

**RULE 1480 AMBIENT MONITORING AND SAMPLING OF METAL
TOXIC AIR CONTAMINANTS**

(a) Purpose

The purpose of this rule is to require an owner or operator of a facility that is designated by the Executive Officer as a Metal TAC Monitoring Facility pursuant to paragraph (d)(7) to conduct Monitoring and Sampling.

(b) Applicability

This rule applies to an owner or operator of a facility with Metal TAC emissions that receives an Initial Notice pursuant to paragraph (d)(1).

(c) Definitions

- (1) AMBIENT AIR means outdoor air.
- (2) BENCHMARK CONCENTRATION is the Metal TAC concentration at a monitor that represents the Reduced Risk Level at a Sensitive Receptor that is calculated using the methodology in Appendix 2 and is specified in the notification from the Executive Officer that the facility has been designated as a Metal TAC Monitoring Facility pursuant to paragraph (d)(8).
- (3) CANCER RISK is the estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to Metal TAC(s) for Sensitive Receptor locations calculated pursuant to the most recently approved Risk Assessment Procedures referenced in Rule 1401–New Source Review of Toxic Air Contaminants at the time the analysis is performed.
- (4) ENFORCEABLE MEASURE is a measure that reduces or eliminates emissions of Metal TAC(s) and is real, permanent, quantifiable, and enforceable by the Executive Officer.
- (5) INDIVIDUAL SUBSTANCE CHRONIC HAZARD INDEX is as defined in Rule 1401.
- (6) MAXIMUM EXPECTED GROUND LEVEL CONCENTRATION means the greatest concentration of a specific Metal TAC from a facility as determined by air dispersion modeling calculations and emission estimates from Metal TAC sources and fugitive Metal TAC sources, meteorology, and other factors.

- (7) METAL(S) OF CONCERN means the specific Metal TAC(s) that are contributing to the exceedance of the Significant Risk Level at a Sensitive Receptor, as determined pursuant to subparagraph (d)(7)(D).
- (8) METAL TOXIC AIR CONTAMINANT or METAL TAC means a metal air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health as listed by Office of Environmental Health Hazard Assessment.
- (9) METAL TAC MONITORING FACILITY means a facility that meets the criteria in paragraph (d)(7).
- (10) MONITORING AND SAMPLING means ambient air monitoring that is designed to measure concentrations of Metal TAC(s) from a facility and is conducted by an owner or operator of the facility, Executive Officer, or third party contractor.
- (11) REDUCED RISK LEVEL means a Cancer Risk that is 25 in one million and a total Individual Substance Chronic Hazard Index that is 3.0 for all target organ systems based on Metal TAC emissions from a facility.
- (12) SCHOOL means any public or private school, including juvenile detention facilities with classrooms, used for the education of more than 12 children at the school in kindergarten through grade 12. School also means an Early Learning and Developmental Program by the U.S. Department of Education or any state or local early learning and development programs such as preschools, Early Head Start, Head Start, First Five, and Child Development Centers. A school does not include any private school in which education is primarily conducted in private homes. The term includes any building or structure, playground, athletic field, or other area of school property.
- (13) SENSITIVE RECEPTOR means any residence including private homes, condominiums, apartments, and living quarters; schools as defined in paragraph (c)(12); daycare centers; and health care facilities such as hospitals or retirement and nursing homes. Sensitive Receptor includes long-term care hospitals, hospices, prisons, and dormitories or similar live-in housing.
- (14) SIGNIFICANT RISK LEVEL means a Cancer Risk that is 100 in one million or a total Individual Substance Chronic Hazard Index that is 5.0 for any target organ system based on Metal TAC emissions from a facility.

- (15) VALID SAMPLE for the purposes of Monitoring and Sampling for this rule is a monitoring sample that was collected and analyzed pursuant to an approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan.

- (d) Designation of a Metal TAC Monitoring Facility
 - (1) The Executive Officer may issue an Initial Notice that the Executive Officer is conducting Monitoring and Sampling to an owner or operator of a facility.
 - (2) After an Initial Notice is issued to an owner or operator of a facility, the Executive Officer may issue an Information Request, if additional information is needed to determine if a facility meets the criteria specified in paragraph (d)(7) to designate the facility as a Metal TAC Monitoring Facility. No later than the date specified in an Information Request, an owner or operator of a facility shall comply with all Information Requests from the Executive Officer, which may require:
 - (A) Conducting emissions testing and/or sample analyses, or providing the Executive Officer access to the facility to conduct such activities;
 - (B) Allowing the Executive Officer to conduct Monitoring and Sampling of Metal TAC(s) near or at the fenceline within a facility for a limited duration; and
 - (C) Providing material usage, manifests, emissions testing results, and other records for any Metal TAC(s).
 - (3) At least 30 days and no later than 180 days following the issuance of an Initial Notice or 180 days following the due date specified in the most recent Information Request, whichever is later, the Executive Officer may issue a Notice of Findings to an owner or operator of a facility that the facility may be designated as a Metal TAC Monitoring Facility pursuant to paragraph (d)(7), which will include:
 - (A) Results of Monitoring and Sampling of Metal TAC(s) with information on each individual sample including the Metal TAC(s) monitored, concentration of each Metal TAC, the date(s) and sample location(s);
 - (B) Results of data collected from any Information Request in paragraph (d)(2);

- (C) Findings that the facility has equipment or processes with Metal TAC emissions and those Metal TAC emissions are capable of being released into the ambient air ; and
 - (D) Highest health risk value at a Sensitive Receptor that exceeds the Significant Risk Level based on the Metal TAC emissions from the facility, location of the Sensitive Receptor with the highest health risk value, and the percent that each Metal TAC contributes to the highest health risk value, based on air dispersion modeling.
- (4) No later than 30 days from the date of the Notice of Findings, an owner or operator of a facility shall either:
- (A) Respond in writing to the Executive Officer that no additional information will be provided;
 - (B) Submit additional information pursuant to paragraph (d)(5) to the Executive Officer for consideration prior to determining if the owner or operator of a facility meets the criteria specified in paragraph (d)(7); or
 - (C) Notify the Executive Officer in writing that additional information referenced in subparagraph (d)(4)(B) will be submitted no later than 90 days from the date of the Notice of Findings.
- (5) An owner or operator of a facility that elects to submit additional information pursuant to subparagraph (d)(4)(B) shall provide evidence to show that the facility would not meet the criteria specified in paragraph (d)(7), by submitting the following:
- (A) Additional data to substantiate that some or all Metal TAC emissions from equipment or processes at the facility of the owner or operator are not contributing to the Metal TACs at ambient monitors or to exceeding the Significant Risk Level at any Sensitive Receptor;
 - (B) A written list of Enforceable Measures specifying the equipment, process, and actions, and that the Enforceable Measures have been implemented that reduce or eliminate Metal TAC emissions;
 - (C) A written list of Enforceable Measures of equipment or processes that will be implemented within 90 days of the Notice of Findings that will reduce or eliminate Metal TAC emissions that meets the following criteria:
 - (i) Permit to Construct has been issued;

- (ii) Equipment will be installed no later than 60 days after the date of the Notice of Findings; and
 - (iii) Equipment will be routinely operated no later than 90 days after the Notice of Findings;
 - (D) A written list of equipment or sources that are subject to a rule that is within Regulation XIV – Toxics and Other Non-Criteria Pollutants, for which the equipment or source meets the following criteria:
 - (i) The Regulation XIV rule has a provision with a final compliance date, that will result in Metal TAC emission reductions for a specific piece of equipment or source, that will occur after the Notice of Findings was issued;
 - (ii) All interim compliance dates have been met for any provision referenced in clause (d)(5)(D)(i); and
 - (iii) Steps have been taken to ensure that any interim compliance date will be met for any provision referenced in clause (d)(5)(D)(i), where the interim compliance date will occur after the submittal of additional information required pursuant to paragraph (d)(6); or
 - (E) Information to substantiate that the Metal TAC emissions detected by Monitoring and Sampling described in the Notice of Finding are not attributed to the facility that includes:
 - (i) Date(s) of the monitoring sample(s) in dispute;
 - (ii) Location of the monitor where the monitoring sample was collected;
 - (iii) Description of the alleged cause(s) and source(s) of the Metal TAC emissions including time frame and location; and
 - (iv) Evidence demonstrating that the cause(s) and source(s) of the Metal TAC emissions is not attributed to the facility.
- (6) No later than 90 days from the date of the Notice of Findings, an owner or operator of a facility that submitted a written notice to the Executive Officer pursuant to subparagraph (d)(4)(C) shall submit any additional information to the Executive Officer for consideration or respond in writing to the Executive Officer that no additional information will be provided.

- (7) The Executive Officer will consider information and data collected by the Executive Officer and data provided by the owner or operator of a facility pursuant to subparagraph (d)(4)(B). The facility shall be designated as a Metal TAC Monitoring Facility if:
 - (A) The facility has equipment or processes with Metal TAC(s) emissions;
 - (B) The Metal TAC(s) emissions are capable of being released into the ambient air;
 - (C) The facility has been designated as a Potentially High Risk Level Facility under Rule 1402; and
 - (D) Based on the Metal TAC emissions from the facility, the Executive Officer finds that the Significant Risk Level has been exceeded for any Sensitive Receptor using air dispersion modeling and the Risk Assessment Procedures referenced in Rule 1401, taking into account the following to the extent available:
 - (i) Results of Metal TAC emissions testing and sampling analyses;
 - (ii) Results of Monitoring and Sampling;
 - (iii) Records of Metal TAC material usages, manifests, and other records;
 - (iv) Information provided pursuant to paragraphs (d)(3), (d)(4), (d)(5), and (d)(6);
 - (v) Verification of the reduction or elimination of Metal TACs associated with implementation of Enforceable Measures provided in subparagraph (d)(5)(B), Enforceable Measures that will be implemented within 90 days of the Notice of Findings provided in subparagraph (d)(5)(C), and provisions in a Regulation XIV rule with a future effective final compliance date provided in subparagraph (d)(5)(D), provided all interim compliance dates have been met; and
 - (vi) Other information available to the Executive Officer.
- (8) The Executive Officer will notify an owner or operator of a facility in writing if the facility has or has not been designated as a Metal TAC Monitoring Facility pursuant to paragraph (d)(7). If the facility is designated as a Metal TAC Monitoring Facility, the notification shall include:

- (A) Information that demonstrates the facility met the criteria specified in paragraph (d)(7);
 - (B) Location of Sensitive Receptors that exceed the Significant Risk Level and the estimated health risk values;
 - (C) Metals of Concern;
 - (D) The equipment and processes that are contributing to exceeding the Significant Risk Level at the Sensitive Receptors;
 - (E) The initial number, type, and approximate location of the Metal TAC monitor(s) and wind monitor required to conduct Monitoring and Sampling; and
 - (F) Benchmark Concentration for each Metal of Concern and identification of the corresponding monitor.
- (9) An owner or operator of a facility that is designated as a Metal TAC Monitoring Facility pursuant to paragraph (d)(7) shall:
- (A) No later than 30 days after receiving a notice from the Executive Officer, submit a draft Basic Monitoring and Sampling Plan pursuant to subdivision (e); and
 - (B) No later than the date specified in the approval letter for the Basic Monitoring and Sampling Plan or within 30 days, if no date is specified in the approval letter, implement the approved Basic Monitoring and Sampling Plan and comply with the Monitoring and Sampling requirements pursuant to subdivision (f).
- (e) Monitoring and Sampling Plans
- (1) An owner or operator of a Metal TAC Monitoring Facility that is required to prepare a draft Basic Monitoring and Sampling Plan pursuant to paragraph (d)(9) or subparagraph (g)(2)(B), or a draft Reduced Basic or Reduced Alternative Monitoring and Sampling Plan pursuant to subparagraph (h)(1)(A) or (h)(4)(A) shall submit:
 - (A) A list of all equipment and processes that use or emit Metals of Concern with operating schedules and operating conditions;
 - (B) Any source test or emissions screening test reports of equipment and processes listed in subparagraph (e)(1)(A);
 - (C) A map of the facility that identifies the location of:
 - (i) All equipment and processes listed in subparagraph (e)(1)(A);

- (ii) Air pollution control devices and stacks;
 - (iii) Buildings;
 - (iv) Building openings;
 - (v) Storage of any materials that contain Metals of Concern;
 - (vi) Points of vehicle egress and ingress;
 - (vii) Property boundary of the facility;
 - (viii) Areas within the property boundary of the facility that are publicly accessible; and
 - (ix) Nearest Sensitive Receptors in all directions;
- (D) Any other process or emission information the Executive Officer requests in writing;
- (E) Information regarding the collection of wind data to meet the requirements of paragraph (f)(8) including:
- (i) A list of all equipment to be used to collect wind speed and direction data; or
 - (ii) An explanation of reasons why wind data may not be collected, such as the availability of wind speed and direction data from a representative location taking into account topography or the owner or operator of a Metal TAC Monitoring Facility elects not to monitor wind speed and direction;
- (F) Number and locations of the sampling sites that meet the requirements in paragraph (f)(2);
- (G) A list of all equipment to be used for Monitoring and Sampling to meet the requirements of subdivision (f);
- (H) Sampling and data collection information to meet the requirements of subdivision (f):
- (i) Operating procedures and maintenance schedule of the Monitoring and Sampling equipment to meet the requirements in paragraph (f)(4);
 - (ii) Sampling schedule that meets the requirements in paragraph (f)(3); sample collection, sample retrieval, and sample analysis that meet the requirements in paragraph (f)(5); sample storage that meets the requirements in paragraph (f)(6); and, for discrete samples, a chain of custody document;

- (iii) Quality assurance plan for Monitoring and Sampling activities;
 - (iv) Make-up missing sample procedures; and
 - (v) Metals of Concern and/or surrogate of Metals of Concern to be sampled; and
 - (I) The company name(s), location, and contact information that will be conducting:
 - (i) Sample collection and sample retrieval;
 - (ii) Sample analysis;
 - (iii) Sample storage;
 - (iv) Maintenance of Monitoring and Sampling equipment; and
 - (v) Set-up of Monitoring and Sampling equipment.
- (2) An owner or operator of a Metal TAC Monitoring Facility that is required to prepare a draft Alternative Monitoring and Sampling Plan pursuant to paragraph (g)(1) shall submit information in subparagraphs (e)(1)(A) through (e)(1)(E). An owner or operator of a Metal TAC Monitoring Facility that elects to have the Executive Officer collect wind data need not submit information in clause (e)(1)(E)(i).
- (3) The Executive Officer will notify an owner or operator of a Metal TAC Monitoring Facility in writing whether the draft Basic or Alternative Monitoring and Sampling Plan is approved. Approval of a draft Basic Monitoring and Sampling Plan will be based on information submitted pursuant to paragraph (e)(1) that meets the requirements of subdivision (f) and approval of a draft Alternative Monitoring and Sampling Plan will be based on information submitted pursuant to paragraph (e)(2).
- (4) Within 30 days of receiving a letter from the Executive Officer that states the draft Basic or Alternative Monitoring and Sampling Plan is not approved and that specifies all deficiencies, the owner or operator of a Metal TAC Monitoring Facility shall submit a revised draft Basic or Alternative Monitoring and Sampling Plan.
 - (A) The Executive Officer will notify an owner or operator of a Metal TAC Monitoring Facility in writing whether the revised draft Basic or Alternative Monitoring and Sampling Plan is approved. Approval of the revised draft Basic or Alternative Monitoring and Sampling Plan submitted pursuant to paragraph (e)(4) will be based

- on whether the deficiencies in meeting the requirements of subdivision (f) have been addressed.
- (B) If an owner or operator of a Metal TAC Monitoring Facility receives a denial letter from the Executive Officer that the revised draft Basic Monitoring and Sampling Plan is not approved, the owner or operator shall within seven days after the date of the denial letter:
 - (i) Permanently cease operating equipment and processes that may be contributing to Metals of Concern specified in subparagraph (d)(8)(D), request to inactivate or cancel the associated permit(s) and/or application(s), and notify the Executive Officer in writing; or
 - (ii) Meet the requirements of subdivision (g) for Alternative Monitoring and Sampling and notify the Executive Officer in writing. The revised draft Basic Monitoring and Sampling Plan will be modified by the Executive Officer and be approved as an Alternative Monitoring and Sampling Plan.
 - (C) If an owner or operator of a Metal TAC Monitoring Facility receives a denial letter from the Executive Officer that the revised draft Alternative Monitoring and Sampling Plan is not approved, the revised draft will be modified by the Executive Officer and be approved as an Alternative Monitoring and Sampling Plan.
- (5) The Executive Officer will notify an owner or operator of a Metal TAC Monitoring Facility in writing whether the draft Reduced Basic or Reduced Alternative Monitoring and Sampling Plan is approved. Approval will be based on information submitted pursuant to paragraph (e)(1) that meets the requirements of subdivision (f) and the following criteria:
- (A) If only one Metal of Concern is specified in paragraph (d)(8), an owner or operator of a Metal TAC Monitoring Facility shall demonstrate that the average concentration of the Metal of Concern did not exceed the Benchmark Concentration for the 30 consecutive calendar days preceding the submittal of the Reduced Basic or Reduced Alternative Monitoring and Sampling Plan;
 - (B) If more than one Metal of Concern is specified in paragraph (d)(8), an owner or operator of a Metal TAC Monitoring Facility shall demonstrate either:

- (i) The average concentration of each Metal of Concern did not exceed its respective Benchmark Concentration for the 30 consecutive calendar days preceding the submittal of the Reduced Basic or Reduced Alternative Monitoring and Sampling Plan; or
 - (ii) The estimated health risk associated with all Metals of Concern from the facility are below the Reduced Risk Level for any Sensitive Receptor using air dispersion modeling and Risk Assessment Procedures referenced in Rule 1401 or an alternative approach approved by the Executive Officer;
 - (C) The measures identified in an approved Early Action Reduction Plan pursuant to Rule 1402 – Control of Toxic Air Contaminants from Existing Sources or Enforceable Measures is being implemented; and
 - (D) The owner or operator of a Metal TAC Facility did not previously have more than one approved Reduced Monitoring and Sampling Plan.
- (6) Within 30 days of receiving a letter from the Executive Officer that states the draft Reduced Basic or Reduced Alternative Monitoring and Sampling Plan is not approved and that specifies all deficiencies, an owner or operator of a Metal TAC Monitoring Facility shall either notify the Executive Officer that a revised draft Reduced Basic or Reduced Alternative Monitoring and Sampling Plan will not be submitted or submit a revised draft Reduced Basic or Reduced Alternative Monitoring and Sampling Plan.
- (A) The Executive Officer will notify an owner or operator of a Metal TAC Monitoring Facility in writing whether the revised draft Reduced Basic or Reduced Alternative Monitoring and Sampling Plan submitted pursuant to paragraph (e)(6) is approved. Approval will be based on whether the deficiencies in the letter have been addressed.
 - (B) If an owner or operator of a Metal TAC Monitoring Facility receives a denial letter from the Executive Officer that the revised draft Reduced Basic Monitoring and Sampling Plan is not approved, the owner or operator shall continue to implement the most recently

approved Basic Monitoring and Sampling Plan pursuant to subparagraph (d)(9)(B).

- (C) If an owner or operator of a Metal TAC Monitoring Facility receives a denial letter from the Executive Officer that the revised draft Reduced Alternative Monitoring and Sampling Plan is not approved, the owner or operator shall continue paying fees for Monitoring and Sampling based on the most recently approved Alternative Monitoring and Sampling Plan pursuant to subparagraph (g)(1)(C).
- (7) Prior to implementing any changes that would result in a modification to the information submitted in the most recently approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan pursuant to paragraph (e)(1) or (e)(2), an owner or operator of a Metal TAC Monitoring Facility shall modify and submit a draft Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan.
- (8) No later than 30 days after receiving written notification from the Executive Officer that modification(s) to an approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan are needed to meet the requirements of subdivision (f), the owner or operator of a Metal TAC Monitoring Facility shall modify and submit a draft Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan that incorporates the required modifications in the written notice.
 - (A) The Executive Officer will notify the owner or operator of a Metal TAC Monitoring Facility of approval pursuant to paragraphs (e)(3) and (e)(5).
 - (B) If the draft Basic or Alternative Monitoring and Sampling Plan is not approved by the Executive Officer, the owner or operator shall follow the provisions in paragraph (e)(4).
 - (C) Within 30 days of receiving a letter from the Executive Officer that states the draft Reduced Basic or Reduced Alternative Monitoring and Sampling Plan submitted pursuant to paragraph (e)(8) is not approved and that specifies all deficiencies, the owner or operator of a Metal Monitoring Facility shall submit a revised draft Reduced Monitoring and Sampling Plan.

- (i) The Executive Officer will notify an owner or operator of a Metal TAC Monitoring Facility in writing whether the revised draft Reduced Basic or Reduced Alternative Monitoring and Sampling Plan submitted pursuant to paragraph (e)(8) is approved. Approval will be based on whether the deficiencies in the letter have been addressed.
 - (ii) If an owner or operator of a Metal TAC Monitoring Facility receives a denial letter from the Executive Officer that the revised draft Reduced Basic or Reduced Alternative Monitoring and Sampling Plan submitted pursuant to paragraph (e)(8) is not approved, the revised draft will be modified by the Executive Officer and be approved as a Reduced Basic or Reduced Alternative Monitoring and Sampling Plan.
- (9) The evaluation of a Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan shall be subject to plan fees specified in Rule 306 – Plan Fees.
- (10) The preparation of an Alternative Monitoring and Sampling Plan to meet the requirements of clause (e)(1)(E)(i) and subparagraphs (e)(1)(F) through (e)(1)(I) shall be subject to the fees:
 - (A) Pursuant to Rule 306; or
 - (B) Pursuant to Appendix 1 of this rule, if Rule 306 does not list the fees for preparing an Alternative Monitoring and Sampling Plan.
- (f) Monitoring and Sampling Requirements
 - (1) An owner or operator of a Metal TAC Monitoring Facility with an approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan shall maintain the most recently approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan to include all equipment and processes that emit Metal TAC(s) and represents current operating conditions at the Metal TAC Monitoring Facility.
 - (2) An owner or operator of a Metal TAC Monitoring Facility with an approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan shall install Metal TAC monitors and conduct Monitoring

and Sampling at a minimum of one site that is based on the Maximum Expected Ground Level Concentration of the Metals of Concern.

- (3) An owner or operator of a Metal TAC Monitoring Facility with an approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan shall collect one Valid Sample from midnight-to-midnight, or on the timeframe specified in the most recently approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan, at each site provided the total sampling time is no less than 23 hours and no greater than 25 hours:
 - (A) At least once every three days on a schedule approved by the Executive Officer for Metals of Concern;
 - (B) At least once every six days on a schedule approved by the Executive Officer for Metals of Concern for a facility on a reduced monitoring and sampling frequency pursuant to subdivision (h); or
 - (C) On a date specified in a written notice from the Executive Officer in lieu of a normally scheduled date that is an atypical sampling day.
- (4) An owner or operator of a Metal TAC Monitoring Facility with an approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan shall operate and maintain sampling equipment in accordance with U.S. EPA methods or other appropriate methods approved by the Executive Officer in the Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan.
- (5) An owner or operator of a Metal TAC Monitoring Facility with an approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan shall collect and analyze each Valid Sample in accordance with U.S. EPA methods or other appropriate methods approved by the Executive Officer in the Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan. An owner or operator of a Metal TAC Monitoring Facility shall maintain a record of the chain of custody for discrete Valid Samples and analyze the Valid Samples in a laboratory that follows the methodology for ambient air monitoring analysis for discrete Valid Samples approved by the Executive Officer in the Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan.

- (6) An owner or operator of a Metal TAC Monitoring Facility with an approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan shall:
 - (A) Retain and properly store Valid Samples collected for six months from the sample date or other time period approved by the Executive Officer in the approved Monitoring and Sampling Plan, unless the entire filter media is digested and consumed;
 - (B) Retain and properly store the solution rendered from the acid extraction of a filter sample used for metals sample analysis, for six months from the sample date or other time period approved by the Executive Officer in the approved Monitoring and Sampling Plan, unless the solution was consumed during analysis; and
 - (C) Retain the chain of custody records for three years from the sample date for discrete Valid Samples.
- (7) Within five business days from the request by Executive Officer, an owner or operator of a Metal TAC Monitoring Facility with an approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan shall provide:
 - (A) Valid Samples, unless the entire filter media is digested and consumed; or
 - (B) Solution rendered from the acid extraction of a filter sample used for metals sample analysis, unless the solution was consumed during prior analysis.
- (8) An owner or operator of a Metal TAC Monitoring Facility with an approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan shall continuously record wind speed and direction, if required in an approved Monitoring and Sampling Plan.
- (9) An owner or operator of a Metal TAC Monitoring Facility with an approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan shall not miss collecting a Valid Sample, unless the Valid Sample was not collected due to a mechanical failure, including a power outage, as determined by the Executive Officer, for more than one day over any 30 consecutive calendar days from each monitor approved by the Executive Officer.
- (10) An owner or operator of a Metal TAC Monitoring Facility shall not conduct any activities that have the potential to damage or bias the samples.

- (g) Alternative Monitoring and Sampling
- (1) An owner or operator of a Metal TAC Monitoring Facility that elects to have the Executive Officer conduct Monitoring and Sampling in lieu of meeting the requirements of subparagraph (d)(9)(B) or pursuant to clause (e)(4)(B)(ii) shall:
 - (A) No later than 30 days after receiving a notice from the Executive Officer, submit a draft Alternative Monitoring and Sampling Plan pursuant to paragraph (e)(2) unless a Basic Monitoring and Sampling Plan was submitted pursuant to subparagraph (d)(9)(A);
 - (B) Provide access to the facility for the Executive Officer or its third-party contractor to conduct Monitoring and Sampling; and
 - (C) No later than the date specified in the approval letter, the owner or operator of a Metal TAC Monitoring Facility that elects to have the Executive Officer conduct Monitoring and Sampling pursuant to paragraph (g)(1) shall pay the operating and maintenance fees to the South Coast AQMD for the Executive Officer to conduct Monitoring and Sampling pursuant to the approved Alternative Monitoring and Sampling Plan:
 - (i) Pursuant to Regulation III – Fees; or
 - (ii) Pursuant to Appendix 1 of this rule, if Regulation III does not list the fees for Monitoring and Sampling.
 - (2) An owner or operator of a Metal TAC Monitoring Facility that has an approved Alternative Monitoring and Sampling Plan that elects to begin conducting Monitoring and Sampling in lieu of the Executive Officer conducting Monitoring and Sampling shall:
 - (A) Notify the Executive Officer that the owner or operator has elected to conduct Monitoring and Sampling pursuant to subparagraph (d)(9)(B);
 - (B) Submit a draft Basic Monitoring and Sampling Plan for approval pursuant to subdivision (e); and
 - (C) Meet the requirements of subparagraph (d)(9)(B).
 - (3) An owner or operator of a Metal TAC Monitoring Facility that is conducting Monitoring and Sampling pursuant to subparagraph (d)(9)(B) and elects to have the Executive Officer conduct Monitoring and Sampling shall:

- (A) Notify the Executive Officer that the owner or operator has elected to have the Executive Officer conduct Monitoring and Sampling in lieu of meeting the requirements of paragraph (d)(9)(B);
 - (B) Submit a draft Alternative Monitoring and Sampling Plan for approval pursuant to subdivision (e); and
 - (C) Meet the requirements of subparagraphs (g)(1)(B) and (g)(1)(C).
- (h) Reduced Monitoring and Sampling Frequency and/or Monitors
- (1) An owner or operator of a Metal TAC Monitoring Facility implementing an approved Basic Monitoring and Sampling Plan that meets the criteria in subparagraphs (e)(5)(A) through (e)(5)(C) and elects to reduce the Monitoring and Sampling frequency, from once every three days to once every six days and/or to reduce the number of monitors, shall:
 - (A) Submit a draft Reduced Basic Monitoring and Sampling Plan for approval pursuant to subdivision (e); and
 - (B) No sooner than the date specified in the approval letter for the Reduced Basic Monitoring and Sampling Plan, implement the approved Reduced Basic Monitoring and Sampling Plan and comply with the Monitoring and Sampling requirements pursuant to subdivision (f).
 - (2) If the concentration of three consecutive Valid Samples each exceeded the Benchmark Concentration by four times, for any individual Metal of Concern, the owner or operator of a Metal TAC Monitoring Facility shall notify the Executive Officer by:
 - (A) Calling 1-800-CUT-SMOG within 24-hours of receiving the third Valid Sample result and provide:
 - (i) Facility name;
 - (ii) Identification of the monitor with corresponding Valid Sample;
 - (iii) Date of each exceedance;
 - (iv) Valid Sample concentrations; and
 - (B) Submitting a written report within three calendar days of calling the Executive Officer, pursuant to subparagraph (h)(2)(A), that provides an explanation of the cause(s) of the exceedances, to the extent known.

- (3) If an owner or operator of a Metal TAC Monitoring Facility receives notification from the Executive Officer that the concentration of three consecutive Valid Samples each exceeded the Benchmark Concentration by four times, for any individual Metal of Concern and, that after taking into consideration the information provided in subparagraphs (h)(2)(A) and (h)(2)(B), the Executive Officer determines that the exceedances were attributed to the Metal TAC Monitoring Facility, the owner or operator shall:
 - (A) Resume collecting one Valid Sample, at each site, at least once every three days no later than the next scheduled sampling day; and
 - (B) Implement the Executive Officer-provided Basic Monitoring and Sampling Plan that is based on the information in the most recently approved Reduced Basic Monitoring and Sampling Plan and comply with the Monitoring and Sampling requirements pursuant to subdivision (f).
- (4) An owner or operator of a Metal TAC Monitoring Facility with an approved Alternative Monitoring and Sampling Plan that meets the criteria in subparagraphs (e)(5)(A) through (e)(5)(C) and elects to reduce the sampling frequency from once every three days to once every six days and/or to reduce the number of monitors shall:
 - (A) Submit a draft Reduced Alternative Monitoring and Sampling Plan for approval pursuant to subdivision (e); and
 - (B) No later than the date specified in the approval letter for the Reduced Alternative Monitoring and Sampling Plan, pay fees for the reduced sampling frequency and/or reduced number of monitors as specified in the approved Reduced Alternative Monitoring and Sampling Plan.
- (5) The Executive Officer will notify the owner or operator of a Metal TAC Monitoring Facility, subject to subparagraph (h)(4)(B), if the concentration of three consecutive Valid Samples each exceeded the Benchmark Concentration by four times, for any individual Metal of Concern. The owner or operator of a Metal TAC Monitoring Facility electing to provide the Executive Officer information to substantiate that the exceedances are not attributed to the facility, shall submit a written report within three calendar days of receiving notification from the Executive Officer and

provide an explanation of the cause(s) of the exceedances, to the extent known.

- (6) If an owner or operator of a Metal TAC Monitoring Facility, subject to subparagraph (h)(4)(B), receives notification from the Executive Officer that the concentration of three consecutive Valid Samples each exceeded the Benchmark Concentration by four times, for any individual Metal of Concern and, that after taking into consideration the information provided in paragraph (h)(5), the Executive Officer determined that the exceedances were attributed to the Metal TAC Monitoring Facility, the owner or operator shall:
 - (A) Pay fees for collecting one Valid Sample, at each site, at least once every three days no later than the next scheduled sampling day; and
 - (B) Allow the Executive Officer to conduct Monitoring and Sampling pursuant to the Executive Officer-provided Alternative Monitoring and Sampling Plan that is based on the information in the most recently approved Reduced Alternative Monitoring and Sampling Plan.
- (i) Monitoring, Recordkeeping, and Reporting Requirements
 - (1) Effective upon start of Monitoring and Sampling pursuant to subdivision (f), an owner or operator of a Metal TAC Monitoring Facility shall electronically submit a report to the Executive Officer, using a format approved by the Executive Officer, by the 21st of each month. The report shall include the results of the Valid Sample analysis for the Metals of Concern and the wind monitoring data, if applicable, for the preceding month in a format approved by the Executive Officer that includes the following:
 - (A) Valid Sample collection date;
 - (B) Valid Sample collection location;
 - (C) Individual Valid Sample concentrations; and
 - (D) Consecutive 30 calendar day rolling average concentrations.
 - (2) An owner or operator of a Metal TAC Monitoring Facility shall maintain the following records for a minimum of three years and make the records available to the Executive Officer upon request:
 - (A) Housekeeping activities;
 - (B) Maintenance activities;

- (C) Construction and demolition activities;
 - (D) Throughput records of metals used in any operations capable of generating emissions of Metals of Concern;
 - (E) Wind speed and direction data, if required in an approved Monitoring and Sampling Plan;
 - (F) Calibration records of Metal TAC monitors and wind monitors, if required in an approved Monitoring and Sampling Plan;
 - (G) Raw data, monthly reports pursuant to paragraph (i)(1), and calculations used to calculate Metal TAC concentrations;
 - (H) Most recently approved Basic, Alternative, Reduced Basic, or Reduced Alternative Monitoring and Sampling Plan with the accompanying approval letter; and
 - (I) Chain of custody records.
- (3) If the concentration of three consecutive Valid Samples each exceeded the Benchmark Concentration by four times, for any individual Metal of Concern, the owner or operator of a Metal TAC Monitoring Facility shall notify the Executive Officer by:
- (A) Calling 1-800-CUT-SMOG within 24 hours of receiving the third Valid Sample result and provide the information specified in subparagraphs (h)(2)(A) and (h)(2)(B); and
 - (B) Submitting a written report within three calendar days of calling the Executive Officer, pursuant to subparagraph (i)(3)(A), that provides an explanation of the cause(s) of the exceedances, to the extent known.
- (4) An owner or operator of a Metal TAC Monitoring Facility shall notify the Executive Officer by calling 1-800-CUT-SMOG within two hours of knowing that a Valid Sample was not or will not be collected from any approved monitor and provide:
- (A) Facility name;
 - (B) Identification of the monitor;
 - (C) Date of the occurrence;
 - (D) Reason why a sample was not collected or the collected sample did not meet the definition of a Valid Sample to the extent known;
 - (E) Repair date or anticipated repair date to the extent known, if the cause was due to mechanical failure of an approved monitor; and

- (F) If the mechanical failure was due to a power outage, provide the duration of the power outage and the reason to the extent known.
- (5) Within seven days following notification to the Executive Officer pursuant to paragraph (i)(4), an owner or operator of a Metal TAC Monitoring Facility shall electronically submit to the Executive Officer, using a format approved by the Executive Officer, copies of documentation of any required repairs or replacement due to mechanical failure of an approved monitor. The Executive Officer may extend this deadline as needed based upon the repair date.
- (j) **Discontinuation of Monitoring and Sampling**
- Upon receiving notification from the Executive Officer that the required Risk Reduction Plan under Rule 1402 has been fully implemented or if a Risk Reduction Plan is not required, that the Health Risk Assessment under Rule 1402 has been approved, the facility shall no longer be designated as a Metal TAC Monitoring Facility and no longer subject to paragraph (d)(9).
- (k) **Exemptions**
- (1) Lead emissions subject to ambient air monitoring as required by Rule 1420 – Emissions Standard for Lead, Rule 1420.1 – Emission Standards for Lead and Other Toxic Air Contaminants from Large Lead-Acid Battery Recycling Facilities, or Rule 1420.2 – Emission Standards for Lead from Metal Melting Facilities, shall not be subject to this rule.
 - (2) Hexavalent chromium emissions subject to ambient air monitoring as required by Rule 1156 – Further Reductions of Particulate Emissions, shall not be subject to this rule.
 - (3) Upon verification by the Executive Officer, an owner or operator of a facility that is independently owned and operated with average annual gross receipts of three million dollars (\$3,000,000) or less, averaged over the previous three years, and 25 or fewer employees shall be exempt from the provisions of this rule, except paragraphs (d)(1) and (d)(2). No later than 60 days after receiving an Initial Notice pursuant to paragraph (d)(1), the owner or operator of a facility shall provide:
 - (A) Information that the facility is independently owned or operated;
 - (B) Tax returns for the previous three years or other documentation approved by the Executive Officer to demonstrate the gross receipts

averaged over the previous three years is three million dollars or less; and

- (C) U.S. Internal Revenue Service Form 941 – Employer’s Quarterly Federal Tax Return for the previous three years or other documentation approved by the Executive Officer to demonstrate the number of employees is 25 or fewer full-time or part-time employees.

Appendix 1: South Coast AQMD Monitoring and Sampling Fees

1. Principle

This fee is applicable to all facilities that elect to have the South Coast AQMD conduct Monitoring and Sampling. The fees in this Appendix shall no longer be in effect when Regulation III includes these fees. The fees include monitoring equipment, material, labor, sample retrieval, sample analysis, construction and other associated fees. An owner or operator shall be responsible for the fees for Monitoring and Sampling from the date specified in the Alternative or Reduced Alternative Monitoring and Sampling Plan. South Coast AQMD typically deploys two field staff members to perform field work due to potential hazards encountered in the field. During the review of an Alternative Monitoring and Sampling or Reduced Alternative Monitoring and Sampling Plan, the Executive Officer will evaluate and determine if it is appropriate to have only one field staff member to conduct Monitoring and Sampling at the Metal TAC Monitoring Facility. A Metal TAC Monitoring Facility would be notified of the Executive Officer's decision at the time of approval of the Alternative or Reduced Alternative Monitoring and Sampling Plan. The Executive Officer's decision on the number of field staff members needed will be based on the following factors:

1. Height of the monitor
2. Use of a ladder
3. Sampling schedule
4. Access to the facility
5. Safety concerns

2. Preparation of an Alternative Monitoring and Sampling Plan

An owner or operator shall be responsible for \$6,000, which are the fees associated with the preparation of an Alternative Monitoring and Sampling Plan to meet the requirements of clause (e)(1)(E)(i) and subparagraphs (e)(1)(F) through (e)(1)(I).

3. Monitoring and Sampling Fee

- A. The monthly fees listed in Table 1 – Alternative or Reduced Alternative Monitoring and Sampling Plan Monthly Monitoring Fees list the fees for a specific monitor and each additional monitor required by the Executive Officer to conduct Monitoring and Sampling.

**Table 1 – Alternative or Reduced Alternative Monitoring and Sampling Plan
Monthly Monitoring Fees**

	Number and Type of Monitor	Sampling Frequency			
		1 in 3 Days		1 in 6 Days	
		2 Staff	1 Staff	2 Staff	1 Staff
Base	1 - Metal TAC Monitor - Hexavalent Chromium	\$10,000	\$6,500	\$5,000	\$3,500
	1 - Metal TAC Monitor – Non-Hexavalent Chromium	\$5,500	\$3,500	\$3,000	\$2,000
	1 - Metal TAC Monitor – Hexavalent Chromium & 1 - Metal TAC Monitor – Non-Hexavalent Chromium	\$13,000	\$8,500	\$6,500	\$4,500
Additional	1- Metal TAC Monitor - Hexavalent Chromium	\$4,000	\$3,500	\$2,500	\$2,000
	1- Metal TAC Monitor – Non-Hexavalent Chromium	\$2,500	\$2,000	\$1,500	\$1,000

- B. The fees for a wind monitor are \$500 per month, if the owner or operator of a Metal TAC Monitoring Facility elects to have the South Coast AQMD collect wind speed and direction data to meet the requirements of paragraph (f)(8).
- C. If the Executive Officer contracts Monitoring and Sampling with a third-party contractor, the fees would be specified by the third-party contractor.
- D. The number, type, and location of the monitors is initially specified in subparagraph (d)(8)(E) and stated in the Alternative or Reduced Alternative Monitoring and Sampling Plan.
- E. Pursuant to paragraph (e)(8), the Executive Officer may require the owner or operator to submit a draft Alternative or Reduced Alternative Monitoring and Sampling Plan to modify the number, type, and/or location of the monitors needed to conduct Monitoring and Sampling based on new information from the date the facility was designated a Metal TAC Monitoring Facility.

4. Payment Deadline

The operating and maintenance fees shall be billed on a monthly basis with payments due on or before the end of the month for which Monitoring and Sampling is required

and include any other unpaid operating and maintenance fees. If the operating and maintenance fee is not paid in full within 60 calendar days of its due date, a 10 percent surcharge shall be imposed.

5. Pro-rated Payments

- A. If Monitoring and Sampling will no longer be required to be conducted by the Executive Officer or if the sampling frequency is modified in the middle of a month, an owner or operator shall pay fees at a prorated amount.
- B. If the number and/or type of monitors is modified in the middle of a month, an owner or operator shall pay fees at a prorated amount.

Appendix 2: Methodology for Calculating Benchmark Concentration

1. Principle

This appendix provides a methodology for calculating the Benchmark Concentration for a Metal of Concern. The Benchmark Concentration will be the higher of the either (1) Ratio Concentration; or (2) Estimated Risk Concentration. The Benchmark Concentration calculation is specific for each facility and each Metal of Concern and would be specified in the designation letter pursuant to (d)(8)(F).

2. Health Risk at a Sensitive Receptor

Pursuant to subparagraph (d)(7)(D), one of the criteria to designate a facility as a Metal TAC Monitoring Facility is the estimated health risk based on the Metal TAC emissions from the facility exceeds the Significant Risk Level for any Sensitive Receptor using air dispersion modeling and Risk Assessment Procedures referenced in Rule 1401. The highest estimated cancer and non-cancer health risk at a Sensitive Receptor must be calculated and compared to the Significant Risk Level. A facility meets this criteria if the cancer or non-cancer health risk at a Sensitive Receptor exceeds the Significant Risk Level. The following provides additional guidance in determining the highest estimated health risk at a sensitive receptor:

- If the cancer and non-cancer health risk exceeds the Significant Risk Level at a sensitive receptor, both health risk values must be used to determine the Benchmark Concentrations;
- The Executive Officer may determine a facility exceeds the Significant Risk Level based on some or all of the sources of Metal TAC emissions from the facility;
- In the absence of facility specific information, use of source-specific emission factors and control efficiencies will be applied using good engineering practices; and
- Configuration of equipment, building openings, operating parameters, throughput, and material usage will be based on information provided by the operator, permit conditions, inspection reports, and observations by the Executive Officer.

3. Ratio Concentration

The Ratio Concentration is the highest 30 consecutive day average concentration of monitoring and sampling prior to designation as a Metal TAC Monitoring Facility divided by the ratio of the highest health risk at the Sensitive Receptor and the Reduced Risk Level. If the highest estimated health risk at the Sensitive Receptor exceeds both the cancer and non-cancer Significant Risk Level, then the Ratio Concentrations for both cancer and non-cancer risks will need to be calculated and the higher of the two Ratio Concentrations will be used. The Ratio Concentration is calculated by taking the highest 30 consecutive calendar day average concentration and dividing it by the Ratio, as described in the following formula:

$$\frac{\text{Highest 30 Consecutive Day Average Concentration}}{\text{Ratio (Cancer or Non-cancer)}}$$

3a. Calculating the Ratio

The Ratio (Cancer) is calculated by dividing the highest cancer risk at the Sensitive Receptor by the cancer risk of the Reduced Risk Level. Similarly, a Ratio (Non-cancer) is calculated by dividing the highest non-cancer Hazard Index at the Sensitive Receptor by the non-cancer Hazard Index of the Reduced Risk Level. The Ratio formula is:

$$\frac{\text{Sensitive Receptor Health Risk from Facility (Cancer Risk or Hazard Index)}}{\text{Reduced Risk Level (Cancer Risk of 25 in one million or Hazard Index of 3.0)}}$$

3b. Determining the Highest 30 Consecutive Day Average Concentration

The highest 30 consecutive day average concentration is the highest average concentration of a Metal TAC during any consecutive 30 days of monitoring and sampling that was conducted by the Executive Officer at a monitor identified in the Notice of Findings. This concentration would be based on monitoring and sampling that is conducted prior to designation as a Metal TAC Monitoring Facility.

4. Estimated Risk Concentration

The Estimated Risk Concentration is the sum of the concentration representing the Reduced Risk Level and the Basin-wide background concentration from the most recent Multiple Air Toxics Exposure Study (MATES) for the Metal TAC. If the highest estimated health risk at the Sensitive Receptor exceeds both the cancer and non-cancer Significant Risk Level, then the Estimated Risk Concentrations for both cancer and non-cancer risks will need to be calculated and the higher of the two ratios will be used. Using the Risk Assessment Procedures referenced in Rule 1401, the concentration is

calculated using the Reduced Risk Level (cancer risk of 25 in one million or chronic Hazard Index of 3.0). The Estimated Risk Concentration formula is:

Reduced Risk Level concentration + Basin-wide background from MATES

5. Benchmark Concentration

The Benchmark Concentration is the higher of the Ratio Concentration or the Estimated Risk Concentration. It will be specified for each Metal of Concern in the designation letter provided to the Metal TAC Monitoring Facility pursuant to subparagraph (d)(8)(F).

6. Alternative Methodology for Establishing the Benchmark Concentration for Multiple Metal TAC Monitoring Facilities

The Executive Officer may utilize an alternative methodology for establishing a Benchmark Concentration that better represents the Metals of Concern that are emitted from a facility and captured by their downwind monitor, when there are multiple facilities that have emissions of the same Metals of Concern. The alternative methodology shall establish a Benchmark Concentration that is representative of the Reduced Risk Level at a sensitive receptor for each Metal of Concern taking into account facilities that are in close proximity that have the same Metals of Concern. The Executive Officer will use an alternative methodology if:

- A. There is one or more facilities that are within 1,000 feet of the owner or operator's Metal TAC Monitoring Facility, where the distance is measured fenceline to fenceline of each facility;
- B. Each facility referenced in (6)(A) of this appendix has been issued an Initial Notice pursuant to paragraph (d)(1); and
- C. The Executive Officer has emissions data that the facility or facilities referenced in (6)(A) of this appendix has equipment or sources within the facility with the same Metals of Concern as those emitted by the Metal TAC Monitoring Facility.