

**STATEMENT OF BASIS FOR
KAISER ALUMINUM WASHINGTON, LLC
CHAPTER 401 AIR OPERATING PERMIT
AOP-11 RENEWAL #2**

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Date: August 9, 2017
Amended: October 27, 2017**

LIST OF ABBREVIATIONS

BACT	Best available control technology
CAM	Compliance Assurance Monitoring
CEM	Continuous emission monitor
CEMS	Continuous emission monitoring system
CFR	Code of Federal Regulations
CO	Carbon monoxide
COM	Continuous opacity monitor
COMS	Continuous opacity monitoring system
dba	Doing business as
dscf	Dry standard cubic foot
ECOLOGY	Washington State Department of Ecology
EPA	United States Environmental Protection Agency
FCAA	Federal Clean Air Act
gr/dscf	Grains per dry standard cubic foot
HAP	Hazardous air pollutant as designated under Title III of FCAA
IEU	Insignificant Emission Units
MMBTU	Millions of British thermal units
MRRR	Monitoring, recordkeeping, & reporting requirements
NAA	Nonattainment area
NOC	Notice of Construction
NOx	Oxides of nitrogen
O ₂	Oxygen
O&M	Operation & maintenance
Pb	Lead
PM	Particulate matter
PM-10	Particulate matter, 10 microns or less in size
PM-2.5	Particulate matter, 2.5 microns or less in size
PSD	Prevention of Significant Deterioration
PSEU	Pollutant-Specific Emissions Unit
RACT	Reasonably available control technology
RCW	Revised Code of Washington
RM	EPA reference method from 40 CFR Part 60, Appendix A
SCAPCA	Spokane County Air Pollution Control Authority (on June 3, 2007, SCAPCA was renamed to SRCAA)
SRCAA	Spokane Regional Clean Air Agency (prior to June 3, 2007, agency was named SCAPCA)
scf	Standard cubic foot
SO ₂	Sulfur dioxide
SO _x	Oxides of sulfur
VOC	Volatile organic compounds
WAC	Washington Administrative Code

DEFINITIONS OF WORDS AND PHRASES

Terms not otherwise defined in this permit have the meaning assigned to them in the referenced regulations.

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Administrator	The administrator of the United States Environmental Protection Agency or her/his designee [WAC 173-401-200(13), 2/3/16]
Chapter 401 Permit	Any permit or group of permits covering a source, subject to the permitting requirements of Chapter 173-401 WAC, that is issued, renewed, amended, or revised pursuant to Chapter 173-401 WAC [WAC 173-401-200(5), 2/3/16]
Emission Limitation	A requirement established under the FCAA or Chapter 70.94 RCW which limits the quantity, rate or concentration of emissions of air contaminants on a continuous basis, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction and any design, equipment work practice, or operational standard promulgated under the FCAA or Chapter 70.94 RCW [WAC 173-400-030(27), 11/28/12]
Emissions Unit	Any part of a stationary source or source which emits or would have the potential to emit any pollutant subject to regulation under the Federal Clean Air Act, Chapter 70.94 RCW, or 70.98 RCW [WAC 173-400-030(29), 11/28/12]
Federal Clean Air Act	Federal Clean Air Act. also known as Public Law 88-206, 77 Stat. 392. December 17, 1963, 42 U.S.C. 7401 et seq., as last amended by the Clean Air Act Amendments of 1990, P.L. 101-549, November 15, 1990 [WAC 173-401-200(14), 2/3/16]
Opacity	The degree to which an object seen through a plume is obscured, stated as a percentage [WAC 173-400-030(58), 11/28/12]
PM Standard	An emission limitation on the amount of particulate matter an emissions unit may emit, generally expressed in terms of grains per dry standard cubic foot, pounds per hour, or some other concentration or emission rate.
Visible Emissions Standard	An emission limitation on visible emissions expressed in percent opacity

**STATEMENT OF BASIS FOR KAISER ALUMINUM WASHINGTON, LLC
CHAPTER 401 AIR OPERATING PERMIT
AOP-11 RENEWAL #2**

Kaiser Aluminum Washington (KAW) (formerly known as Kaiser Aluminum Fabricated Products and Kaiser Aluminum & Chemical Corporation) is a secondary aluminum facility located in the Spokane Valley at 15000 E. Euclid Avenue. KAW is more specifically classified as an aluminum sheet and plate rolling mill. The facility is classified as a major source, as defined in Chapter 173-401 WAC, due to potential emissions of oxides of nitrogen (NO_x), particulate matter (PM₁₀), carbon monoxide (CO), and volatile organic compounds (VOC) above the major source threshold of 100 tons per year. PM₁₀, NO_x, and CO are emitted primarily from the melter and holder furnaces in the remelt operation of the facility. VOC is emitted primarily from the hot and cold rolling mills.

When AOP-11 was originally issued, the facility was classified under 40 CFR 63 as a major source for Hazardous Air Pollutants (HAPs), but was trying to eliminate chlorine fluxing in the holders so that the facility could be reclassified as an area source for HAPs before the compliance date of 40 CFR 63, Subpart RRR (i.e., March 24, 2003). KAW became an area source for HAPs through SRCAA (formerly SCAPCA) Order #03-01 (voluntary emission limit order), issued on March 3, 2003. Therefore, the facility is not currently considered major for HAPs and is only subject to the area source requirements given in 40 CFR 63, Subpart RRR.

As a major source, KAW is required to apply for an operating permit under SRCAA's air operating permit program as established in Chapter 173-401 WAC and Title V of the Federal Clean Air Act. WAC 173-401-700(8) requires that at the time a draft permit is issued under the Title V program, a statement be provided, setting forth the legal and factual basis for permit conditions including reference to the applicable statutory or regulatory provisions for the conditions. This document provides the basis for the draft permit for KAW.

The permit is organized into sections. The first section contains standard terms and conditions. This section is basically the same for all permits issued by SRCAA. The second section contains applicable requirements for the facility, along with monitoring, recordkeeping, and reporting requirements sufficient to assure compliance with each applicable requirement. This section is divided into subsections to address different emission units or classes of emission units. The third and final section addresses requirements that have been deemed inapplicable to the source or to emission units located at the source, i.e., the permit shield per WAC 173-401-640(2).

After a brief summary of operations at the facility, the format of this Statement of Basis will follow that of the permit with the standard terms and conditions discussed first, followed by the applicable requirements, and finally the permit shield.

FACILITY SUMMARY

KAW is an aluminum sheet and plate rolling mill. Prime aluminum (e.g., ingot, sow, etc...) is combined with recycled and purchased scrap and cast into rolling ingots in the remelt area. The Remelt Area consists of 9 Furnace Complexes and 2 Induction Furnaces.

Each Furnace Complex is composed of either 1 or 2 natural gas fired Melting Furnaces (Melters) and 1 natural gas fired Holding Furnace (Holder). KAW operates 11 melters at the facility; eight melters are fired with cold fired burners (no heat recovery), and three melters are fired with regenerative burners (with heat recovery). KAW operates 9 holder furnaces at the facility; none of them have heat recovery. In the Melting Furnace, aluminum is melted, skimmed to remove a floating aluminum oxide

layer (skim), but minimal or no flux is used in the melters. An initial metallurgical analysis is performed to determine if alloying metals are present in the appropriate concentrations to produce the desired alloy. If required, additional alloying metals are added to the furnace charge (aluminum melt in furnace), and the charge is transferred to the Holding Furnace.

Once the charge is transferred to the Holding Furnace, it is fluxed with a solid flux (chloride salts) to remove impurities. A second metallurgical analysis is performed while the charge is in the Holding Furnace, and additional alloying metals are added, as needed. Once this process is completed, the aluminum is passed through various filtration equipment, including the SNIF (Spinning Nozzle Inert Flootation) filters (utilizing an argon/chlorine mixture), to remove any residual impurities and cast into ingots.

The emissions from all but one of the Melter Furnaces are released uncontrolled to the atmosphere through stacks on the roof. The emissions from the newest melter furnace (DC-0) are routed to a dry scrubbing baghouse for control. All Holder Furnaces are ducted into one duct and routed to a dry scrubbing baghouse for control. Reagent (a mixture of sodium carbonate and sodium bicarbonate) is injected into the DC-0 melter baghouse and the holder furnace baghouse to react with the HCl formed during the fluxing process. The reaction results in the formation of salt (NaCl) which is then collected, along with unreacted reagent, in the baghouses. Each Holder Furnace and the DC-0 melter furnace each have bypass stacks which are allowed to be used to vent the furnaces uncontrolled when the baghouses have breakdowns or planned maintenance activities.

Impurities removed by fluxing (skim) are skimmed from the Melting and Holding furnaces. The skim is transferred to a skim hopper, from which it is fed into a rotary skim cooler. Cooled skim is deposited into an enclosed vibrating conveyor and then segregated according to alloy type prior to being sent off-site for aluminum recovery. The entire skim processing unit is hooded and ducted to a baghouse.

The ingots produced from the Furnace Complexes are then transferred to the Scalper. The Scalper is used to scalp a smooth surface on the aluminum ingots. The Scalper operates by passing the ingot across cutting blades that remove ~0.25" of the ingot surface. Ventilation air and aluminum chips generated by the process are pneumatically conveyed by a fan from the enclosed scalper room to a pair of cyclones. The chips pass through a device that reduces chip size and improves chip uniformity. The exhaust air then passes to a second set of cyclones where smaller particles are removed. High pressure atomizing water is injected near the entrance to each cyclone to wet the smaller particles and increase removal efficiency. The exhaust air passes through another blower and is discharged either into the building or through a stack on the roof.

Scrap from the scalpers is dried (to remove water) in a natural gas fired furnace and then melted in the 2 Induction Furnaces. The 2 Induction furnaces are controlled by a baghouse. Once melted, the aluminum is poured into a crucible. The crucible is heated with natural gas to maintain the aluminum in a molten state. The molten aluminum is taken to the Remelt Area and poured into a Melter Furnace.

Prior to beginning the hot rolling process, ingots must be heated for homogenization purposes (to relieve stresses from the casting process) and to provide the proper temperature for the rolling process. Ingots are heated in either electric or gas fired Soaking Pits, the gas fired Pusher Furnace, or gas fired cartridge furnaces.

The ingots are rolled to produce aluminum sheet and plate products. The rolling operations consist of two distinct phases: the Hot Line and Cold Mills.

The Hot Line is used in the initial rolling process. Hot rolling is performed above the recrystallization temperature of the alloy being processed. The lower temperature limit is guided by the temperature at which the aluminum is hot enough to be reduced sufficiently without cracking. The upper temperature limit is generally determined by the lowest melting point crystal structure present in the ingot.

The Hot Line includes three mills: a 132" mill, a 112" mill, and a 80" mill (length of the roller in contact with the ingot). The ingot is passed through the various mills multiple times until the desired thickness is achieved (can be rolled at the Hot Line down to ~0.25" thick sheet) and the material has cooled below the recrystallization temperature.

The 132" and 112" mills are reversing mills. In the reversing mills, the aluminum ingot is rolled back and forth through the hot rolls, producing sheet or plate aluminum. The 80" mill is a tandem mill. The tandem mill has 5 mill stands that the aluminum sheet or plate makes a single pass through. Upon exiting the 80" tandem mill, the sheet is generally coiled prior to further processing.

The Hot Line Mills employ water-based emulsion coolants. The 80" Hot Mill is hooded and ventilation air is drawn from the mill to 2 Inertial Separators and exhausted to the atmosphere through 2 stacks. In the Inertial Separator, oil droplets are removed from the 80" Hot Mill exhaust air. During ingot processing, some fugitive emissions are emitted from all 3 Hot Line Mills through roof and wall vents.

There are three Conventional Cold Mills. The Conventional Mills use a neat oil coolant. Several passes through the mills may be required to reduce the aluminum to the desired thickness. A stoddard solvent is used to remove residual oils on the sheet as it exits the Conventional Cold Mills. All of the Conventional Cold Mills are hooded and ventilated by means of induction fans and are exhausted through stacks on the roof of the mill building.

Depending on the alloy, aluminum coils are annealed after both hot and cold rolling in electric batch Annealing Furnaces or heat treated in electric horizontal heat treat ovens. The annealing process relieves strain hardening induced by the rolling process. The horizontal heat treat ovens are used to treat the aluminum plate to give the required metallurgical properties for various alloys.

Heavy gauge coil products are heat treated using 2 electric heat treat ovens. The sheet aluminum is passed through an electric oven to establish required metallurgical states, followed by water quenching at the exit of the line. Various lubricating materials are applied to the exit sheet to facilitate final passage through the take-up equipment.

Aluminum plate used for aerospace products are heat treated using 3 recuperative natural gas fired heat treat ovens to give required metallurgical properties for various alloys, similar to the electric heat treat ovens. After the plates have been heated, water is sprayed over the aluminum plate at various rates in areas of the quench chamber, to control the forming of the metallurgical characteristics. The three heat treat ovens have a diesel fired back-up emergency generator to run the ovens in a power outage event.

Once the aluminum products have been heat treated, they are transported to Alutek, which is located at 3401 N. Tschirley, for further processing. Alutek is considered a “support facility” to KAW (see discussion under “Alutek” emission units) and therefore is included under the Air Operating Permit for the facility. Alutek takes rough cut sheets of aluminum and fine cuts the aluminum to specifications using aluminum cutting machines, sanded to various dimensions and then stamped with ink to identify them. Emissions from the sanding equipment are sent to a baghouse for control.

At the main KAW facility, three boilers are used to generate steam for plant heating and generation of process steam used to heat coolants, wastewater treatment, etc. Each boiler is nominally rated at 40,000 lbs/hr steam (60 MMBtu/hr). Natural gas is the primary fuel with #2 fuel oil and used oil used as backup fuels; tests have been performed on representative used oil samples to verify compliance with RCW 70.94.610(1) standards.

Used coolant and oil is pumped to the industrial wastewater treatment facility at KAW. The coolant and oil is heated and the water separated. The reclaimed coolant and oil is stored in tanks. Water from the separation process is pumped to process pits, then clarifiers, pumped to a settling lagoon, filtered, and discharged into the Spokane River under an NPDES permit.

Water from domestic uses at the plant is pumped to the domestic sewage treatment facility for tertiary treatment. The water is screened, clarified, treated through a trickling filter, chlorinated, and discharged into the settling lagoon. Sludge from clarification is digested in a sludge digester and shipped off site.

Gasoline, coolant, oil, and back up fuel is stored in storage tanks on the plant, and dispensed as needed.

Annual criteria pollutant and HAP emissions from KAW reported on the most recent emission inventory form (submitted in 2016, reporting calendar year 2015 emissions) are listed in Table 1 below.

Table 1 – 2015 Criteria Pollutant and HAP emissions

Pollutant	Emissions (tons/yr)
PM	75.25
PM10	53.30
PM2.5	44.68
SO2	0.68
NOx	111.12
CO	109.27
VOC	184.32
NH3	0.84
HCl	0.02

PERMITTING HISTORY

SRCAA has issued the following Notice of Construction (NOC) approval orders and regulatory orders to KAW. Any permitting activities that occurred after 11/15/10 are new requirements that have been added to this AOP.

- An NOC (no number) was approved (April, 1974) for the construction of two electric induction melting furnaces controlled with a baghouse.
- NOC #69 was approved (March, 1975) for the construction of electrostatic precipitators on the 12 inert annealing furnaces. The NOC was revised 2/26/96 include requirement to follow approved O&M and keep records of all maintenance. NOC #69 was voided by SRCAA on 12/15/16 because the process is not expected to produce particulate emissions, so the ESPs are no longer needed on the inert annealing furnaces.
- NOC #86 was approved (June 22, 1984) for the construction of two inertial separators for the 80" hot mill.
- NOC #188 was approved (March 4, 1988) for the construction of an ingot scalping machine and wet cyclone. NOC #188 was revised 4/08/88 to remove the requirement to measure pressure drop on a continuous basis and added a requirement that the programmable logic controller be modified to ensure the wet cyclone fans and pump are operational prior to the scalper being activated and all operational parameters of the scalper be documented. NOC #188 was later revised 1/18/99 to eliminate the requirement to document all operational parameters of scalper and added requirement to verify that scalping occurs only when wet cyclone is properly operating. It was most recently revised on 2/20/15 to eliminate the requirement to keep records of PLC logic.
- NOC #239 was approved (November 15, 1989) for the construction of a skim cooling unit and baghouse. This NOC was revised 1/5/01 removing the requirement to correct the particulate emissions for excess air and revised again on 6/6/02 to allow alternate means for handling skim when the skim cooler cannot be used.
- Order 91-01 issued (12/2/91) to require an O&M plan and alternate opacity limits on the remelt furnace stacks; the alternate opacity went into effect 8/21/97 (see Kelle Vigeland's letter dated 8/21/97).
- NOC #443 was approved (July 21, 1993) for the conversion of four of the soaking pits to natural gas.
- NOC #660 was approved (September 27, 1995) for the construction of a dry scrubber/baghouse system for the holder furnaces of the remelt line. NOC #660 was revised 10/25/99 to allow small amounts of fluxing (addition of sodium scavenging additives with trade name ProMag) in the melter furnaces and 11/7/00 to allow monthly COM reports to be submitted by the 25th of every month. It was most recently revised on 4/23/15 to reflect discontinuation of chlorine fluxing in holder furnaces.
- A Consent Decree was filed 1/17/96, between EPA and Kaiser for controls to be put on remelt line. The conditions of the consent decree were met, and the consent decree was terminated, per Kaiser's request, on August, 1998.
- NOC #674 was approved (December 18, 1995) for the pusher furnace at the facility.
- NOC #676 was approved (July 10, 1996) for modifications to the #8 melters (two) and #8 holder (one) furnaces. NOC #676 was revised 11/26/96 to change timeframe of source testing requirement. NOC #676 was revised again 10/25/99 to allow small amounts of fluxing (addition of

Statement of Basis

Kaiser Aluminum Washington, LLC

AOP-11 Renewal #2

Page 5

sodium scavenging additives with trade name ProMag) in the melter furnaces. NOC #676 was later revised 6/26/01 to add HCl/Cl₂ BACT emission limits. NOC #676 was later revised for an alternate cleaning schedule. It was most recently revised on 4/23/15 to include periodic source testing as replacement for HCl BACT requirements.

- NOC #681 was approved (February 28, 1996) for an existing scrubber at the industrial wastewater facility; the scrubber is used to control fumes from the oil break & phase separation processes, and the settling tanks.
- Order 96-02 was issued (March, 1996) for modification of the permitted operation of the inert furnaces ESPs for maintenance purposes. This Order expired 10/15/96.
- Order 96-03 was issued (April 24, 1996) to establish voluntary emission limits for the remelt line melter furnaces. Order #96-03 was revised 10/4/00 to reduce the emission limit, allow for an increase in daily allowable emissions from the remelt melter furnaces and change the report due date.
- Order 96-04 was issued (April 24, 1996) to establish voluntary emission limits for the skim cooler-baghouses. This Order was revised 5/8/96 to correct the Order #.
- Order 96-05 was issued (April 24, 1996) to establish voluntary emission limits for the remelt line holder furnaces; the Order is being revised to account for the SNIFs in the process. Order 96-05 was revised 5/8/96 to correct Order # and later 10/4/00 to add startup/shutdown opacity limits and to allow an increase in daily allowable emissions from the dry scrubbing baghouse system.
- Order 96-06 was issued (April 24, 1996) to establish voluntary emission limits for the induction furnaces-baghouse. Order #96-06 was revised 5/8/96 to correct Order # and later 10/4/00 to add allowance for an increase in daily allowable emissions from the induction furnaces and later 10/19/00 to correct condition B.
- NOC #683 was approved (May 29, 1996) for modifications to the #2 melters (two) and #2 holder (one) furnaces. NOC #683 was revised 10/25/99 to allow small amounts of fluxing (addition of sodium scavenging additives with trade name ProMag) in the melter furnaces. NOC #683 was later revised 6/26/01 to add HCl/Cl₂ BACT emission limits. It was most recently revised on 4/23/15 to include periodic source testing as replacement for HCl BACT requirements.
- NOC #881 was approved (May 8, 1998) for the installation of a new scrubber in the wastewater treatment building.
- Order #03-01 was issued on 3/3/03 to limit facility-wide emissions of Hazardous Air Pollutants (HAPs).
- NOC #1316 was approved 11/7/05 for a plate sander controlled with a 8,000 cfm baghouse at Alutek
- NOC #1322 was approved 2/8/06 for a 2-plate horizontal heat treat oven w/ 12 recuperative natural gas fired burners each rated at 0.546 MMBTU/hr for a total of 6.55 MMBTU/hr. It was revised on 10/30/09 to change the natural gas estimation method. It was revised on 8/9/16 to add 48 additional burners and two additional stacks, bringing the total size of the oven to 26.5 mmbtu/hr.
- NOC #1334 was approved 2/21/06 for a 4-plate horizontal heat treat oven w/ 24 recuperative natural gas fired burners each rated at 0.546 MMBTU/hr for a total of 13.1 MMBTU/hr. NOC #1334 was revised on 11/16/07 to add 24 additional burners to the oven, bringing the total size of the oven to 26.2 mmbtu/hr. It was most recently revised on 10/30/09 to change the natural gas

estimation method.

- NOC #1335 was approved 2/21/06 for a 1490 bhp back-up generator set for the heat treat ovens.
- NOC #1366 was approved 10/3/06 for a 4-plate horizontal heat treat oven w/ 24 recuperative natural gas fired burners each rated at 0.546 MMBTU/hr for a total of 13.1 MMBTU/hr. It was revised on 10/30/09 to change the natural gas estimation method. It was revised on 5/9/12 to add 24 additional burners, bringing the total size of the oven to Revision to 26.2 mmbtu/hr.
- NOC #1410 was approved 4/28/08 for replacement of the DC-6 melter burner from cold fired burner system to a regenerative burner system. NOC #1410 was revised on 10/30/09 to change the PM emission limits and natural gas estimation method. It was revised again on 3/19/10 to change the CO emission limit;
- NOC #1427 was approved on 7/18/08 for replacement of the DC-7 melter burner from a cold fired burner system to a regenerative burner system. NOC #1427 was revised on 10/30/09 to change the PM emission limits and natural gas estimation method. It was revised again on 3/19/10 to change the CO emission limit;
- NOC #1556 was approved 2/22/12 for installation of a new 24 MMBTU/hr natural gas fired soaking pit.
- NOC #1557 was approved 2/22/12 for installation of a new 8 MMBTU/hr natural gas fired stress relief furnace (reheat #9).
- NOC #1569 was approved 7/16/12 for installation of an etching process / fume hood
- NOC #1598 was approved 4/9/14 for a new DC-0 furnace complex, including new 52 mmbtu/hr natural gas fired melter furnace with new baghouse and new 16 mmbtu/hr natural gas fired holder furnace controlled with existing holder furnace baghouse. NOC #1598 was revised on 1/30/17 to establish final revised emission limits for the DC-0 melter and holder furnaces.
- NOC #1607 was approved 11/13/13 for installation of four new natural gas fired cartridge furnaces, each rated at 15 MMBTU/hr and installation of a new 8 MMBTU/hr natural gas fired stress relief furnace (reheat #10).
- NOC #1677 was approved 10/5/15 for installation of a new 8 MMBTU/hr natural gas fired stress relief furnace (reheat #11).

SRCAA has issued the following Air Operating Permits (AOP) to KAW:

- AOP-11, issued 1/2/03, revised 4/16/04 to incorporate the secondary aluminum MACT revisions and to address their status as an area source for HAPs.
- AOP-11, Renewal #1, issued 5/19/08, revised 11/15/10 to incorporate new requirements and revised again on 2/8/11 for an administrative permit amendment to reflect a name change

NEW STATE AND FEDERAL REGULATIONS SINCE LAST PERMIT RENEWAL / REVISION

GREENHOUSE GAS REQUIREMENTS

Chapter 173-441 WAC – State GHG reporting requirements

On December 1, 2010, Ecology promulgated a regulation, Chapter 173-441 WAC, for state reporting of greenhouse gas (GHG) emissions. Chapter 173-441 WAC establishes GHG reporting requirements that apply to owners and operators of certain facilities that directly emit GHG in

Washington. The rule applies to any facility that emits 10,000 metric tons carbon dioxide equivalent (CO₂e) or more per calendar year in total GHG emissions. In 2015, Ecology amended chapter 173-441 WAC, in order to maintain consistency with EPA's greenhouse gas reporting program. The amendments included revising the global warming potentials in WAC 173-441-040, updating calculation and monitoring methods, and minor streamlining revisions to reporting requirements. In 2016, Ecology further amended Chapter 173-441 WAC, in order to have terminology consistent with Chapter 173-442 WAC – Clean Air Rule [see Clean Air Rule discussion below]

For an existing facility that began operation before January 1, 2012, GHG emissions must be reported to Ecology for calendar year 2012 and each subsequent calendar year. The report is due by March 31st of each calendar year for GHG emissions in the previous calendar year if a person is also required to report GHG emission to EPA under 40 CFR Part 98. The report is due by October 31st of each calendar year for GHG emissions in the previous calendar year if a person is not required to report GHG emissions to EPA under 40 CFR Part 98.

As part of the AOP-11, renewal application, KAW submitted information on their most recent actual GHG emissions from the facility. The most recently reported actual GHG emissions from KAW totaled ~122,293 metric tons of CO₂e. Because the actual GHG emissions for the KAW exceeded 10,000 metric tons CO₂e, the annual GHG emission reporting requirements of Chapter 173-441 WAC apply. These reporting requirements were added to the air operating permit renewal as Condition I.D.9, in the "General Monitoring, Recordkeeping, & Reporting" section of the permit.

40 CFR Part 98 - Federal GHG reporting requirements

On October 30, 2009, and as amended on July 12, 2010, September 22, 2010, November 30, 2010, December 1, 2010, December 17, 2010, December 27, 2010, and March 18, 2011, EPA promulgated regulations for mandatory federal GHG reporting in 40 CFR Part 98. In general, the regulations require that facilities that emit 25,000 metric tons of CO₂e must report their GHG emissions to EPA.

The federal GHG reporting requirements given in 40 CFR Part 98 are not considered "applicable requirements," as defined in 40 CFR 70.2, under the title V operating permit program. Therefore, inclusion of the federal GHG reporting requirements in 40 CFR Part 98 is not required for the Title V permit.

40 CFR Parts 51, 52, 70, and 71 - "Tailoring Rule"

On May 13, 2010, EPA issued a final rule that "tailors" the applicability criteria given in 40 CFR Parts 51, 52, 70, and 71 that determine which stationary sources and modification projects become subject to permitting requirements for GHG emissions under the PSD and Title V programs of the Clean Air Act. Per the 2010 version of the tailoring rule, on and after July 1, 2011, any existing or new source with the potential to emit more than 100,000 tpy CO₂e needed a Title V permit. Additionally, for PSD, permitting requirements were triggered if the project was expected to increase GHG emissions by more than 75,000 tpy CO₂e.

On June 23, 2014, the U.S. Supreme Court issued its decision in *Utility Air Regulatory Group v. EPA*, 134 S. Ct. 2427 (2014) ("UARG"). The Court held that EPA may not treat GHGs as an air pollutant for purposes of determining whether a source is a major source required to obtain a PSD or title V permit. The Court also held that PSD permits that are otherwise required (based on emissions of other pollutants) may continue to require limitations on GHG emissions based on the application of Best Available Control Technology (BACT).

On April 10, 2015, in accordance with the Supreme Court decision, the D.C. Circuit issued an amended judgment in Coalition for Responsible Regulation, Inc. v. EPA, Nos. 09-1322, 10-073, 10-1092 and 10-1167 (D.C. Cir. April 10, 2015), which, among other things, vacated the PSD and title V regulations under review in that case to the extent that they require a stationary source to obtain a PSD or title V permit solely because the source emits or has the potential to emit GHGs above the applicable major source thresholds. The D.C. Circuit also directed EPA to consider whether any further revisions to its regulations are appropriate in light of UARG, and if so, to undertake to make such revisions.

On April 30, 2015, in response to the court decision, EPA issued a direct final rule to narrowly amend the permit rescission provisions in the PSD regulations. This action allows the rescission of Clean Air Act PSD permits that issued by the EPA or delegated state and local permitting authorities on the sole basis of a source's GHG emissions.

On August 26, 2016, the EPA proposed a set of common sense changes needed to bring EPA's air permitting regulations in line with Supreme Court and D.C. Circuit decisions on greenhouse gas permitting. This rulemaking proposes revisions to existing PSD and title V regulations to ensure that neither the PSD nor title V rules require a source to obtain a permit solely because the source emits or has the potential to emit GHGs above the applicable thresholds.

Based on emission estimates given above, KAW is considered major for GHG under the tailoring rule. This AOP incorporates the most recent version of Chapter 173-400 WAC, which adopts by reference the subparts of 40 CFR 52.21, in effect on January 1, 2016, into WAC 173-400-720, "Prevention of significant deterioration (PSD)." These subparts include the tailoring rule new source review thresholds. The permit requires that KAW meet the requirements given in the current version of Chapter 173-400 WAC for any new source review project that might occur (Condition I.G.1). This condition will ensure that KAW meets all applicable requirements pertaining to projects that cause an increase of GHG emissions.

CLEAN AIR RULE

On September 15, 2016, Ecology promulgated a regulation, Chapter 173-442 WAC, which establishes GHG emissions standards for various stationary sources.

The rule triggers GHG emission reduction requirements for a covered source when their three calendar year rolling average of GHG emission, beginning with calendar year 2012, are greater than or equal to the specified compliance threshold in the corresponding compliance period, as given in the table below.

WAC 173-442-030

Compliance Threshold (MT CO ₂ e/Year)	First Compliance Period (Calendar Year)
100,000	2017-19*
95,000	2020-22
90,000	2023-25
85,000	2026-28
80,000	2029-31
75,000	2032-34
70,000	2035 and beyond

*The 100,000 MT CO₂e/year threshold is used for the three calendar year rolling average applicability determination beginning in 2012.

Based on the estimated GHG emissions for KAW of > 100,000 tons of CO₂e per year, Chapter 173-442 WAC does apply to KAW. The requirements given in Chapter 173-442 WAC to reduce GHG emissions take effect for some affected facilities in 2017. However, for facilities like KAW that are considered EITE (energy intensive and trade exposed), the requirements do not take effect until 2020. The inclusion of the Chapter 173-442 WAC requirements in the air operating permit renewal are incorporated as a state only requirement into Condition II.E.19.

FEDERAL NESHAP REGULATIONS GIVEN IN 40 CFR 63

KAW is subject to three different National Emission Standard for Hazardous Air Pollutant (NESHAP) Subparts given in 40 CFR Part 63.

KAW is subject to the requirements of 40 CFR Part 63, Subpart RRR, "National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production." Since KAW is an area source for HAPs, they are only subject to the area source requirements given in 40 CFR Part 63, Subpart RRR. For area sources, 40 CFR 63, Subpart RRR establishes standards that apply to a "Secondary Aluminum Processing Unit" or "SAPU" at the facility. The SAPU is comprised of all group 1 furnaces and in-line fluxers at the facility. At KAW, only the melters and induction furnaces are considered group 1 furnaces that are part of the SAPU. Under Subpart RRR, the SAPU at KAW is split into a new SAPU, which is comprised of group 1 furnaces that were constructed or reconstructed after February 11, 1999 (i.e., DC-0, DC-6, and DC-7) and an existing SAPU which is comprised of all group 1 furnaces that were constructed prior to February 11, 1999 (all cold-fired melters and induction furnace; RM-1, 2E, 2W, 3, 4, 5, 8E, 8W and RM-21). Subpart RRR was originally promulgated on March 23, 2000 and has been amended multiple times, most recently on September 18, 2015.

KAW is subject to the requirements of 40 CFR Part 63, Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines." The two fire pumps and generators set at KAW are all subject to the requirements in the regulation applicable to existing emergency stationary RICE located at an area source of HAP. Subpart ZZZZ was originally promulgated on June 15, 2004 and has been amended several times, most recently on January 30, 2013.

KAW is subject to the requirements of 40 CFR Part 63, Subpart CCCCCC, "National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities." KAW is subject to the requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline. Subpart CCCCCC was originally promulgated on January 10, 2008 and has been amended several times, most recently on January 24, 2011.

KAW is also potentially subject to the requirements of 40 CFR 63, Subpart JJJJJJ, "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers for Area Sources." Subpart JJJJJJ applies to industrial, commercial, or institutional boilers at area sources of HAPs. KAW is an area source for HAPs and operates three boilers that would be considered industrial boilers under the rule. However, Subpart JJJJJJ is not applicable to "gas-fired boilers," which are defined as "any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or for periodic testing, maintenance, or operator training on liquid fuel. Periodic testing, maintenance, or operator training on liquid fuel shall not exceed a combined total of 48 hours during any calendar year." The three boilers at KAW burn natural gas as the primary fuel and utilize #2 fuel oil and used oil as back-up fuels. Per KAW, #2 fuel oil and used oil have not been burned in the boilers since 2005. KAW has no plans to burn #2 fuel oil and/or used oil in the boilers in the future. Since the boilers at KAW meet the definition of a "gas-fired boiler," the requirements of Subpart JJJJJJ are not applicable.

EXCESS EMISSION / EMERGENCY PROVISIONS

On 5/22/15, Ecology had received a SIP call from EPA regarding the Excess Emissions provisions given in WAC 173-400-107, specifically the treatment of excess emissions during periods of startup, shutdown, and malfunction (SSM). Per the SIP call, Ecology has 18 months, until November 22, 2016, to submit SIP revisions correcting the SSM provisions found to be inadequate. Per EPA's 5/22/15 Final Action Notice, existing sources will not be required to comply with the revised SIP emission limitations until the SIPs are updated, and if they are subject to permit requirements the sources may continue to operate consistent with those permits until the operating permits are revised to reflect the revised SIP requirements. Ecology will not meet the November 22, 2016 deadline. Ecology anticipates completing rulemaking and submitting a revised SIP to EPA during the summer 2017. Concurrent with this rule making action, Ecology also has proposed revision to the emergency provision given in WAC 173-401-645. The proposed revision would make the emergency provision ineffective as of January 1, 2018, and provide for the permitting authority to remove provision from an individual operating permit during the first possible periodic permit renewal, permit modification, or permit reopening after this date.

Since the AOP-11 Renewal #2 is expected to be finalized prior to completion of Ecology's rule making, the new requirements will be incorporated into the AOP-11 the next time the AOP is reopened.

COMPLIANCE HISTORY

SRCAA has performed a compliance inspection at KAW at least once every year between 2008 (year the last AOP was issued) and 2015. The most recent inspection was performed on 9/24/15.

Since 2008, SRCAA has issued 34 Notices of Violation (NOVs) to KAW. Seven of the NOVs were issued for exceedances of the 60-minute average 24% opacity limit that applies to each melter at KAW. Eight NOVs were issued for source testing violations of the NOx or CO emission limits applicable to DC-

6 and DC-7 melters. Five of the NOVs were issued for failure to properly operate or perform audits on the COMs required for the melters and baghouse. Two NOVs were issued for asbestos violations, four were for baghouse bypasses, two were for source testing procedural violations, two were for failure to record baghouse pressure drops, and four were for other miscellaneous violations. The NOVs issued to KAW since 2008 are summarized below:

- NOV #8249, issued 2/6/17 for CO violation from DC-7 melter;
- NOV #8244, issued 8/16/16 for opacity violation from DC-6 melter;
- NOV #8242, issued 8/10/16 for CO violation from DC-7 melter;
- NOV #8162, issued 9/4/15 for opacity violation from DC-6 melter;
- NOV #8059, issued 3/5/15 for NOx violation from DC-6 melter;
- NOV #8058, issued 1/25/15 for various violations of NOC #1598 for DC-0 melter;
- NOV #8032, issued 8/29/14 for failure to report unavoidable excess opacity emissions in timely manner for DC-2W melter;
- NOV #8030, issued 7/21/14 for failure to meet COM audit requirements;
- NOV #8024, issued 1/6/14 for bypass of the holder baghouse;
- NOV #7926, issued 2/22/13 for opacity violation from DC-3 melter;
- NOV #7924, issued 2/7/13 for NOx violation from DC-6 melter;
- NOV #7923, issued 9/14/12 for bypass of holder baghouse;
- NOV #7922, issued 4/5/12 for failure to meet quarterly COM audit requirements;
- NOV #7860, issued 2/28/12 for opacity violation from DC-7 melter;
- NOV #7889, issued 10/19/11 for not operating COMs and for bypass of holder baghouse;
- NOV #7885, issued 5/12/11 for failure to meet quarterly COM audit requirements;
- NOV #7883, issued 3/2/11 for NOx violation from DC-7 melter;
- NOV #7839, issued 1/7/11 for NOx violation from DC-7 melter;
- NOV #A0231, issued 3/17/10 for violation of SRCAA asbestos regulations;
- NOV #7826, issued 2/5/10 for CO violation from DC-6 melter;
- NOV #7822, issued 12/29/09 for opacity violation from DC-7 melter;
- NOV #7779, issued 11/17/09 for CO violation from DC-6 melter;
- NOV #A0159, issued 11/16/09 for violation of SRCAA asbestos regulations;
- NOV #7778, issued 11/6/09 for exceedance of annual PM emission limits for DC-6 and DC-7 melters;
- NOV #7777, issued 10/5/09 for bypass of holder baghouse;
- NOV #7776, issued for exceedance of annual PM emission limits for DC-6 and DC-7 melters;
- NOV #7773, issued 9/3/09 for failure to conduct initial source testing for DC-6 melter;
- NOV #7772, issued 9/3/09 for failure to conduct initial source testing for DC-7 melter;
- NOV #7771, issued 9/3/09 for failure to record pressure drops from skim cooler and induction furnace baghouses;
- NOV #7767, issued 6/5/09 for failure to conduct required quarterly COM audit requirements;

- NOV #7765, issued 4/30/09 for opacity violation from DC-7 melter;
- NOV #7761, issued 3/31/09 for failure to failure to conduct initial source testing for DC-7 melter;
- NOV #7659, issued 10/13/08 for failure to record pressure drops from skim cooler and induction furnace baghouses; and
- NOV #7615, issued 5/15/08 for opacity violation from DC-7 melter.

EMISSION UNITS

All emission units and activities at KAW, which are done in support of this facility, are part of the major source, which throughout this document is referred to as “KAW”. Emission units at KAW can be broken into eight main categories: remelt area sources, hot rolling mill sources, cold rolling mill sources, utilities sources, wastewater treatment sources, heat treat ovens, gasoline dispensing sources, and Alutek sources. A section on each of these categories follows. At the end of this section, the insignificant emission units at KAW are discussed and listed.

Remelt Area Sources

The Remelt Area consists of 9 Furnace Complexes, 2 Induction Furnaces, and a Skim Cooler. Each Furnace Complex is composed of either 1 or 2 Melting Furnaces (Melters) and a Holding Furnace (Holder). There are 11 melters at the facility; eight melters are fired with cold fired burners (no heat recovery), and three melters are fired with regenerative burners (with heat recovery). KAW operates 9 holder furnaces at the facility; none of them have heat recovery. In the Melting Furnace, aluminum is melted, and skimmed to remove a floating aluminum oxide layer (skim). An initial metallurgical analysis is performed to determine if alloying metals are present in the appropriate concentrations to produce the desired alloy. If required, additional alloying metals are added to the furnace charge (aluminum melt in furnace), and the charge is transferred to the Holding Furnace.

Once the charge is transferred to the Holding Furnace, it is fluxed with a solid flux (chloride salts) to remove impurities. A second metallurgical analysis is performed while the charge is in the Holding Furnace, and additional alloying metals are added, as needed. Once this process is completed, the aluminum is passed through various filtration equipment, including the SNIF (Spinning Nozzle Inert Floatation) filters (utilizing an argon/chlorine mixture), to remove any residual impurities and cast into ingots.

The emissions from all but one of the Melter Furnaces are released uncontrolled to the atmosphere through stacks on the roof. The emissions from the newest melter furnace (DC-0) are routed to a dry scrubbing baghouse for control. All Holder Furnaces are ducted into one duct and routed to a dry scrubbing baghouse for control. Reagent (a mixture of sodium carbonate and sodium bicarbonate) is injected into the DC-0 melter baghouse and the holder furnace baghouse to react with the HCl formed during the fluxing process. The reaction results in the formation of salt (NaCl) which is then collected, along with unreacted reagent, in the baghouses. Each Holder Furnace and the DC-0 melter furnace each have bypass stacks which are allowed to be used to vent the furnaces uncontrolled when the baghouses have breakdowns or planned maintenance activities.

Impurities removed by fluxing (skim) are skimmed from the furnace. The skim is transferred to a skim hopper, from which it is fed into a rotary skim cooler. Cooled skim is deposited into an enclosed vibrating conveyor and then segregated according to alloy type prior to being sent off-site for aluminum recovery. The entire skim processing unit is hooded and ducted to a baghouse.

Two Induction Furnaces melt chips from the scalpers and some scrap aluminum received from outside sources. The aluminum melted in the 2 Induction Furnaces is transferred into one of the 9 Furnace Complexes. Emissions from the 2 Induction furnaces are controlled by a baghouse.

Significant emission units in the remelt area are listed in Table 1 below. A significant number of these units were installed prior to SRCAA's existence and therefore have never gone through the Notice of Construction (NOC) process. If a unit has gone through the NOC process, the NOC approval number is given after the unit description. Insignificant emission units from the remelt area are identified at the end of this section.

KAW is subject to the requirements of 40 CFR Part 63, Subpart RRR, "National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production." Since KAW is an area source for HAPs, they are only subject to the area source requirements given in 40 CFR Part 63, Subpart RRR. As an area source of HAPs, only the melters and induction furnaces are subject to the provisions of 40 CFR 63, Subpart RRR.

Table 1 – Remelt Area Significant Emission Units

Emission Unit Description	Kaiser ID Number Used in Permit Application	NOC number and approval date	Fuels Used	Air Pollution Control Equipment
DC-0 Melter, 52 MMBTU/hr	RM-M0	NOC #1598, 4/9/14 as revised on 1/30/17	Natural Gas	Dry scrubbing melter furnace baghouse (54,200 scfm)
DC-1 Melter, 40 MMBTU/hr – no NOC issued	RM-M1	No NOC	Natural Gas	None - Operational practices are used to minimize emissions
DC-2E Melter, 40 MMBTU/hr – NOC #683 issued for modification	RM-M2E	NOC #683 issued for modification, 5/29/96 as revised on 4/34/15	Natural Gas	None - Operational practices are used to minimize emissions
DC-2W Melter, 40 MMBTU/hr	RM-M2W	NOC #683 issued for modification, 5/29/96 as revised on 4/34/15	Natural Gas	None - Operational practices are used to minimize emissions
DC-3 Melter, 40 MMBTU/hr	RM-M3	No NOC	Natural Gas	None - Operational practices are used to minimize emissions
DC-4 Melter, 40 MMBTU/hr	RM-M4	No NOC	Natural Gas	None - Operational practices are used to minimize emissions
DC-5 Melter, 40 MMBTU/hr	RM-M5	No NOC	Natural Gas	None - Operational practices are used to minimize emissions

DC-6 Melter, 45 MMBTU/hr	RM-M6	NOC #1410 for burner system replacement, 4/28/08, as revised on 3/19/10	Natural Gas	None - Operational practices are used to minimize emissions
DC-7 Melter, 45 MMBTU/hr	RM-M7	NOC #1427 for burner system replacement, 7/18/08, as revised on 3/19/10	Natural Gas	None - Operational practices are used to minimize emissions
DC-8E Melter, 40 MMBTU/hr	RM-M8E	NOC #676 issued for modification, 7/10/96, as revised on 4/23/15	Natural Gas	None - Operational practices are used to minimize emissions
DC-8W Melter, 40 MMBTU/hr	RM-M8W	NOC #676 issued for modification, 7/10/96, as revised on 4/23/15	Natural Gas	None - Operational practices are used to minimize emissions
DC-0 through DC-8 Holder Furnaces and Vented SNIF Units (SNIF Units also known as "In-line fluxers"), each holder rated at 15 MMBTU/hr, except DC-0 holder rated at 16 MMBTU/hr	RM-H0 through RM-H8 (holders) and RM-ILF (vented SNIF units)	NOC #660 issued for baghouse system NOC #676 – DC-8 Holder, 7/10/96, as revised on 4/23/15 NOC #683 – DC-2 Holder, 5/29/96 as revised on 4/34/15 NOC #1598 – DC-0 Holder, 4/9/14 as revised on 1/30/17	Natural Gas	Dry Scrubbing Baghouse System RM(HBGHS)-1 (60,000 scfm)
Skim Cooler	RM-20	NOC #239, 11/15/89, as revised on 6/6/02	None	Baghouse (35,000 cfm)
Induction Furnaces (2)	RM-21	Unnumbered NOC, 4/74	Electric	Induction Furnace Baghouse Permitted to also be routed to Dry Scrubbing Baghouse System RM(HBGHS)-1

<p>40 CFR 63, Subpart RRR emission unit designation (comprised of emission units listed above in table):</p> <p>Secondary Aluminum Processing Unit (SAPU)</p>	<p>SAPU is split up as follows:</p> <p>Existing SAPU: All cold-fired melters (RM-1, 2E, 2W, 3, 4, 5, 8E, 8W and RM-21)</p> <p>New SAPU: Regenerative melters (RM-0, RM-6 and RM-7)</p>	<p>As noted above for each emission unit</p>	<p>As noted above for each emission unit</p>	<p>As noted above for each emission unit</p>
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The dry scrubbing baghouse that controls emissions from the 9 holders at KAW is not subject to the requirements given in 40 CFR Part 64, "Compliance Assurance Monitoring" (CAM) because the pre-controlled emissions entering the baghouse is below major source thresholds. In order for the CAM requirements to apply, the pre-controlled emissions for the emissions unit must be above major source thresholds, the emissions unit must employ an add-on air pollution control device and the emission unit must be subject to an emissions limit for the pre-controlled major pollutant(s). KAW performed a source test of the holder baghouse inlet in 2014. Based on the source test results, the pre-controlled PM10 emissions from the holders are 5.4 tons/year (see file for calculations), which is below the major source threshold of 100 tons/year. Therefore, the CAM requirements given in 40 CFR 64 are not applicable to the holder baghouse at KAW.

The induction furnace baghouse that controls emissions from the two induction furnaces at KAW is not subject to the CAM requirements given in 40 CFR 64. In order for the CAM requirements to apply, the pre-controlled emissions for the emissions unit must be above major source thresholds, the emissions unit must employ an add-on air pollution control device and the emission unit must be subject to an emissions limit for the pre-controlled major pollutant(s). KAW performed a source test of the induction furnace baghouse inlet in 2009. Based on the source test results, the pre-controlled PM10 emissions from the induction furnaces are 2.4 tons/year (see file for calculations), which is below the major source threshold of 100 tons/year. Therefore, the CAM requirements given in 40 CFR 64 are not applicable to the induction furnace baghouse at KAW.

The baghouse that controls emissions from the skim cooler at KAW is not subject to the CAM requirements given in 40 CFR 64. In order for the CAM requirements to apply, the pre-controlled emissions for the emissions unit must be above major source thresholds, the emissions unit must employ an add-on air pollution control device and the emission unit must be subject to an emissions limit for the pre-controlled major pollutant(s). KAW performed a source test of the skim cooler baghouse outlet in 1990. Based on the source test results, the pre-controlled PM10 emissions from the skim cooler would be ~ 25 tons/year (see file for calculations), which is below the major source threshold of 100 tons/year. KAW also calculated the pre-controlled PM10 emissions based on the amount of material collected by the baghouse and back-calculating to get the pre-controlled emissions. Using this method, KAW calculated ~ 20.2 tons/year of pre-controlled PM10 emissions. Therefore, the CAM requirements given in 40 CFR 64 are not applicable to the skim cooler baghouse at KAW.

Hot Rolling Mill Sources

The ingots produced from the Furnace Complexes are then transferred to the Scalper. The Scalper is used to scalp a smooth surface on the aluminum ingots. The Scalper operates by passing the ingot across cutting blades that remove ~0.25" of the ingot surface. Ventilation air and aluminum chips generated by the process are pneumatically conveyed by a fan from the enclosed scalper room to a pair of cyclones. The chips pass through a device that reduces chip size and improves chip uniformity. The exhaust air then passes to a second set of cyclones where smaller particles are removed. High pressure atomizing water is injected near the entrance to each cyclone to wet the smaller particles and increase removal efficiency. The exhaust air passes through another blower and is discharged either into the building or through a stack on the roof.

Prior to beginning the hot rolling process, ingots must be heated for homogenization purposes (to relieve stresses from the casting process) and to provide the proper temperature for the rolling process. Ingots are heated in either electric or gas fired Soaking Pits, the gas fired Pusher Furnace, or gas fired cartridge furnaces.

The Hot Line is used in the initial rolling process. Hot rolling is performed above the recrystallization temperature of the alloy being processed. The lower temperature limit is guided by the temperature at which the aluminum is hot enough to be reduced sufficiently without cracking. The upper temperature limit is generally determined by the lowest melting point crystal structure present in the ingot.

The Hot Line includes three mills: a 132" mill, a 112" mill, and a 80" mill (length of the roller in contact with the ingot). The ingot is passed through the various mills multiple times until the desired thickness is achieved (can be rolled at the Hot Line down to ~0.25" thick sheet) and the material has cooled below the recrystallization temperature.

The 132" and 112" mills are reversing mills. In the reversing mills, the aluminum ingot is rolled back and forth through the hot rolls, producing sheet or plate aluminum. The 80" mill is a tandem mill. The tandem mill has 5 mill stands that the aluminum sheet or plate makes a single pass through. Upon exiting the 80" tandem mill, the sheet is generally coiled prior to further processing.

The Hot Line Mills employ water-based emulsion coolants. The 80" Hot Mill is hooded and ventilation air is drawn from the mill to 2 Inertial Separators and exhausted to the atmosphere through 2 stacks. In the Inertial Separator, oil droplets are removed from the 80" Hot Mill exhaust air. During ingot processing, some fugitive emissions are emitted from all 3 Hot Line Mills through roof and wall vents. Significant emission units in the hot rolling mill area are listed in Table 2 below. If a unit has gone through the NOC approval process, the NOC approval number is given after the unit description. Insignificant emission units from the hot rolling mill area are identified at the end of this section.

Table 2 – Hot Rolling Mill Significant Emission Units

Emission Unit Description	Kaiser ID Number Used in Permit Application	NOC number and approval date	Fuels Used	Air Pollution Control Equipment
80" Hot Rolling Mill	HL-1	NOC #86, 6/22/84	None	Inertial Separators (2)
112" Hot Rolling Mill	HL-2	No NOC	None	None
132" Hot Rolling Mill	HL-3	No NOC	None	None
Pusher Furnace #43 – 96 MMBtu/hr	HL-4	NOC #674, 12/18/95	Natural Gas	None
Ingot Soaking Pits (4) (Gas Fired) – 25 MMBtu/hr each	HL-5	NOC #443, 7/21/93	Natural Gas	None
#4 Scalper	HL-6	NOC #188, 3/4/88, as revised on 2/20/15	None	Cyclone / wet scrubber (38,000 cfm)
Soaking Pit – 24 MMBTU/hr	HL-7	NOC #1556, 2/22/12	Natural Gas	None
Stress Relief Furnace (reheat #9)– 8 MMBTU/hr	HL-8	NOC #1557, 2/22/12	Natural Gas	None
Stress Relief Furnace (reheat #10) – 8 MMBTU/hr	HL-9	NOC #1607, 11/13/13	Natural Gas	None
Stress Relief Furnace (reheat #11) – 8 MMBTU/hr	HL-10	NOC #1677, 10/5/15	Natural Gas	None
Cartridge Furnaces (4) – each rated at 15 MMBTU/hr	HL-11	NOC #1607, 11/13/13	Natural Gas	None

The wet cyclone that controls emissions from the #4 scalper at KAW is subject to the CAM requirements given in 40 CFR 64. In order for the CAM requirements to apply, the pre-controlled emissions for the emissions unit must be above major source thresholds, the emissions unit must employ an add-on air pollution control device and the emission unit must be subject to an emissions limit for the pre-controlled major pollutant(s). Per KAW, the pre-controlled (prior to the wet cyclone) PM emissions from the scalper is 240 tons/year (see file for calculations), which is above the major source threshold of 100 tons/year. In addition, the #4 scalper employs an add-on air pollution control device (wet cyclone), and the #4 scalper is subject to several emissions limits for particulate.

The inertial separators that control emissions from the 80" hot rolling mill at KAW are not subject to the requirements given in 40 CFR Part 64, "Compliance Assurance Monitoring" (CAM) because the pre-controlled emissions entering the inertial separators are below major source thresholds. In order

for the CAM requirements to apply, the pre-controlled emissions for the emissions unit must be above major source thresholds, the emissions unit must employ an add-on air pollution control device and the emission unit must be subject to an emissions limit for the pre-controlled major pollutant(s). Per KAW, the pre-controlled PM emissions from the 80” rolling mill are ~ 19 tons per year (see file for calculations), which is below the major source threshold of 100 tons/year. Therefore, the CAM requirements given in 40 CFR 64 are not applicable to the 80” hot mill inertial separators at KAW.

Cold Rolling Mill Sources

There are three Conventional Cold Mills. The Conventional Mills use a neat oil coolant. Several passes through the mills may be required to reduce the aluminum to the desired thickness. A stoddard solvent is used to remove residual oils on the sheet as it exits the Conventional Cold Mills. All of the Conventional Cold Mills are hooded and ventilated by means of induction fans and are exhausted through stacks on the roof of the mill building. The cold mills were installed prior to SRCAA’s existence and therefore have never gone through the Notice of Construction (NOC) process. Since they do not have a dedicated stack, they are not significant emission units.

Depending on the alloy, aluminum coils are annealed after both hot and cold rolling in electric batch Annealing Furnaces. The annealing process relieves strain hardening induced by the rolling process. Heavy gauge coil products are heat treated, using 2 Furnace Process Lines (#1 & #2). The sheet aluminum is passed through an electric oven to establish required metallurgical states, followed by water quenching at the exit of the line.

To test the aluminum samples, KAW operates a laboratory fume hood for an etching process in the chemical milling lab (located adjacent to the Cold Mill Building).

Significant emission units, identified in the permit application from the cold rolling mill area, are given in Table 3 below. If a unit has gone through the NOC approval process, the NOC approval number is given after the unit description. It should be noted that the inert annealing furnaces used to be controlled with an electrostatic precipitator. However, this ESP was removed from service in 2017.

Table 3 – Cold Rolling Mill Significant Emission Units

Emission Unit Description	Kaiser ID Number Used in Permit Application	NOC number and approval date	Fuels Used	Air Pollution Control Equipment
Inert Annealing Furnaces (Nos. 19 through 22 & 25 through 32)	CM-1	No NOC	Electric	None
Etching Process / Fume Hood (1,660 cfm)	CM-2	NOC #1569, 7/16/12	None	None

Utilities Sources

At the main KAW facility, three boilers are used to generate steam for plant heating and generation of process steam used to heat coolants, wastewater treatment, etc. Each boiler is nominally rated at 40,000 lbs/hr steam (60 MMBtu/hr). Natural gas is the primary fuel with #2 fuel oil (diesel) and used oil used as backup fuels; tests have been performed on representative used oil samples to verify compliance with RCW 70.94.610(1) standards. KAW has not burned fuel oil or used oil in the boilers since 2005.

KAW also operates three diesel fired generators on-site. The three heat treat ovens have a diesel fired back-up emergency generator to run the ovens in a power outage event. There are also two diesel fired fire pump engines on-site that run to pump water to the facility in case of a power outage.

The two fire pump engines and generator set at KAW are subject to the requirements of 40 CFR Part 63, Subpart ZZZZ, "National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines." The engines and generator are all subject to the requirements in the regulation applicable to existing emergency stationary RICE located at an area source of HAP.

Significant emission units, identified in the permit application from the utilities sources, are given in Table 4 below. If a unit has gone through the NOC approval process, the NOC approval number is after the unit description.

Table 4 – Utilities Significant Emission Units

Emission Unit Description	Kaiser ID Number Used in Permit Application	NOC number and approval date	Fuels Used	Air Pollution Control Equipment
Boiler #1 (40,000 pounds of steam per hour = 60 MMBtu/hr)	UT-1	No NOC	Natural Gas, Diesel, & Used Oil*	None
Boiler #2 (40,000 pounds of steam per hour = 60 MMBtu/hr)	UT-2	No NOC	Natural Gas, Diesel, & Used Oil*	None
Boiler #3 (40,000 pounds of steam per hour = 60 MMBtu/hr)	UT-3	No NOC	Natural Gas, Diesel, & Used Oil*	None
Two Fire Pump Engines – 208 bhp each	UT-4	No NOC	Diesel	None
Cummins 1000DFHD Diesel Back-up Generator Set (1490 bhp)	UT-5	NOC #1335, 2/21/06	Diesel	None

* Diesel and Used Oil are back-up fuels only

Wastewater Treatment Sources

Used coolant and oil is pumped to the industrial wastewater treatment facility at KAW. The coolant and oil is heated and the water separated. The reclaimed coolant and oil is stored in tanks. Water from the separation process is pumped to process pits, then clarifiers, pumped to a settling lagoon, filtered, and discharged into the Spokane River under an NPDES permit.

Water from domestic uses at the plant is pumped to the domestic sewage treatment facility for tertiary treatment. The water is screened, clarified, treated through a trickling filter, chlorinated, and discharged into the settling lagoon. Sludge from clarification is digested in a sludge digester and shipped off site.

Significant emission units, identified in the permit application from the wastewater treatment area, are given in Table 5 below. If a unit has gone through the NOC approval process, the NOC approval number is given after the unit description. Insignificant emission units from the wastewater treatment area are identified at the end of this section.

Table 5 – Wastewater Treatment Significant Emission Units

Emission Unit Description	Kaiser ID Number Used in Permit Application	NOC number and approval date	Fuels Used	Air Pollution Control Equipment
Wastewater Treatment Plant	WW-1	NOC #681 and NOC #881 issued for scrubbers	None	Scrubbers (1,200 acfm – NOC #681 and 7,600 acfm – NOC #881)

The scrubbers that control VOC emissions from the wastewater treatment plant at KAW are not subject to the requirements given in 40 CFR Part 64, “Compliance Assurance Monitoring” (CAM) because the wastewater treatment plant is not subject to any type of emission limit for VOC. In order for the CAM requirements to apply, the pre-controlled emissions for the emissions unit must be above major source thresholds, the emissions unit must employ an add-on air pollution control device and the emission unit must be subject to an emissions limit for the pre-controlled major pollutant(s). Since the wastewater treatment plant is not subject to any VOC emissions limit, the CAM requirements given in 40 CFR 64 are not applicable to the scrubbers at the wastewater treatment plant at KAW.

Heat Treat Oven Sources

Aluminum plate used for aerospace products are heat treated using 3 recuperative natural gas fired heat treat ovens to give required metallurgical properties for various alloys, similar to the electric heat treat ovens. After the plates have been heated, water is sprayed over the aluminum plate at various rates in areas of the quench chamber, to control the forming of the metallurgical characteristics.

Significant emission units, identified in the permit application from the heat treat ovens, are given in Table 6 below. If a unit has gone through the NOC approval process, the NOC approval number is given after the unit description. Insignificant emission units from the heat treat oven area are identified at the end of this section.

Table 6 – Heat Treat Ovens Significant Emission Units

Emission Unit Description	Kaiser ID Number Used in Permit Application	NOC number and approval date	Fuels Used	Air Pollution Control Equipment
Otto Junker Natural Gas Fired 2-Plate Horizontal Heat Treat Oven with 60 Recuperative Burners (total heat input = 26.5 MMBtu/hr)	HHT-1	NOC #1322, 2/8/06, as revised on 8/9/16	Natural gas	None
Otto Junker Natural Gas Fired 4-Plate Horizontal Heat Treat Oven with 48 Recuperative Burners (total heat input = 26.2 MMBtu/hr)	HHT-2	NOC #1334, 2/21/06, as revised on 10/30/09	Natural gas	None
Otto Junker Natural Gas Fired 4-Plate Horizontal Heat Treat Oven with 48 Recuperative Burners (total heat input = 26.2 MMBtu/hr)	HHT-3	NOC #1366, 10/27/06, as revised on 5/9/12	Natural gas	None

Gasoline Dispensing Facility Sources

Gasoline is stored in a 10,000 gallon above ground storage tank at the plant, and dispensed as needed. The facility also stores coolant and back-up fuel in smaller tanks, but these are considered insignificant emission units.

KAW is subject to the requirements of 40 CFR Part 63, Subpart CCCCCC, “National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities.” KAW is subject to the requirements for facilities with monthly throughput of less than 10,000 gallons of gasoline.

Significant emission units, identified in the permit application from the gasoline dispensing facility, are given in Table 7 below. If a unit has gone through the NOC approval process, the NOC approval number is given after the unit description.

Table 7 – Gasoline Dispensing Significant Emission Units

Emission Unit Description	Kaiser ID Number Used in Permit Application	NOC number and approval date	Fuels Used	Air Pollution Control Equipment
Gasoline Dispensing Facility – 10,000 gallon above ground gasoline storage tank	N/A – not listed in permit application	No NOC	None	None

Alutek Sources

This section of the permit covers the emission units at Alutek, located at 3401 N. Tschirley, Spokane, WA. All of the aluminum products produced at KAW is transported to Alutek for cutting, sanding, stenciling, packaging, and shipping. Alutek is considered a “support facility” to Kaiser and therefore is part of the major facility covered under this Air Operating Permit.

Per 40 CFR Part 70 (federal Air Operating Permit regulation), a major source is “any stationary source, or any group of stationary sources that are located on one or more contiguous or adjacent properties, and are under common control of the same person (or persons under common control), belonging to a single major industrial grouping [Standard Industrial Classification code’....” Additional EPA guidance discusses the situation of a support facility being included with another facility as one source classification as follows, “ Each source is to be classified according to its primary activity, which is determined by its principal product... Thus, one source classification encompasses both primary and support facilities, even when the latter includes units with a different two-digit SIC code. Support facilities are typically those which convey, store or otherwise assist in the production of the principal product.” Alutek only processes material from Kaiser Trentwood so it definitely assists in the production of the principal product.

For the Kaiser Trentwood and Alutek operations, the three criteria for being part of the same major sources are met as follows:

1. Common control – Both Kaiser Trentwood and Alutek are both owned by KAW, so they are under common control.
2. Contiguous or adjacent – According to EPA guidance, two operations do not have to be physically contiguous or adjacent for this criteria to be met. Since Kaiser and Alutek are located < 1 mile from each other and have a direct transfer of material between each other, this criteria is met.
3. SIC code – Since the Alutek facility appears to be a “support facility” to the Kaiser Trentwood operation, the two facilities are not required to have the same SIC code to meet this criteria.

Significant emission units from Alutek are given in Table 8 below. If a unit has gone through the NOC approval process, the NOC approval number is given after the unit description. Insignificant emission units from Alutek are identified at the end of this section.

Table 8 – Alutek Significant Emission Units

Description	Kaiser ID Number Used in Permit Application	Air Pollution Control Equipment
Plate Sander – NOC #1316	AL-1	Pneumafil PCFH-28 Dust Collector (8,000 cfm)

The dust collector that controls emissions from the plate sander at Alutek is not subject to the requirements given in 40 CFR Part 64, “Compliance Assurance Monitoring” (CAM) because the pre-controlled emissions entering the dust collector is below major source thresholds. In order for the CAM requirements to apply, the pre-controlled emissions for the emissions unit must be above major source thresholds, the emissions unit must employ an add-on air pollution control device and the

emission unit must be subject to an emissions limit for the pre-controlled major pollutant(s). Per KAW, the pre-controlled PM emissions from the plate sander are ~ 89 tons per year (see file for calculations), which is below the major source threshold of 100 tons/year. Therefore, the CAM requirements given in 40 CFR 64 are not applicable to the plate sander dust collector at Alutek.

Insignificant Emission Units

Insignificant emission units (IEUs) include any activity or emission unit located at a major source which qualifies as insignificant under the criteria listed in WAC 173-401-530. A list of the IEUs, identified in the permit application, is presented below in Table 9. In order to remain an IEU, emissions from units designated insignificant based solely on WAC 173-401-530(1)(a) must remain below threshold levels.

Insignificant emission units are subject to the generally applicable requirements (i.e., facility-wide emission limitations). According to WAC 173-401-530, testing, monitoring, recordkeeping, and reporting are not required for insignificant emission units unless determined by the permitting authority to be necessary to assure compliance or unless it is otherwise required by a generally applicable requirement of the State Implementation Plan (SIP). SRCAA has determined that testing, monitoring, recordkeeping, and reporting are not necessary for the insignificant emission units presented in Table 9 to assure compliance with the generally applicable requirements. SRCAA’s determination was based on the following:

- SRCAA has not documented a violation of any of the generally applicable requirement in the past from the list of IEUs in Table 9 (i.e., the IEUs have had a consistent compliance history);
- Most of the IEUs emit small quantities of pollutants and/or do not operate continuously; and
- The majority of the IEUs are emission units or activities that are not directly vented (i.e., do not have an exhaust stack).

Table 9 – Insignificant Emission Units

Emission Unit Description	Kaiser ID Number Used in Permit Application	Basis / Justification for IEU Designation
REMELT AREA		
Scrap Handling & Storage	RM-101	WAC 173-401-532(6)(75)
Casting Pits	RM-102	WAC 173-401-532(15)
Sow Dryer	RM-103	WAC 173-401-533(2)(e)
Miscellaneous. External Combustion Equipment	RM-104	WAC 173-401-532(2)(e)
Remelt Roof Vents	RM-105	WAC 173-401-532(9)
Maintenance Shop Heaters (8)	RM-106	WAC 173-401-533(2)(r)

Emission Unit Description	Kaiser ID Number Used in Permit Application	Basis / Justification for IEU Designation
Mobile Equipment	RM-107	WAC 173-401-532(10)
HOT LINE AREA		
112" & 132" Coolant Bldg.	HL-101	WAC 173-401-532(4)
80" Coolant Bldg.	HL-102	WAC 173-401-532(4)
Ingot Preheat (electric pits)	HL-103	WAC 173-401-532(17)
Stenciling	HL-104	WAC 173-401-532(2)(l) – ink usage < 2 gal/day
Slab Reheat (Bldg. 2109)	HL-105	WAC 173-401-532(17)
Final Anneal (Bldg. 2118)	HL-106	WAC 173-401-532(17)
#2 Scalper	HL-107	WAC 173-401-530(1)(a)
Clad Station	HL-108	WAC 173-401-530(1)(a)
COLD MILL AREA		
Air Practice Electric Furnaces (20)	CM-102	WAC 173-401-532(17)
Cold Mill Roof Vents	CM-103	WAC 173-401-532(9)
Electric Heat Treating	CM-104	WAC 173-401-532(17)
Conventional Cold Mills (3)	CM-105	WAC 173-401-533(2)(w)
CENTRAL SHOPS AREA		
Garage	CS-101	WAC 173-401-532(45)
Machine Shop	CS-102	WAC 173-401-532(74)
Pipe Shop	CS-103	WAC 173-401-532(74)
Battery Charging Station	CS-104	WAC 173-401-532(77)
Chem Lab	CS-105	WAC 173-401-533(3)
Carpenter Shop	CS-106	WAC 173-401-530(1)(a)
Forge Shop	CS-107	WAC 173-401-533(2)(f)
UTILITIES AREA / BOILERS		
Oil House Tank Farm – 11 Tanks (capacities range from 1,000-30,000 gallons)	UT-102	WAC 173-401-532(3) & (4) WAC 173-401-533(1)(b) & (c) The tanks in the oil house tank farm range from 1,000 -30,000 gallons capacity. They are used for storing

Emission Unit Description	Kaiser ID Number Used in Permit Application	Basis / Justification for IEU Designation
		diesel, gasoline, coolant (new and used), used oil, and hydraulics.
Admin. Bldg. Boiler	UT-103	WAC 173-401-533(e)
Oil House	UT-104	WAC 173-401-532(3) & (4)
SOUTH AREA		
Stenciling	SA-101	WAC 173-401-533(2)(l) – ink usage < 2 gal/day
Heat Treat (VHTs & Salem)	SA-102	WAC 173-401-532(17)
Box Shop	SA-103	WAC 173-401-530(1)(a)
WASTEWATER AREA		
Oil Reclamation	WW-101	WAC 173-401-532(4)
WW Settling/Skimming Lagoon	WW-102	WAC 173-401-533(3)(d) – NPDES permitted lagoon
Sewage Plant	WW-103	WAC 173-401-533(2)(bb) – industrial WW chlorination: less than 10 ⁶ gal/day
Recovered Oil Tank (200,000 gallon)	WW-104	WAC 173-401-532(3) One tank is used for used oil. The other tank is used for backwash water from the trace oil filters
MISCELLANEOUS SOURCES		
Maintenance Parts Washers	MISC-2	WAC 173-401-530(1)(a) and WAC 173-401-532(75)
ALUTEK SOURCES		
Alutek Stenciler	AL-102	WAC 173-401-533(2)(l) – ink usage < 2 gal/day
Alutek Saw Line	AL-103	WAC 173-401-532(6)(75)

STANDARD TERMS AND CONDITIONS

This section of KAW's permit contains standard terms and conditions that apply to all sources in SRCAA's Title V program. These conditions have been reviewed by EPA and include all terms required in Chapter 173-401 WAC as well as requirements from other applicable air quality laws and regulations. The standard terms have been organized in seven subsections including:

PERMIT ADMINISTRATION;
INSPECTION & ENTRY;

EMERGENCY PROVISIONS;
GENERAL MONITORING, RECORDKEEPING, & REPORTING;
COMPLIANCE CERTIFICATION;
TRUTH AND ACCURACY OF STATEMENTS AND DOCUMENTS AND TREATMENT OF
DOCUMENTS; and
APPLICABLE WHEN TRIGGERED REQUIREMENTS.

A discussion of each subsection follows. The requirements in each section are briefly discussed, along with the citations for each requirement. Using the same methodology as the permit, requirements that are not required under the FCAA are indicated by the phrase "STATE/LOCAL ONLY" after the legal citation and are therefore not enforceable by the Administrator and citizens under the FCAA. Although, in and of itself, Chapter 173-401 WAC is not federally enforceable, the requirements of this regulation are based on federal requirements for the operating permit program. Upon issuance of the permit, the terms based on Chapter 173-401 WAC will become federally enforceable for the source.

NOTE: The filing or promulgation date for each requirement is also given. This date may be important if an earlier version of the requirement is in the SIP. In many instances, a revision may have occurred within a section that does not affect the requirement being cited. If this is the case, the most recent filing or promulgation date is given, along with the SIP version date in parentheses, and the requirement is federally enforceable. If a change was made in the requirement, both the earlier, SIP approved, requirement and the most recent requirement would be included in the permit. The version in the SIP would be federally enforceable, and the more recent version would be enforceable at the state or local level.

If a new rule or a newer version of a rule has been submitted to EPA for inclusion in the SIP and EPA has proposed action, but not taken final action, the permit will be drafted so that when EPA action does occur, the requirement will become federally enforceable.

A. Permit Administration

Below are standard terms included in the subsection, Permit Administration. Generally the language tracks the rule language closely with only minor changes for clarity or conciseness. There is no intent to alter the effect of the requirement.

I.A.1. Federal Enforceability - All permit conditions are federally enforceable unless specified in the permit as a state or local only requirement. State and local only requirements are not enforceable by the Administrator or by citizens under the FCAA. [WAC 173-401-625, 10/4/93]

I.A.2. Duty to Comply - The permittee must comply with the terms and conditions of the permit. [WAC 173-401-620(2)(a), 10/4/93]

I.A.3. Schedule of Compliance. The permittee must continue to comply with all applicable requirements and must comply with new requirements on a timely basis. [WAC 173-401-630(3), 2/3/16]

I.A.4. Need to Halt or Reduce Activity Not a Defense - The permittee cannot use the fact that it would have been necessary to halt or reduce an activity as a defense in an enforcement

action. [WAC 173-401-620(2)(b), 10/4/93]

I.A.5. Permit Actions - This term discusses modification, revocation, reopening, and/or reissuance of the permit for cause. If KAW files a request to modify, revoke, reissue, or terminate the permit, the request does not stay any permit condition, nor does notification of planned changes or anticipated noncompliance. [WAC 173-401-620(2)(c), 10/4/93]

I.A.6. Reopening for Cause. This term lists instances when the permit must be reopened and revised, including times when additional requirements become applicable, when the permit contains mistakes, or when revision or revocation is necessary to assure compliance with applicable requirements. [WAC 173-401-730, 10/4/93]

I.A.7. Emissions Trading - No permit revision will be required, under any approved, economic incentives, marketable permits, emissions trading, and other similar programs or processes, for changes that are provided for in the permit. [WAC 173-401-620(2)(g), 10/4/93]

I.A.8. Property Rights. The permit does not convey any property rights of any sort, or any exclusive privilege. [WAC 173-401-620(2)(d), 10/4/93]

I.A.9. Duty to Provide Information. The permittee must furnish, within a reasonable time to SRCAA, any information, including records required in the permit, that is requested in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. [WAC 173-401-620(2)(e), 10/4/93]

I.A.10. Duty to Supplement or Correct Application. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, must promptly submit such supplementary facts or corrected information. The permittee must also provide information as necessary to address any new requirements that become applicable after the date a complete application has been filed but prior to the release of a draft permit. [WAC 173-401-500(6), 9/16/02]

I.A.11. Permit Fees. The permittee must pay fees as a condition of this permit in accordance with SRCAA's fee schedule and RCW 70.94.162. Failure to pay fees in a timely fashion will subject the permittee to civil and criminal penalties, as prescribed in Chapter 70.94 RCW. [WAC 173-401-620(2)(f), 10/4/93]

I.A.12. Severability. If any provision of the permit is held to be invalid, all unaffected provisions of the permit will remain in effect and enforceable. [WAC 173-401-620(2)(h), 10/4/93]

I.A.13. Permit Appeals. The permit or any conditions in it may be appealed only by filing an appeal with the pollution control hearings board and serving it on SRCAA within thirty days of receipt pursuant to RCW 43.21B.310. This provision for appeal is separate from and additional to any federal rights to petition and review under §505(b) of the FCAA, including petitions filed pursuant to 40 CFR 70.8(c) and 70.8(d). [WAC 173-401-620(2)(i), 10/4/93]
[WAC 173-401-735(1), 4/2/97]

I.A.14. Permit Renewal and Expiration. The permit is in effect for five years. The permittee's

right to operate this source terminates with the expiration of the permit unless a timely and complete application for renewal is submitted. Chapter 173-401-710(1) allows SRCAA to set, in the permit, the due date for the renewal as long as it is no more than 18 months and no less than six months prior to expiration of the permit. SRCAA specifies in the permit that the renewal must be submitted no more than 18 months and no less than 12 months prior to the permit expiration. The facility may continue to operate subject to final action by SRCAA on the application, as long as a timely and complete application has been filed and all requested additional information necessary to process the permit is submitted by the deadline specified in writing by SRCAA. [WAC 173-401-610, 10/4/93] [WAC 173-401-705, 10/4/93] [WAC 173-401-710(1) & (3), 9/16/02]

I.A.15. Permit Continuation. The permit will not expire until the renewal permit has been issued or denied if a timely and complete application has been submitted. [WAC 173-401-620(2)(j), 10/4/93]

I.A.16. Permit Shield. Compliance with a permit condition is deemed compliance with the applicable requirements identified in the permit upon which that condition is based, as of the date of permit issuance except that this shield will not affect the following:

- a. The provisions of Section 303 of the FCAA (emergency orders), including the authority of the Administrator under that section;
- b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
- c. The ability of EPA to obtain information from the permittee pursuant to Section 114 of the FCAA;
- d. The ability of SRCAA to establish or revise requirements for the use of reasonably available control technology (RACT) as provided in Chapter 252, Laws of 1993.

[WAC 173-401-640(1) & (4), 10/4/93]

B. Inspection and Entry

Below are standard terms included in the subsection, Inspection & Entry. This subsection of the permit contains requirements for allowing authorized access to a facility for purposes of assuring/determining compliance with air quality requirements. Generally the language tracks the rule language closely with only minor changes for clarity and conciseness. There is no intent to alter the effect of the requirements.

I.B.1. Inspection and Entry. Upon presentation of credentials and other documents as may be required by law, the permittee must allow SRCAA, or an authorized representative, to enter a Chapter 401 facility or location where records are kept, to have access to and copy, at reasonable times records, to inspect, at reasonable times, any facility or equipment or operations regulated by the permit, and/or to perform sampling or monitoring, at reasonable times, for the purpose of assuring compliance. [WAC 173-401-630(2), 2/3/16] [NOC #1322, Condition 11, 2/8/06, as revised on 8/9/16] [NOC #1334, Condition 9, 2/21/06, as revised on

10/30/09] [NOC #1335, Condition 11, 2/21/06] [NOC #1366, Condition 11, 10/27/06, as revised on 5/9/12] [NOC #1316, Condition 12, 11/7/05] [NOC #1410, Condition 22, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 22, 7/18/08, as revised on 10/30/09] [NOC #1556, Condition 11, 2/22/12] [NOC #1557, Condition 11, 2/22/12] [NOC #1607, Condition 14, 11/13/13] [NOC #1598, Condition 35, 4/9/14, as revised on 1/30/17] [NOC #1569, Condition 11, 7/16/12] [NOC #1677, Condition 11, 10/5/15]

Nothing in this condition limits the ability of EPA to inspect or enter the premises of the permittee under Section 114 of the FCAA. [WAC 173-401-640(4)(d), 10/4/93]

I.B.2. Obstruction of Access. No person may obstruct, hamper, or interfere with any authorized representative of SRCAA who requests entry for the purpose of inspection, and who presents appropriate credentials; nor may any person obstruct, hamper or interfere with any such inspection. [RCW 70.94.200, 1998 - STATE/LOCAL ONLY] [SRCAA Regulation I, Section 2.02E & F, 3/4/04 – STATE/LOCAL ONLY]

C. Emergency Provisions

Below are standard terms that are included in the subsection, Emergency Provisions. This subsection of the permit contains provisions, governing the treatment of periods of emissions in excess of applicable standards, when such emissions stem from unforeseeable events or arise from start-up, shutdown or maintenance, where design or operational practices could not preclude such emissions. Generally, the language tracks the rule language closely, with only minor changes for clarity or conciseness. There is no intent to alter the effect of the requirements.

I.C.1. Emergencies. This term incorporates the emergency provisions established in Chapter 173-401 WAC which allow for a positive defense to noncompliance with technology-based emission limitations if certain conditions are met. The time limits for reporting such emission events are included to assure that the permittee is aware of the timeframes. The time limits come from WAC 173-401-645 and WAC 173-401-615(3)(b). [WAC 173-401-645, 10/4/93] [WAC 173-401-615(3)(b), 9/16/02]

I.C.2. Excess Emissions. This term incorporates the excess emissions provisions of Chapter 173-400 WAC which require that the excess emissions be excused and not be subject to penalty if certain criteria are met. As with the emergency provision above, the time limits for reporting excess emissions are included in this term. [WAC 173-400-107, 108, 109, 3/1/11] [WAC 173-401-615(3)(b), 9/16/02]

I.C.3. Report of Breakdown. This term establishes the conditions under which violations of SRCAA Regulation I may be excused. It should be noted that this provision cannot be invoked for any federally enforceable requirement, as Section 6.08 is not in the State Implementation Plan. [SRCAA Regulation I, Section 6.08, 3/4/04 - STATE/LOCAL ONLY]

I.C.4. Emergency, Excess Emissions, Upset Conditions, and/or Breakdown Reports. This term establishes the reporting requirements for emergencies, excess emissions, upset conditions, and/or breakdowns (see Conditions I.C.1, I.C.2, and I.C.3). [WAC 173-401-615(3)(b), 9/16/02] [WAC 173-400-107, 108, 109, 3/1/11] [SRCAA Regulation I, Section 6.08, 3/4/04 – STATE /LOCAL ONLY]

I.C.5. Data Recovery. This term establishes data recovery provisions that apply to a portion of the monitoring requirements in the permit, implemented pursuant to WAC 173-401-615. For the monitoring provisions that indicate that the data recovery provisions apply, the permittee is required to recover valid monitoring data, as follows:

1. For records or monitoring data that are required daily or more frequently, the permittee shall collect at least 90% of all records or data required in a month.
2. For records or monitoring data that are required monthly or more frequently (but less frequently than daily), the permittee shall collect at least nine of the most recent ten required records.

Periods that the monitoring process does not operate and periods during which an unavoidable monitoring system malfunction occurred are not included in the data recovery calculation to determine if the provisions of 1. and 2. above were met. In determining whether a monitoring system malfunction was unavoidable, the following criteria shall be considered:

- a. Whether the malfunction was caused by poor or inadequate operation, maintenance, or any other reasonably preventable condition;
- b. Whether the malfunction was of a recurring pattern indicative of inadequate operation or maintenance; and
- c. Whether the permittee took appropriate action as expeditiously as practicable to correct the malfunction.

A report shall be filed with SRCAA no later than 30 days after the end of the monitoring period during which the provisions of 1. and/or 2. above were not met. The report shall provide the reason(s) the data were not collected (e.g., a description of the monitoring system malfunction, etc.), information regarding operation of the monitored process during the periods with missing data (e.g., process parameters which would be indicative of the compliance status of the process with applicable requirements), information regarding a., b., and c. of this condition, and any further actions that the permittee will take to ensure adequate collection of such data in the future.

Each condition in Section II.I – MONITORING, RECORDKEEPING, & REPORTING REQUIREMENTS to which this condition applies shall clearly indicate that these data recovery provisions apply. [WAC 173-401-615(1)(b), 9/16/02]

D. General Monitoring, Recordkeeping, & Reporting

Below are standard terms included in the subsection, General Monitoring, Recordkeeping, & Reporting. This subsection contains general requirements for monitoring, recordkeeping, and reporting. Monitoring, recordkeeping, & reporting requirements (MRRR) that apply to specific emission standards or specific emission activities are located in the second section of the permit. Generally, the language tracks the rule language closely, with only minor changes for clarity or

conciseness. There is no intent to alter the effect of the requirements. However, in the terms, Monitoring Reports and Data Recovery, attempts have been made to clarify SRCAA's expectation of how the requirements will be met. The discussions below provide more detail on these efforts and the regulatory authority relied upon to establish the terms.

I.D.1. Records of Required Monitoring Information. This term details what records must be kept relating to monitoring. [WAC 173-401-615(2)(a), 9/16/02]

I.D.2. Permanent Shutdown of an Emission Unit. If an emission unit is permanently shut down, rendering existing permit terms and conditions irrelevant, the permittee will not be required, after the shutdown, to meet any monitoring, recordkeeping, and reporting requirements, no longer applicable for that emission unit, once any residual requirements, such as the semi-annual report and annual compliance certification covering the last period during which the unit last operated, have been met. All records, relating to the shut down emission unit, generated while the emission unit was in operation, must be kept in accordance with Conditions I.D.1-Records of Required Monitoring Information and I.D.5-Retention of Records.

Contemporaneous with the shutdown of the emission unit, the permittee must record the date that operation of the emission unit ceased using a log or file on site. The shutdown date must be reported to SRCAA on the monitoring report, required under Condition I.D.6, covering the period during which the shutdown occurred. [WAC 173-401-725(4)(a), 10/4/93] [WAC 173-401-650(1)(a), 10/4/93]

I.D.3. Operational Flexibility. In the event that an emission unit is not operated during a period equal to or greater than the monitoring period designated, no monitoring is required. Recordkeeping and reporting must note the reason why and length of time that the emission unit was not operated. [WAC 173-401-650(1)(a), 10/4/93]

I.D.4. Records of Changes. The permittee must keep records of changes made at the source that result in emissions of a regulated air pollutant, subject to an applicable requirement, but not otherwise regulated under the permit, and the nature and quantity of emissions resulting from such a change. [WAC 173-401-615(2)(b), 9/16/02]

I.D.5. Retention of Records. The permittee must keep monitoring data and information supporting the data for a period of five years. Records may be kept in electronic format, however, originals of support information, generated in hardcopy format, must be kept for the required five years. [WAC 173-401-615(2)(c), 9/16/02]

I.D.6. Monitoring Reports. The permittee must submit monitoring reports to SRCAA as follows:

- Monitoring report covering the period from January 1 – June 30 each year shall be submitted to SRCAA and postmarked no later than July 30 of the same calendar year; and
- Monitoring report covering the period from July 1 – December 31 each year shall be submitted to SRCAA and postmarked no later than April 15 of the following calendar year.

All instances of permit deviations must be identified in the monitoring reports. In addition, any permanent emission unit shutdowns must be reported in accordance with Condition I.D.2-

Permanent Shutdown of an Emission Unit, above. The monitoring reports must be certified by a responsible official. SRCAA has added language to this condition that if monitoring reports are required, by an underlying requirement, to be submitted more frequently than every six months, the responsible official certification is only required for the semiannual reports but that the certification must cover all reports submitted since the last certification. The addition of this last requirement meets the intent of the law in that all reports are certified, while minimizing the burden on a source to go to the responsible official every time a report is submitted. Allowing a source this flexibility could become more important in the future, e.g., if SRCAA were to require a source to submit monitoring data electronically or by some other real time mechanism where responsible official certification would be difficult, if not impossible. [WAC 173-401-615(3)(a), 9/16/02]

I.D.7. Prompt Reporting of Deviations. The permittee must promptly report deviations from permit requirements, the probable cause of such deviations, and any corrective measures taken. Prompt is defined in this permit term. [Streamlined condition for the notification requirements in: WAC 173-401-615(3)(b), 9/16/02; WAC 173-401-645(3)(d), 10/4/93; WAC 173-400-107(3), 3/1/11; SRCAA Regulation I, Section 6.08.A.1, 3/4/04 – STATE/LOCAL ONLY]

I.D.8. Emission Inventory. The permittee must submit an inventory of emissions from the source each year and must maintain records sufficient to document reported emissions. [WAC 173-400-105(1), 5/31/16]

I.D.9. Reporting of Emissions of Greenhouse Gases. The permittee shall comply with the requirements of Chapter 173-441 WAC related to the reporting of greenhouse gases. [Chapter 173-441 WAC, 9/15/16 – STATE / LOCAL ONLY]

I.D.10. WAC 173-401-530(1)(a) Insignificant Emission Units. Emissions from units designated insignificant based solely on WAC 173-401-530(1)(a) must remain below threshold levels. Upon request from SRCAA, the permittee must demonstrate that the actual emissions from such a unit or activity are below the applicable emission thresholds. [WAC 173-401-530(6), 9/16/02]

I.D.11. Report Submittals. This term provides the address to which reports must be sent and requires all reports to be certified by a responsible official. [WAC 173-401-520, 10/4/93]

I.D.12. Rendering Device or Method Inaccurate. KAW may not render inaccurate any monitoring device or method required under Chapter 70.94 or 70.120 RCW, or any ordinance, resolution, regulation, permit, or order in force pursuant thereto. [WAC 173-400-105(8), 5/31/16]

E. Compliance Certification

As part of SRCAA's Title V program, sources are required to submit annual compliance certifications. (SRCAA may require more frequent certifications if the source is out of compliance or if an underlying requirement specifies more frequent submittals.) This subsection of the permit addresses the details of these compliance certification submittals, including how often submittals must occur, what the submittals must contain and to whom the certifications must be sent. Generally, the language tracks

the rule language closely, with only minor changes for clarity or conciseness. There is no intent to alter the effect of the requirements.

I.E.1. Compliance Certification Submittals. This term covers the frequency for submitting compliance certifications. [WAC 173-401-630(5)(a), 2/3/16]

I.E.2. Compliance Certification Contents. This term describes what must be included in each compliance certification. [WAC 173-401-630(5)(c), 2/3/16] [40 CFR §63.1516(c), 9/18/15] [WAC 173-400-075(5), 5/31/16]

I.E.3. Credible Evidence. This term explains that credible evidence may be used for submitted compliance certifications or establishing violations. [40 CFR 51.212(c), 2/24/97] [40 CFR 52.12, 2/24/97] [40 CFR 52.33, 2/24/97] [40 CFR 60.11(g), 1/12/11] [WAC 173-400-115, 5/31/16]

I.E.4. Submittal to EPA. This term requires that certifications be sent to EPA as well as SRCAA. [WAC 173-401-630(5)(d), 2/3/16]

F. Truth and Accuracy of Statements and Documents and Treatment of Documents

Below are standard terms contained in the subsection, Truth and Accuracy of Statements and Documents and Treatment of Documents. The terms are based on SRCAA Regulation I. Generally, the language tracks the rule language closely, with only minor changes for clarity or conciseness. There is no intent to alter the effect of the requirements.

I.F.1. False Information. KAW may not make any false statement, representation, or certification in any form, notice, or report required under Chapter 70.94 or 70.120 RCW or any ordinance, resolution, regulation, permit, or order in force pursuant thereto. [WAC 173-400-105(6), 5/31/16] [SRCAA Regulation I, 2.08.E., 3/4/04 – STATE / LOCAL ONLY]

I.F.2. Alteration of Documents. This term prohibits the reproduction or alteration of any document issued by SRCAA, if the purpose of such is to evade or violate any requirement. [SRCAA Regulation I, 2.08.B, 3/4/04 - STATE/LOCAL ONLY]

I.F.3. Availability of Documents. Any order required to be obtained by SRCAA Regulation I must be available for inspection on the premises designated on the order. [SRCAA Regulation I, 2.08.C, 3/4/04 - STATE/LOCAL ONLY]

I.F.4. Posting of Notices. Notices which SRCAA requires to be displayed shall be posted. The permittee may not mutilate, obstruct, or remove any notice unless authorized to do so by the SRCAA Board of Directors or their authorized representatives. [SRCAA Regulation I, 2.08.D, 8/3/06 - STATE/LOCAL ONLY]

G. Applicable When Triggered Requirements

The subsection, Applicable When Triggered Requirements, contains requirements that do not apply to the facility unless certain activities at the site trigger the requirement. SRCAA has included these requirements in the permit, either because they are often triggered at sources or are important

enough that their inclusion in the permit is warranted. Generally the language tracks the rule language closely with only minor changes for clarity or conciseness. There is no intent to alter the effect of the requirements.

I.G.1. New Source Review. Prior to the establishment of a new source, including modifications, the permittee may be required to file for and obtain approval under SRCAA's Notice of Construction program. [Chapter 173-400 WAC, 5/31/16] [Chapter 173-460 WAC, 5/20/09 - STATE/LOCAL ONLY] [SRCAA Regulation I, Article V, 5/3/07 - STATE/LOCAL ONLY]

I.G.2. Replacement or Substantial Alteration of Existing Control Equipment. Prior to replacing or substantially altering existing control equipment, the permittee shall file and obtain approval under SRCAA's Notice of Construction program. [WAC 173-400-114, 11/28/12 - STATE/LOCAL ONLY] [SRCAA Regulation I, Article V, 5/3/07 - STATE/LOCAL ONLY]

I.G.3. Demolition and Renovation (Asbestos). The permittee shall comply with applicable local, state, and federal requirements regarding demolition and renovation. [40 CFR 61 Subpart M, 2006] [WAC 173-400-075, 5/31/16] [SRCAA Regulation I, Article IX, 8/5/10 - STATE/LOCAL ONLY]

I.G.4. Source Testing. To demonstrate compliance, Ecology or SRCAA may conduct or require that a test be conducted using approved methods per WAC 173-400-050, -060, & -105(4). Chapter 173-400 WAC does not elaborate on what "approved" means. Language has been added to this condition to clarify what SRCAA considers "approved". The condition requires that in order for a method to be approved it must be submitted to SRCAA at least 30 days prior to the test date, or a shorter period of time if indicated in writing by SRCAA, and SRCAA must approve the method in writing. Changes must also be approved by SRCAA in writing. [WAC 173-400-105(4), 5/31/16] [SRCAA Regulation I, Section 2.09, 2/7/08]

[SRCAA (formerly SCAPCA) Order #96-03, Condition D & E, 4/24/96 as revised on 10/4/00]
[SRCAA (formerly SCAPCA) Order #96-04, Condition A, 4/24/96 as revised on 5/8/96]
[SRCAA (formerly SCAPCA) Order #96-05, Condition C, 4/24/96 as revised on 5/8/96 and 10/4/00] [SRCAA (formerly SCAPCA) Order #96-06, Condition B, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00]

I.G.5. Source Testing for Revised SRCAA (formerly SCAPCA) Orders #96-03, #96-04, #96-05, #96-06. SRCAA may require testing to verify compliance with the emission limitations of SRCAA (formerly SCAPCA) Orders #96-03, #96-04, #96-05, and #96-06. Testing shall be done in accordance with EPA reference methods as found in 40 CFR Part 51 and 60 (1995). PM10 emissions shall be assumed to equal PM emissions unless the permittee provides appropriate technical documentation to demonstrate otherwise.

a. For SRCAA (formerly SCAPCA) Order #96-03, emissions shall be determined from the average of three valid test runs, each representing one furnace cycle, and shall include front half and back half particulate matter.

b. For SRCAA (formerly SCAPCA) Orders #96-04, #96-05, and #96-06, PM and/or PM10 emissions shall be determined from the average of three valid 1-hour, or longer, test runs and

shall include front and back half particulate matter. PM10 emissions shall be assumed to equal PM emissions unless the permittee provides appropriate technical documentation to demonstrate otherwise.

[SRCAA (formerly SCAPCA) Order #96-03, Condition D & E, 4/24/96 as revised on 10/4/00]
[SRCAA (formerly SCAPCA) Order #96-04, Condition A, 4/24/96 as revised on 5/8/96]
[SRCAA (formerly SCAPCA) Order #96-05, Condition C, 4/24/96 as revised on 5/8/96 and 10/4/00] [SRCAA (formerly SCAPCA) Order #96-06, Condition B, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00]

I.G.6. Chemical Accident Prevention Provisions. If regulated substances are stored on-site in quantities, at the process level, that are above the threshold quantities, as determined under 40 CFR §68.115, the permittee shall comply with the requirements of 40 CFR Part 68 - Chemical Accident Prevention Provisions no later than either three years after the date on which a regulated substance present above a threshold quantity is first listed under 40 CFR §68.130, or the date on which a regulated substance is first present above a threshold quantity in a process.[40 CFR Part 68, 2006]

I.G.7. Source Emission Reduction Plan. If SRCAA or the governor declares a "forecast," "alert," "warning," or "emergency" air pollution episode stage under Chapter 173-435 WAC, KAW shall comply with the Source Emission Reduction Plan, issued by Ecology, dated March 5, 1973. [Chapter 173-435 WAC and Source Emission Reduction Plan, dated 3/5/73]

EMISSION LIMITATIONS & MONITORING, RECORDKEEPING & REPORTING

This section contains emission limitations and emission related requirements, including general requirements for the facility. The section is divided into several subsections. The first subsection lists limitations that apply facility-wide. Other subsections focus on individual emission units/activities or classes of similar emission units/activities. As in all other sections of the permit, requirements that are not required under the FCAA are indicated by the phrase "STATE/LOCAL ONLY" after the legal citation and are therefore not enforceable by the Administrator and citizens under the FCAA.

This section of the permit is formatted differently from the STANDARD TERMS AND CONDITIONS section. Requirements are presented in tables. Applicable requirements are listed in the third column in emission limitation tables. The basis for the applicable requirements is listed in the second column of the emission limitation tables. The averaging time and reference test method, used to determine compliance with the requirement, are listed in the fourth and fifth columns, if applicable. The monitoring, recordkeeping, and reporting requirements (MRRR) used to assure compliance with the requirement are listed in the sixth columns of the emission limitation tables. The monitoring, recordkeeping, and reporting requirements (MRRR) are enforceable and are given in the last subsection in the permit. It should be noted that while a violation of a MRRR is a violation of the permit, it is not necessarily a violation of the underlying emission limitation.

For KAW, this section contains the following subsections:

FACILITY-WIDE EMISSION LIMITATIONS;
REMELT AREA EMISSION LIMITATIONS
HOT ROLLING MILL AREA EMISSION LIMITATIONS

COLD ROLLING MILL AREA EMISSION LIMITATIONS
UTILITIES EMISSION LIMITATIONS
WASTEWATER TREATMENT EMISSION LIMITATIONS
HEAT TREAT OVENS EMISSION LIMITATIONS
GASOLINE DISPENSING FACILITY EMISSION LIMITATIONS
ALUTEK EMISSION LIMITATIONS
MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (MRRR).

Each subsection and its contents are discussed in detail below except for the MRRR. MRRR are discussed in context of the requirement(s) to which they apply.

If an applicable requirement does not include sufficient monitoring, recordkeeping, and reporting to satisfy WAC 173-401-615(1) & (2), the permit will establish adequate monitoring, recordkeeping and reporting. This is known as gapfilling. Applicable requirements for which this type of gapfilling is proposed can be identified by the note, following the MRRR citation, indicating that at least a portion of the MRRR is from gapfilling.

Facility-wide Emission Limitations

This subsection contains applicable emission limitations which apply facility-wide or that apply to very general classes, as indicated in the condition itself (e.g., process units or combustion units, etc...). The facility-wide emission limitations apply to insignificant emissions units. However, monitoring, recordkeeping and reporting requirements are not required for the insignificant emission units because SRCAA has determined that they are not necessary to assure compliance with facility-wide emission limitations. KAW is required to certify compliance with the facility-wide emission limitations for insignificant emission units.

The following requirements are included in this section.

Condition II.A.1: All emission units are required to use reasonably available control technology, in accordance with WAC 173-400-040 – STATE/LOCAL ONLY [WAC 173-400-040, 5/31/16]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.A.2: Visible emissions shall not exceed 20%, as specified in WAC 173-400-040 Visible emissions, $\leq 20\%$. [WAC 173-400-040(1), 173-400-040(1)(a), & 173-400-040(1)(b), 5/31/16]

Note: The 20% opacity limits in WAC 173-400-040(1) and SRCAA Regulation I, Section 6.02 do not apply to the melters and holders regulated under SRCAA Order #91-01, NOC #1410, NOC #1427, and the bypass stacks for the DC-0 complex regulated under NOC #1598. For these units (RM-M1, RM-M2E, RM-M2W, RM-M3, RM-M4, RM-M5, RM-M6, RM-M7, RM-M8E, & RM-M8W, RM-M0 bypass stack, and RM-H0 through RM-H8 bypass stacks), the opacity limits in Conditions II.B.3 and II.B.4 supersede this opacity requirement as allowed under WAC 173-400-040(2)(d)

and SRCAA Regulation I, Section 6.02.A. [SRCAA Order #91-01, Condition 9, 12/12/91] [NOC #1410, Condition 4, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 4, 7/18/08, as revised on 3/19/10] [NOC #1598, Conditions 12 & 13, 4/9/14, as revised on 1/30/17]

MRRR: KAW is required to perform weekly inspections during daylight hours while the facility is operating for the purpose of observing points of potential visible emissions and PM emissions from the following emission points:

- 80" Hot Mill Inertial Separator Stack, HL-1;
- Pusher Furnace, HL-4;
- Ingot Soaking Pits #39 through 42, HL-5;
- Skim Cooler Baghouse, RM-20;
- Induction Furnaces Baghouse; RM-21;
- Boilers #1, #2, & #3, UT-1, UT-2, & UT-3;
- Heat Treat Ovens, HHT-1, HHT-2, & HHT-3;
- Emergency generator / Diesel Engine, HHT-4;
- Ingot soaking pit furnace #44, HL-7;
- Stress relief furnaces (reheat #9, #10, and #11), HL-8, HL-9, & HL-10;
- Four cartridge furnaces, HL-11; and
- Dust Collector associated with the plate sander at Alutek, AL-1.

The list of emission points that KAW is required to inspect includes all of the significant emission units at the facility, except for the melters, holders, wastewater treatment plant, 112" hot rolling mill, 132" hot rolling mill, and #4 scalper. KAW is not required to inspect the holders and melters for visible emissions because the holder and melter exhaust stacks are equipped with Continuous Opacity Monitors (COMs), which continuously monitor the visible emissions. Inspections are not required for the wastewater treatment plant because there are no particulate emissions from the two wastewater treatment scrubber stacks. Inspections are not required for the 112" and 132" hot rolling mills because they are not directly vented (i.e., these emission units do not have dedicated exhaust stacks). The #4 scalper is subject to the 20% opacity limit and is subject to the Compliance Assurance Monitoring (CAM) Requirements given in 40 CFR Part 64, 7/1/01. A discussion of CAM, as it relates to the #4 scalper is given after the discussion of the monitoring for the other emissions units.

For the emission units listed in the bulleted list above, the weekly inspections shall be conducted as follows:

- 1) each inspection shall be conducted from a location(s) with a clear view of each emission source where the sun is not directly in the observer's eyes. The inspection location(s) shall be at least 15 feet but not more than 0.25 miles from the emission source;
- 2) the observer shall be educated in the general procedures for determining the presence of visible emissions (i.e., effects on the visibility of emissions caused by background contrast, position of the sun and amount of ambient lighting, and observer position relative to the source and sun);
- 3) each inspection shall consist of a minimum 15-second visual observation of each

emission source to identify those emission sources which exhibit visible emissions;
and

- 4) records shall be kept of each inspection, including the name of the observer, the date and time of the inspection, and the observations made during the inspection. Records shall be kept in accordance Condition I.D.5- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives.

If visible emissions are not observed from any emission source at the facility during the weekly inspection, no additional action is required. If visible emissions are observed from any emission source, the permittee shall take further action according to b).

- b) If visible emissions are observed during an inspection or are otherwise observed by the permittee, the permittee shall verify and certify that:
 - 1) the visible emissions or PM emissions are not the result of equipment malfunction, and the equipment, if any, from which the emissions are released, is performing its normal, designed function;
 - 2) the air pollution control equipment, if any, is being operated properly in accordance with normal operating procedures; and
 - 3) if the visible emissions are the result of fugitive emissions, reasonable precautions are being taken to minimize emissions.

If b) 1), b) 2), and/or, b) 3) are not being met, corrective action must be taken as soon as possible, but no later than three days from discovery, to correct the problem. Taking corrective action does not relieve the permittee from complying with the underlying requirement, nor does it relieve the permittee from the obligation to report any permit deviations as required in Condition I.D.7-Prompt Reporting of Deviations.

The permittee shall keep records of any verifications made regarding b) 1), b) 2), and/or b) 3) and a description of any corrective action taken. Records shall be kept in accordance Condition I.D.5- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives.

If b) 1), b) 2), and b) 3), are being met, but visible emissions are still observed, the permittee shall take further action according to c).

- c) If visible emissions are still observed and b) 1), b) 2), and b) 3) are being met, the permittee shall perform testing according to c) 1).

- 1) As a means of demonstrating compliance with the visible emissions standard(s), the permittee shall perform, or have performed, RM 9 (July 1, 1993) or Ecology Method 9A (July 12, 1990), whichever is applicable, on the source of the visible emissions. The test shall occur within a reasonable timeframe but no later than 1 working day after discovery of the emissions. If the visible emissions exceed the applicable standard, the permittee shall take timely and appropriate corrective action

(as soon as possible, but within 24 hours) to address the problem. The results of the RM 9 or Ecology Method 9A test shall be submitted to SRCAA within two working days of the test.

KAW is permitted to perform soot blowing and grate cleaning necessary to the operation of boiler facilities. As such, this practice, except for testing and trouble shooting, is to be scheduled for the same approximate times each day.

Compliance Assurance Monitoring for #4 Scalper

The required monitoring was established for the purposes of Compliance Assurance Monitoring (CAM) for the #4 scalper, authorized by 40 CFR Part 64, 7/1/01. CAM must be designed to provide reasonable assurance of compliance with emission limitations or standards for a pollutant-specific emission unit (PSEU). In order for a PSEU to be subject to CAM, the three conditions described below must be met. The manner in which they are met by the #4 scalper for particulate matter is discussed below:

1. The PSEU must have pre-controlled emissions of the applicable pollutant which exceeds the major source thresholds established in WAC 173-401-200(17). In the case of the #4 scalper, KAW has estimated the pre-controlled PTE of particulate matter to be 240 tons per year. This exceeds the major source threshold of 100 tpy, established in WAC 173-401-200(17).

For emission units subject to CAM, if the post-controlled PTE is estimated to be more than 100 tons per year, the unit is considered a large emissions unit. For large emissions units, data collection frequency must be at least 4 times per hour. The post-controlled PTE of particulate matter from the #4 scalper is estimated to be 41.5 tons per year, based on the estimate given in the KAW AOP renewal application. Therefore, the #4 scalper is not considered to be a large emissions unit, since post-controlled emissions are less than 100 tons per year. Per 40 CFR 64.3(b)(iii), the frequency of data collection may be less frequent than 4 times per hour, but must include some type of data collection at least once per 24-hour period.

2. The PSEU must utilize air pollution control equipment to reduce emissions of the applicable pollutant to a level that meets the established emission limit(s). In the case of the #4 scalper, the particulate emissions of the PSEU are controlled by a wet cyclone. It is not possible for the #4 scalper to bypass the wet cyclone. Therefore, CAM does not need to address the potential for bypass.
3. The PSEU must be subject to an emission limit for the applicable pollutant. In the case of the #4 scalper, the PSEU is subject to a 20% opacity limit given in Chapter 173-400 WAC (Condition II.A.2) and SRCAA Regulation I, Section 6.02 (Condition II.A.3), and a 0.01 gr/dscf grain loading limit given in a Notice of Construction approval (Condition II.C.1).

The proposed CAM has been designed to rely on two performance indicators: #4 cyclone wet cyclone visible emissions monitoring and #4 scalper wet cyclone pumps and fans operational status. Each of these is discussed in detail below:

a) #4 Scalper Wet Cyclone Visible Emissions

Visible emissions (opacity) was selected as one of the performance indicators because it is indicative of good operation and maintenance of the wet cyclone. When the wet cyclone is operating optimally, there should be minimal visible emissions from the exhaust. In general, an increase in visible emissions indicates reduced performance of the wet cyclone.

The selected indicator range is a no-visible-emissions standard. This indicator range was selected because an increase in visible emissions is indicative of an increase in particulate matter and a monitoring technique which does not require a Method 9 certified observer is desired. KAW will be required to perform weekly inspections during daylight hours, while the #4 scalper is operating, for the purpose of monitoring the wet cyclone exhaust for the presence of visible emissions. A weekly frequency was selected because the #4 scalper does not run continuously and because visible emissions is only one of two performance indicators used to ensure the particulate and opacity limits are met. KAW must keep records of each inspection, including the name of the observer, the date and time of the inspection, and the observations made during the inspection. Records shall be kept in accordance Condition I.D.5- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives. If no visible emissions are observed from the #4 scalper wet cyclone, no corrective action is required. If visible emissions are observed, the following actions shall be taken:

If visible emissions are observed from the wet cyclone, an excursion has occurred, and the permittee must verify that all equipment is performing its normal, designed function and is being operated according to standard procedures. If any equipment is not performing as described, corrective action shall be initiated as soon as possible, but within 12 hours of discovery of the problem. The goal of the corrective action taken shall be to eliminate visible emissions as soon as possible and to prevent recurrence of the problem. Taking corrective action does not relieve the permittee from complying with the underlying requirement, nor does it relieve the permittee from the obligation to report any permit deviations as required in Condition I.D.7-Prompt Reporting of Deviations. Records shall be kept of the date, time, duration, and magnitude of all excursions. In addition, records shall be kept of all corrective actions taken and the results of such actions. All records shall be kept in accordance with Condition I.D.1- Records of Required Monitoring Information and Condition I.D.5-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives. If the corrective action taken results in a return to conditions under which visible emissions are not observable, no further corrective action is required.

If after corrective action is taken, visible emissions are still observed, the permittee shall perform, or have performed, Ecology Method 9A and EPA Method 5 on the #4 scalper wet cyclone. The Ecology Method 9A and EPA Method 5 tests shall occur as soon as possible, but no later than 30 days after the subsequent observation of visible emissions. Records of all Ecology Method 9A and EPA Method 5 tests performed shall be kept in accordance with Condition I.D.1- Records of Required Monitoring

Information and Condition I.D.5-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives.

If the visible emissions, as determined by Ecology Method 9A, do not exceed any applicable opacity standards (i.e., standards given in Conditions II.A.2 and II.A.3), and the particulate emissions, as determined by EPA Method 5, do not exceed any applicable particulate standards (i.e., standard given in Condition II.C.1), no further corrective action is required.

If a violation of any applicable opacity standard (i.e., standards given in Conditions II.A.2 and II.A.3) is documented, and/or a violation of any applicable particulate standard (i.e., standard given in Condition II.C.1), an exceedance has occurred, and appropriate corrective action shall be initiated as soon as possible, but no later than 24 hours after discovery of the violation, to identify and correct the problem causing the exceedance. The goal of the corrective action taken shall be to achieve compliance with the opacity and particulate standards as soon as possible and to prevent recurrence of the problem. Once corrective action has been taken to address the problem, the permittee shall perform, or have performed, Ecology Method 9A (i.e., if an opacity exceedance occurred) and/or EPA Method 5 (i.e., if a particulate exceedance occurred) on the source of the emissions to demonstrate compliance with the opacity and/or particulate standards. Taking corrective action does not relieve the permittee from complying with the underlying requirement, nor does it relieve the permittee from the obligation to report any permit deviations as required in Condition 30-Prompt Reporting of Deviations. Records of all Ecology Method 9A and EPA Method 5 tests performed shall be kept in accordance with Condition I.D.1- Records of Required Monitoring Information and Condition I.D.5-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives.

KAW must report all #4 scalper wet cyclone opacity excursions and opacity and/or particulate matter exceedances to SRCAA as part of the semiannual monitoring report, described in Condition I.D.6. The report shall include the date, time, duration, and magnitude of all excursions and exceedances that occurred during the reporting period. The report shall also include a description of all corrective actions taken and the results of such actions.

b) #4 Scalper Wet Cyclone Pumps and Fans Operational Status

The operational status of the wet cyclone pumps and fans was selected as one of the performance indicators because the wet cyclone does not have any moving parts. Therefore, as long as the pumps and fans are operational, the wet cyclone should be operating correctly, and there should be minimal visible emissions from the exhaust.

The selected indicator range is an affirmative operational status for the wet cyclone pumps and fans each time an ingot is scalped. This indicator range was selected because as stated above, the wet cyclone has no moving parts. To verify that scalping occurs only when the wet cyclone is properly operating, each time an ingot is scalped, KAW shall perform a check, using the VAX system, or equivalent computer system, to verify that the wet cyclone fans and pumps are running. Records shall be kept of

each check, including the date and time of the check and the operational status of the wet cyclone fans and pumps. Records shall be recorded daily on the #4 scalper scorecard in accordance Condition I.D.5- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives.

In addition, at least semiannually, KAW is required to perform a check to verify that the programmable logic controller (PLC) for the #4 scalper is programmed in accordance with Condition II.C.6. Semiannual checks shall be completed by July 31 for the first half of the year (January through June) and January 31 for the second half of the year (July through December). Each check shall include a written statement from the Hot Line Department, the Automation and Control Engineering Group, or an equivalent department, certifying that the required PLC programming is in place. Records shall be kept in accordance with Condition I.D.5- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives.

If the wet cyclone fans and pumps are not running when an ingot is scalped, or if the #4 scalper is not programmed in accordance with Condition II.C.2, an excursion has occurred, and corrective action must be taken as soon as possible, but no later than 12 hours from discovery, to return the equipment to normal operation (i.e., wet cyclone fans and pumps operational when ingot is scalped) and to prevent recurrence of the problem. Taking corrective action does not relieve the permittee from complying with the underlying requirement, nor does it relieve the permittee from the obligation to report any permit deviations as required in Condition I.D.7-Prompt Reporting of Deviations. Records shall be kept of the date, time, and duration of all excursions. In addition, records shall be kept of all corrective actions taken and the results of such actions. All records shall be kept in accordance with Condition I.D.1- Records of Required Monitoring Information and Condition I.D.5-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives. KAW is required to report all excursions (occasions when wet cyclone fans and pumps are not running when ingot is scalped) to SRCAA as part of the semiannual monitoring report, described in Condition I.D.6. The report shall include the date, time, and duration of all excursions that occurred during the reporting period. The report shall also include a description of all corrective actions taken and the results of such actions.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16] [40 CFR Part 64, 7/1/01]

Condition II.A.3: Visible Emissions shall not equal or exceed 20%, as specified in Regulation I of SRCAA, Section 6.02 - STATE/LOCAL ONLY [SRCAA Regulation I, 6.02, 3/4/04 - STATE/LOCAL ONLY]

Note: The 20% opacity limits in WAC 173-400-040(1) and SRCAA Regulation I, Section 6.02 do not apply to the melters and holders regulated under SRCAA Order #91-01, NOC #1410, NOC #1427, and the bypass stacks for the DC-0 complex regulated under NOC #1598. For these units (RM-M1, RM-M2E, RM-M2W, RM-M3,

RM-M4, RM-M5, RM-M6, RM-M7, RM-M8E, & RM-M8W, RM-M0 bypass stack, and RM-H0 through RM-H8 bypass stacks), the opacity limits in Conditions II.B.3 and II.B.4 supersede this opacity requirement as allowed under WAC 173-400-040(2)(d) and SRCAA Regulation I, Section 6.02.A. [SRCAA Order #91-01, Condition 9, 12/12/91] [NOC #1410, Condition 4, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 4, 7/18/08, as revised on 3/19/10] [NOC #1598, Conditions 12 & 13, 4/9/14, as revised on 1/30/17]

MRRR: The same monitoring is required as for Visible Emissions, WAC 173-400-040, in Condition II.A.2.

For the #4 scalper, the required monitoring was established for the purposes of Compliance Assurance Monitoring (CAM), authorized by 40 CFR Part 64, 7/1/01.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16] [40 CFR Part 64, 7/1/01]

Condition II.A.4: No person shall cause or permit the emission of particulate matter from any source to be deposited beyond the property under direct control of the owner or operator of the source in sufficient quantity to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited or to interfere unreasonably with the use and enjoyment of the property upon which the material is deposited. [WAC 173-400-040(2), 5/31/16] [SRCAA Regulation I, Section 6.05.A, 3/4/04]

MRRR: KAW must perform weekly inspections of the facility during daylight hours of the emission units and activities at the facility to verify that fallout is not occurring (or if it is that is not unreasonably interfering with others use and enjoyment of property) and must record and investigate complaints received regarding fallout.

Potential fugitive emissions from the facility include dust from roads and parking lots. Weekly inspections should reasonably assure compliance because KAW has a consistent compliance history (i.e., the likelihood of violation is low). Most of the well-traveled roads and parking lots are paved and should not cause fugitive emissions. During normal operation, fugitive particulate matter is not visible at the facility.

If violations of the requirement are observed during the weekly inspections and/or as part of the complaint investigation, KAW must take timely and appropriate corrective action. Taking corrective action does not relieve KAW from the obligation to comply with the underlying emission limitation, nor does it relieve KAW from reporting any permit deviations as required in Condition I.D.7-Prompt Reporting of Deviations.

KAW must maintain records of each inspection and complaint investigation. Records must include the date and time of the inspection, observations made, the date and time of any complaints received, the date and time of the complaint investigation, the results of complaint investigations, a description of any corrective action taken, and any other information required in permit condition I.D.1-Records of Required Monitoring Information. Records must be kept in accordance with Condition I.D.5-Retention of Records, and, upon request, such records must be made available for

inspection by SRCAA staff or other authorized representatives.

For permit conditions that require reasonable precautions to be taken or that call for the use of recognized good practices or procedures or effective control apparatus and measures, examples of reasonable precautions; recognized good practices and procedures; and effective control apparatus and measures are given in the permit.

[WAC 173-401-615(1) &(2), 9/16/02] NOTE: This is a gapfilling MRRR.

Condition II.A.5: Reasonable precautions must be taken to:

- a. Prevent PM from becoming airborne when constructing, altering, repairing, or demolishing buildings, appurtenances, and roads;
- b. Prevent tracking of PM onto paved roadways open to the public;
- c. Prevent the release of air contaminants, as specific in WAC 173-400-040(4)(a), if located in an attainment area and not impacting a NAA;
- d. Prevent PM from becoming airborne when handling, transporting, and /or storing PM; and
- e. Prevent fugitive dust from becoming airborne and source must be maintained and operated to minimize emissions.

[SRCAA Regulation I, Section 6.05.C, 3/4/04] [SRCAA Regulation I, 6.05.D, 3/4/04]
[WAC 173-400-040(4)(a), 5/31/16] [SRCAA Regulation I, Section 6.05.B, 3/4/04] [WAC 173-400-040(8)(a), 5/31/16]

MRRR: The same monitoring is required as for WAC 173-400-040(2) – Fallout, see Condition II.A.4, above. KAW must perform weekly inspections during daylight hours of the emission units at the facility, investigate complaints, and take corrective action if potential problems are identified. [WAC 173-401-615(1) & (2), 9/16/02] NOTE: This is a gapfilling MRRR.

Condition II.A.6: Recognized good practices and procedures must be used to reduce odors to a reasonable minimum, in accordance with WAC 173-400-040(4) – STATE / LOCAL ONLY [WAC 173-400-040(5), 5/31/16 – STATE / LOCAL ONLY]

MRRR: The monitoring is the same as required for WAC 173-400-040(2) - Fallout, see Condition II.A.4 above. KAW must perform weekly inspections during daylight hours of the emission units at the facility, investigate complaints, and take corrective action if potential problems are identified. Examples of what are considered recognized good practices and procedures for odors are included in the monitoring condition. [WAC 173-401-615(1) & (2), 9/16/02] NOTE: This is a gapfilling MRRR.

Condition II.A.7: It shall be unlawful for any person to cause or allow the emission of any air contaminant in sufficient quantities and of such characteristics and duration as is, or is likely to be:

- a. Injurious to the health and safety of human, animal or plant life;
- b. Injurious or cause damage to property; or
- c. Which unreasonably interferes with enjoyment of life and property.

Compliance with this requirement shall be determined per the provisions given in SRCAA Regulation I, Section 6.04 (4/2/10) - STATE / LOCAL

[SRCAA Regulation I, Section 6.04, 4/2/10 - STATE/LOCAL ONLY]

MRRR: The monitoring is the same as required for WAC 173-400-040(2) - Fallout, see Condition II.A.4 above. KAW must perform weekly inspections during daylight hours of the emission units at the facility, investigate complaints, and take corrective action if potential problems are identified. Examples of what are effective control apparatus and measures to reduce odors are included in the monitoring condition. [WAC 173-401-615(1) & (2), 9/16/02] NOTE: This is a gapfilling MRRR.

Condition II.A.8: No person shall cause or permit the emission of any air contaminant from any source if it is detrimental to the health, safety, or welfare of any person, or causes damage to property or business- STATE/LOCAL ONLY [WAC 173-400-040(6), 5/31/16] [SRCAA Regulation I, Section 6.06.A, 3/4/04- STATE/LOCAL ONLY]

MRRR: The monitoring is the same as for WAC 173-400-040(2) - Fallout, see Condition II.A.4 above. KAW must perform weekly inspections during daylight hours of the emission units at the facility, investigate complaints, and take corrective action if potential problems are identified. [WAC 173-401-615(1) & (2), 9/16/02] NOTE: This is a gapfilling MRRR.

Condition II.A.9: No person shall cause or permit the installation or use of any means which conceals or masks an emission of an air contaminant which would otherwise violate any provisions of Chapter 173-400 WAC - STATE/LOCAL ONLY [WAC 173-400-040(7), 8/15/01(8/20/93)] [SRCAA Regulation I, 6.07, 3/4/04- STATE/LOCAL ONLY]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this prohibited activity was conducted during the reporting period.

Condition II.A.10: Particulate matter emissions from combustion and incineration units shall not exceed 0.1 gr/dscf, corrected to 7% oxygen, as specified in WAC 173-400-050(1) & WAC 173-400-050(3). [WAC 173-400-050(1) & WAC 173-400-050(3), 5/31/16]

MRRR: The combustion emission units that are subject to this requirement include the pusher furnace, the ingot soaking pits, the annealing furnaces, the induction furnaces, and the boilers at KAW. The holders, three heat treat ovens, and the diesel engine associated with the heat treat ovens are subject to more stringent grain loading standards (0.015 gr/dscf for holders, 0.01 gr/dscf for heat treat ovens and diesel engine), so compliance with the more stringent grain loading limits will assure compliance with the 0.1 gr/dscf emission limit. The melters are subject to the 0.1 gr/dscf grain loading standard, but they are also subject to an alternate opacity standard that correlates to 0.1 gr/dscf,

which was formalized through SRCAA (formerly SCAPCA) Order #91-01. Therefore, compliance with the alternate opacity limit, given in Condition II.B.2 will assure compliance with the 0.1 gr/dscf emission limit.

For the pusher furnace, ingot soaking pits, annealing furnaces, induction furnaces, and boilers at KAW, because of the general correlation between particulate matter emissions and visible emissions (i.e., visible emissions are an indicator of particulate matter), monitoring focuses on identifying visible emissions. KAW must perform weekly inspections during daylight hours for the purpose of identifying visible emissions. Weekly inspections of the emission units should reasonably assure compliance because KAW has a consistent compliance history. In addition, particulate matter emissions from combustion units at the facility should be low because the majority of these units only burn natural gas.

The induction furnaces were source tested in 2009 and showed particulate emissions of 0.0036 gr/dscf uncontrolled (prior to the baghouse). None of the other emission units subject to this requirement have been source tested for particulate in the past, so there is not an established relationship between particulate emissions and opacity for these units. However, the “no visible emissions” (a.k.a., “smoke / no smoke”) concept is acceptable monitoring for the particulate emission standard because SRCAA is of the opinion that something will be visible before a compliance problem exists.

If visible emissions are observed during an inspection or are otherwise observed by the permittee, the permittee shall verify and certify that:

- 1) the visible emissions or PM emissions are not the result of equipment malfunction, and the equipment, if any, from which the emissions are released, is performing its normal, designed function;
- 2) the air pollution control equipment, if any, is being operated properly in accordance with normal operating procedures; and
- 3) if the visible emissions are the result of fugitive emissions, reasonable precautions are being taken to minimize emissions.

If 1), 2), and/or 3) are not being met, corrective action must be taken as soon as possible, but no later than three days from discovery, to correct the problem. Taking corrective action does not relieve the permittee from complying with the underlying requirement, nor does it relieve the permittee from the obligation to report any permit deviations as required in Condition I.D.7-Prompt Reporting of Deviations.

The permittee shall keep records of any verifications made regarding 1), 2), and/or 3) and a description of any corrective action taken. Records shall be kept in accordance Condition I.D.5- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives.

If visible emissions are still observed and 1), 2), and 3) are being met, the permittee shall perform, or have performed, RM 5 (July 1, 1993) on the source of the emissions. The test shall occur within a reasonable timeframe but no later than 30 days after discovery of the emissions. The results of the RM 5 test shall be submitted to SRCAA

as soon as possible but no later than 45 days after the testing. If measured emissions exceed the applicable standard, the permittee shall take appropriate and timely corrective action to address the problem.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16] NOTE: This is a gapfilling MRRR.

Condition I.A.11: Particulate matter emissions from general process units shall not exceed 0.1 gr/dscf, as specified in WAC 173-400-060 [WAC 173-400-060, 5/31/16]

MRRR: The same monitoring is required as for Condition II.A.10. Because of the general correlation between particulate matter emissions and visible emissions (i.e., visible emissions are an indicator of particulate matter), monitoring focuses on identifying visible emissions. The skim cooler, #4 scalper, 80" hot mill, and dust collector at Alutek are all subject to more stringent grain loading standards (0.025 gr/dscf for skim cooler, 0.01 gr/dscf for #4 scalper, 0.04 gr/dscf for 80" hot mill, and 0.01 gr/dscf for the Alutek dust collector), so compliance with the more stringent grain loading limits will assure compliance with the 0.1 gr/dscf emission limit for these units.

Weekly inspections of the emission units should reasonably assure compliance because KAW has a consistent compliance history. Many of the emission units at the facility have more stringent grain loading limits and are equipped with air pollution control equipment. None of the emission units subject to this requirement have been source tested for particulate in the past, so there is not an established relationship between particulate emissions and opacity for the units. However, the "no visible emissions" (a.k.a., "smoke / no smoke") concept is acceptable monitoring for the particulate emission standard because SRCAA is of the opinion that something will be visible before a compliance problem exists.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16] NOTE: This is a gapfilling MRRR.

Condition II.A.12: SO₂ emissions from each unit shall not exceed 1000 ppm on a dry basis, corrected to 7% oxygen, as specified in WAC 173-400-040(6). [WAC 173-400-040(7), 5/31/16]

MRRR: Because SO₂ emissions at KAW would only occur from combustion units, monitoring for this requirement consists of using only allowed fuels. The permit requires KAW to certify whether any fuels other than natural gas, propane (LPG), gasoline, #2 fuel oil, and used oil were used. Equipment burning these fuels should always meet the SO₂ limit, based on emission factors for natural gas fired equipment given in EPA AP-42. [WAC 173-401-615(1) & (2), 9/16/02] NOTE: This is a gapfilling MRRR.

Condition II.A.13: No use of excess stack height or dispersion techniques to meet ambient air quality standards or PSD increments except as allowed under WAC 173-400-200. [WAC 173-400-200, 1/10/05]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this

prohibited activity was conducted during the reporting period.

Condition II.A.14: No varying of emissions according to atmospheric conditions or ambient concentrations except as allowed under this section. [WAC 173-400-205, 2/19/91]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this prohibited activity was conducted during the reporting period.

Condition II.A.15: No outdoor burning, except as allowed under Chapter 173-425 WAC and/or SRCAA Regulation I, Section 6.01. [Chapter 173-425 WAC, 3/13/00(10/18/90)] [SRCAA Regulation I, Section 6.01, 10/3/13 - STATE/LOCAL ONLY]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this condition was met during the reporting period.

Condition II.A.16: Handling and use of ozone-depleting substances must be in accord with 40 CFR Part 82. [40 CFR Part 82, 2006]

MRRR: Additional monitoring, recordkeeping, and reporting requirements are not necessary to assure compliance with this condition, because the monitoring, recordkeeping, and reporting requirements are included with the applicable requirement (i.e., 40 CFR Part 82, 2006). As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.A.17: Facility-wide emissions of each individual HAP, listed in or pursuant to Section 112(b) of the Federal Clean Air Act, shall not exceed 19,000 pounds (9.5 tons) during any rolling twelve month period. [SRCAA (formerly SCAPCA) Order #03-01, Condition 1, 3/3/03]

MRRR: SRCAA (formerly SCAPCA) Order #03-01 requires KAW to keep records of materials at the facility that contain HAPs, perform monthly HAP emission calculations, and follow the SRCAA (formerly SCAPCA) approved "HAP Emission Calculation Plan." [SRCAA (formerly SCAPCA) Order #03-01, Condition A, B, & C, 3/3/03]

Condition II.A.18: Facility-wide combined emissions of all HAPs, listed in or pursuant to Section 112(b) of the Federal Clean Air Act, shall not exceed 48,000 pounds (24 tons) during any rolling twelve month period. [SRCAA (formerly SCAPCA) Order #03-01, Condition 2, 3/3/03]

MRRR: The monitoring is the same as for Condition II.A.17. KAW is required to keep records of HAP containing materials, perform monthly HAP emission calculations, and follow the approved "HAP Emission Calculation Plan." [SRCAA (formerly SCAPCA) Order #03-01, Condition A, B, & C, 3/3/03]

Condition II.A.19: The permittee shall comply with the applicable requirements given in Chapter 173-

MRRR: No monitoring is required. Chapter 173-442 WAC is the Clean Air Rule which is a state only regulation which establishes greenhouse gas emissions standards for certain stationary sources, including KAW. Ecology is responsible for enforcing the requirements contained in the regulation, so no additional monitoring is required.

Emission Limitations for Remelt Area Emission Units

This subsection of the permit covers emission units in the remelt area that either have additional applicable requirements or additional monitoring, recordkeeping, and reporting requirements (MRRR), beyond those listed in the Facility-Wide Emission Limitations portion of the permit. Not all significant emission units are listed in the permit, only those with additional requirements are listed. The specific emission units covered in this section of the permit are given in Table 1. Many of these units were installed prior to SRCAA's Notice of Construction (NOC) program, so there are no applicable requirements from NOC approvals.

The following requirements are included in this section:

Condition II.B.1: RM-M0 through RM-M8W and RM-H0 through RM-H8: At all times, including startup and shutdown, the melters and holders shall be maintained and operated in a manner consistent with good air pollution control practices. [SRCAA Order #91-01, Condition 2, 12/12/91] [NOC #1410, Condition 13, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 13, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 25, 4/9/14, as revised on 1/30/17]

MRRR: KAW is required to follow the operation and maintenance plan for the remelt area, dated July 24, 2015, or a SRCAA approved revision. The plan shall be updated at least every two years and submitted to SRCAA for review and approval.

Maintenance records must be kept for equipment necessary for minimizing or otherwise reducing emissions from the melter and holder furnaces. Compliance with this requirement may be achieved by implementing a computerized preventative maintenance system that regularly schedules and tracks maintenance activities.

[SRCAA Order #91-01, Condition 1, 12/12/91][NOC #683, Condition 8, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 8, 7/10/96 as revised on 4/23/15] [NOC #660, Condition 8, 9/29/95 as revised on 4/23/15– STATE/LOCAL ONLY] [SRCAA Order #96-05, Condition D, 4/24/96 as revised on 10/4/00] [SRCAA Order #96-06, Condition D, 4/24/96 as revised on 10/19/00] [SRCAA Order #96-04, Condition C, 4/24/96 as revised on 5/8/96] [NOC #1410, Condition 13, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 13, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 25.c., 4/9/14, as revised on 1/30/17].

Condition II.B.2: RM-M1 through RM-M8W and RM-H0 through RM-H8 bypass stacks and RM-M0 bypass stack: The average opacity from any melter or holder shall not exceed 24% during any 60-minute period.

Note: The holder furnace stacks are no longer directly vented. Order 96-05 addresses holder baghouse emission limits and the COM on its stack. RM-M1 through RM-M8W and RM-H1 through RM-H8: The average opacity from any melter or holder shall not exceed 24% during any 60-minute operating interval. [SRCAA (formerly SCAPCA) Order #91-01, Condition 4 & 7, 12/12/91]

MRRR: SRCAA (formerly SCAPCA) Order #91-01 states that compliance with the 24% opacity limit shall be determined using continuous opacity monitors (COMs) on each melter and holder furnace stack, or by visual observations recorded by certified smoke readers. KAW is required to install and operate continuous opacity monitors (COMs) and data processing and recording equipment meeting the requirements of 40 CFR 60.13 and 40 CFR 60, Appendix B, Performance Specification 1 on each melter furnace stack, the holder baghouse stack, and the melter baghouse stack.

Each COM shall meet the requirements of 40 CFR 60, Appendix F, Procedure 3, including the following QA/QC procedures:

- i. Daily instrument zero and upscale drift checks and status indicator checks;
- ii. Semi-annual performance audits, which include the following assessments:
 - A. Optical alignment;
 - B. Calibration error; and
 - C. Zero compensation.
- iii. Annual zero alignment.

KAW is required to implement the quality assurance plan (QAP) for the COMs most recently approved by SRCAA. The QAP shall include the procedures for the daily COMs checks, semi-annual performance audit, and annual zero alignment.

In addition, KAW is required to submit a monthly report to SRCAA that includes the following information for the previous month:

- a. A report of the daily total PM and PM10 emissions from all melter furnaces combined and total PM and PM10 emissions from the melter furnaces for that month;
- b. A report of the excess emissions documented by the dry scrubbing/baghouse system's continuous opacity monitoring system (COMS) for the previous month, if any, including the range of the excess emissions in percent opacity, the date and time of the commencement and completion of each period of excess emissions, and the cause of such emissions, if determined. If a malfunction is indicated in the report, any corrective actions taken shall also be described.
- c. A report of the COMS malfunctions and corrective actions taken. The report shall also document the date and times when the COMS was inoperative or was being repaired or adjusted, together with an indication of whether the process whose emissions were monitored by the COMS was operative or inoperative at the time. If the COMS was inoperative due to malfunction, the report shall indicate the nature of the malfunction and the corrective action taken. Where no excess emissions have

occurred in a month, then the report shall contain a statement to that effect. The report shall also list the time, duration, and circumstances of each by-pass of the dry scrubbing/baghouse system that occurred during the month covered by the report;

- d. The total number of operating hours for each melter and holder furnace for the month;
- e. The number of operating hours during which each melter and holder furnace exceeded an average opacity of 10 percent (60 minute average);
- f. The number of operating hours during which each melter and holder furnace exceeded an average opacity above 24% (60-minute average);
- g. The number of hours for each melter and holder furnace that the COMS was not operational; and
- h. For each operating interval during which the 24% (60-minute average) opacity limit was exceeded, the following:
 - i. The time, duration, magnitude, and furnace(s) involved;
 - ii. The probable cause; and
 - iii. Action planned to prevent any recurrence.

The reports must be submitted by the 25th of the next month following the reporting month.

[SRCAA Order #91-01, Condition 3, 7, & 11, 12/12/91] [SRCAA Order #96-05, Condition B, 4/24/96 as revised on 10/4/00] [NOC #1410, Condition 8 & 18, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 8 & 18, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 18, 19, & 31 4/9/14, as revised on 1/30/17] [SRCAA Order #96-03, Condition B, 4/24/96, as revised on 10/4/00] [NOC #660, Condition 9, 9/29/99 as revised on 4/23/15 – STATE/LOCAL ONLY] [WAC 173-401-615, 9/16/02]

Condition II.B.3: RM-M1 through RM-M8W and RM-H1 through RM-H8 bypass stacks: The hourly opacity from the melter and holder stacks shall not exceed 10% during more than 4% of the operating hours in a month. The percent of Operating Hours in a month for which the hourly average opacity was greater than 10% shall be calculated as described in Condition 5 of SRCAA (formerly SCAPCA) Order #91-01. [SRCAA (formerly SCAPCA) Order #91-01, Condition 5 & 7, 12/12/91] – see NOTE associated with Condition II.B.2

MRRR: The same monitoring is required as for Condition II.B.2. SRCAA (formerly SCAPCA) Order #91-01 states that compliance with the 10% (during more than 4% of the operation hours in a month) opacity limit shall be determined using continuous opacity monitors (COMs) on each melter and holder furnace stack. KAW is required to install and operate COMs to monitor opacity from the melter and holder stacks. In addition, KAW is required to submit a monthly report to SRCAA that summarizes the results from the COMS monitoring during that month.

[SRCAA Order #91-01, Condition 3, 7, & 11, 12/12/91] [SRCAA Order #96-05,

Condition B, 4/24/96 as revised on 10/4/00] [NOC #1410, Condition 8 & 18, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 8 & 18, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 18, 19, & 31 4/9/14, as revised on 1/30/17] [SRCAA Order #96-03, Condition B, 4/24/96, as revised on 10/4/00] [NOC #660, Condition 9, 9/29/99 as revised on 4/23/15 – STATE/LOCAL ONLY] [WAC 173-401-615, 9/16/02]

Condition II.B.4: RM-M1 through RM-M8W and RM-H0 through RM-H8 bypass stacks and RM-M0 bypass stacks: The average opacity from any melter or holder shall not exceed 40% during any 30 minute operating interval. [SRCAA (formerly SCAPCA) Order #91-01, Condition 6 & 7, 12/12/91] – see NOTE associated with Condition II.B.2.

MRRR: SRCAA (formerly SCAPCA) Order #91-01 states that compliance with the 40% opacity limit shall be determined by visual observations recorded by certified smoke readers, using the certification and observation procedures set forth in 40 CFR Part 60, Appendix A, Method 9 (1990). A common approach for monitoring for opacity limits is to require periodic checks for visible emissions on a monthly or weekly basis. However, this only addresses compliance for a very small percentage of the time. Therefore, in order to assure more continuous compliance with the 40% opacity limit, the COMs installed on the melter stacks and holder baghouse stack will be used.

Currently, the data acquisition system for the melter and holder COMs stores 1-hour and 6-minute average opacity data on a long term basis. However, the 3-minute average opacity data are collected and stored for a limited time.

To demonstrate compliance with the 40% opacity limit, KAW is required to implement the SRCAA approved method, dated January 8, 2003, or a subsequent SRCAA approved method, to determine 30-minute opacity averages that exceed 40%, using the continuous opacity monitoring system. Changes to the method must be approved by SRCAA prior to implementation. The currently approved method requires KAW to review each operating hour when the hourly average opacity is greater than or equal to 20% to determine whether the 40% opacity limit given in Condition II.B.2 was met during each 30-minute interval. Records of all 30-minute average opacity values must be kept for each operating hour that is reviewed. This method will assure that KAW identifies 30-minute intervals that exceed 40% opacity because there is no mathematical way that KAW could violate the 40% limit on a 30-minute interval without also exceeding 20% opacity on an hourly average (i.e., if the opacity was at or above 40% for 30 minutes and then went to 0% for 30 minutes, the hourly average would be at least 20%). Therefore, there is reasonable assurance that the 40% opacity limit will be met during each operating hour that the opacity is below 20%, as determined by the COMs. For each operating hour when the hourly average opacity is greater than 20%, KAW is required to examine the 3-minute average opacity averages for that hour to determine whether the 40% opacity limit given in Condition II.B.4 was met during each 30-minute operating interval. In addition, KAW is required to submit a monthly report to SRCAA that summarizes the results from the COMS monitoring during that month. For each period during which the 40% (30-minute average) opacity limit was exceeded, the report must include the time, duration, magnitude, and furnace(s) involved, the probable cause, and action planned to prevent any recurrence.

[SRCAA Order #91-01, Condition 3, 7, & 11, 12/12/91] [SRCAA Order #96-05, Condition B, 4/24/96 as revised on 10/4/00] [NOC #1410, Condition 8,9 & 18, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 8, 9 & 18, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 18, 19, & 31 4/9/14, as revised on 1/30/17] [SRCAA Order #96-03, Condition B, 4/24/96, as revised on 10/4/00] [NOC #660, Condition 9, 9/29/99 as revised on 4/23/15 – STATE/LOCAL ONLY] [WAC 173-401-615, 9/16/02]

Condition II.B.5: RM-M0: Visible emissions from the melter baghouse system shall not exceed 10% for any 6-minute average. [NOC #1598, Condition 12a, 4/9/14, as revised on 1/30/17]

MRRR: The monitoring is the same as for Condition II.B.2. KAW is required to install and operate a COM to monitor opacity from the melter baghouse stack. In addition, KAW is required to submit a monthly report to SRCAA that summarizes the results from the COMS monitoring during that month. [NOC #1598, Condition 18, 19, & 31, 4/9/14, as revised on 1/30/17]

Condition II.B.6: RM-M1 through RM-M8W: PM10 emissions from all melters combined shall not exceed 1200 pounds per day. [SRCAA (formerly SCAPCA) Order #96-03, Condition 1, 4/24/96 as revised on 10/4/00]

MRRR: SRCAA (formerly SCAPCA) Order #96-03 states that compliance with the daily PM10 limit shall be determined using each furnace’s opacity monitor in the following manner. For each furnace, a day (24 hour period beginning at midnight and ending at the following midnight) will be broken into six (6) consecutive four (4) hour time blocks to represent theoretical furnace cycles. For each furnace, *i*, each four (4) hour block, *j*, shall be processed to obtain the maximum average opacity for any one hour interval during that four hour period, OP_{ij} . This value shall then be used in Equation 1 to calculate that furnace’s PM grainloading for that four hour block, GL_{ij} :

Equation 1 $GL_{ij} = 0.003694 * OP_{ij} + 0.004699$

where GL_{ij} = PM grainloading in grains per dry standard cubic foot for the *i*th furnace for the *j*th four hour block
 OP_{ij} = highest 60 minute average opacity for the *i*th furnace for the *j*th four hour block

Equation 2 shall be used to calculate PM emissions in pounds, PM_{ij} , from the *i*th furnace, for the *j*th four hour block during each day. The airflow for each furnace, AF_i , shall be based on furnace design flow rates, taking into account operating conditions and other factors affecting flow, and shall be in units of dry standard cubic feet per minute.

Equation 2 $PM_{ij} = \frac{GL_{ij} * AF_i * 60 * 4}{7000}$

Equation 3 shall be used to calculate daily PM emissions in pounds for all furnaces combined, PM.

Equation 3
$$PM = \sum_{i=1}^{10} \sum_{j=1}^6 PM_{ij}$$

PM10 emissions shall be assumed to equal PM emissions unless the permittee provides appropriate technical documentation to establish otherwise as allowed in Condition E of SRCAA (formerly SCAPCA) Order #96-03.

If opacity monitor data are not available for an operating furnace, OP_{ij} for the furnace shall be estimated using any of the following methods:

- a. the average OP_{ij} during that period, measured by opacity monitors on operating furnaces that are charging similar materials;
- b. the highest OP_{ij} measured by the other opacity monitors on operating furnace for that period; or
- c. if circumstances suggest that the methods in i. and ii. above are inappropriate (e.g., if a number of monitors are down and high opacity readings from an operating monitor result in emission calculations that are biased high), KAW may calculate emissions for the furnace using an alternate procedure, based on process parameters which are indicative of the emissions from the furnace (e.g., type of charge, activities occurring in the furnace, any EPA Reference Method tests performed, historic COM data, etc...), provided that the alternate method is approved in advance by the SRCAA Control Officer.

KAW is required to submit the daily total PM and PM10 emissions from all melter furnaces combined and total PM and PM10 emissions from the melter furnaces for that month in the monthly report that is due by the 25th of each month;

[SRCAA (formerly SCAPCA) Order #96-03, Condition A & B, 4/24/96 as revised on 10/4/00]

Condition II.B.7: RM-M6 and RM-M7: Emissions from the DC-6 or DC-7 melter furnaces shall not exceed the following limits, as determined by averaging the results from three test runs, each conducted over the furnace operating cycle when combustion occurs (period when burners are turned on, lid on, until metal charge has melted and “flat bath” conditions reached):

0.097 lb NO_x / MMBTU
 0.44 lb CO / MMBTU
 0.044 gr/dscf PM

[NOC #1410, Condition 1, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 1, 7/18/08, as revised on 3/19/10]

MRRR: NOC #1410 and NOC #1427 require the DC-6 and DC-7 melter furnaces to be source tested annually for NO_x and CO and once every five years for particulate matter.

The DC-6 melter furnace has been source tested 10 times since it was installed in 2008 (10 times for CO and NOx and 2 times for PM). The measured CO emissions have ranged from 0.0042 to 0.319 lb/MMBTU (average of 3 runs). The measured NOx emissions have ranged from 0.060 to 0.110 lb/MMBTU (average of 3 runs). The measured PM emissions have ranged from 0.0056 to 0.0125 gr/dscf (average of 3 runs).

The DC-7 melter furnace has been source tested 12 times since it was installed in 2009 (10 times for CO, 11 times for NOx, and 2 times for PM). The measured CO emissions have ranged from 0.025 to 0.564 lb/MMBTU (average of 3 runs). The measured NOx emissions have ranged from 0.045 to 0.1188 lb/MMBTU (average of 3 runs). The measured PM emissions have ranged from 0.0057 to 0.010 gr/dscf (average of 3 runs).

Source testing for CO and NOx is required annually for the DC-6 and DC-7 melters because the emissions vary widely and have been measured near and/or over the emission limits. Source testing for particulate is only required every five years because the particulate emissions have been low in the previous source tests and have not been close to the emission limit. [NOC #1410, Condition 7, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 7, 7/18/08, as revised on 3/19/10]

Condition II.B.8: RM-M0: Emissions from the DC-0 melter furnace shall not exceed the following limits, as determined by averaging the results from three test runs, each conducted over the furnace operating cycle when combustion occurs (period when burners are turned on, lid on, until metal charge has melted and “flat bath” conditions reached):

0.143 lb NOx / MMBTU
0.493 lb CO / MMBTU

[NOC #1598, Condition 4, 4/9/14, as revised on 1/30/17]

MRRR: NOC #1598 requires that the DC-0 melter furnace be source tested annually for NOx and CO. The DC-0 melter furnace has been source tested 3 times since it was installed in 2014. The measured CO emissions have ranged from 0.067 to 0.43 lb/MMBTU (average of 3 runs). The measured NOx emissions have ranged from 0.0065 to 0.130 lb/MMBTU (average of 3 runs). Source testing for CO and NOx is required annually for the DC-0 melter because the emissions vary widely and have been measured near the emission limits. [NOC #1598, Condition 17, 4/9/14, as revised on 1/30/17]

Condition II.B.9: RM-H0: Emissions from the DC-0 holder furnace shall not exceed the following limits, as determined by averaging the results from three test runs, each conducted while the holder furnace burners are at high fire (the duration of each run will be based on equipment and metallurgical limitations, but must be at least 20 minutes per run):

0.099 lb NOx / MMBTU
0.075 lb CO / MMBTU

[NOC #1598, Condition 5, 4/9/14, as revised on 1/30/17]

MRRR: NOC #1598 requires that the DC-0 holder furnace be source tested annually for NOx and CO. The DC-0 holder furnace has been source tested 3 times since it was installed in 2014. The measured CO emissions have ranged from <0.001 to 0.0545 lb/MMBTU (average of 3 runs). The measured NOx emissions have ranged from 0.0426 to 0.164 lb/MMBTU (average of 3 runs). Source testing for CO and NOx is required annually for the DC-0 holder because the emissions vary widely and have been measured near the emission limits. [NOC #1598, Condition 17, 4/9/14, as revised on 1/30/17]

Condition II.B.10: RM-M6 and RM-M7: Annual combined emissions from the DC-6 and DC-7 melter furnaces shall not exceed the following limits, based on a twelve month rolling total:

PM: 15.48 tons/year

PM10: 14.56 tons/year

CO: 95.0 tons/year

Monthly and 12-month rolling total PM and PM10 emissions shall be calculated using the most recent SRCAA approved method. Monthly and 12-month rolling total CO emissions shall be calculated by multiplying the CO emission limit given in Condition II.B.7 by the monthly gas usage for DC-6 and DC-7.

[NOC #1410, Condition 3, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 3, 7/18/08, as revised on 3/19/10]

MRRR: KAW is required to submit a monthly report to SRCAA that includes the monthly total PM, PM10, and CO combined emissions from DC-6 and DC-7 melters for that month, calculated according to Conditions II.B.7 and II.B.10. [NOC #1410, Condition 18, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 18, 7/18/08, as revised on 3/19/10]

Condition II.B.11: RM-M0: Emissions from the DC-0 melter furnace shall not exceed the following limits during any consecutive 12-month period, calculated from the results of the most recent representative source test and the amount of natural gas burned in the melter each month:

NOx: 18.0 tons/year

CO: 74.5 tons/year

[NOC #1598, Condition 6, 4/9/14, as revised on 1/30/17]

MRRR: KAW is required to perform an annual source test on the DC-0 melter and track the amount of natural gas burned in the melter monthly. This data is used to calculate the annual emissions of NOx and CO from the melter. [NOC #1598, Condition 17 & 28, 4/9/14, as revised on 1/30/17]

Condition II.B.12: RM-H0: Emissions from the DC-0 holder furnace shall not exceed the following limits during any consecutive 12-month period, calculated from the results of the most recent

representative source test and the amount of natural gas burned in the holder each month:

NOx: 2.0 tons/year
CO: 15.2 tons/year

[NOC #1598, Condition 7, 4/9/14, as revised on 1/30/17]

MRRR: The monitoring is the same as for Condition II.B.11. KAW is required to perform an annual source test on the DC-0 holder and track the amount of natural gas burned in the holder monthly. This data is used to calculate the annual emissions of NOx and CO from the holder. [NOC #1598, Condition 17 & 28, 4/9/14, as revised on 1/30/17]

Condition II.B.13: RM-M0: Emission of D/F from the DC-0 melter furnace shall not exceed 7.4e-5 lb/year during any consecutive 12-month period, calculated from the D/F emission rate measured during the most recent representative source test and the amount of charge melted in the DC-0 melter each month. [NOC #1598, Condition 9, 4/9/14, as revised on 1/30/17]

MRRR: KAW is required to test the DC-0 melter for D/F at least once every five calendar years and track the amount of charge melted in the furnace monthly. This data is used to calculate the annual emissions of D/F from the melter. [NOC #1598, Condition 17 & 27, 4/9/14, as revised on 1/30/17]

Condition II.B.14: RM-M6: No more than 123,188 tons of charge shall be melted in the DC-6 melter furnace during any consecutive twelve month period. [NOC #1410, Condition 15, 4/28/08, as revised on 3/19/10]

MRRR: KAW is required to track and keep records of the amount of charge melted in the furnace monthly. [NOC #1410, Condition 15 & 17, 4/28/08, as revised on 3/19/10]

Condition II.B.15: RM-M7: No more than 73,913 tons of charge shall be melted in the DC-7 melter furnace during any consecutive twelve month period. [NOC #1427, Condition 15, 7/18/08, as revised on 3/19/10]

MRRR: KAW is required to track and keep records of the amount of charge melted in the furnace monthly. [NOC #1427, Condition 15 & 17, 7/18/08, as revised on 3/19/10]

Condition II.B.16: RM-M6 & RM-M7: No more than 237.5 million standard cubic feet (scf) of natural gas (equivalent to 249,134 MMBTU) shall be burned in the DC-6 or DC-7 melter furnace during any consecutive 12 month period. [NOC #1410, Condition 16, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 16, 7/18/08, as revised on 3/19/10]

MRRR: KAW is required to track and keep records of the amount of natural gas burned in each furnace monthly. [NOC #1410, Condition 16 & 17, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 16 & 17, 7/18/08, as revised on 3/19/10]

Condition II.B.17: RM-M1 through RM-M8W: No fluxing shall occur in melters which are not connected

to the dry scrubbing baghouse system, except for small amounts of sodium scavenging additives. Provided that hydrogen chloride and chlorine emissions from use of such additives shall not exceed 0.05 pounds per ton of charge, quantities used shall be considered small. Prior to using any other fluxing agency, SRCAA shall be notified and, if required, a Notice of Construction shall be filed with and approved by SRCAA. [NOC #660, Condition 10, 9/27/95 as revised on 10/25/99 and 11/7/00– STATE/LOCAL ONLY] [NOC #1410, Condition 5, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 5, 4/28/08, as revised on 3/19/10]

MRRR: KAW is required to keep records of either annual additive usage or purchases shall be kept along with records of the total annual amount of metal charged to all melters. Chlorine emissions (as total chlorine in both hydrogen chloride and chlorine gas) shall be calculated by dividing the annual amount of chlorine emitted (in pounds) by the total annual amount of metal charged (in tons). All chlorine in the additives shall be assumed to be emitted unless testing is conducted that demonstrates the ratio of the chlorine content that is actually emitted. If such testing is done and the results are approved by SRCAA, the established ratio may be used to calculate emissions. [NOC #660, Condition 6, 9/27/95 as revised on 4/23/15 – STATE/LOCAL ONLY] [NOC #683, Condition 7.b.ii, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 7.b.ii, 7/10/96 as revised on 4/23/15]

Condition II.B.18: RM-M2E, RM-M2W, RM-H2, RM-M8E, RM-M8W, & RM-H8: Only natural gas shall be used as fuel. [NOC #683, Condition 2, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 2, 7/10/96 as revised on 4/23/15]

MRRR: No monitoring is required. The melters and holders currently only have the capability to burn natural gas. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.B.19: RM-M0 and RM-H0, RM-H2 & RM-H8: HCl & Cl₂ emissions shall be controlled using the dry scrubbing baghouse system and in accordance with Condition II.B.20. “Trona,” or another SRCAA approved reagent shall be used as reagent for acid gas removal in the melter furnace baghouse and dry scrubbing baghouse system. [NOC #683, Condition 3, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 3, 7/10/96 as revised on 4/23/15] [NOC #1598, Condition 23, 4/9/14, as revised on 1/30/17]

MRRR: The reagent injection rate in the melter baghouse and the feed rate setting in the holder dry scrubbing baghouse must be monitored and kept at a rate at or above the rate established during the most recent source test. Records shall be kept of the daily reagent use (in pounds per day) in the holder dry scrubbing baghouse. [NOC #683, Condition 6, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 6, 7/10/96 as revised on 4/23/15] [NOC #1598, Condition 23, 4/9/14, as revised on 1/30/17]

Condition II.B.20: No reactive fluxing (as defined in 40 CFR 63, Subpart RRR) shall occur in the DC-0 melter, DC-0 holder, DC-2 holder, or DC-8 holder furnace, except for sodium scavenging additives (60% Mg/Cl₂ / 40% KCl flux or other SRCAA approved flux). The holder dry scrubbing baghouse shall achieve a hydrogen chloride removal

efficiency of at least 90% by weight. [NOC #683, Condition 4, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 4, 7/10/96 as revised on 4/23/15] [NOC #1598, Condition 14, 4/9/14, as revised on 1/30/17]

MRRR: Records are required to be kept of the flux addition rate during each DC-0 melter or holder furnace operating cycle. In addition, source testing must be conducted of the HCl emissions at the inlet and outlet of the holder baghouse at least once every five years in order to calculate a removal efficiency. [NOC #1598, Condition 17 & 29, 4/9/14, as revised on 1/30/17] [NOC #683, Condition 5, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 5, 7/10/96 as revised on 4/23/15]

Condition II.B.21: RM-M0 and RM-H0: Controlled hydrogen chloride emissions shall not exceed 2.64 lbs HCl per DC-0 melter or holder furnace cycle, as determined by averaging the results from three test runs, each conducted over the DC-0 melter or holder furnace operating cycle. For the DC-0 holder furnace, the controlled HCl emissions shall be calculated by applying the calculated holder baghouse control efficiency to the uncontrolled HCl emissions from the holder exhaust. [NOC #1598, Condition 14, 4/9/14, as revised on 1/30/17]

MRRR: KAW is required to perform source testing at least once every five years of the HCl emissions at the melter baghouse outlet, DC-0 holder furnace exhaust, and the inlet and outlet of the holder baghouse (in order to calculate a removal efficiency). Source testing was performed on the melter baghouse outlet, DC-0 holder furnace exhaust, and the inlet and outlet of the baghouse in 2014. Emissions of HCl from all testing was far below the HCl limit (<0.1 lbs HCl for both melter and holder cycle). For this reason, testing is only required once every five years. [NOC #1598, Condition 17, 4/9/14, as revised on 1/30/17]

Condition II.B.22: RM(HBGHS): The reagent feed rate setting in the holder dry scrubbing baghouse shall be kept at a rate above the setting established during the most recent source test or a SRCAA approved alternate setting. [NOC #683, Condition 6, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 6, 7/10/96 as revised on 4/23/15]

MRRR: KAW is required to monitor the feed rate in the holder dry scrubbing baghouse and keep it at a rate at or above the rate established during the initial source test. Records must be kept of the daily reagent use (in pounds per day) in the holder dry scrubbing baghouse. [NOC #683, Condition 6, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 6, 7/10/96 as revised on 4/23/15]

Condition II.B.23: RM-M0, RM-M2E, RM-M2W, RM-M6, RM-M7, RM-M8E& RM-M8W: PM emissions from the melters shall be controlled by:

- using mass balance burners;
- no fluxing unless connected to dry scrubbing baghouse system except for small amounts of sodium scavenging additives. Provided that hydrogen chloride and chlorine emissions from use of such additives shall not exceed 0.05 pounds per ton of charge, quantities used shall be considered small;
- prior to using any other fluxing agent except as allowed above, SRCAA shall be notified and, if required, a Notice of Construction shall be filed with and approved

- by SRCAA;
- only clean charge per O&M plan; and
- maintaining melters in proper operating condition.

[NOC #683, Condition 7, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 7, 7/10/96 as revised on 4/23/15] [NOC #1410, Condition 12, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 12, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 24, 4/9/14, as revised on 1/30/17]

MRRR: KAW is required to keep records of either solid flux annual additive usage or purchases along with records of the total annual amount of metal charged to all melters. In addition, KAW is required to follow the approved O&M plan for the remelt area, which includes maintenance activities required to keep the melters and holders in proper operating condition with regard to minimizing emissions.

[NOC #660, Condition 6.b & 8, 9/29/95 as revised on 4/23/15 – STATE/LOCAL ONLY] [NOC #683, Condition 7.b.ii & 8, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 7.b.ii & 8, 7/10/96 as revised on 4/23/15] [NOC #1598, Condition 25.c & 29, 4/9/14, as revised on 1/30/17] [SRCAA Order #96-05, Condition D, 4/24/96 as revised on 10/4/00] [SRCAA Order #96-06, Condition D, 4/24/96 as revised on 10/19/00] [SRCAA Order #96-04, Condition C, 4/24/96 as revised on 5/8/96] [NOC #1410, Condition 13, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 13, 7/18/08, as revised on 3/19/10]

Condition II.B.24: RM-M2E, RM-M2W, RM-H2, RM-M6, RM-M7, RM-M8E, RM-M8W & RM-H8: A copy of NOC #683 and the approval letter, NOC #676 and the approval letter, NOC #1410 and the conditions of approval, NOC #1427 and the conditions of approval, and NOC #1598 and the conditions of approval shall be kept on file at the facility. [NOC #683, Condition 7, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 7, 7/10/96 as revised on 4/23/15] [NOC #1410, Condition 12, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 12, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 24, 4/9/14, as revised on 1/30/17]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.B.25: RM-H1 through RM-H8: PM10 emissions from the holders shall not exceed 83.0 pounds per day. [SRCAA (formerly SCAPCA) Order #96-05, Condition 1, 4/24/96 as revised on 10/4/00]

MRRR: The most recent source test performed on the holder furnace baghouse, conducted in August 2014, showed that grain loading from the holders was 0.0022 gr/dscf or 1.15 lb/hr, which translates to 27.6 pounds per day. Order #96-05, the voluntary emission limit order issued for the holders, has established proper O&M and the installation and operation of COMs as the methods for assuring compliance with the daily PM10 emission limit. If the holder baghouse is kept in proper working order, the PM10 emissions from the holder furnaces should not exceed those measured during the last

source test (i.e., <0.003 grains per dry standard cubic foot, which even at maximum airflow is below the allowable level of 83 pounds per day). KAW will be required to follow the approved O&M plan for the remelt area. For the holder dry scrubbing/baghouse system, the plan includes routine maintenance activities required to keep the control system in proper operating condition including manufacturer recommended operation and maintenance procedures. In addition, the plan must include a quality assurance/quality control plan for the continuous opacity monitor system. The plan must also include a description of recordkeeping activities for the baghouse, including those records being kept, method(s) of recordkeeping, and length of time that records are kept.

KAW is also required to operate a COM on the holder baghouse stack. For the holder baghouse COM, one cycle of data recording shall be a three minute average and each three minute average shall be calculated from 18 or more datapoints, equally spaced over each three minute period. The COM serves as an indicator that there are no malfunctions with the baghouse (i.e., there are no bag leaks, etc.) and will provide assurance that the baghouse is in good working order. If the opacity level is 5% or less, as measured by the COM, based on a three-minute average, the baghouse will be assumed to be in good working order. If the baghouse is in good working order, the emissions should be similar to those measured during the last source test. The 5% opacity level was chosen for several reasons. First, at opacity levels less than 5%, the measured opacity during normal operations is more a function of the difficulty in perfectly zeroing and calibrating the COM, rather than actual opacity. Second, the opacity from a baghouse should not be higher than 5%, unless there was some type of malfunction. Typically, baghouses do not slowly degrade. Instead, they have some type of catastrophic failure (e.g., bag break, etc.). Based on engineering judgment, opacity from a properly operated baghouse should not exceed 5%. Lastly, the secondary aluminum MACT standard, given in 40 CFR 63, Subpart RRR requires that corrective action must be initiated within 1 hour of any 6-minute average reading of 5% or more opacity from the dry scrubbing baghouse used to control emissions from the holder furnaces. Since 5% opacity was used as the level when corrective action is required in the MACT standard, it is appropriate to use the same level as an indicator that the baghouse is properly operated.

If the opacity from the holder baghouse exceeds 5%, as measured by the COM, based on a three-minute average, KAW shall take corrective action.

[NOC #660, Condition 8, 9/29/95 as revised on 4/23/15– STATE/LOCAL ONLY]
[SRCAA Order #96-05, Condition B & D, 4/24/96 as revised on 10/4/00] [WAC 173-401-615(1) & (2), 9/16/02] – portions of this MRRR are gapfilled.

Condition II.B.26: RM-H0 through RM-H8: Emissions from the holders shall be controlled using the dry scrubbing baghouse system. [SRCAA (formerly SCAPCA) Order #96-05, Condition A, 4/24/96 as revised on 10/4/00]

MRRR: KAW is required to follow the approved O&M plan for the remelt area which includes the dry scrubbing baghouse system and submit a monthly report that includes all times the holder baghouse was bypassed.

[NOC #683, Condition 8, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 8, 7/10/96 as revised on 4/23/15] [NOC #660, Condition 8 & 9, 9/29/95 as revised on 4/23/15– STATE/LOCAL ONLY] [SRCAA Order #96-05, Condition D, 4/24/96 as revised on 10/4/00] [SRCAA Order #96-06, Condition D, 4/24/96 as revised on 10/19/00] [SRCAA Order #96-04, Condition C, 4/24/96 as revised on 5/8/96] [NOC #1410, Condition 13, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 13, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 25.c., 4/9/14, as revised on 1/30/17].

Condition II.B.27: RM-H0 through RM-H8: Except during periods of startup and shutdown, visible emissions from the dry scrubbing baghouse system shall not exceed 10% for any 3-minute average, using either EPA Method 9 or the COM. During periods of startup and shutdown, visible emissions from the dry scrubbing baghouse system shall not exceed 20% for any 3-minute average, using either EPA Method 9 or the COM. [SRCAA (formerly SCAPCA) Order #96-05, Condition B, 4/24/96 as revised on 5/8/96 and 10/4/00]

MRRR: The monitoring is the same as for Condition II.B.25. KAW is required to follow the approved O&M plan for the remelt area, operate a COM on the holder baghouse stack, and take corrective action if the opacity measured by the COM exceeds 5%.

[NOC #660, Condition 8, 9/29/95 as revised on 4/23/15– STATE/LOCAL ONLY] [SRCAA Order #96-05, Condition B & D, 4/24/96 as revised on 10/4/00] [WAC 173-401-615(1) & (2), 9/16/02] – portions of this MRRR are gapfilled.

Condition II.B.28: RM-H0 through RM-H8 and RM-M0: Trona (mixture of sodium bicarbonate and sodium carbonate) shall be used as a reagent for acid gas removal in the dry scrubbing baghouse and in the melter furnace baghouse unless otherwise approved by SRCAA. [NOC #660, Condition 1, 9/27/95 as revised on 4/23/15 – STATE/LOCAL ONLY] [NOC #1598, Condition 23, 4/9/14, as revised on 1/30/17]

MRRR: KAW is required to monitor the reagent injection rate in the melter baghouse and the feed rate setting in the holder dry scrubbing baghouse and keep the rate above the rate established during the most recent source test. Records shall be kept of the daily reagent use (in pounds per day) in the holder dry scrubbing baghouse.

[NOC #683, Condition 6, 5/29/96 as revised on 4/23/15] [NOC #676, Condition 6, 7/10/96 as revised on 4/23/15] [NOC #1598, Condition 23, 4/9/14, as revised on 1/30/17]

Condition II.B.29: RM-H0 through RM-H8: PM emissions from the baghouse shall not exceed 0.015 gr/dscf. [NOC #660, Condition 2, 9/27/95 as revised on 4/23/15– STATE/LOCAL ONLY] [NOC #1598, Condition 11, 4/9/14, as revised on 1/30/17]

MRRR: The monitoring is the same as for Condition II.B.25. NOC #660, the approval issued for the holder baghouse, states that compliance with the grain loading limit shall be based on three one hour test runs conducted in accordance with EPA Method 5 and shall

include front and back half analyses. The most recent source test was conducted in July 2014 on the holder furnace baghouse. Source test results showed that the grain loading from the baghouse was less than 0.003 grains per dry standard cubic foot. If the holder baghouse is kept in proper working order, the grain loading from the holder furnaces should not exceed the level measured during the last source test (i.e., 0.003 gr/dscf). To assure compliance with the grain loading limit, KAW is required to follow the approved O&M plan for the remelt area, operate a COM on the holder baghouse stack, and take corrective action if the opacity measured by the COM exceeds 5%. The COM serves as an indicator that there are no malfunctions with the baghouse (i.e., there are no bag leaks, etc.) and will provide assurance that the baghouse is in good working order.

[NOC #660, Condition 8, 9/29/95 as revised on 4/23/15– STATE/LOCAL ONLY]
[SRCAA Order #96-05, Condition B & D, 4/24/96 as revised on 10/4/00] [WAC 173-401-615(1) & (2), 9/16/02] – portions of this MRRR are gapfilled.

Condition II.B.30: RM-M0: PM emissions from the melter baghouse shall not exceed 0.005 gr/dscf. [NOC #1598, Condition 10, 4/9/14, as revised on 1/30/17]

MRRR: Per NOC #1598, KAW is required to perform a stack test on the melter baghouse outlet at least once every five years. The most recent stack test performed on the melter baghouse outlet was in August 2014 which showed grain loading from the baghouse was 0.000452 gr/dscf or 0.17 lb/hr. Since the results were so far below the emission limit, source testing every five years is acceptable to assure compliance with the grain loading limit. [NOC #1598, Condition 17, 4/9/14, as revised on 1/30/17]

Condition II.B.31: RM-H1 through RM-H8: Visible emissions from the dry scrubbing baghouse system shall not exceed 20% (3-minute aggregate in any one hour). [NOC #660, Condition 8, 9/27/95 as revised on 10/25/99 and 11/7/00 – STATE/LOCAL ONLY]

MRRR: The monitoring is the same as for Condition II.B.25. KAW is required to follow the approved O&M plan for the remelt area, operate a COM on the holder baghouse stack, and take corrective action if the opacity measured by the COM exceeds 5%.

[NOC #660, Condition 8, 9/29/95 as revised on 4/23/15– STATE/LOCAL ONLY]
[SRCAA Order #96-05, Condition B & D, 4/24/96 as revised on 10/4/00] [WAC 173-401-615(1) & (2), 9/16/02] – portions of this MRRR are gapfilled.

Condition II.B.32: RM-H0 through RM-H8: The by-pass stack shall only be used for breakdowns or contingencies approved by SRCAA. Anytime a by-pass occurs, the procedures in Condition 19M shall be followed. [NOC #660, Condition 5, 9/27/95 as revised on 4/23/15– STATE/LOCAL ONLY] [NOC #1598, Condition 12 and 13, 4/9/14, as revised on 1/30/17]

MRRR: Anytime the by-pass stack(s) associated with the holder furnaces dry scrubbing/baghouse or melter furnace baghouse system is used, it shall be considered a breakdown, and SRCAA shall be notified as soon as possible but no later than 24 hours after the breakdown begins. Notification may occur by e-mail, telephone, a message left on SRCAA's voicemail system, or facsimile transmission. Notification

shall be confirmed by letter. The by-pass may continue until the close of the first business day following the day on which the by-pass began or until repairs are completed, whichever is sooner. SRCAA may approve a longer by-pass period upon request. At any time when the holder or melter baghouse has been by-passed, the permittee shall implement the SRCAA approved BAGHOUSE BREAKDOWN PROCEDURE to minimize visible emissions from the melter(s) and/or holders.

All by-passes shall be reported on the monthly report required in Condition 13M. The monthly report shall describe the time and duration of the by-pass and the circumstances that made the by-pass necessary. [NOC #660, Condition 5, 9/29/95 as revised on 4/23/15 – STATE/LOCAL ONLY] [NOC #1598, Condition 22, 4/9/14, as revised on 1/30/17]

Condition II.B.33: RM-21: PM10 emissions from the two induction furnaces combined shall not exceed 83.0 pounds per day. [SRCAA (formerly SCAPCA) Order #96-06, Condition 1, 4/24/96 as revised on 10/19/00]

MRRR: Source testing was performed on the induction furnace baghouse inlet in July 2009. Results showed that grain loading to the inlet of the baghouse was 0.278 lb/hr which translates to ~6.7 lbs/day. Because of the general correlation between particulate matter emissions and visible emissions (i.e., visible emissions are an indicator of particulate matter), required monitoring includes weekly checks of the stack for visible emissions as described in the MRRR for Condition II.A.10. Order #96-06, the voluntary emission limit order issued for the induction furnaces, has established proper O&M as a method for assuring compliance with the daily PM10 emission limit. KAW is required to prepare an O&M plan for the remelt area. For the induction furnace baghouse, the plan must include routine maintenance activities, required to keep the control system in proper operating condition, including manufacturer recommended operation and maintenance procedures. The plan must also include a description of recordkeeping activities for the induction furnace baghouse, including those records being kept, method(s) of recordkeeping, and length of time that records are kept.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16] NOTE: This is a gapfilling MRRR. [SRCAA (formerly SCAPCA) Order #96-06, Condition C, 4/24/96 as revised on 10/19/00]

Condition II.B.34: RM-21: Visible emissions from the induction furnace baghouse shall not exceed 10%. [SRCAA Order #96-06, Condition A, 4/24/96 as revised on 10/19/00]

MRRR: The monitoring is the same as for Condition II.B.33. Because of the general correlation between particulate matter emissions and visible emissions (i.e., visible emissions are an indicator of particulate matter), required monitoring includes weekly checks of the stack for visible emissions as described in the MRRR for Condition II.A.10. In addition, Order #96-06, the voluntary emission limit order issued for the induction furnaces, also requires proper O&M as a method for assuring compliance with the daily PM10 emission limit, as described in the MRRR for Condition II.B.33. KAW is required to prepare an O&M plan for the remelt area which includes maintenance

activities for the induction furnace baghouse.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16] [SRCAA (formerly SCAPCA) Order #96-06, Condition C, 4/24/96 as revised on 10/19/00]

Condition II.B.35: RM-20: PM emissions shall not exceed 0.025 gr/dscf of exhaust gas. [NOC #239, Condition 3, 11/15/89 as revised on 6/6/02]

MRRR: NOC #239, the approval for the skim cooler, required one-time source testing to measure PM emissions. Source testing was performed on the skim cooler in April 1995. Results showed that the PM emissions from the skim cooler baghouse were 0.0011 gr/dscf.

Because of the general correlation between particulate matter emissions and visible emissions (i.e., visible emissions are an indicator of particulate matter), required monitoring includes weekly checks of the stack for visible emissions as described in the MRRR for Condition II.A.10. Order #96-04, the voluntary emission limit order issued for the skim cooler, has established proper O&M as a method for assuring compliance with the daily PM10 emission limit given in Condition II.B.38. KAW is required to prepare an O&M plan for the remelt area. For the skim cooler baghouse, the plan must include routine maintenance activities, required to keep the control system in proper operating condition, including manufacturer recommended operation and maintenance procedures. In addition, the plan must include procedures to be followed when the equipment fails, requiring that the uncooled skim be handled in accordance with Condition II.B.37 of this permit. The plan must also include a description of recordkeeping activities, including those records being kept, method(s) of recordkeeping, and length of time that records are kept.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16] [SRCAA (formerly SCAPCA) Order #96-04, Condition B, 4/24/96 as revised on 5/8/96]

Condition II.B.36: RM-20: Visible emissions shall not exceed 10%. [NOC #239, Condition 4, 11/15/89 as revised on 6/6/02]

MRRR: The monitoring is the same as for Condition II.B.35. KAW is required to perform a weekly check of the stack to look for visible emissions, as described in the MRRR for Condition II.A.10. KAW is also required to follow the approved O&M plan for the remelt area, which includes the skim cooler. For the skim cooler baghouse, the plan must include routine maintenance activities, required to keep the control system in proper operating condition, including manufacturer recommended operation and maintenance procedures. In addition, the plan must include procedures to be followed when the equipment fails, requiring that the uncooled skim be handled in accordance with Condition II.B.37 of this permit. The plan must also include a description of recordkeeping activities, including those records being kept, method(s) of recordkeeping, and length of time that records are kept.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16] [SRCAA (formerly SCAPCA) Order #96-04, Condition B, 4/24/96 as revised on 5/8/96]

Condition II.B.37: RM-20: In the event that the skim cooler cannot be used to process the skim (i.e., skim cooler breakdown, fabric filtration system breakdown, and/or periods of maintenance), the skim shall be kept in the skim tub and covered with sodium chloride. The skim shall be left undisturbed for at least 24 hours, or until it can be cooled in the skim cooler. [NOC #239, Condition 5, 11/15/89 as revised on 6/6/02]

MRRR: KAW is required to follow the approved O&M plan for the remelt area, as described in the MRRR for Condition II.B.35. For the skim cooler, the plan must include procedures for cooling skim during skim cooler breakdown, fabric filtration system breakdown, and/or maintenance. The plan must also include a description of recordkeeping activities, including those records being kept, method(s) of recordkeeping, and length of time that records are kept.

[NOC #239, Condition 5, 11/15/89, as revised on 6/6/02]

Condition II.B.38:RM-20: PM10 emissions from the skim cooler shall not exceed 50.0 pounds per day. [SRCAA (formerly SCAPCA) Order #96-04, Condition 1, 4/24/96 as revised on 5/8/96]

MRRR: The monitoring is the same as for Condition II.B.35. KAW is required to perform a weekly check of the stack to look for visible emissions, as described in the MRRR for Condition II.A.10. KAW is also required to follow the approved O&M plan for the remelt area, which includes the skim cooler.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16] [SRCAA (formerly SCAPCA) Order #96-04, Condition B, 4/24/96 as revised on 5/8/96]

Condition II.B.39:The permittee shall not build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard under 40 CFR Part 63. [40 CFR § 63.4(b), 2002] [WAC 173-400-075(6), 5/31/16]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this prohibited activity was conducted during the reporting period.

Condition II.B.40: RM-SAPU: At all times, including periods of startup, shutdown, and malfunction, units and associated air pollution control equipment shall be operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required in 40 CFR Part 63, Subpart RRR. Malfunctions shall be corrected as soon as practicable in accordance with the startup, shutdown, and malfunction plan (see Condition 44M). [40 CFR § 63.6(e)(1), 2002] [WAC 173-400-075(5), 5/8/07]

MRRR: The MRRR for this condition are outlined in the secondary aluminum MACT, given in 40 CFR 63, Subpart RRR. To ensure that the melter furnaces and induction furnaces are operated and maintained in a manner consistent with good air pollution control practices, KAW is required to comply with all of the provisions of the MACT OM&M plan as submitted to SRCAA, unless and until the plan is revised. The OM&M plan must include the items specified in 40 CFR §63.1510(b), (o), (p), & (s), 6/13/16. Records must be kept documenting conformance with the OM&M plan.

In addition, KAW is required to submit semiannual reports according to the requirements in §63.10(e)(3), if any of these conditions occur during a 6-month reporting period:

- a. An excursion of a compliant process or operating parameter value or range; or
- b. An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR 63, Subpart RRR; or
- c. A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.

[40 CFR §63.1510(a), (b), (o), (p), & (s), 6/13/16] [40 CFR §63.1516 & 1517, 6/13/16] [WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 13.b., 17 & 20, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 13.b., 17 & 20, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 25.b & 30 4/9/14, as revised on 1/30/17]

Condition II.B.41: RM-M0, RM-M6 & RM-M7: Dioxin / Furan (D/F) emissions from the DC-0, DC-6 and DC-7 furnace exhausts shall not exceed 15 ug of D/F TEQ per Mg (2.1×10^{-4} gr of D/F TEQ per ton) of feed / charge, averaged over the melter furnace operating cycle (period between initial charging and transfer of aluminum to holder furnace). [NOC #1410, Condition 2, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 2, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 8, 4/9/14, as revised on 1/30/17]

MRRR: KAW has performed source tests on the DC-0, DC-6, and DC-7 melter furnaces for D/F. The results of these source tests are summarized in the MACT OM&M plan. The D/F source test results have varied based on the charge make up during the test. The DC-6 and DC-7 melters were tested in 2011 with 100% purchase scrap with D/F emissions measured as $1.34e-4$ gr TEQ/ton charge (average of three runs). The DC-0 melter was tested in 2014 with an average of 23% prime / 68% mill scrap / 9% RSI with D/F emissions measured as $9.48e-6$ gr TEQ/ton charge (average of three runs).

Following the D/F source tests, the melters are required to be operated with charge materials that are representative of charge materials processed by the unit during the most recent (D/F) source test, conducted according to 40 CFR §63.1512. If KAW would like approval to operate the melter(s) with alternate charge materials that are not representative of charge materials processed during the most recent source test, D/F testing must be performed in accordance with SRCAA Regulation I, Section 2.09 and 40 CFR Part 63.

KAW is also required to follow the MACT OM&M plan which includes a scrap inspection program and a requirement to measure and record the total weight and make-up of feed/charge to the melters during each furnace cycle.

[40 CFR §63.1510(a), (b), (o), (p), & (s), 6/13/16] [40 CFR §63.1511 & 1512, 6/13/16, 12/30/02] [WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 6, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 6, 7/18/08, as revised on 3/19/10]

Condition II.B.42: RM-SAPU: The 3-day, 24-hour rolling average Dioxin / Furan (D/F) emissions shall not exceed the D/F emission limit for secondary aluminum processing units, as calculated using Equation 3 in 40 CFR §63.1505(k)(3). With the prior approval of SRCAA, the permittee may redesignate any existing group 1 furnace as a new emission unit. Any emission unit so redesignated may thereafter be included in the new SAPU at that facility. Any such redesignation will be solely for the purpose of the MACT standard and will be irreversible. [40 CFR §63.1505(i)(3), (k)(3), (k)(5), & (k)(6), 9/18/15] [WAC 173-400-075(6), 5/31/16]

MRRR: This Condition applies to the group 1 furnaces that charge other than “clean charge.” At KAW, the group 1 furnaces falling into this category are the melters and the two induction furnaces. The holders are charged only with molten metal from the melters and as such are “clean charge” only furnaces. The emission unit that is subject to the D/F emission is the “Secondary Aluminum Processing Unit” or SAPU. The SAPU is comprised of the group 1 furnaces that charge other than “clean charge.” At KAW, there are two separate SAPUs, as allowed under 40 CFR 63, Subpart RRR. The Existing SAPU is comprised of all cold-fired melters (RM-1, 2E, 2W, 3, 4, 5, 8E, and 8W) at the facility and the induction furnaces. The new SAPU is comprised of the three new regenerative melters (RM-0, 6, and 7).

The MRRR for this condition are outlined in the secondary aluminum MACT, given in 40 CFR 63, Subpart RRR. The required MRRR is summarized below.

KAW has already performed the initial performance test on one representative melter and one representative induction furnace, as required by Subpart RRR, to test for compliance with the D/F emission limit. KAW tested a cold fired melter with 100% purchase scrap in 2011 (existing SAPU), the induction furnaces in 2006 (30% purchase scrap) and 2012 (100% runaround scrap) (existing SAPU), a regenerative melter in 2011 (100% purchase scrap) (new SAPU), and DC-0 melter in 2014 (23% prime / 68% mill scrap / 9% RSI) (new SAPU). The results from all of the performance tests showed that the melters and the induction furnaces were in compliance with the D/F emission limit without any add-on controls. For the cold melter furnace, the D/F emissions measured during the source test, conducted in 2011 were 7.41e-5 gr/ton, which is lower than the emission limit of 2.1 e-4 gr/ton. For the induction furnaces, the D/F emissions measured during the source test, conducted in 2006 were 4.96e-7 gr/ton, which is lower than the emission limit of 2.1 e-4 gr/ton. For the regenerative melter, the D/F measured during the source test, conducted in 2011 were 1.34 e-4 gr/ton, which is lower than the emission limit of 2.1e-4 gr/ton. For the DC-0 melter, the D/F measured during the source test, conducted in 2014 were 9.48e-6 gr/ton, which is lower than the emission limit of 2.1 e-4 gr/ton.

Provided that the make-up of the charge and flux to the melters and induction furnaces do not exceed the amounts charged during the performance tests, the D/F emissions should stay under the Subpart RRR limit.

For each emission unit in the SAPU, KAW must install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or aluminum production from the emission unit, according to 40 CFR §63.1510(e).

In addition, KAW must also install, calibrate, operate, and maintain a device that continuously measures and records the weight of gaseous or liquid reactive flux injected to each melter furnace.

KAW must record the 3-day, 24-hour rolling average emissions of D/F for the SAPU on a daily basis. The 3-day, 24-hour rolling average is to be calculated according to 40 CFR §63.1510(t) & (u), 9/24/02. The D/F emissions calculations are based on the weight of the charge, the weight of the flux, and the results from the D/F performance test.

In addition, KAW is required to implement the approved written operation, maintenance, and monitoring (OM&M) plan that covers the SAPU, or a subsequent SRCAA approved revision. The OM&M plan must include the items specified in 40 CFR §63.1510(b), (o), (p), & (s), 9/24/02. Records must be kept documenting conformance with the OM&M plan.

KAW is required to submit semiannual reports according to the requirements in §63.10(e)(3), if any of these conditions occur during a 6-month reporting period:

- a. An excursion of a compliant process or operating parameter value or range; or
- b. An affected source (including an emission unit in a secondary aluminum processing unit) was not operated according to the requirements of 40 CFR 63, Subpart RRR; or
- c. A deviation from the 3-day, 24-hour rolling average emission limit for a secondary aluminum processing unit.

[40 CFR §63.1510(a), (b), (e), (j), (o), (p), (s), (t), & (u), 6/13/16] [40 CFR §63.1511 & 1512, 6/13/16, 12/30/02] [40 CFR §63.1516 & 1517, 6/13/16] [WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 6, 10, 11, 13.b., 17, & 20, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 6, 10, 11, 13.b., 17, & 20, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 21, 25.b,& 30, 4/9/14, as revised on 1/30/17]

Condition II.B.43: RM-SAPU: Each emission unit in a SAPU must be labeled, including identification of the type of emission unit and the applicable operational standards and control standards. [40 CFR §63.1506(a)&(b), 9/18/15] [WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 14, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 14, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 26, 4/9/14, as revised on 1/30/17]

MRRR: The MRRR for this condition are outlined in the secondary aluminum MACT, given in 40 CFR 63, Subpart RRR. KAW must follow the approved MACT OM&M plan and keep records documenting conformance with the plan. The plan must include provisions for unit labeling, as required in 40 CFR §63.1510(c). In addition, KAW must also inspect the labels for each emission unit at least once per calendar month, as required by 40 CFR §63.1506(b), to confirm that labels are intact and legible and keep records of inspections.

[40 CFR §63.1510(a), (b), (c), (o), (p), & (s), 6/13/16] [40 CFR §63.1517, 6/13/16]
[WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 13.b, 14, & 17, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 13.b, 14, & 17, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 25.b, 26, & 30, 4/9/14, as revised on 1/30/17]

Condition II.B.44: RM-SAPU: RM-SAPU: Feed/charge shall be measured in accordance with 40 CFR §63.1506(d). [40 CFR §63.1506(a)&(d), 9/18/15] [WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 10, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 10, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 21, 4/9/14, as revised on 1/30/17]

MRRR: The MRRR for this condition are outlined in the secondary aluminum MACT, given in 40 CFR 63, Subpart RRR. KAW must follow the approved MACT OM&M plan and keep records documenting conformance with the plan. In addition, KAW is required to install, calibrate, operate, and maintain a device to measure and record the total weight of feed/charge to, or the aluminum production from, each emission unit, in accordance with 40 CFR §63.1510(e).

[40 CFR §63.1510(a), (b), (e), (o), (p) & (s), 6/13/16] [40 CFR §63.1517, 6/13/16]
[WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 10, 13.b, & 17, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 10, 13.b, & 17, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 21, 25.b, & 30, 4/9/14, as revised on 1/30/17]

Condition II.B.45: RM-SAPU: Each emission unit shall be operated with a total reactive chlorine flux injection rate (sodium scavenging additives only) at or below the level established during the performance test. [40 CFR §63.1506(a) & (n)(1), 9/18/15] [WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 11, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 11, 7/18/08, as revised on 3/19/10]

MRRR: The MRRR for this condition are outlined in the secondary aluminum MACT, given in 40 CFR 63, Subpart RRR. During the initial performance tests for D/F, KAW recorded the flux addition and calculated the flux injection rate, using the procedures in 40 CFR §63.1512(o). These values are contained in the MACT OM&M plan. KAW is required to install, calibrate, operate, and maintain a device to continuously measure and record the weight of reactive flux injected.

In addition, KAW is required to follow the approved MACT OM&M plan and keep records documenting conformance with the plan. The plan includes measures to ensure that the flux monitoring device is calibrated and maintained properly.

[40 CFR §63.1510(a), (b), (j), (o), (p), & (s), 6/13/16] [40 CFR §63.1516 & 1517,

6/13/16] [WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 11, 13.b., 17, & 20, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 11, 13.b., 17, & 20, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 25.b & 30, 4/9/14, as revised on 1/30/17]

Condition II.B.46: RM-SAPU: Each group 1 furnace without add-on air pollution control devices must be operated in accordance with the work practice/pollution prevention measures documented in the MACT OM&M plan and within the parameter values or ranges established in the MACT OM&M plan. [40 CFR §63.1506(a), (n)(2) & (p), 9/18/15 WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 13.b., 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 13.b., 7/18/08, as revised on 3/19/10]

MRRR: The MRRR for this condition are outlined in the secondary aluminum MACT, given in 40 CFR 63, Subpart RRR. All of the melters and the induction furnaces are considered group 1 furnaces without add-on air pollution control devices. KAW must follow the approved MACT OM&M plan with process parameter parameters and keep records documenting conformance with the plan.

[40 CFR §63.1510(a), (b), (o), (p), & (s), 6/13/16] [40 CFR §63.1516 & 1517, 6/13/16] [WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 13.b., 17, & 20, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 13.b., 17, & 20, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 25.b & 30, 4/9/14, as revised on 1/30/17]

Condition II.B.47: RM-SAPU: When a process parameter deviates from the value or range established in the MACT OM&M plan, corrective action must be taken in accordance with 40 CFR §63.1506(p). [40 CFR §63.1506(a) & (p), 9/18/15] [WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 13.b., 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 13.b., 7/18/08, as revised on 3/19/10]

MRRR: The MRRR for this condition are outlined in the secondary aluminum MACT, given in 40 CFR 63, Subpart RRR. All of the melters and the induction furnaces are considered group 1 furnaces without add-on air pollution control devices. KAW must follow the approved MACT OM&M plan with process parameter parameters and keep records documenting conformance with the plan.

[40 CFR §63.1510(a), (b), (o), (p), & (s), 6/13/16] [40 CFR §63.1516 & 1517, 6/13/16] [WAC 173-400-075(6), 5/31/16] [NOC #1410, Condition 13.b., 17, & 20, 4/28/08, as revised on 3/19/10] [NOC #1427, Condition 13.b., 17, & 20, 7/18/08, as revised on 3/19/10] [NOC #1598, Condition 25.b & 30, 4/9/14, as revised on 1/30/17]

The Notices of Construction and SRCAA Orders approved for some of the remelt area emission units (i.e., NOC #676 for the DC8 melter / holder furnace complex, NOC #683 for the DC2 melter / holder furnace complex, NOC #660 for the dry scrubbing baghouse system, NOC #239 for the skim cooler, SRCAA (formerly SCAPCA) Order #91-01, NOC #1598 for the DC-0 melter / holder furnace complex, NOC #1410 for the DC-6 melter furnace, and NOC #1427 for the DC-7 melter furnace) also contain conditions that are either one-time requirements that have been fulfilled, that were included for informational purposes only, or for some other reason, no longer apply. In addition, KAW has already met the one-time requirements related to source testing and compliance status notification reporting given in 40 CFR 63, Subpart RRR. These conditions are listed below and are not included in KAW's

operating permit.

CITATION	DESCRIPTION	REASON NOT INCLUDED IN THE PERMIT
SRCAA (formerly SCAPCA) Order #91-01, Condition 8, 12/12/91	By the 15 th day of each month, Kaiser shall mail to SRCAA a summary of the opacity values for the preceding month.	According to Order 91-01, the reporting requirements given in Condition 8 shall terminate when Kaiser commences reporting permit deviations under the terms of an air operating permit issued to the Kaiser. Since Kaiser will be reporting deviations under this air operating permit, the condition is no longer applicable.
NOC #683, Condition 1, 5/29/96 as revised on 6/26/01	By September 1, 1996, combustion emissions shall be measured using a combustion analyzer to determine if operational parameters are optimized to meet 0.14 lbs / MMBtu/hr NOx and 0.035 lbs / MMBtu/hr CO.	Combustion analysis was completed on June 18-20, 1996. Measured NOx and CO emissions were under the allowable limits. The requirement has been met.
NOC #683, Condition 2, 5/29/96 as revised on 6/26/01	Within 90 days of achieving maximum production rates using the dry scrubbing /baghouse system, but not later than 180 days after start-up, particulate emissions testing of the melters, RM(M)-2E & RM(M)-2W shall be performed in accordance with EPA reference methods found in 40 CFR Parts 51 and 60 (1995).	Particulate emissions testing of the melters was performed on June 18-20, 1996. The requirement has been met.
NOC #683, Condition 4, 5/29/96 as revised on 10/25/99 and 6/26/01	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.
NOC #676, Condition 1, 7/10/96 as revised on 6/26/01	By September 1, 1996, combustion emissions shall be measured using a combustion analyzer to determine if operational parameters are optimized to meet 0.14 lbs / MMBtu/hr NOx and 0.035 lbs / MMBtu/hr CO.	Combustion analysis was completed on April 13-15, 1999. Measured NOx and CO emissions were under the allowable limits. The requirement has been met.
NOC #676, Condition 2, 7/10/96 as revised on 6/26/01	Within 90 days of achieving maximum production rates using the dry scrubbing /baghouse system, but not later than 180 days after start-up, particulate emissions testing of the melters, RM(M)-8E & RM(M)-8W shall be performed in accordance with EPA reference methods found in 40 CFR Parts 51	Particulate emissions testing of the melters was performed on April 13-16, 1999. This is a one-time requirement that has been met.

	and 60 (1995).	
NOC #676, Condition 4, 7/10/96 as revised on 6/26/01	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.
NOC #660, Condition 1, 9/27/95 as revised on 10/25/99	Notification of start-up of the dry scrubbing / baghouse control system	This is a one-time condition that has been met.
NOC #660, Condition 7, 9/27/95 as revised on 10/25/99	Within 90 days of achieving maximum production rates, but not later than 180 days after start-up, emissions testing shall be performed to verify compliance with Condition #5 of NOC #660.	Emissions testing of the holder baghouse was performed on January 27 – 31, 1997. This is a one-time requirement that has been met.
NOC #660, Condition 14, 9/27/95 as revised on 10/25/99	Annual emissions from the dry scrubbing/baghouse system shall be reported on forms provided by SRCAA.	This is included in NOC approvals for informational purposes only.
NOC #660, Condition 15, 9/27/95 as revised on 10/25/99	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.
NOC #239, Condition 1 & 2, 11/15/89 as revised on 6/6/02	Emission source testing using EPA Methods #1-#5 must be performed within one week of start-up. The skim cooler must be operating at or near maximum capacity at the time of testing.	Emission testing of the skim cooler was performed on January 18-19, 1990. This is a one-time requirement that has been met.
40 CFR §63.1511, 6/13/16	Initial performance testing for D/F required under 40 CFR 63, Subpart RRR	Initial D/F performance testing was performed on January 14-17, 2003 for the cold melters; October 18-19, 2006 and May 31-June 1, 2012 for the induction furnaces; April 1-19, 2011 for the regen melters (DC-6 and DC-7) and July 8-15, 2014 for the DC-0 melter. All of the initial testing has been completed.
40 CFR §63.1511, 6/13/16	Initial notification and compliance status report	KAW submitted the initial MACT notification to SRCAA on July 24, 2000. The notification of compliance status report was submitted to SRCAA on May 15, 2003 for the melters; December 28, 2006 for the induction furnaces; and December 16, 2014 for the DC-0 melter furnace. This is a one-time requirement that has been met.
NOC #1410, Conditions 19 & 20, 4/28/08, as revised on 3/19/10	Semi-annual startup, shutdown, malfunction reports required by pre-2016 version of 40 CFR 63,	These semi-annual startup, shutdown, malfunction reports were removed from the most recent version of 40 CFR 63,

	Subpart RRR	Subpart RRR, as adopted on 6/13/16 and replaced with the semi-annual exceedance reports required in MRRR 25M. Therefore, these requirements are no longer applicable.
NOC #1427, Conditions 19 & 20, 7/18/08, as revised on 3/19/10	Semi-annual startup, shutdown, malfunction reports required by pre-2016 version of 40 CFR 63, Subpart RRR	These semi-annual startup, shutdown, malfunction reports were removed from the most recent version of 40 CFR 63, Subpart RRR, as adopted on 6/13/16 and replaced with the semi-annual exceedance reports required in MRRR 25M. Therefore, these requirements are no longer applicable.
NOC #1598, Condition 1, 4/9/14, as revised on 1/30/17	Notification of start-up of the DC-0 casting complex	This is a one-time requirement that has been met
NOC #1598, Condition 2, 4/9/14, as revised on 1/30/17	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.
NOC #1598, Condition 3, 4/9/14, as revised on 1/30/17	No later than 180 days after startup of the DC-0 melter complex, CAM plan must be submitted for holder baghouse.	The CAM plan was submitted to SRCOA on October 15, 2014.
NOC #1598, Condition 3, 4/9/14, as revised on 1/30/17	Initial source testing requirement for DC-0 casting complex	The initial testing requirements given in Conditions 15-16 have been completed. The initial test for DC-0 melter furnace and DC-0 holder furnace was completed on June 30-August 4, 2014.

Emission Limitations for Hot Rolling Mill Sources

This subsection of the permit covers emission units in the hot rolling mill area that either have additional applicable requirements or additional monitoring, recordkeeping, and reporting requirements (MRRR), beyond those listed in the Facility-Wide Emission Limitations portion of the permit. Not all significant emission units are listed in the permit, only those with additional requirements are listed. The specific emission units covered in this section of the permit are given in Table 2.

The following requirements are included in this section:

Condition II.C.1:HL-6: PM emissions from the #4 scalper shall not exceed 0.01 gr/dscf [NOC #188, Condition 2, 3/4/88 as revised on 2/20/15]

MRRR: The required monitoring was established for the purposes of Compliance Assurance Monitoring (CAM), authorized by 40 CFR Part 64, 7/1/01. CAM must be designed to provide reasonable assurance of compliance with emission limitations or standards for the pollutant specific emission unit (PSEU). In order for a PSEU to be subject to CAM,

the three conditions described in the MRRR for Condition II.A.2 must be met. These three conditions are met by the #4 scalper wet cyclone, as explained in the MRRR for Condition II.A.2.

The proposed CAM is the same as for the visible emissions (opacity) standard (Condition II.A.2). The proposed CAM has been designed to rely on two performance indicators: #4 scalper wet cyclone visible emissions monitoring and wet cyclone pumps and fans operational status. The indicator ranges for the grain loading standard are the same as those described in the MRRR for Condition II.A.2 for the visible emissions standard. The applicability of these indicator ranges to the grain loading standard is described below.

a) #4 Scalper Wet Cyclone Visible Emissions

Visible emissions (opacity) was selected as one of the performance indicators because it is indicative of good operation and maintenance of the wet cyclone. Source testing conducted on September 26-28, 1988 on the #4 scalper wet cyclone showed average grain loading from the #4 scalper was 0.0047 grains per dry standard cubic foot. There is no established relationship between visible emissions and particulate emissions from the wet cyclone because the opacity was not recorded when the wet cyclone was source tested in 1988. However, opacity is an appropriate performance indicator for the grain loading limit because it is indicative of good operation and maintenance of the wet cyclone. When the wet cyclone is operating optimally, there should be minimal visible emissions from the exhaust. If the wet cyclone is kept in proper working order, the PM10 emissions from the wet cyclone should not exceed those measured during the last source test (i.e., 0.0047 gr/scf).

b) #4 Scalper Wet Cyclone Pumps and Fans Operational Status

The operational status of the wet cyclone pumps and fans was selected as one of the performance indicators because the wet cyclone does not have any moving parts. Therefore, as long as the pumps and fans are operational, the wet cyclone should be operating correction, and there should be minimal particulate emissions from the exhaust.

[40 CFR Part 64, 7/1/01]

Condition II.C.2:HL-6: The #4 scalper shall be operated such that:

- scalping may not occur unless the scrubber fan and pump are running; and
- if the scrubber pump or fan stops during ingot scalping, scalping will stop also.

[NOC #188, Condition 3, 3/4/88 as revised on 2/20/15]

MRRR: KAW is required to perform a check at least once a week to verify that the wet cyclone fan and pump are running during processing of ingot or perform a check at least once a month and semiannually check that the programmable logic controller is programmed properly. Records must be kept of all of the checks.

[NOC #188, Condition 3, 3/4/88 as revised on 2/20/15]

Condition II.C.3:HL-5: Ingot soaking pits (39-42) PLCs and burners must be maintained in good operating condition. [NOC #443, Condition 4, 7/21/93]

MRRR: KAW is required to follow the operation and maintenance procedures and settings in the operating manual accompanying the burner units. Records shall be kept to document that the operating and maintenance procedures are being followed. [NOC #443, Condition 5, 7/21/93]

Condition II.C.4:HL-5: Before any fuel other than natural gas is used in the ingot soaking pits (39-42), approval must be obtained from SRCAA. [NOC #443, Condition 6, 7/21/93]

MRRR: No monitoring is required. The ingot soaking pits only have the capability to burn natural gas. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.C.5:HL-5: NO_x emissions from the ingot soaking pits (39-42) heater shall not exceed 0.1 pounds per million BTU when firing natural gas. [NOC #443, Condition 7, 7/21/93]

MRRR: The NOC approval for the ingot soaking pits requires KAW to keep the units in proper working order. The AP-42 emission factor for uncontrolled natural gas combustion (given in Table 1.4-1 of AP-42, 7/98) is 0.1 pounds NO_x per million BTU. Based on the AP-42 emission factor, which is representative of "average" emissions from natural gas fired equipment, if the ingot soaking pits are kept in proper working order, the NO_x emissions should not exceed 0.1 pounds per million BTU. KAW is required to follow the operation and maintenance procedures and settings in the operating manual accompanying the burner units for the ingot soaking pits. Records shall be kept to document that the operating and maintenance procedures are being followed. [NOC #443, Condition 5, 7/21/93]

Condition II.C.6:HL-5: A copy of NOC #443 and the approval letter shall be kept on file at the facility. [NOC #443, Condition 8, 7/21/93]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.C.7:HL-4: The pusher furnace's burners and associated equipment shall be maintained in good operating condition. [NOC #674, Condition 1, 12/18/95]

MRRR: KAW is required to follow the operation and maintenance procedures in the manufacturer's operating manual. Records shall be kept to document that the operating and maintenance procedures are being followed. [NOC #674, Condition 2, 12/15/95] [WAC 173-401-630, 8/15/01]

Condition II.C.8:HL-4: Only natural gas shall be used to fuel the furnace. [NOC #674, Condition 3, 12/18/95]

- MRRR: No monitoring is required. The pusher furnace is only capable of burning natural gas. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.
- Condition II.C.9:HL-4: NOx emissions from the furnace shall not exceed 0.14 pounds per million BTU (one hour average). [NOC #674, Condition 4, 12/18/95]
- MRRR: The NOC approval for the pusher furnace (NOC #674) required KAW to tune the burners on the pusher furnace within 90 days of the approval. KAW tuned the burners using a combustion analyzer on 5/26/95. The combustion analyses measured NOx emissions of 0.11 pounds per million BTU during all of the test runs. Based on the initial testing results, if the pusher furnace is kept in proper working order, the NOx emissions should not exceed 0.14 pounds per million BTU. KAW is required to follow the operation and maintenance procedures and settings in the operating manual for the pusher furnace. Records shall be kept to document that the operating and maintenance procedures are being followed. [NOC #674, Condition 2, 12/15/95] [WAC 173-401-630, 8/15/01]
- Condition II.C.10: HL-4: CO emissions from the pusher furnace shall not exceed 0.035 pounds per million BTU (one hour average). [NOC #674, Condition 5, 12/18/95]
- MRRR: The monitoring is the same as for Condition II.C.9. The combustion analyses (performed on 5/26/95) measured CO emissions of <0.01 pounds per million BTU during all of the test runs. Based on the initial testing results, if the pusher furnace is kept in proper working order, the CO emissions should not exceed 0.035 pounds per million BTU. The NOC approval for the pusher furnace requires KAW to keep the furnace in proper working order. KAW is required to follow the operation and maintenance procedures and settings in the operating manual for the pusher furnace. Records shall be kept to document that the operating and maintenance procedures are being followed. [NOC #674, Condition 2, 12/15/95] [WAC 173-401-630, 8/15/01]
- Condition II.C.11: HL-4: Annual natural gas usage in the furnace shall not exceed 201.6 million cubic feet. Alternately SRCAA may base the maximum allowable use of the furnace on pounds of aluminum processed if KAW submits sufficient documentation to set such a level. [NOC #674, Condition 7, 12/18/95]
- MRRR: KAW is required to keep monthly records of fuel use, or of an alternate parameter as approved by SRCAA (e.g., pounds of aluminum produced). [NOC #674, Condition 7, 12/15/95] [WAC 173-401-630, 10/4/93]
- Condition II.C.12: HL-4: A copy of NOC #674 and the approval letter shall be kept on file at the facility. [NOC #674, Condition 8, 12/18/95]
- MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.C.13:HL-1: Visible emissions shall be no more than 10%. [NOC #86, Opening paragraph, 6/22/84]

MRRR: The NOC approval for the 80" hot rolling mill (NOC #86) required KAW to perform EPA Method 5 testing to determine the total particulate concentrations in the exhaust gases. KAW performed source testing of the 80" hot rolling mill on April 10-24, 1985. The source test results showed particulate emissions of 0.028 gr/scf from the north outlet stack and 0.025 gr/scf from the south outlet stack. Although there is not a demonstrated relationship between visible emissions and grain loading for the 80" hot rolling mill, at the measured grain loading (i.e., 0.028 gr/scf and 0.025 gr/scf), if the 80" hot rolling mill is kept in proper working order, the visible emissions from each stack should not exceed 10%. KAW is required to follow the operation and maintenance manual for the 80" Rolling Mill. At a minimum the plan shall include a description and schedule of maintenance performed on the motors and fans associated with the Busch inertial separators. Records shall be kept to document that the operating and maintenance manual is being followed. [WAC 173-401-615(1) & (2), 9/16/02] NOTE: This is a gapfilling MRRR.

Condition II.C.14: HL-1: PM emissions shall not exceed 0.04 gr/dscf. [NOC #86, Condition 1, 6/22/84]

MRRR: The monitoring is same as required for Condition II.C.13. Based on the initial source test results from the 80" hot rolling mill, performed in 1985, (i.e., 0.028 gr/scf from the north stack and 0.025 gr/scf from the south stack), if the 80" hot rolling mill is kept in proper working order, the PM emissions from each stack should not exceed 0.04 gr/dscf. KAW is required to develop and follow an operation and maintenance manual for the 80" Rolling Mill. At a minimum the plan shall include a description and schedule of maintenance performed on the motors and fans associated with the Busch inertial separators. Records shall be kept to document that the operating and maintenance manual is being followed. [WAC 173-401-615(1) & (2), 9/16/02] NOTE: This is a gapfilling MRRR.

Condition II.C.15: HL-7, HL-8, HL-9, HL-10 & HL-11: A copy of NOC #1556, NOC #1557, NOC #1607, and NOC #1677 and the approval letters shall be kept on-site and made available to SRCAA personnel upon request. [NOC #1556, Condition 3, 2/22/12] [NOC #1557, Condition 3, 2/22/12] [NOC #1607, Condition 4, 11/13/13] [NOC #1677, Condition 3, 10/5/15]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.C.16: HL-7, HL-8, HL-9, HL-10 & HL-11: The soaking pit furnace, 3 stress relief furnaces, and 4 cartridge furnaces shall be maintained in good operating condition. [NOC #1556, Condition 4, 2/22/12] [NOC #1557, Condition 4, 2/22/12] [NOC #1607, Condition 5, 11/13/13] [NOC #1677, Condition 4, 10/5/15]

MRRR: KAW must develop and follow an O&M plan for the soaking pit furnaces, stress relief furnaces, and cartridge furnaces (HL-7, HL-8, HL-9, HL-10, and HL-11). The O&M

plan shall incorporate manufacturer recommended practices aimed at reducing emissions from the furnaces and keep records to document the O&M procedures are being followed. [NOC #1556, Conditions 4 & 10 a, 2/22/12] [NOC #1557, Conditions 4 & 10 a, 2/22/12] [NOC #1607, Conditions 5 & 13 a, 11/13/13] [NOC #1677, Conditions 4 and 10 a, 10/5/15]

Condition II.C.17: HL-7, HL-8, HL-9 & HL-10: At high fire, NOx emissions from each furnace shall not exceed 50 ppmv @ 3% O2. [NOC #1556, Condition 5, 2/22/12] [NOC #1557, Condition 5, 2/22/12] [NOC #1607, Condition 6, 11/13/13] [NOC #1677, Condition 5, 10/5/15]

MRRR: KAW is required to perform a combustion test on each soaking pit furnace (HL-7) and stress relief furnace (HL-8, HL-9, HL-10) at maximum fire using a combustion analyzer or other SRCAA approved test method at least once during each calendar year to test for NOx emissions. Each combustion test shall reflect operation under actual conditions. A report documenting the results of each combustion test shall be submitted to SRCAA within 30 days of each test. [NOC #1556, Conditions 5 & 10 b., 2/22/12] [NOC #1557, Conditions 5 & 10 b., 2/22/12] [NOC #1607, Conditions 6 & 7, 11/13/13] [NOC #1677, Conditions 5 & 10 b., 10/5/15]

Condition II.C.18: HL-7, HL-11: At high fire, CO emissions from each furnace shall not exceed 100 ppmv @ 3% O2. [NOC #1556, Condition 5, 2/22/12] [NOC #1607, Condition 7, 11/13/13]

MRRR: KAW is required to perform a combustion test on each soaking pit furnace (HL-7) and cartridge furnaces (HL-11) at maximum fire using a combustion analyzer or other SRCAA approved test method at least once during each calendar year to test for CO emissions. Each combustion test shall reflect operation under actual conditions. A report documenting the results of each combustion test shall be submitted to SRCAA within 30 days of each test. [NOC #1556, Conditions 5 & 10 b., 2/22/12] [NOC #1607, Conditions 6 & 7, 11/13/13]

Condition II.C.19: HL-8, HL-9 & HL-10: At high fire, CO emissions from the stress relief furnace shall not exceed 250 ppmv @ 3% O2. [NOC #1557, Condition 5, 2/22/12] [NOC #1607, Condition 5, 11/13/13] [NOC #1677, Condition 5, 10/5/15]

MRRR: The monitoring is the same as for Condition II.C.18. KAW is required to perform an annual combustion test at least once each calendar year to test for CO emissions and submit a report of the results. [NOC #1557, Conditions 5 & 10 b., 2/22/12] [NOC #1607, Conditions 6 & 7, 11/13/13] [NOC #1677, Conditions 5 & 10 b., 10/5/15]

Condition II.C.20: HL-11: At high fire, NOx emissions from each cartridge furnaces shall not exceed 200 ppmv @ 3% O2. [NOC #1607, Condition 5, 11/13/13]

MRRR: The monitoring is the same as for Condition II.C.18. KAW is required to perform an annual combustion test at least once each calendar year to test for NOx emissions and submit a report of the results. [NOC #1607, Conditions 6 & 7, 11/13/13]

Condition II.C.21: HL-7: The furnace exhaust stack shall have a minimum height of 69 feet above

ground level and shall exhaust vertically. No elbows, tees, or stack caps that impede the vertical flow of exhaust shall be installed at the end of the stack. [NOC #1556, Condition 6, 2/22/12]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.C.22: HL-7, HL-8, HL-9, HL-10 & HL-11: Visible emissions from each furnace exhaust stack shall not exceed 10% opacity. [NOC #1556, Condition 7, 2/22/12] [NOC #1557, Condition 7, 2/22/12] [NOC #1607, Condition 9, 11/13/13] [NOC #1677, Condition 7, 10/5/15]

MRRR: KAW is required to perform a weekly check of the stack to look for visible emissions, as described in the MRRR for Condition II.A.2. KAW is also required to develop and follow an O&M plan for the soaking pit furnaces, stress relief furnaces, and cartridge furnaces (HL-7, HL-8, HL-9, HL-10, and HL-11). The O&M plan shall incorporate manufacturer recommended practices aimed at reducing emissions from the furnaces and keep records to document the O&M procedures are being followed. [NOC #1556, Conditions 4 & 10 a, 2/22/12] [NOC #1557, Conditions 4 & 10 a, 2/22/12] [NOC #1607, Conditions 5 & 13 a, 11/13/13] [NOC #1677, Conditions 4 and 10 a, 10/5/15] [WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16]

Condition II.C.23: HL-7, HL-8, HL-9, HL10 & HL-11: SRCAA approval must be obtained before any fuel other than natural gas is burned in any furnace. [NOC #1556, Condition 8, 2/22/12] [NOC #1557, Condition 8, 2/22/12] [NOC #1607, Condition 10, 11/13/13] [NOC #1677, Condition 8, 10/5/15]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.C.24: HL-7: No more than 103.1 million standard cubic feet (scf) of natural gas (equivalent to 105,120 MMBtu) shall be burned in HL-7 during any consecutive 12 month period. [NOC #1556, Condition 9, 2/22/12]

MRRR: KAW is required to record the amount of natural gas burned in the soaking pit (HL-7) during the previous month no later than the 25th of each month. If the monthly amount of natural gas burned exceeds 8.6 million scf per month, the amount of natural gas burned in the furnace during the last consecutive twelve month period shall be totaled and recorded. [NOC #1556, Conditions 9 & 10 c., 2/22/12]

Condition II.C.25: HL-8, HL-9 & HL-10: Each furnace exhaust stack shall have a minimum height of 47 feet above ground level and shall exhaust vertically. No elbows, tees, or stack caps that impede the vertical flow of exhaust shall be installed at the end of the stack. [NOC #1557, Condition 6, 2/22/12] [NOC #1607, Condition 8, 11/13/13] [NOC #1677, Condition 6, 10/5/15]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.C.26: HL-8: No more than 34.4 million standard cubic feet (scf) of natural gas (equivalent to 35,040 MMBtu) shall be burned in HL-8 during any consecutive 12 month period. [NOC #1557, Condition 9, 2/22/12]

MRRR: KAW is required to record the amount of natural gas burned in the stress relief furnace (HL-8) during the previous month no later than the 25th of each month. If the monthly amount of natural gas burned exceeds 2.9 million scf per month, the amount of natural gas burned in the furnace during the last consecutive twelve month period shall be totaled and recorded. [NOC #1557, Conditions 9 & 10 c, 2/22/12]

Condition II.C.27: HL-9 & HL-10: No more than 17.6 million standard cubic feet (scf) of natural gas (equivalent to 18,000 MMBtu) shall be burned in each furnace during any consecutive 12 month period. [NOC #1607, Condition 11, 11/13/13] [NOC #1677, Condition 9, 10/5/15]

MRRR: KAW is required to record the amount of natural gas burned in the stress relief furnaces (HL-9 & HL-10) during the previous month no later than the 25th of each month. If the monthly amount of natural gas burned exceeds 1.5 million scf per month in either furnace, the amount of natural gas burned in the furnace during the last consecutive twelve month period shall be totaled and recorded. [NOC #1607, Conditions 11, 12, & 13 c, 11/13/13] [NOC #1677, Conditions 9 & 10 c., 10/5/15]

Condition II.C.28: HL-11: No more than 34.4 million standard cubic feet (scf) of natural gas (equivalent to 35,000 MMBTU) shall be burned in any cartridge furnace during any consecutive 12 month period. [NOC #1607, Condition 12, 11/13/13]

MRRR: KAW is required to record the amount of natural gas burned in the cartridge furnaces (HL-11) during the previous month no later than the 25th of each month. If the monthly amount of natural gas burned exceeds 2.8 million scf per month in any furnace, the amount of natural gas burned in the furnace during the last consecutive twelve month period shall be totaled and recorded. [NOC #1607, Conditions 11, 12, & 13 c, 11/13/13]

Condition II.C.29: HL-11: Each cartridge furnace exhaust stack shall have a minimum height of 68 feet above ground level and shall exhaust vertically. No elbows, tees, or stack caps that impede the vertical flow of exhaust shall be installed at the end of the stack.

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

The Notices of Construction approved for some of the hot rolling mill emission units (i.e., NOC #188 for the #4 scalper, NOC #443 for the ingot soaking pits, NOC #674 for the pusher furnace, NOC #86 for the 80" hot rolling mill, NOC #1556 for the soaking pit, NOC #1557 for the stress relief furnace (reheat #9), NOC #1607 for the four cartridge furnaces and new stress relief furnace (reheat #10), and NOC #1677 for the new stress relief furnace (reheat #11) also contain conditions that are either one-time requirements that have been fulfilled, that were included for informational purposes only, or for some other reason, no longer apply. These conditions are listed below and are not included in KAW's operating permit.

CITATION	DESCRIPTION	REASON NOT INCLUDED IN THE PERMIT
NOC #188, Condition 1, 3/1/88 as revised on 1/18/01	Emission testing must be performed for PM and PM10 no later than 180 days after start-up.	Emissions testing of the #4 scalper was performed on September 26-28, 1988. Test results showed average PM grain loading was 0.0047 gr/dscf. For PM10, average emissions were 0.018 micrograms per dscf. This is a one-time requirement that has been met.
NOC #188, Condition 2, 3/1/88 as revised on 1/18/01	Construction of the system must be consistent with the design specifications submitted to SRCAA.	Construction of the #4 scalper has been completed.
NOC #443, Condition 1, 7/21/93	The ingot soaking pits are subject to registration with SRCAA.	This is included in NOC approvals for informational purposes only.
NOC #443, Condition 2, 7/21/93	Notification of start-up	This is a one-time condition that has been met.
NOC #443, Condition 3, 7/21/93	The ingot soaking pits are subject to annual inspections and registration fees.	This is included in NOC approvals for informational purposes only.
NOC #443, Condition 9, 7/21/93	Approval does not relieve the proponent of the obligation to comply with other applicable regulations and requirements.	This is included in approvals for informational purposes only.
NOC #674, Condition 6, 12/18/95	The burners on the pusher furnace shall be tuned to optimize performance within 90 days of the approval.	Burner tuning was performed to optimize performance on May 26, 1995. Combustion analyses showed NOx emissions at or below 0.11 lb/million BTU and CO emissions of 0.035 lb/million BTU. This is a one-time requirement that has been met.
NOC #674, Condition 9, 12/18/95	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.
NOC #86, Condition 1, 2, 3, & 4, 6/22/84	EPA Method 5 testing must be performed to determine the total particulate concentrations in the	Testing of the 80" hot rolling mill was performed on April 10-24, 1985. Test results showed PM emissions of 0.028

	exhaust gases. Testing for particulate concentration prior to collectors is also required. All of the compliance testing is to be performed within a reasonable time of startup.	gr/scf from the north stack and 0.025 gr/scf from the south stack. This is a one-time requirement that has been met.
NOC #1556, Condition 1, 2/22/12	Notification of start-up	This is a one-time condition that has been met.
NOC #1556, Condition 2, 2/22/12	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.
NOC #1557, Condition 1, 2/22/12	Notification of start-up	This is a one-time condition that has been met.
NOC #1557, Condition 2, 2/22/12	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.
NOC #1607, Condition 1, 11/13/13	PSD applicability condition	Ecology issued a determination on February 5, 2014 that PSD does not apply to this project
NOC #1607, Condition 2, 11/13/13	Notification of start-up	This is a one-time condition that has been met.
NOC #1607, Condition 3, 11/13/13	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.
NOC #1677, Condition 1, 10/5/15	Notification of start-up	This is a one-time condition that has been met.
NOC #1677, Condition 1, 10/5/15	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.

Cold Rolling Mill Sources

This subsection of the permit covers emission units in the cold rolling mill area that either have additional applicable requirements or additional monitoring, recordkeeping, and reporting requirements (MRRR), beyond those listed in the Facility-Wide Emission Limitations portion of the permit. Not all significant emission units are listed in the permit, only those with additional requirements are listed. The specific emission units covered in this section of the permit are given in Table 3.

The following requirements are included in this section:

Condition II.D.1:CM-2: A copy of NOC #1569 and the conditions of approval shall be kept on-site and made available to SRCOA upon request. [NOC #1569, Condition 3, 7/16/12]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with

this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.D.2: CM-2: The exhaust stack on the fume hood shall have a minimum height of 16 feet above ground level and shall exhaust vertically. There shall be no flow obstructions (elbows, tees, caps, etc.) at the top of the stack which impedes vertical flow of the exhaust. [NOC #1569, Condition 4, 7/16/12]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.D.3: CM-2: The fume hood shall be maintained in good operating condition. [NOC #1569, Condition 5, 7/16/12]

MRRR: KAW is required to keep records of the date and natural of all maintenance activities performed on the fume hood. [NOC #1569, Condition 5 & 10, 7/16/12]

Condition II.D.4: CM-2: All materials (coatings, waste materials, shop towels, etc.) containing volatile organic compounds (VOC) or volatile toxic air pollutants (e.g., perchloroethylene) shall be kept in closed containers when not in active use. [NOC #1569, Condition 6, 7/16/12]

MRRR: KAW is required to perform weekly inspections to ensure containers are closed and take corrective action, if warranted. [WAC 173-401-615(1) & (2), 9/16/02] – NOTE: This is a gapfilling MRRR

Condition II.D.5: CM-2: The amount of perchloroethylene coating (currently Turco) used in the etching process / fume hood operation each calendar year shall not exceed 32 gallons per year.

MRRR: CM-2: KAW is required to keep records of the total amount of coating (currently Turco) used in the etching process / fume hood operation each calendar year. The total annual amount of each coating and solvent used in the etching process / fume hood operation must be recorded to SRCAA annually. [NOC #1569, Condition 8, 9 & 10, 7/16/12]

The Notice of Construction approved for the fume hood (i.e., NOC #1569) contains conditions that are one-time requirements that have been fulfilled. These conditions are listed below and are not included in KAW's operating permit.

CITATION	DESCRIPTION	REASON NOT INCLUDED IN THE PERMIT
NOC #1569, Condition 1, 7/16/12	Notification of start-up	This is a one-time condition that has been met.
NOC #1569, Condition 2, 7/16/12	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.

Utilities Sources

This subsection of the permit covers emission units in the utilities department that either have additional applicable requirements or additional monitoring, recordkeeping, and reporting requirements (MRRR), beyond those listed in the Facility-Wide Emission Limitations portion of the permit. Not all significant emission units are listed in the permit, only those with additional requirements are listed. The specific emission units covered in this section of the permit are given in Table 4.

The following requirements are included in this section:

Condition II.E.1: Particulate matter emissions from combustion and incineration units shall not exceed 0.1 gr/dscf corrected to 7% oxygen. [WAC 173-400-050(1) & WAC 173-400-050(3), 1/10/05] NOTE: The exception in WAC 173-400-050(3) is STATE/LOCAL ONLY

MRRR: Because of the general correlation between particulate matter emissions and visible emissions (i.e., visible emissions are an indicator of particulate matter), Condition II.A.10 (facility-wide requirement) requires KAW to perform weekly inspections during daylight hours while the facility is in operation for the purpose of identifying potential PM standard violations (as indicated by visible emissions) of the emission units at the facility.

Specific monitoring for the boiler involves keeping the boilers in proper working order. If the boilers are properly operated and maintained, combustion should be optimized, which minimizes particulate emissions. To ensure the boilers are properly operated and maintained, KAW is required to service the boilers at least once each calendar year to assure proper combustion is occurring and that the units are in proper operating condition. At a minimum, the service shall include checking the burners and fire brick. If deterioration, sufficient to affect proper combustion is found, corrective action shall be taken before the unit is re-fired. KAW shall maintain records of each servicing. At a minimum, the records shall include the dates of each service, the unit being serviced, a brief description of the findings, and a description of any corrective action taken. [WAC 173-401-615(1) & (2), 9/16/02] – This is a gapfilling MRRR.

Condition II.E.2: Used oil burned in the boilers must meet the following specifications:

- 2 ppm maximum cadmium
- 10 ppm maximum chromium
- 100 ppm maximum lead
- 5 ppm maximum arsenic
- 1000 ppm maximum total halogens
- 2 ppm maximum polychlorinated biphenyls (PCBs)
- 0.1% maximum ash
- 1.0% maximum sulfur
- 100°F minimum flash point.

[RCW 70.94.610, 1999 – STATE/LOCAL ONLY]

- MRRR: Prior to transfer, each batch of used oil transferred to the tanks, located at the steam plant, must be tested to determine the flashpoint and content of ash, cadmium, chromium, lead, arsenic, halogens, polychlorinated biphenyls, and sulfur. Records of each test shall be kept in accordance with Condition I.D.5 - Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives. [WAC 173-401-615(1) & (2), 9/16/02] – this is a gapfilling MRRR.
- Condition II.E.3:UT-4 & UT-5: The fire pump and emergency generator set engines' oil and filter must be changed after every 500 hours of operation or annually, whichever comes first. The permittee may utilize an oil analysis program as described in 40 CFR 63.6625(i) in order to extend the oil change requirement. [40 CFR 63.6603, 1/30/13] [WAC 173-400-075, 5/31/16]
- MRRR: KAW is required to develop and follow a maintenance plan for the fire pump engines and the emergency generator set which provides to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. Manufacturer's emission-related written operation and maintenance instructions may be used for the maintenance plan. Records must be kept of the maintenance conducted on the fire pump engines in order to demonstrate that the engines were operated and maintained according to the maintenance plan. [NOC #1335, Condition 4 & 10 a., 2/21/06] [40 CFR 63.6625, 63.6655, & 63.6660, 1/30/13] [WAC 173-400-075, 5/31/16]
- Condition II.E.4: UT-4 & UT-5: The fire pump and emergency generator set engines' air cleaner must be inspected every 1,000 hours of operation or annually, whichever comes first. [40 CFR 63.6603, 1/30/13] [WAC 173-400-075, 5/31/16]
- MRRR: The required monitoring is the same as for Condition II.E.3. KAW is required to develop and follow a maintenance plan for the fire pump engines and the emergency generator set which provides to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [NOC #1335, Condition 4 & 10 a., 2/21/06] [40 CFR 63.6625, 63.6655, & 63.6660, 1/30/13] [WAC 173-400-075, 5/31/16]
- Condition II.E.5:UT-4 & UT-5: All hoses and belts on the fire pump and emergency generator set engines must be inspected every 500 hours of operation or annually, whichever comes first, and replaced as necessary. [40 CFR 63.6603, 1/30/13] [WAC 173-400-075, 5/31/16]
- MRRR: The required monitoring is the same as for Condition II.E.3. KAW is required to develop and follow a maintenance plan for the fire pump engines and the emergency generator set which provides to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [NOC #1335, Condition 4 & 10 a., 2/21/06] [40 CFR 63.6625, 63.6655, & 63.6660, 1/30/13] [WAC 173-400-075, 5/31/16]
- Condition II.E.6:UT-4 & UT-5: The fire pump and emergency generator set engines' time spent at idle

shall be minimized and the engine's startup time at startup shall be minimized to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625, 1/30/13] [WAC 173-400-075, 5/31/16]

MRRR: The required monitoring is the same as for Condition II.E.3. KAW is required to develop and follow a maintenance plan for the fire pump engines and the emergency generator set which provides to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [NOC #1335, Condition 4 & 10 a., 2/21/06] [40 CFR 63.6625, 63.6655, & 63.6660, 1/30/13] [WAC 173-400-075, 5/31/16]

Condition II.E.7: UT-4 & UT-5: The fire pump and emergency generator set engines must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions at all times. [40 CFR 63.6605, 1/30/13] [WAC 173-400-075, 5/31/16]

MRRR: The required monitoring is the same as for Condition II.E.3. KAW is required to develop and follow a maintenance plan for the fire pump engines and the emergency generator set which provides to the extent practicable for the maintenance and operation of the engines in a manner consistent with good air pollution control practice for minimizing emissions. [NOC #1335, Condition 4 & 10 a., 2/21/06] [40 CFR 63.6625, 63.6655, & 63.6660, 1/30/13] [WAC 173-400-075, 5/31/16]

Condition II.E.8: UT-4 & UT-5: Each fire pump and emergency generator set engine may be operated for up to 100 hours per year for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. There is no time limit on the use of the fire pump and emergency generator set engines for emergency situations. [40 CFR 63.6640, 1/30/13] [WAC 173-400-075, 5/31/16]

MRRR: KAW is required to install a non-resettable hour meter must be installed on each fire pump engine and emergency generator. Records shall be kept of the hours of operation of each fire pump engine and generator that are recorded through the non-resettable hour meter. KAW must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 63.6625, 63.6655, & 63.6660, 1/30/13] [WAC 173-400-075, 5/31/16]

Condition II.E.9: UT-4 & UT-5: Each fire pump and emergency generators set engine may be operated for up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generator income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except as allowed under 40 CFR 63.6640(f)(iii). [40 CFR 63.6640, 1/30/13] [WAC 173-400-075, 5/31/16]

MRRR: The required monitoring is the same as for Condition II.E.8. KAW is required to install

a non-resettable hour meter must be installed on each fire pump engine and emergency generator and keep records of how many hours are spent for emergency operation. [40 CFR 63.6625, 63.6655, & 63.6660, 1/30/13] [WAC 173-400-075, 5/31/16]

Condition II.E.10: A copy of the NOC #1335, application and order of approval shall be kept on-site and made available to SRCAA personnel upon request. [NOC #1335, Condition 3, 2/21/06]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.E.11: UT-5: The emergency generator set associated with the heat treat ovens shall be maintained in good operating condition. [NOC #1335, Condition 4, 2/21/06]

MRRR: KAW is required to develop and follow an operation and maintenance (O&M) plan for the emergency generator set associated with the heat treat ovens which provides to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. Records must be kept of the maintenance conducted on the generator set in order to demonstrate that the engines were operated and maintained according to the maintenance plan and shall include, at a minimum, dates and nature of any maintenance performed. [NOC #1335, Condition 4 & 10 a., 2/21/06]

Condition II.E.12: UT-5: The emergency generator diesel engine's exhaust stack shall each have a minimum height of 12 feet above ground level and shall exhaust vertically. There shall be no flow obstructions (elbows, tees, caps, etc...) at the top of the stack which impede the vertical flow of the exhaust. [NOC #1335, Condition 5, 2/21/06]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.E.13: UT-5: Only fuel oil #2 (diesel) with a sulfur content of 0.05% (by weight) or less shall be used to fuel the emergency generator, unless approval is obtained from SRCAA to use an alternate fuel. [NOC #1335, Condition 6, 2/21/06]

MRRR: KAW is required to keep records documenting the sulfur content of the fuel supplied to the emergency generator. Invoices constitute sufficient documentation, provided they show that each load of fuel received was low sulfur grade fuel. [NOC #1335, Condition 6 & 10 b., 2/21/06]

Condition II.E.14: UT-5: The emergency generator / diesel engine shall not be operated more than 929.3 hours in any consecutive twelve-month period. [NOC #1335, Condition 7, 2/21/06]

MRRR: No later than the 15th of each month, the hours of operation for the emergency generator during the previous month shall be totaled and recorded. If the hours of

operation for the generator set during any month exceeds 77 hours, the hours of operation during the last consecutive twelve month period shall be totaled and recorded. [NOC #1335, Condition 7 & 10 c., 2/21/06]

Condition II.E.15: UT-5: Visible emissions from the emergency generator diesel engine exhaust stack shall not exceed 10%. [NOC #1335, Condition 8, 2/21/06]

MRRR: KAW is required to perform weekly inspections during daylight hours while the facility is in operation for the purpose of identifying visible emissions from the emission units at the facility.

In addition, an operation and maintenance (O&M) plan is required for the emergency generator set associated with the heat treat ovens which provides to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. If the generator set is properly operated and maintained, combustion should be optimized, which minimizes particulate emissions / opacity. Records must be kept of the maintenance conducted on the generator set in order to demonstrate that the engines were operated and maintained according to the maintenance plan and shall include, at a minimum, dates and nature of any maintenance performed. [NOC #1335, Condition 4 & 10 a., 2/21/06]

Condition II.E.16: UT-5: Particulate emissions from the emergency generator diesel engine shall not exceed 0.01 grains per dry standard cubic foot of exhaust stack flow. Testing for this limit may be required by SRCAA at any time, including, but not limited to, occasions when the opacity limit, specified in Condition II.E.15, is exceeded. [NOC #1335, Condition 9, 2/21/06]

MRRR: The monitoring is the same as for Condition II.E.15. KAW is required to perform weekly inspections during daylight hours while the facility is in operation for the purpose of identifying visible emissions from the emission units at the facility.

In addition, an operation and maintenance (O&M) plan is required for the emergency generator set associated with the heat treat ovens which provides to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. If the generator set is properly operated and maintained, combustion should be optimized, which minimizes particulate emissions / opacity. Records must be kept of the maintenance conducted on the generator set in order to demonstrate that the engines were operated and maintained according to the maintenance plan and shall include, at a minimum, dates and nature of any maintenance performed. [NOC #1335, Condition 4 & 10 a., 2/21/06] [40 CFR 63.6625, 63.6655, & 63.6660, 1/30/13] [WAC 173-400-075, 5/31/16]

The Notice of Construction approved for the emergency generator set (i.e., NOC #1335) contains conditions that are one-time requirements that have been fulfilled. These conditions are listed below and are not included in KAW's operating permit.

CITATION	DESCRIPTION	REASON NOT INCLUDED IN THE PERMIT
NOC #1335, Condition 1, 2/21/06	Notification of start-up	This is a one-time condition that has been met.
NOC #1335, Condition 2, 2/21/06	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.

Wastewater Treatment Sources

This subsection of the permit covers wastewater treatment emission units that either have additional applicable requirements or additional monitoring, recordkeeping, and reporting requirements (MRRR), beyond those listed in the Facility-Wide Emission Limitations portion of the permit. Not all significant emission units are listed in the permit, only those with additional requirements are listed. The specific emission units covered in this section of the permit are given in Table 5.

The following requirements are included in this section:

Condition II.F.1: WW-1: The scrubber approved under NOC #681 shall be maintained in proper working condition and operated whenever emissions from the wastewater treatment plant could occur. [NOC #681, Condition 1, 2/28/96 – STATE/LOCAL ONLY]

MRRR: KAW is required to follow the operation and maintenance plan for the scrubber approved under NOC #681. At a minimum, the plan shall incorporate manufacturer recommended operation and maintenance procedures. Changes to the plan shall be approved by SRCAA prior to implementing such changes. Maintenance records shall be kept to verify that the scrubber is being properly maintained. A computerized preventative maintenance system that regularly schedules and tracks maintenance activities may be used to meet the recordkeeping requirement. [NOC #681, Conditions 1, 2, & 3, 2/28/96]

Condition II.F.2: WW-1: The liquid scrubbing medium supplied to the scrubber approved under NOC #681 shall be clean sanitary water. [NOC #681, Condition 4, 2/28/96 – STATE/LOCAL ONLY]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.F.3: WW-1: A copy of NOC #681 and the approval letter shall be kept on file at the facility. [NOC #681, Condition 6, 2/28/96 – STATE/LOCAL ONLY]

- MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.
- Condition II.F.4: WW-1: The scrubber approved under NOC #881 shall be maintained in proper working condition and operated whenever emissions from the wastewater treatment plant could occur. [NOC #881, Condition 2, 5/8/98 – STATE/LOCAL ONLY]
- MRRR: KAW is required to follow the operation and maintenance plan for the scrubber approved under NOC #881. At a minimum, the plan shall incorporate manufacturer recommended operation and maintenance procedures. Changes to the plan shall be approved by SRCAA prior to implementing such changes. Maintenance records shall be kept to verify that the scrubber is being properly maintained. A computerized preventative maintenance system that regularly schedules and tracks maintenance activities may be used to meet the recordkeeping requirement. [NOC #881, Conditions 2, 4, & 5, 5/8/98]
- Condition II.F.5: WW-1: The pH setpoint for the scrubber, approved under NOC #881, shall be maintained at 7.5 or higher and the average daily pH of the scrubbing medium shall not fall below 7.5 (24-hour block average) when the scrubber is operating. SRCAA may approve an alternate pH limit, using the criteria specified in Condition 3 of the approval for NOC #881. [NOC #881, Condition 3, 5/8/98 – STATE/LOCAL ONLY]
- MRRR: Records of the average daily pH (24-hour block average) of the scrubbing medium for the scrubber approved under NOC #881 shall be kept. If the pH falls below 7.5 when the scrubber is operating, corrective action shall be taken as soon as possible, but no later than three days from discovery, to bring the pH above 7.5. [WAC 173-401-615(1) & (2), 9/16/02] – this is a gapfilling MRRR
- Condition II.F.6: WW-1: The liquid scrubbing medium for the scrubber approved under NOC #881 shall be water with sodium hydroxide and sodium hypochlorite added to enhance pH and emissions control. [NOC #881, Condition 6, 5/8/98 – STATE/LOCAL ONLY]
- MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.
- Condition II.F.7: WW-1: Prior to connecting additional processes to the scrubber approved under NOC #881, SRCAA shall be consulted to determine if a NOC is required. If required, a NOC shall be submitted to and approved by SRCAA prior to the connection. [NOC #881, Condition 8, 5/8/98 – STATE/LOCAL ONLY]
- MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.
- Condition II.F.8: WW-1: A copy of NOC #881 and the approval letter shall be kept on file at the facility. [NOC #881, Condition 9, 5/8/98 – STATE/LOCAL ONLY]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

The Notices of Construction approved for the scrubber (i.e., NOC #881) contains conditions that either are one-time requirements that have been fulfilled or were included for informational purposes only. These conditions are listed below and are not included in KAW's operating permit.

CITATION	DESCRIPTION	REASON NOT INCLUDED IN THE PERMIT
NOC #881, Condition 1, 5/8/98	Notification of start-up	This is a one-time condition that has been met.
NOC #881, Condition 7, 5/8/98	Emissions from the dry scrubber shall be reported annually to SRCAA on forms provided by SRCAA.	This is included in NOC approvals for informational purposes only.
NOC #881, Condition 10, 5/8/98	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.

Heat Treat Ovens Sources

This subsection of the permit covers heat treat ovens emission units that either have additional applicable requirements or additional monitoring, recordkeeping, and reporting requirements (MRRR), beyond those listed in the Facility-Wide Emission Limitations portion of the permit. The specific emission units covered in this section of the permit are given in Table 6.

The following requirements are included in this section:

Condition II.G.1: A copy of the NOCs #1322, #1334, and #1366 applications and orders of approval shall be kept on-site and made available to SRCAA personnel upon request. [NOC #1322, Condition 3, 2/8/06, as revised on 8/9/16] [NOC #1334, Condition 1, 2/21/06 as revised on 10/30/09] [NOC #1366, Condition 3, 10/27/06, as revised on 5/9/12]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.G.2: HHT-1, HHT-2, & HHT-3: The heat treat ovens shall be maintained in good operating condition. [NOC #1322, Condition 4, 2/8/06, as revised on 8/9/16] [NOC #1334, Condition 2, 2/21/06 as revised on 10/30/09] [NOC #1366, Condition 4, 10/27/06, as revised on 5/9/12]

MRRR: KAW is required to follow the most recently approved Horizontal Heat Treat Furnaces Operation and Maintenance (O&M) Plan.

[NOC #1322, Condition 4 & 10 a., 2/8/06, as revised on 8/9/16] [NOC #1334, Condition 2 & 8 a., 2/21/06 as revised on 10/30/09] [NOC #1366, Condition 4 & 10 a., 10/27/06, as revised on 5/9/12]

Condition II.G.3:HHT-1, HHT-2, & HHT-3: At high fire, NOx emissions from each oven shall not exceed 192 ppmv @ 3% O₂. [NOC #1322, Condition 5, 2/8/06, as revised on 8/9/16] [NOC #1334, Condition 3, 2/21/06 as revised on 10/30/09] [NOC #1366, Condition 5, 10/27/06, as revised on 5/9/12]

MRRR: KAW is required to perform a combustion test on each heat treat oven at maximum fire using a combustion analyzer or other SRCAA approved test method to measure NOx and CO emissions. A report documenting the results of each combustion test shall be submitted to SRCAA within 30 days of each test. [NOC #1322, Conditions 5 & 10 b., 2/8/06, as revised on 8/9/16] [NOC #1334, Conditions 3 & 8 b., 2/21/06 as revised on 10/30/09] [NOC #1366, Conditions 5 & 10 b., 10/27/06, as revised on 5/9/12]

Condition II.G.4:HHT-1, HHT-2, & HHT-3: At high fire, CO emissions from each oven shall not exceed 50 ppmv @ 3% O₂. [NOC #1322, Condition 5, 2/8/06, as revised on 8/9/16] [NOC #1334, Condition 3, 2/21/06 as revised on 10/30/09] [NOC #1366, Condition 5, 10/27/06, as revised on 5/9/12]

MRRR: The monitoring is the same as for Condition II.G.3. KAW is required to perform a combustion test to measure NOx and CO emissions from each heat treat oven at high fire. [NOC #1322, Conditions 5 & 10 b., 2/8/06, as revised on 8/9/16] [NOC #1334, Conditions 3 & 8 b., 2/21/06 as revised on 10/30/09] [NOC #1366, Conditions 5 & 10 b., 10/27/06, as revised on 5/9/12]

Condition II.G.5:HHT-1, HHT-2, & HHT-3: Each heat treat oven exhaust stack shall have a minimum height of 50 feet above ground level and shall exhaust vertically. No elbows, tees, or stack caps that impede the vertical flow of exhaust shall be installed at the end of the stack. [NOC #1322, Condition 6, 2/8/06, as revised on 8/9/16] [NOC #1334, Condition 4, 2/21/06 as revised on 10/30/09] [NOC #1366, Condition 6, 10/27/06, as revised on 5/9/12]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.G.6:HHT-1, HHT-2, & HHT-3: Visible emissions from each heat treat oven exhaust stack shall not exceed 10%. [NOC #1322, Condition 7, 2/8/06, as revised on 8/9/16] [NOC #1334, Condition 5, 2/21/06 as revised on 10/30/09] [NOC #1366, Condition 7, 10/27/06, as revised on 5/9/12]

MRRR: If the heat treat ovens are kept in proper working order, the opacity should not exceed 10%. KAW is required to follow the most recently approved Horizontal Heat Treat Furnaces Operation and Maintenance (O&M) Plan.

KAW is also required to perform weekly inspections during daylight hours while the facility is in operation for the purpose of identifying visible emissions of the emission units at the facility. If visible emissions are identified, corrective action must be taken. Inspections are only required weekly because there is not a lot of variability in the operation of the heat treat ovens and because they are natural gas fired, so particulate emissions should be low. [WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16] [NOC #1322, Condition 4 & 10 a., 2/8/06, as revised on 8/9/16] [NOC #1334, Condition 2 & 8 a., 2/21/06 as revised on 10/30/09] [NOC #1366, Condition 4 & 10 a., 10/27/06, as revised on 5/9/12]

Condition II.G.7:HHT-1, HHT-2, & HHT-3: SRCAA approval must be obtained before any fuel other than natural gas is burned in any heat treat oven. [NOC #1322, Condition 8, 2/8/06, as revised on 8/9/16] [NOC #1334, Condition 6, 2/21/06 as revised on 10/30/09] [NOC #1366, Condition 8, 10/27/06, as revised on 5/9/12]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.G.8: HHT-1: No more than 70 million standard cubic feet (scf) of natural gas (equivalent to 71,400 MMBtu) shall be burned in HHT-1 during any consecutive 12 month period. [NOC #1322, Condition 9, 2/8/06, as revised on 8/9/16]

MRRR: KAW is required to total and record the amount of natural gas burned in HHT-1 during the previous month by no later than the 25th of the following month. If the amount of natural gas burned in HHT-1 during any month exceeds 5.8 million scf, the amount of natural gas burned in HHT-1 during the last consecutive twelve month period shall be totaled and recorded. All fuel usage records shall be kept for 5 years and made available to SRCAA personnel upon request. [NOC #1322, Condition 9 & 10 c., 2/8/06, as revised on 8/9/16]

Condition II.G.9:HHT-2 & HHT-3: No more than 127.5 million standard cubic feet (scf) of natural gas (equivalent to 130,000 MMBtu) shall be burned in HHT-2 or HHT-3 during any consecutive 12 month period. [NOC #1334, Condition 7, 2/21/06 as revised on 10/30/09] [NOC #1366, Condition 9, 2/21/06, as revised on 5/9/12]

MRRR: The required monitoring is the same as for Condition II.G.8. KAW is required to record the amount of natural gas burned in each heat treat oven during the previous month by no later than the 25th of the following month. If the amount of natural gas burned in HHT-2 during any month exceeds 10.6 million scf, the amount of natural gas burned in that oven during the last consecutive twelve month period shall be totaled and recorded. [NOC #1334, Condition 7 & 8 c., 2/21/06 as revised on 11/16/07 and 10/30/09] [NOC #1366, Condition 9 & 10 c., 10/27/06, as revised on 5/9/12]

The Notices of Construction approved for the heat treat ovens contain conditions that are one-time requirements that have been fulfilled. These conditions are listed below and are not included in KAW's operating permit.

CITATION	DESCRIPTION	REASON NOT INCLUDED IN THE PERMIT
NOC #1322, Condition 1, 2/8/06, as revised on 8/9/16	Notification of start-up of HHT-1 after modifications	This is a one-time requirement that has been met
NOC #1322, Condition 2, 2/8/06, as revised on 8/9/16	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.
NOC #1322, Condition 5.a., 2/8/06, as revised on 8/9/16	Initial combustion testing requirement	Initial combustion testing has been completed. This is a one-time requirement that has been met.
NOC #1366, Condition 1, 10/27/06, as revised on 5/9/12	Notification of start-up of HHT-3 after modifications	This is a one-time requirement that has been met
NOC #1366, Condition 2, 10/27/06, as revised on 5/9/12	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.
NOC #1366, Condition 5.a., 10/27/06, as revised on 5/9/12	Initial combustion testing requirement	Initial combustion testing has been completed. This is a one-time requirement that has been met.

Gasoline Dispensing Facility Sources

This subsection of the permit covers the gasoline dispensing facility emission units that either have additional applicable requirements or additional monitoring, recordkeeping, and reporting requirements (MRRR), beyond those listed in the Facility-Wide Emission Limitations portion of the permit. Not all significant emission units are listed in the permit, only those with additional requirements are listed. The specific emission units covered in this section of the permit are given in Table 7.

The following requirements are included in this section:

Condition II.H.1: Kaiser shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

- a. Minimize gasoline spills;
- b. Clean up spills as expeditiously as practicable;
- c. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; and
- d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

[40 CFR §63.11116(a), 1/10/08] [WAC 173-400-075, 5/21/16]

MRRR: The monitoring in the federal gas station regulation (40 CFR 63, Subpart CCCCCC) requires that records shall be made available within 24 hours of a request by SRCAA or EPA to document the monthly gasoline throughput at the facility. [40 CFR §63.11116(b), 1/10/08] [WAC 173-400-075, 5/31/16]

Alutek Sources

This subsection of the permit covers emission units at Alutek, a support facility to KAW, located at 3401 N. Tschirley, Spokane, WA, that either have additional applicable requirements or additional monitoring, recordkeeping, and reporting requirements (MRRR), beyond those listed in the Facility-Wide Emission Limitations portion of the permit. The specific emission units covered in this section of the permit are given in Table 8.

The following requirements are included in this section:

Condition II.I.1: A copy of the NOC #1316 application and order of approval shall be kept on-site and made available to SRCAA personnel upon request. [NOC #1316, Condition 3, 11/7/05]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.I.2: The dust collector associated with the plate sander shall be maintained in good operating condition. [NOC #1316, Condition 4, 11/7/05]

MRRR: KAW is required to develop an operation and maintenance (O&M) plan which provides a description of how the dust control system associated with the plate sander will be operated to minimize air emissions. Manufacturers' instructions may be referenced. The most recent O&M plan developed must be kept on site and made available to SRCAA personnel upon request. The O&M plan shall at a minimum include:

- i. Acceptable pressure drop range across the dust collector, as measured by the magnehelic pressure gauge;
- ii. Description of procedures that KAW will implement to prevent particulate matter from becoming airborne in the load-out area due to overfilling, disposal of collected particulate, etc.;
- iii. Description of required maintenance for the system, and the frequency of maintenance for the system;
- iv. Description of corrective actions to be taken in case of system failure or operation outside of normal operating parameters.

The dust collector shall be maintained and operated according to the O&M plan.

Records shall be kept of all inspection, monitoring, and maintenance activities performed on the dust collector. Records shall also be kept of times and dates of cartridge filter failures and change outs.

[NOC #1316, Condition 4 & 9, 11/7/05]

Condition II.I.3: Particulate matter spilled or deposited in the load-out area of the dust collector associated with the plate sander shall be immediately removed. The deposition of particulate matter onto the property of others or beyond the property line is prohibited. [NOC #1316, Condition 5, 11/7/05]

MRRR: KAW must perform weekly inspections of the facility during daylight hours to ensure that the load-out area of the dust collector is kept clean and must record and investigate complaints received regarding particulate matter depositing onto the property of others or beyond the property line.

If violations of the requirement are observed during the weekly inspections and/or as part of the complaint investigation, KAW must take timely and appropriate corrective action. KAW must maintain records of each inspection and complaint investigation. Records must include the date and time of the inspection, observations made, the date and time of any complaints received, the date and time of the complaint investigation, the results of complaint investigations, and a description of any corrective action taken.

[WAC 173-401-615(1) &(2), 9/16/02] NOTE: This is a gapfilling MRRR.

Condition II.I.4: Visible emissions from the dust collector associated with the plate sander shall not exceed 5%. [NOC #1316, Condition 6, 11/7/05]

MRRR: If the dust collector is kept in proper working order, the opacity should not exceed 5%. KAW is required to follow an O&M plan for the baghouse, as described in detail in the MRRR for Condition II.I.2.

KAW is also required to perform weekly inspections during daylight hours while the facility is in operation for the purpose of identifying visible emissions of the emission units at the facility. If visible emissions are identified, corrective actions must be taken. Inspections are only required weekly because the sander and baghouse do not operate continuously.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16] [NOC #1316, Condition 4 & 9, 11/7/05]

Condition II.I.5: Particulate emissions from the dust collector exhaust associated with the plate sander (including noncondensable particulate) shall not exceed 0.01 grains per dry standard cubic foot of exhaust stack flow. Testing for this limit may be required by SRCAA at any time, including, but not limited to, occasions when the opacity limit, specified in Condition II.I.4, is exceeded. [NOC #1316, Condition 7, 11/7/05]

MRRR: The monitoring is the same as for Condition II.I.4. KAW is required to follow an O&M plan for the baghouse, as described in detail in the MRRR for Condition II.I.4. The manufacturer guaranteed particulate emission rate for the baghouse is below 0.01 gr/dscf. Therefore, provided that the baghouse is kept in proper working order (which

should be accomplished by following the O&M plan), the particulate emissions should remain below 0.01 gr/dscf.

In addition, because of the general correlation between particulate matter emissions and visible emissions (i.e., visible emissions are an indicator of particulate matter), KAW is required to perform weekly inspections during daylight hours while the facility is in operation for the purpose of identifying potential PM standard violations (as indicated by visible emissions) of the emission units at the facility. The baghouse has not been source tested for particulate in the past, so there is not an established relationship between particulate emissions and opacity for the units. However, the “no visible emissions” (a.k.a., “smoke / no smoke”) concept is acceptable monitoring for the particulate emission standard because SRCAA is of the opinion that something will be visible before a compliance problem exists. If visible emissions are observed, KAW is required to take corrective actions.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 5/31/16] [WAC 173-400-060, 5/31/16] [WAC 173-400-105(4), 5/31/16] [NOC #1316, Condition 4 & 9, 11/7/05]

Condition II.I.6: The dust collector stack shall have a minimum height of 30 feet above the ground and shall exhaust vertically. No elbows, tees, or stack caps that impede the vertical flow of exhaust shall be installed at the end of the stack. [NOC #1316, Condition 8, 11/7/05]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

Condition II.I.7: Damaged and/or used filters and/or cartridges from the dust collector associated with the plate sander must be disposed of in a manner that will not contribute to an increase of particulate emissions (i.e., fugitive emissions). [NOC #1316, Condition 10, 11/7/05]

MRRR: KAW is required to follow the O&M manual for the baghouse, which includes a description of procedures that will be implemented to prevent particulate matter from becoming airborne in the load-out area due to disposal of collected particulate, etc.

[NOC #1316, Condition 4 & 9, 11/7/05]

Condition II.I.8: SRCAA shall be notified of any applicable upset conditions, breakdowns, or failures associated with the dust collectors or bin loading system. The notification shall occur within 24 hours of the occurrence and in accordance with WAC 173-400-107 and SRCAA Regulation I, Section 6.08. [NOC #1316, Condition 11, 11/7/05]

MRRR: No monitoring is required. As with all permit terms, KAW must certify compliance with this condition annually, which includes making a reasonable inquiry to determine if this requirement was met during the reporting period.

The Notice of Construction approved for the plate sander at Alutek contains conditions that are one-time requirements that have been fulfilled. These conditions are listed below and are not included in KAW's operating permit.

CITATION	DESCRIPTION	REASON NOT INCLUDED IN THE PERMIT
NOC #1316, Condition 1, 11/7/05	Notification of start-up of baghouse	This is a one-time requirement that has been met
NOC #1316, Condition 2, 11/7/05	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.

PERMIT SHIELD FINDINGS

This final section of the permit lists regulations for which the facility has requested, and SRCAA proposes to grant, a permit shield per WAC 173-401-640(2). The findings on which this shield is based are given below. These findings are summarized in the permit.

Requirements For Which a Shield Will Be Granted

1PS. Registration - [SRCAA Regulation I, Section 4.01 & 4.02, 2/1/07 - STATE/LOCAL ONLY]

Findings: SRCAA Regulation I, Article IV requires that certain air contaminant sources register with SRCAA. The registration requirement is established pursuant to RCW 70.94.151. State law, RCW 70.94.161(17), exempts air operating permit sources from registration programs established pursuant to RCW 70.94.151. Because KAW is an air operating permit source, the rule does not apply.

2PS. Registration – [WAC 173-400-100, 5/31/16]

Findings: This rule requires certain air contaminant sources to register with the appropriate air pollution control authority. This registration requirement, while no longer a part of the state regulation, is in the State Implementation Plan and is still a federal requirement. The registration requirement is established pursuant to RCW 70.94.151. State law, RCW 70.94.161(17), exempts air operating permit sources from registration programs established pursuant to RCW 70.94.151. Because KAW is an air operating permit source, the rule does not apply.

3PS. Standards for Control of Particulate Matter on Paved Surfaces: Emission Reduction and Control Plans and Sweeping Requirements - [SRCAA Regulation I, Section 6.14.C & 6.14.D, 5/3/07]

Findings: SRCAA Regulation I, Sections 6.14.C and 6.14D establish requirements for governmental entities relating to the control of particulate matter on paved surfaces, including a requirement to develop and implement plans to reduce emissions and to clean priority roadways of sanding material. Because these sections apply only to governmental entities

(and their contractors involved in cleaning roadways) and the permittee is neither a governmental entity nor their contractor involved in cleaning roadways, this rule does not apply.

4PS. Primary Aluminum Plants - [Chapter 173-415 WAC, 8/23/05]

Findings: Chapter 173-415 WAC establishes requirements for primary aluminum plants. Primary aluminum plants are facilities at which aluminum metal is produced from aluminum oxide. At this facility, aluminum metal is not produced from aluminum oxide, so this regulation does not apply.

5PS. Solid Waste Incinerators - [Chapter 173-434 WAC, 12/22/03]

Findings: Chapter 173-434 WAC establishes requirements for solid waste incinerators. There are no solid waste incinerators at this facility, so this regulation does not apply.

6PS. VOC Controls in Ozone Nonattainment Areas – [Chapter 173-490 WAC, 2/2/98]

Findings: Chapter 173-490 WAC establishes VOC control requirements for sources located in ozone nonattainment areas. This facility is not in an ozone nonattainment area, so this regulation does not apply.

7PS. Inapplicable Requirements for 10 Melters, designated as RM-M1, RM-M2E, RM-M2W, RM-M3, RM-M4, RM-M5, RM-M6, RM-M7, RM-M8E, & RM-M8W, all of the holder bypass stacks, designated as RM-H0 through RM-H8 bypass stacks; and the DC-0 melter bypass stack, designated as RM-M0 bypass stack.

- a. Visible Emissions from 10 Melters, all Holder bypass stacks, and DC-0 melter bypass stack - [WAC 173-400-040(2), 5/31/16] [SRCAA Regulation I, Section 6.02, 3/4/04 – STATE/LOCAL ONLY]

Findings: WAC 173-400-040(2) & SRCAA Regulation I, Section 6.02 establish 20% visible emissions standards that apply to all emission units or emission points unless otherwise exempted. WAC 173-400-040(2)(d) and SRCAA Regulation I, Section 6.02 allow approval of an alternate opacity limit, under certain circumstances. An alternate opacity limit has been established for 10 of the melters (designated as RM-M1, RM-M2E, RM-M2W, RM-M3, RM-M4, RM-M5, RM-M6, RM-M7, RM-M8E, & RM-M8W); all of the holder bypass stacks (designated as RM-H0 through RM-H8 bypass stacks); and the DC-0 melter bypass stack (designated as RM-M0 bypass stack), so the 20% opacity standards in WAC 173-400-040(2) and SRCAA Regulation I, Section 6.02 do not apply to these emission units.

- b. Monthly Reporting Requirements for 10 Melters and 8 Holders - [SRCAA (formerly SCAPCA) Order #91-01, Condition 8, 12/12/91]

Findings: SRCAA (formerly SCAPCA) Order #91-01 requires monthly reporting for 10 melters (designated as RM-M1, RM-M2E, RM-M2W, RM-M3, RM-M4, RM-M5, RM-M6, RM-M7, RM-M8E, & RM-M8W in this permit) and 8 holders (designated as RM-H1 through

RM-H8 in this permit), but states that the monthly reporting requirements terminate when the facility commences reporting permit deviations under the terms of an air operating permit issued to the facility. The permittee will begin reporting permit deviations under this permit, thereby terminating the monthly reporting requirement in Order #91-01, so this requirement no longer applies. NOTE: Other monthly reporting requirements have been established in NOC approvals and other SRCAA orders. These reporting requirements continue to apply and are included in this permit.

- c. EPA Consent Decree for 10 Melters and 8 Holders - [Consent Decree approved by the US District Court, Eastern District of Washington, No. CS-95-0468-JLQ, Filed 1-17-96]

Findings: A Consent Decree was filed with the US District Court on January 17, 1996. The consent decree established requirements for the 10 melters (designated as RM-M1, RM-M2E, RM-M2W, RM-M3, RM-M4, RM-M5, RM-M6, RM-M7, RM-M8E, & RM-M8W in this permit) and 8 holders (designated as RM-H1 through RM-H8 in this permit). The terms of the Consent Decree remained in effect until three conditions were fulfilled by the permittee. After the three conditions were met and the permittee certified to the Court and EPA that the conditions were met, the Consent Decree terminated and no longer applies to the facility.

8PS. Inapplicable Requirements for the Boilers, Designated as UT-1 Through UT-3 of This Permit.

- a. Standards of Performance for Fossil-Fuel Fired Steam Generators - [40 CFR Part 60, Subpart D, 2014]

Findings: 40 CFR Part 60, Subpart D establishes standards for fossil-fuel fired steam generators. This rule applies to units with heat input rates of greater than 250 MMBTU per hour. The three boilers at the facility, designated as UT-1 through UT-3 in this permit, have heat input ratings of less than 100 MMBTU per hour (60 MMBtu/hr), so this rule does not apply.

- b. Standards of Performance for Electric Utility Steam Generating Units - [40 CFR Part 60, Subpart Da, 2014]

Findings: 40 CFR Part 60, Subpart Da establishes standards for electric utility steam generating units. The three boilers at the facility, designated as UT-1 through UT-3 in this permit, are not electric utility steam generating units, as defined in this subpart, so this rule does not apply.

- c. Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units - [40 CFR Part 60, Subpart Db, 2014]

Findings: 40 CFR Part 60, Subpart Db establishes standards for industrial, commercial, and institutional steam generating units. This rule applies to units with heat input rates of greater than 100 MMBTU per hour. The three boilers at the facility, designated as UT-1 through UT-3 in this permit, have heat input ratings of less than 100 MMBTU per hour (60 MMBtu/hr), so this rule does not apply.

- d. Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units - [40 CFR Part 60, Subpart Dc, 2012]

Findings: 40 CFR Part 60, Subpart Dc establishes standards for small industrial, commercial, and institutional steam generating units. This rule applies to units with heat input rates of 10 MMBTU per hour or greater but less than or equal to 100 MMBTU per hour for which construction, reconstruction or modification commenced after June 9, 1989. The three boilers at the facility, designated as UT-1 through UT-3 in this permit, were installed prior to June 9, 1989 and have not been reconstructed or modified since June 9, 1989, so this rule does not apply.

- e. Continuous Monitoring and Recording - [WAC 173-400-105(5)(a), 5/31/16]

Findings: WAC 173-400-105(5) establishes continuous monitoring and recording requirements for specific categories of sources. One of the categories is fossil-fuel fired steam generators. However, within this category, there are no monitoring and recording requirements for units with heat input ratings of less than 250 MMBTU per hour. The three boilers at the facility, designated as UT-1 through UT-3 in this permit, have heat input ratings of less than 100 MMBTU per hour, so this rule does not apply.

9PS. Inapplicable Requirements for the Inert Annealing Furnaces, Designated as CM-1 in This Permit.

- a. Order to Comply with SRCAA Regulation I, Section 6.02 and Article V – [SRCAA (formerly SCAPCA) Order 93-04, 5/23/94]

Findings: SRCAA (formerly SCAPCA) issued an Order to Comply with SRCAA Regulation I, Section 6.02 on 5/23/94 for the inert annealing furnaces at KAW (designated as CM-1 in this permit). The terms of the Order remained in effect until three actions were fulfilled by KAW. The three actions have been met, so SRCAA (formerly SCAPCA) Order 93-04 no longer applies to the facility.

Requirements For Which a Shield Will Not Be Granted

Fugitive Emissions – [WAC 173-400-040(4), 5/31/16]

Findings: SRCAA will not grant a shield from WAC 173-400-040(4) because WAC 173-400-040(4)(a) applies to sources of fugitive VOC emissions at the facility (i.e., fugitive emissions from storage tanks, etc.).

Visibility Impairment – [WAC 173-400-151, 1/10/05 (3/22/91)]

Findings: This rule gives Ecology the authority to identify and analyze sources that may be reasonably anticipated to cause or contribute to impairment of visibility in any Class I area in Washington. To SRCAA's knowledge, Ecology has not identified or analyzed KAW as a possible contributor to visibility impairment. However, it is not appropriate to provide a shield from this type of requirement. In the future Ecology may identify KAW as a possible

contributor to visibility issues in Class I areas. A shield will not be granted for this requirement.

Emission Standards and Controls for Sources Emitting Gasoline Vapors - [Chapter 173-491 WAC, 12/23/97]

Findings: Chapter 173-491 WAC establishes requirements for sources that emit gasoline vapors, including gasoline loading terminals, bulk gasoline terminals, and gasoline dispensing facilities. There are size thresholds for each category. This site has a gasoline dispensing facility. Gasoline dispensing facilities are subject to the rule if more than 360,000 gallons of gasoline are dispensed per year or if new gasoline tanks are installed after August 2, 1991 that have a total capacity (i.e., sum of all tanks) greater than 10,000 gallons. Because the tanks at KAW are older than August 2, 1991 this regulation does not apply based on the tank size criteria. However, while KAW's annual gasoline throughput is not over 360,000 gallons at this point, there is nothing preventing them from exceeding 360,000 gallons per year in the future. For this reason, a shield from this requirement is not appropriate.

PREPARED BY: _____
April L. Westby

DATE: _____

This Statement of Basis and the Operating Permit to which it applies have been reviewed by:

_____, P.E.
Joe Southwell, P.E.

DATE: _____

Julie Oliver, Executive Director

DATE: _____