided with Currently Facility Risk Characterization
3. Proposed Facility Risk Characterization
 - A description of the verifiable risk reduction measure(s) and estimated emission reductions or efficiency that includes
 - A description of how the risk reduction measures(s) will be enforced, such as through a new or modified SCAQMD permit or compliance plan
 - A description of how the estimated emission reductions or efficiency will be demonstrated, such as through a source test, manufacturers' data, etc.
 - Permit number(s) associated with source(s) or process(es) to be reduced, if applicable
 - Schedule for implementing the specified risk reduction measures
 - The schedule shall include dates for increments of progress, including submittal dates for application for permits, purchase of equipment, source tests and commissioning of equipment
 - Anticipated increases or decreases in facility emissions, by TAC with CAS number, for each device and process with verifiable risk reduction measure(s)
4. Point Source Information (stacks, vents, etc.)
 - Number of operating hours per day, days per week, and weeks per year
 - Maximum and average hourly emission rates
 - Annual emissions
 - Stack location (in UTM coordinates in WGS84) on plot plan including elevation
 - Stack height
 - Stack gas exit velocity
 - Stack gas exit temperature
 - Stack and building dimensions, heights, and location
5. Fugitive Source Information (area and volume sources)
 - Maximum and average hourly emission rates

- Annual emissions
- Source location (in UTM coordinates in WGS84) on plot plan including elevations
- Source height
- Area or volume dimensions

Table 1: Files for Facility Risk Characterizations

File Type	Notes
Facility Risk Characterization Input	All files from a previously approved HRA in either CARB's Air Dispersion Modeling & Risk Assessment Tool (ADMRT) or HAPR Version 1 format
Facility Risk Characterization Output	
Emission Inventory Input	All files in CARB's Emissions Inventory Module format
Emission Inventory Output	
Emission Calculations	Provided in electronic format (e.g., Excel) and reference sources
Source Tests	Source tests can only be used if approved by SCAQMD
Air Monitoring Data	Any monitoring data used in the Facility Risk Characterization shall be provided

APPROVAL OF THE VOLUNTARY RISK REDUCTION PLAN

Within 30 days of receipt, the Executive Officer will conduct an initial review of the Voluntary Risk Reduction Plan and confirm receipt. The Executive Officer will approve or reject the Voluntary Risk Reduction Plan based on whether it meets the requirements outlined above, the information provided is complete and accurate, and the ability of the proposed Voluntary Risk Reduction Plan to verifiably reduce the impact of total facility risk below the Voluntary Risk Threshold as quickly as feasible, but by no later than two and half years from Voluntary Risk Reduction Plan approval. If the Voluntary Risk Reduction Plan is rejected, the facility has 30 days to correct all deficiencies and resubmit. If the revised plan is rejected, the facility has one more opportunity to fix the deficiencies. If the second revised plan is rejected, then the facility will not be allowed to participate in the Voluntary Risk Reduction program and the denial will act as a notification to prepare an Air Toxics Inventory Report (ATIR) and the facility will be subject to the standard risk assessment pathway.

Emission reductions or control efficiencies must be verifiable to be considered as a risk reduction measure in a Voluntary Risk Reduction Plan. Verifiable emission reductions or control efficiencies are those which are permanent, can be sustained, and must be enforceable through permit conditions or compliance plans. Emission reductions or control efficiencies must be demonstrable through a source test, manufacturers' data, or other mechanism. Each risk reduction measure shall be implemented by the date specified in the approved Voluntary Risk Reduction Plan. Rule 1402 includes provisions for modifying Voluntary Risk Reduction Plans and extending implementation dates, if needed.

VOLUNTARY RISK THRESHOLD

The Voluntary Risk Threshold is based on the concept of the ATIR. The facility will submit information required in Voluntary Risk Reduction Plan. SCAQMD staff will then run the information through the latest approved version of California Air Resources Board's Hotspots Analysis and Reporting Program (HARP) or equivalent and compare the result to the Voluntary Risk Threshold pursuant to Rule 1402 paragraph (c)(22).

For example, consider a facility with an original MICR of 6.6 in one million where 60% of the risk is hexavalent chromium emissions from a single source. Applying the new OEHHA guidelines, a multiplier of 3.7 for hexavalent chromium and 2.3 for the remainder of the TACs results in a new facility MICR of approximately 20.7 (14.7 for hexavalent chromium and 6.1 for the remaining TACs) in one million. Through the Voluntary Risk Reduction Program, the facility could opt to install a scrubber with a 98% control factor, to control hexavalent chromium emissions. The new theoretical MICR for hexavalent chromium would be 0.3 in one million, while the remaining TACs would still be 6.1 in one million for a total facility MICR of 6.4 in one million. The facility would propose installation of the scrubber system in their Voluntary Risk Reduction Plan and SCAQMD staff would verify that the measure(s) would indeed result in facility emissions below the Voluntary Risk Threshold.

FINAL IMPLEMENTATION REPORT

The owner or operator shall submit a final implementation report pursuant to Rule 1402 paragraph (j)(2). The final implementation report demonstrates that the measures in the Voluntary Risk Reduction Plan have been completed, risk reduction measures have been verified, and the facility is below Voluntary Risk Threshold. Approval of the final implementation report by the Executive Officer acknowledges compliance with Rule 1402 requirements and that no further action is necessary.

The final implementation report shall include, at a minimum, all of the following:

- The name, address, and SCAQMD facility identification number;
- The approved Voluntary Risk Reduction Plan; and
- Proof and verification the operator implemented the risk reduction measures in the approved Voluntary Risk Reduction Plan.

Proof would include enforceable permit conditions or compliance plans. Verification of emission reductions include, but are not limited to, specifications in the SCAQMD permit issued to the facility, a surrender of the existing SCAQMD permit(s), or reductions as required by SCAQMD rule(s). Letters of intent or internal memos mandating new company policy are not considered verifiable emission reductions. Verification of pollution control equipment which have been installed and are now in operation, includes but is not limited to, the source test protocol, final report, and all documents relating to the results.

RISK REDUCTION IMPLEMENTATION

Risk reduction measures identified in the Voluntary Risk Reduction Plan demonstrate how the facility will reduce the facility risk below the Voluntary Risk Threshold. All measures must be completed within the designated schedule and be verifiable and enforceable by permit condition or compliance plan. With Executive Officer approval, facilities may update, modify and request extensions to the Voluntary Risk Reduction Plan. Complete implementation of measures in the Voluntary Risk Reduction Plan demonstrates that facility emissions will be below the Voluntary Risk Threshold in Rule 1402 and no further action is necessary. Facilities failing to implement their Voluntary Risk Reduction Plan are in violation of Rule 1402 and subject to daily penalties. Facilities that cannot achieve compliance immediately may seek a variance from the SCAQMD Hearing Board, which may issue one depending on whether statutorily required findings can be made. See, e.g., Rule 515 – Findings and Decision .

REFERENCES

CAPCOA, 2016. **Air Toxics “Hot Spots” Program - Facility Prioritization Guidelines.** Prepared by the AB 2588 Risk Assessment Committee of the California Air Pollution Control Officers Association, 2016.

OEHHA, 2015. **Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment.** Prepared by Office of Environmental Health Hazard Assessment OEHHA, February 2015.

SCAQMD, 2015. **Facility Prioritization Procedures for AB 2588 Program.** Prepared by South Coast Air Quality Management District, June 2015. SCAQMD, 2015. **Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics “Hot Spots” Information and Assessment Act.** Prepared by South Coast Air Quality Management District

SCAQMD, 2016. **(Proposed Amended) Rule 1402 – Control of Toxic Air Contaminants from Existing Sources.** Prepared by South Coast Air Quality Management District.