

**STATEMENT OF BASIS FOR  
KAISER ALUMINUM FABRICATED PRODUCTS, LLC  
CHAPTER 401 AIR OPERATING PERMIT  
AOP-11 RENEWAL #1**

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## LIST OF ABBREVIATIONS

BACT	Best available control technology
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
MMBTU	Millions of British thermal units
MRRR	Monitoring, recordkeeping, & reporting requirements
NAA	Nonattainment area
NOC	Notice of Construction
NOx	Oxides of nitrogen
O <sub>2</sub>	Oxygen
O&M	Operation & maintenance
Pb	Lead
PM	Particulate matter
PM-10	Particulate matter, 10 microns or less in size
PSD	Prevention of Significant Deterioration
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 called SCAPCA)
scf	Standard cubic foot
SO <sub>2</sub>	Sulfur dioxide
SO <sub>x</sub>	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.

Administrator	The administrator of the United States Environmental Protection Agency or her/his designee [WAC 173-401-200(12), 10/4/93]
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), 10/4/93]
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(22), 9/13/96]
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(23), 9/13/96]
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(13), 10/4/93]
Opacity	The degree to which an object seen through a plume is obscured, stated as a percentage [WAC 173-400-030(51), 9/13/96]
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 FABRICATED PRODUCTS,  
LLC  
CHAPTER 401 AIR OPERATING PERMIT  
AOP-11 RENEWAL #1**

Kaiser Aluminum Fabricated Products (KAFP) (formerly known as Kaiser Aluminum & Chemical Corporation) & Chemical Corporation (KACC) is a secondary aluminum facility located in the Spokane Valley at 15000 E. Euclid Avenue. KAFP 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<sub>x</sub>), particulate matter (PM<sub>10</sub>), carbon monoxide (CO), and volatile organic compounds (VOC) above the major source threshold of 100 tons per year. PM<sub>10</sub>, NO<sub>x</sub>, CO, chlorine, and hydrogen chloride 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). KAFP 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, KAFP 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 KAFP.

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**

KAFP is an aluminum sheet and plate rolling mill. Hot metal from prime aluminum (e.g., ingot, sow, etc...) is combined with recycled and purchased scrap and cast into ingots in the remelt area. The Remelt Area consists of 2 Induction Furnaces and 8 Furnace Complexes. The 2 Induction Furnaces melt chips from the scalpers and some scrap aluminum received from outside sources. Once melted in the 2 Induction Furnaces, the aluminum is transferred into one of the 8 Furnace Complexes.

Each Furnace Complex is composed of either 1 or 2 Melting Furnaces (Melters) and a Holding Furnace (Holder). 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 mixture of chlorine/nitrogen 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, such as the SNIF (Spinning Nozzle Inert Floatation) filters, to remove any residual impurities and cast into ingots.

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 to Aleris International for purification. The entire skim processing unit is hooded and ducted to a baghouse.

Natural gas fired burners are used to supply heat to the furnaces for the ingot casting process. All furnaces are vented to the atmosphere. The 2 Induction furnaces are controlled by a baghouse. The emissions from the Melter Furnaces are released uncontrolled to the atmosphere through stacks on the roof, while the Holder Furnaces and some of the SNIF units are ducted into one duct and routed to the dry scrubbing baghouse for control.

Reagent (a mixture of sodium carbonate and sodium bicarbonate) is injected into the duct 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 a baghouse. Each Holder Furnace stack may be used to by-pass the baghouse, as allowed in accordance with NOC #660.

The ingots produced from the Furnace Complexes are then transferred to the Scalpers. The Scalpers are used to scalp a smooth surface on the aluminum ingots. The #4 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. Metal milling operations generally produce larger (>PM<sub>10</sub>) particles. 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. The #2 Scalper is used in much the same way, but on a more limited basis for smaller ingots.

Scrap from the scalpers is dried (to remove water) in a natural gas fired furnace and then melted in the 2 Induction Furnaces. 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, or in the gas fired Pusher Furnace (newer technology).

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 (diameter 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 or plate is coiled prior to further processing.

The Hot Line Mills employ water-based emulsion lubricants. 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.

Depending on the alloy, aluminum coils are annealed after both hot and cold rolling in electric batch Annealing Furnaces or heat treated in horizontal heat treat ovens. The annealing process relieves strain hardening induced by the rolling process. 12 of the Annealing Furnaces are controlled by 2 Electrostatic Precipitators. The horizontal heat treat ovens are used to treat the aluminum plate to give the required metallurgical properties for various alloys.

There are three Conventional Cold Mills. The Conventional Mills use a neat oil lubricant (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.

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 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 are have a diesel fired back-up emergency generator to run the ovens if there is a power outage.

Once the aluminum products have been heat treated, they are transported to Alutek, which is located at 3401 N. Tschirley, for further processing. 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. Alutek is considered a “support facility” to KAFP (see discussion under “Alutek” emission units) and therefore is included under the Air Operating Permit for the 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. 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 phosphate pits, then clarifiers, pumped to a settling lagoon, and discharged into the Spokane River.

Water from domestic uses at the plant is pumped to the domestic sewage treatment facility for tertiary treatment. The water is screened, clarified, filtered through a trickling filter, chlorinated, and discharged into the river. 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.

KAFP operated a coil coating line at the facility from the early 1990’s until May 2002. The coil coating line has been sold and removed from KAFP.

## **PERMITTING HISTORY**

SRCAA has issued the following Notice of Construction (NOC) approval orders and regulatory orders to KAFP:

- An NOC was approved (April, 1974) for the construction of two induction melting furnaces.
- 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 #86 was approved (June, 1984) for the construction of four inertial separators for the 80" hot mill.
- NOC #188 was approved (March, 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.

- NOC #239 was approved (November 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.
- 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, 1993) for the conversion of four of the soaking pits to natural gas.
- NOC #660 was approved (September, 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.
- 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, 1995) for the pusher furnaces at the facility; this NOC was applied for as part of Kaiser's operating permit application.
- NOC #676 was approved (July, 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 sodium scavenging additives with trade name ProMag) in the melter furnaces. NOC #676 was later revised 6/26/01 to add HCl/Cl<sub>2</sub> BACT emission limits. NOC #676 was later revised for an alternate cleaning schedule.
- NOC #681 was approved (February, 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; this NOC was applied for as part of Kaiser's operating permit application.
- 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, 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 (May, 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 (May, 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 limit and to allow an increase in daily allowable emissions from the dry scrubbing baghouse system.
- Order 96-06 was issued (May, 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, 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/Cl<sub>2</sub> BACT emission limits.
- NOC #881 was approved (May, 1998) for the installation of a new scrubber in the wastewater treatment building.
- 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 5.46 mbtu/hr for a total of 6.55 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 5.46 mbtu/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.
- NOC #1335 was approved 2/21/06 for a 1490 bhp back-up generator set.
- 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 5.46 mbtu/hr for a total of 13.1 mmbtu/hr.

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

- 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.

## **COMPLIANCE HISTORY**

SRCAA has performed a compliance inspection at KAFP at least once every year since 1996. During the past ten years (from 1997-2007), SRCAA has issued 17 Notices of Violation to KAFP.

Fifteen of the NOV's were issued for exceedances of the 60-minute average 24% opacity limit that applies to each melter at KAFP. One NOV was issued for an exceedance of the 20% opacity limit for the electrostatic precipitator that controls emissions from the annealing furnaces. One NOV was issued for failure to monitor the coil coater afterburner temperature and the coil coater room negative pressure, as required in NOC #216. The coil coating equipment has been removed from the facility.

## **EMISSION UNITS**

All emission units and activities at KAFP, which are done in support of this function, are part of the major source, which throughout this document is referred to as "KAFP". Emission units at KAFP can be broken into seven main categories: remelt area sources, hot rolling mill sources, annealing treating sources, boilers, wastewater treatment sources, heat treat ovens, and Alutek sources. A section on each of these categories follows. At the end of this section, the insignificant emission units at KAFP are discussed and listed.

### **Remelt Area Sources**

The Remelt Area consists of 8 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). 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). Then, the charge is transferred

to the Holding Furnace.

Once the charge is transferred to the Holding Furnace, it is fluxed with a mixture of chlorine/nitrogen 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, such as the SNIF (Spinning Nozzle Inert Floatation) filters, to remove any residual impurities and cast into ingots.

The emissions from the Melting Furnaces are released uncontrolled to the atmosphere through stacks on the roof, while the Holding Furnaces and some of the SNIF units are ducted into a common duct and routed to the dry scrubbing baghouse for control. Each Holding Furnace has a separate stack, which may be used under special circumstances to by-pass the baghouse.

Reagent (a mixture of sodium carbonate and sodium bicarbonate) is injected into the common duct prior to the baghouse to react with the HCl formed during the fluxing process. The reaction results in the formation of salt (NaCl) which is then collected in the baghouse, along with unreacted reagent.

Impurities removed by fluxing (skim) are skimmed from the Holders. The skim from both Melters and Holders is transferred to a skim hopper and 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 to IMS for purification. The entire skim processing unit is hooded and ducted to a baghouse. A skim storage building is also used to store skim on an intermittent basis.

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 8 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.

KAFP is subject to the requirements of 40 CFR Part 63, Subpart RRR, "National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production." Since KAFP 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**

Description	Kaiser ID Number Used in Permit Application	Fuels Used	Air Pollution Control Equipment
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DC1 Melter, 40 MMBTU/hr – no NOC issued	RM-M1	Natural Gas	None - Operational practices are used to minimize emissions
DC2E Melter, 40 MMBTU/hr – NOC #683 issued for modification	RM-M2E	Natural Gas	None - Operational practices are used to minimize emissions
DC2W Melter, 40 MMBTU/hr – NOC #683 issued for modification	RM-M2W	Natural Gas	None - Operational practices are used to minimize emissions
DC3 Melter, 40 MMBTU/hr – no NOC issued	RM-M3	Natural Gas	None - Operational practices are used to minimize emissions
DC4 Melter, 40 MMBTU/hr – no NOC issued	RM-M4	Natural Gas	None - Operational practices are used to minimize emissions
DC5 Melter, 40 MMBTU/hr – no NOC issued	RM-M5	Natural Gas	None - Operational practices are used to minimize emissions
DC6 Melter, 40 MMBTU/hr – no NOC issued	RM-M6	Natural Gas	None - Operational practices are used to minimize emissions
DC7 Melter, 40 MMBTU/hr – no NOC issued	RM-M7	Natural Gas	None - Operational practices are used to minimize emissions
DC8E Melter, 40 MMBTU/hr – NOC #676 issued for modification	RM-M8E	Natural Gas	None - Operational practices are used to minimize emissions
DC8W Melter, 40 MMBTU/hr – NOC #676 issued for modification	RM-M8W	Natural Gas	None - Operational practices are used to minimize emissions
DC1 through DC8 Holder Furnaces and Vented SNIF Units (SNIF Units also known as “In-line fluxers”), each holder rated at 15 MMBTU/hr (NOC #676 – DC8 Holder) (NOC #683 – DC2 Holder)	RM-H1 through RM-H8 (holders) and RM-ILF (vented SNIF units)	Natural Gas	Dry Scrubbing Baghouse System RM(HBGHS)-1 – NOC #660 issued for baghouse system
Induction Furnaces (2) – (SRCAA (formerly SCAPCA) NOC [unnumbered] 4/74)	RM-21	Electric	Baghouse (1 controlling both furnaces)
Skim Cooler – NOC #239	RM-20	None	Baghouse

Secondary Aluminum Processing Unit (SAPU)	RM-SAPU, which includes RM-M1 through RM-8W and RM-21.	As noted above for each unit	As noted above for each unit
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The dry scrubbing baghouse that controls emissions from the 8 holders at KAFP 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). Per KAFP, the pre-controlled PM10 emissions from the holders are 94.6 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 KAFP.

The induction furnace baghouse that controls emissions from the two induction furnaces at KAFP 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 KAFP, the pre-controlled (prior to the baghouse) PM emissions from the induction furnaces are 131.2 tons/year (see file for calculations), which is above the major source threshold of 100 tons/year. In addition, the induction furnaces employ an add-on air pollution control device (baghouse), and the induction furnaces are subject to several emissions limits for particulate.

The baghouse that controls emissions from the skim cooler at KAFP 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 KAFP, the pre-controlled (prior to the baghouse) PM emissions from the skim cooler is 403 tons/year (see file for calculations), which is above the major source threshold of 100 tons/year. In addition, the skim cooler employs an add-on air pollution control device (baghouse), and the skim cooler is subject to several emissions limits for particulate.

### **Hot Rolling Mill Sources**

The Hot Line is used in the initial rolling process. Before the ingots are rolled, ingot scalpers are used to scalp a smooth surface. The #4 scalper removes approximately 0.25" of the ingot surface. Ventilation air and aluminum chips generated by the scalper are conveyed to a pair of cyclones. The exhaust air then passes to a second set of cyclones. High pressure atomized water is injected near the entrance to each cyclone to wet the particles and increase removal efficiency.

Ingots must be heated for homogenization purposes (to relieve stresses from the casting process) and to provide them at the proper temperature for the hot rolling process. Ingots are heated in either electric or gas-fired soaking pits, or in the natural gas fired pusher furnace.

The Hot Line includes three mills: a 132" mill, a 112" mill, and an 80" mill. The 132" mill and 112" mill are not directly vented (i.e., they do not have exhaust stacks). The ingot is passed through the

various mills multiple times until the desired thickness is achieved 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 or plate is coiled prior to further processing.

The Hot Line Mills employ water-based emulsion lubricants. The 80" Hot Mill is hooded and ventilation air is drawn 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**

Description	Kaiser ID Number Used in Permit Application	Fuels Used	Air Pollution Control Equipment
# 4 Scalper – NOC #188	HL-6	None	Wet Cyclone
Ingot Soaking Pits (4) (Gas Fired) – NOC #443	HL-5	Natural Gas	None
Pusher Furnace – NOC #674	HL-4	Natural Gas	None
132" Hot Rolling Mill	HL-3	None	None
112" Hot Rolling Mill	HL-2	None	None
80" Hot Rolling Mill – NOC #86	HL-1	None	Inertial Separators (2)

The wet cyclone that controls emissions from the #4 scalper at KAFP 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 KAFP, the pre-controlled (prior to the wet cyclone) PM emissions from the skim cooler 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 KAFP 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

KAFP, 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 KAFP.

**Annealing and Heat Treating Sources**

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. Emissions from twelve of the Annealing Furnaces are controlled by two Electrostatic Precipitators. 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.

Significant emission units, identified in the permit application from the annealing and heat treating sources, 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. Insignificant emission units from the annealing sources are identified at the end of this section.

**Table 3 – Annealing Significant Emission Units**

Emission Unit Description	Kaiser ID Number Used in Permit Application	Air Pollution Control Equipment
Inert Annealing Furnaces (Nos. 19 through 22 & 25 through 32) - NOC #69	CM-1	Electrostatic Precipitators (2 units)

The electrostatic precipitators (ESPs) that control emissions from the inert annealing furnaces at KAFP are not subject to the requirements given in 40 CFR Part 64, “Compliance Assurance Monitoring” (CAM) because the pre-controlled emissions entering the ESPs 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 (and 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 KAFP, the pre-controlled PM emissions from the inert annealing furnaces are ~ 83 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 annealing furnace ESPs at KAFP.

**Boiler Sources**

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 as backup fuels.

Significant emission units, identified in the permit application from the boiler 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 – Boilers Significant Emission Units**

Emission Unit Description	Kaiser ID Number Used in Permit Application	Fuels Used
Boiler #1 (40,000 pounds of steam per hour = 60 MMBtu/hr)	UT-1	Natural Gas, Diesel, & Used Oil
Boiler #2 (40,000 pounds of steam per hour = 60 MMBtu/hr)	UT-2	Natural Gas, Diesel, & Used Oil
Boiler #3 (40,000 pounds of steam per hour = 60 MMBtu/hr)	UT-3	Natural Gas, Diesel, & Used Oil

**Wastewater Treatment Sources**

Used coolant from the hot line mills is pumped to the industrial wastewater treatment facility. The coolant is heated and the water separated. The oil in the coolant is recovered and is stored in tanks. Water from the separation process is pumped to process pits, then clarifiers, pumped to a settling lagoon, and discharged into the Spokane River under NPDES permit #WA0000892.

Water from domestic uses at the plant is pumped to the domestic sewage treatment facility for tertiary treatment. The water is screened, clarified, filtered through a trickling filter, chlorinated, and discharged into the river. 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	Air Pollution Control Equipment
Wastewater Treatment Plant	WW-1	Scrubbers – NOC #681 and #881

The scrubbers that control VOC emissions from the wastewater treatment plant at KAFP 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 KAFP.

**Heat Treat Oven Sources**

Aluminum plate 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 if there is a power outage.

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**

Description	Kaiser ID Number Used in Permit Application	Air Pollution Control Equipment
Otto Junker Natural Gas Fired 2-Plate Horizontal Heat Treat Oven with 12 Recuperative Burners (total heat input = 6.55 MMBtu/hr) – NOC #1322	HHT-1	None
Otto Junker Natural Gas Fired 4-Plate Horizontal Heat Treat Oven with 48 Recuperative Burners (total heat input = 26.2 MMBtu/hr) – NOC #1334	HHT-2	None
Otto Junker Natural Gas Fired 4-Plate Horizontal Heat Treat Oven with 24 Recuperative Burners (total heat input = 13.1 MMBtu/hr) – NOC #1366	HHT-3	None
Cummins 1000DFHD Diesel Back-up Generator Set (1490 bhp) – NOC #1335	HHT-4	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 KAFP 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 KAFP, 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 7 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 7 – 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 KAFP, 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 8. 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 8 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 8 (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 8 – Insignificant Emission Units**

Emission Unit Description	Kaiser ID Number Used in Permit Application	Basis / Justification for IEU Designation
<b>REMELT AREA</b>		
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)
Mobile Equipment	RM-107	WAC 173-401-532(10)
<b>HOT LINE AREA</b>		
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)

Emission Unit Description	Kaiser ID Number Used in Permit Application	Basis / Justification for IEU Designation
Clad Station	HL-108	WAC 173-401-530(1)(a)
<b>COLD MILL AREA</b>		
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)
<b>CENTRAL SHOPS AREA</b>		
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)
<b>UTILITIES AREA / BOILERS</b>		
Oil House Tank Farm	UT-102	WAC 173-401-532(3)
Admin. Bldg. Boiler	UT-103	WAC 173-401-533(e)
Oil House	UT-104	WAC 173-401-532(3) & (4)
<b>SOUTH AREA</b>		
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)
<b>WASTEWATER AREA</b>		
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 <sup>6</sup> gal/day

Emission Unit Description	Kaiser ID Number Used in Permit Application	Basis / Justification for IEU Designation
<b>MISCELLANEOUS SOURCES</b>		
Maintenance Parts Washers	MISC-2	WAC 173-401-530(1)(a) and WAC 173-401-532(75)
<b>ALUTEK SOURCES</b>		
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 KAFP'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.

### **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.

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]
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]
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), 10/4/93]
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]
5. Permit Actions - This term discusses modification, revocation, reopening, and/or reissuance of the permit for cause. If KAFP 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]
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]
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]
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]
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]
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]

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]

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]

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]

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]

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]

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]

### **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.

17. 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), 10/4/93]

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]

18. 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]

### **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.

19. 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]

20. 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, 8/20/93] [WAC 173-401-615(3)(b), 9/16/02]

21. 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, 1/13/99 - STATE/LOCAL ONLY]

### **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.

22. 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]

23. Monitoring System Malfunctions. The permittee may be temporarily exempted from monitoring and reporting requirements, required under the provisions of Chapter 173-400 WAC during periods of monitoring system malfunctions, provided the permittee can demonstrate that the malfunction was unavoidable and repaired as expeditiously as practicable.

Each condition in Section II.I – MONITORING, RECORDKEEPING, & REPORTING REQUIREMENTS to which this condition applies shall clearly indicate that this monitoring system malfunction provision applies. [WAC 173-400-105(5)(h), 8/25/02(8/20/93)]

24. 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]

25. 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 24-Records of Required Monitoring Information and 28-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 29, 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]

26. 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]

27. 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]

28. 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]

29. 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 25-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]

30. 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. [WAC 173-401-615(3)(b), 9/16/02]

31. 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), 1/10/05(8/20/93)]

32. 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]

33. 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]

34. Rendering Device or Method Inaccurate. KAFP 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), 1/10/05(8/20/93)]

### **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.

35. Compliance Certification Submittals. This term covers the frequency for submitting compliance certifications. [WAC 173-401-630(5)(a), 10/4/93]

36. Compliance Certification Contents. This term describes what must be included in each compliance certification. [WAC 173-401-630(5)(c), 10/4/93] [40 CFR §63.1516(c), 12/30/02] [WAC 173-400-075(5), 5/8/07]

37. Submittal to EPA. This term requires that certifications be sent to EPA as well as SRCAA. [WAC 173-401-630(5)(d), 10/4/93]

### **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.

38. False Information. KAFP 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(7), 1/10/05]

39. Falsification of Statements. This term prohibits willfully making false statements to SRCAA in any matter within SRCAA's jurisdiction. [SRCAA Regulation I, 2.08.A, 8/3/06 - STATE/LOCAL ONLY]

40. 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, 8/3/06 - STATE/LOCAL ONLY]

41. 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, 8/3/06 - STATE/LOCAL ONLY]

42. 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]

### **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.

43. 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. [WAC 173-400-110, -112, -113, 8/15/01 – STATE/LOCAL ONLY] . [WAC 173-400-110, -112, -113, 8/20/93] [Chapter 173-460 WAC, 7/21/98 - STATE/LOCAL ONLY] [SRCAA Regulation I, Article V, 12/7/06 - STATE/LOCAL ONLY]

44. 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, 8/15/01 - STATE/LOCAL ONLY] [SRCAA Regulation I, Article V, 12/7/06 - STATE/LOCAL ONLY]

45. Demolition and Renovation (Asbestos). The permittee shall comply with applicable local, state, and federal requirements regarding demolition and renovation. [40 CFR 61 Subpart M, 2001] [WAC 173-400-075, 5/8/07] [SRCAA Regulation I, Article IX, 2/5/98 - STATE/LOCAL ONLY]

46. 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), 8/20/93] [WAC 173-400-105(4), 8/15/01]

[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]

47. 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]

48. 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, 1999]

49. 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, KAFP 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 KAFP, this section contains the following subsections:

FACILITY-WIDE EMISSION LIMITATIONS;  
RE MELT AREA EMISSION LIMITATIONS  
HOT ROLLING MILL AREA EMISSION LIMITATIONS  
ANNEALING FURNACE EMISSION LIMITATIONS  
BOILERS EMISSION LIMITATIONS  
WASTEWATER TREATMENT EMISSION LIMITATIONS  
HEAT TREAT OVENS 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. KAFP is required to certify compliance with the facility-wide emission limitations for insignificant emission units (see Condition 32).

The following requirements are included in this section.

Condition 50: 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, 8/20/93] [WAC 173-400-040, 1/10/05 – STATE/LOCAL ONLY]

MRRR: No monitoring is required. As with all permit terms, KAFP 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 51: Visible emissions shall not exceed 20%, as specified in WAC 173-400-040 Visible emissions, ≤ 20%. [WAC 173-400-040(1), 173-400-040(1)(a), & 173-400-040(1)(b), 1/10/05 (8/20/93)]

MRRR: KAFP 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;
- Inert Annealing Furnaces Electrostatic Precipitators, CM-1;
- Boilers #1, #2, & #3, UT-1, UT-2, & UT-3;
- Heat Treat Ovens, HHT-1, HHT-2, & HHT-3;
- Diesel Engine associated with the heat treat ovens emergency generator set; and
- Dust Collector associated with the plate sander at Alutek.

The list of emission points that KAFP 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, skim cooler, induction furnaces, and #4 scalper. KAFP 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 skim cooler and induction furnaces are subject to more stringent opacity standards (10%), so compliance with the more stringent opacity limits will assure compliance with the 20% opacity limit. 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 28- 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 30-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 28- 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.

KAFP 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, KAFP 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 KAFP 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 51) and SRCAA Regulation I, Section 6.02 (Condition 52), and a 0.01 gr/dscf grain loading limit given in a Notice of Construction approval (Condition 105).

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. KAFP 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. KAFP 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 28- 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 30-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 24- Records of Required Monitoring Information and Condition 28-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 24- Records of Required Monitoring Information and Condition 28-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 51 & 52), and the particulate emissions, as determined by EPA Method 5, do not exceed any applicable particulate standards (i.e., standard given in Condition 105), no further corrective action

is required.

If a violation of any applicable opacity standard (i.e., standards given in Conditions 51 & 52) is documented), and/or a violation of any applicable particulate standard (i.e., standard given in Condition 105), 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 24- Records of Required Monitoring Information and Condition 28-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives.

KAFP 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 29. 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, KAFP 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 28- 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, KAFP is required to perform a check to verify that the

programmable logic controller (PLC) for the #4 scalper is programmed in accordance with Condition 106. 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, with a hardcopy of the PLC logic attached. Records shall be kept in accordance with Condition 28-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 106, 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 30-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 24- Records of Required Monitoring Information and Condition 28-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives. KAFP 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 29. 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), 1/10/05 (2/19/91)] [WAC 173-400-060, (2/19/91)] [WAC 173-400-060, 1/10/05 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 1/10/05 – STATE/LOCAL ONLY] [40 CFR Part 64, 7/1/01]

Condition 52: 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, 9/1/05 - STATE/LOCAL ONLY]

It should be noted that the 20% opacity limits in WAC 173-400-040(1) and SRCAA Regulation I, Section 6.02 (Conditions 51 & 52) do not apply to the melters and holders regulated under SRCAA (formerly SCAPCA) Order #91-01. For these units, the opacity limits in Conditions 71-73 supersede this opacity requirement as allowed under WAC 173-400-040(1)(d) and SRCAA Regulation I, Section 6.02.A.4. [SRCAA (formerly SCAPCA) Order #91-01, Condition 9, 12/12/91]

MRRR: The same monitoring is required as for Visible Emissions, WAC 173-400-040, in Condition 51.

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. The monitoring is the same as for Condition 51.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 1/10/05 (2/19/91)] [WAC 173-400-060, (2/19/91)] [WAC 173-400-060, 1/10/05 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 1/10/05 – STATE/LOCAL ONLY] [40 CFR Part 64, 7/1/01]

Condition 53: 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), 1/10/05 - STATE/LOCAL ONLY] [SRCAA Regulation I, Section 6.05.A, 3/4/04(11/12/93)]

MRRR: KAFP 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 KAFP 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, KAFP must take timely and appropriate corrective action. Taking corrective action does not relieve KAFP from the obligation to comply with the underlying emission limitation, nor does it relieve KAFP from reporting any permit deviations as required in Condition 30-Prompt Reporting of Deviations.

KAFP 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 24-Records of Required Monitoring Information. Records must be kept in accordance with Condition 28-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 54: Reasonable precautions must be taken to:

3. Prevent PM from becoming airborne when constructing, altering, repairing, or demolishing buildings, appurtenances, and roads;
4. Prevent tracking of PM onto paved roadways open to the public;
5. Prevent the release of air contaminants, as specific in WAC 173-400-040(3)(a), if located in an attainment area and not impacting a NAA;
6. 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(11/12/93)] [SRCAA Regulation I, 6.05.D, 3/4/04(11/12/93)] [WAC 173-400-040(3)(a), 1/10/05(11/12/93)] [SRCAA Regulation I, Section 6.05.B, 3/4/04(11/12/93)] [WAC 173-400-040(8)(a), 1/10/05(8/20/93)]

MRRR: The same monitoring is required as for WAC 173-400-040(2) – Fallout, see Condition 53, above. KAFP 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 55: 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(4), 1/10/05 – STATE / LOCAL ONLY]

MRRR: The monitoring is the same as required for WAC 173-400-040(2) - Fallout, see Condition 53 above. KAFP 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 56: Effective control apparatus and measures must be used to reduce odor-bearing gases and particulate matter to a reasonable minimum. – STATE / LOCAL ONLY [SRCAA Regulation I, Section 6.04, 3/4/04- STATE/LOCAL ONLY]

MRRR: The monitoring is the same as required for WAC 173-400-040(2) - Fallout, see Condition 53 above. KAFP 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 57: 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(5), 1/10/05(8/20/93)] [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 53 above. KAFP 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 58: 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, KAFP 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 59: 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), 8/15/01(2/19/91)]

MRRR: The combustion emission units that are subject to this requirement include the pusher furnace, the ingot soaking pits, the annealing furnaces, and the boilers at KAFP. 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 71 will assure compliance with the 0.1 gr/dscf emission limit. The induction furnaces are also subject to this requirement and are 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 induction furnaces is given after the discussion of the monitoring for the other emissions units.

For the pusher furnace, ingot soaking pits, annealing furnaces, and boilers at KAFP, 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. KAFP 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 KAFP 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.

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.

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 30-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 28- 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.

#### Compliance Assurance Monitoring for Induction Furnaces

The required monitoring was established for the purposes of Compliance Assurance Monitoring (CAM) for the induction furnaces, 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 induction furnaces (both vent to a common baghouse, so they are considered one PSEU) 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 induction furnaces, KAFP has estimated the pre-controlled PTE of particulate matter to be 131.2 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 induction furnaces is estimated to be 15 tons per year, based on the estimate given in the KAFP AOP renewal application. Therefore, the induction furnaces are 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 induction furnaces, the particulate emissions of the PSEU are controlled by a common baghouse. It is not possible for the induction furnaces to bypass the baghouse. 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 induction furnaces, the PSEU is subject to a grain loading particulate limit of 0.1 gr/dscf given in Chapter 173-400 WAC (Condition 59), a 10% visible emissions limit given in a Voluntary Emission Limit Order of Approval (Condition 91), and a daily emission limit of 83 pounds / day PM10 given in a Voluntary Emission Limit Order of Approval (Condition 90).

The proposed CAM has been designed to rely on two performance indicators: induction furnace baghouse opacity monitoring and induction furnace baghouse pressure drop monitoring. Each of these is discussed in detail below:

a) Induction Furnace Baghouse Visible Emissions

Visible emissions (opacity) was selected as one of the performance indicators because it is indicative of good operation and maintenance of the baghouse. There is no established relationship between visible emissions and particulate emissions from the induction furnace baghouse because the baghouse has not been tested for particulate. However, opacity is an appropriate performance indicator for the grain loading limit because it is indicative of good operation and maintenance of the baghouse. When the baghouse is operating optimally, there should be minimal visible emissions from the exhaust. In general, an increase in visible emissions indicates reduced performance of the baghouse (e.g., loose or torn bags).

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. KAFP will be required to perform weekly inspections during daylight hours, while one or both of the induction furnaces are operating, for the purpose of monitoring the baghouse exhaust for the presence of visible emissions. A weekly frequency was selected because the induction furnaces do not run continuously and because visible emissions is only one of two performance indicators used to ensure the particulate and opacity limits are met. KAFP 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 28- 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 induction furnace baghouse, no corrective action is required. If visible emissions are observed, the following actions shall be taken:

If visible emissions are observed from the induction furnace baghouse, 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 30-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 24- Records of Required Monitoring Information and Condition 28-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 induction furnace baghouse. 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 24- Records of Required Monitoring Information and Condition 28-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., standard given in Condition 91), and the particulate emissions, as determined by EPA Method 5, do not exceed any applicable particulate standards (i.e., standards given in Conditions 59 and 90), no further corrective action is required.

If a violation of any applicable opacity standard (i.e., standard given in Condition 91) is documented), and/or a violation of any applicable particulate standard (i.e., standards given in Conditions 59 and 90), 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 24- Records of Required Monitoring Information and Condition 28-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives.

KAFP must report all induction furnace baghouse opacity excursions and opacity and/or particulate matter exceedances to SRCAA as part of the semiannual monitoring report, described in Condition 29. 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) Induction Furnace Baghouse Pressure Drop:

Baghouse pressure drop was selected as one of the performance indicators because it provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop may indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are becoming blinded, or the airflow has increased. A decrease in pressure drop may indicate broken or loose bags; this may also be indicated by the presence of visible emissions, which was the first indicator discussed. A pressure drop across the baghouse also serves to indicate that there is airflow through the control device. There is no established relationship between baghouse pressure drop and particulate emissions from the skim cooler baghouse because the baghouse has not been source tested for particulate. However, KAFP has proposed to keep the baghouse pressure drop in the manufacturer recommended range because when the baghouse is operating properly, there should not be any visible emissions from the exhaust.

KAFP is required to monitor the pressure drop across the induction furnace baghouse continuously with a differential pressure gauge whenever one or both of the induction furnaces are in operation. At least once every day that one or both of the induction furnaces is operated, the instantaneous pressure drop across the baghouse must be recorded. Daily pressure drop records shall be kept in accordance with Condition 24-

Records of Required Monitoring Information and Condition 28-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives. The baghouse pressure gauge must be calibrated annually, in accordance with the manufacturer recommended procedures. Records of each calibration shall be kept in accordance with Condition 24- Records of Required Monitoring Information and Condition 28-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives.

The indicator range chosen for the induction furnace baghouse pressure drop is 1 to 8 inches of water. This range is based on manufacturer recommendations and on KAFP observations of the normal operational pressure drop values. If the pressure drop is outside of this acceptable range, 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., pressure drop brought within acceptable range) 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 30-Prompt Reporting of Deviations. Records shall be kept of the date, time, duration, and magnitude of all pressure drop 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 24- Records of Required Monitoring Information and Condition 28-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives. KAFP is required to report all pressure drop excursions to SRCAA as part of the semiannual monitoring report, described in Condition 29. The report shall include the date, time, duration, and magnitude of all pressure drop excursions that occurred during the reporting period.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 1/10/05 (2/19/91)] [WAC 173-400-060, (2/19/91)] [WAC 173-400-060, 1/10/05 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 1/10/05 – STATE/LOCAL ONLY] [40 CFR Part 64, 7/1/01]

Condition 60: 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, 2/19/91] [WAC 173-400-060, 1/10/05 – STATE/LOCAL ONLY]

MRRR: The same monitoring is required as for Condition 59. 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 KAFP 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), 1/10/05 (2/19/91)] [WAC 173-400-060, (2/19/91)] [WAC 173-400-060, 1/10/05 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 1/10/05 – STATE/LOCAL ONLY]  
NOTE: This is a gapfilling MRRR.

- Condition 61: SO<sub>2</sub> 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(6), 1/10/05(8/20/93)]
- MRRR: Because SO<sub>2</sub> emissions at KAFP would only occur from combustion units, monitoring for this requirement consists of using only allowed fuels. The permit requires KAFP 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 SO<sub>2</sub> 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 62: 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(2/19/91)]
- MRRR: No monitoring is required. As with all permit terms, KAFP 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 63: No dispersion techniques shall be used to meet ambient air quality standards or PSD increments except as allowed under WAC 173-400-200. [WAC 173-400-200, 2/19/91]
- MRRR: No monitoring is required. As with all permit terms, KAFP 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 64: 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, KAFP 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 65: 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, 3/4/04 - STATE/LOCAL ONLY]

- MRRR: No monitoring is required. As with all permit terms, KAFP 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 66: 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, KAFP 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 67: The permittee shall comply with the requirements of 40 CFR Part 68, Chemical Accident Prevention Provisions. [40 CFR Part 68, 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 68, 2006). As with all permit terms, KAFP 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 68: 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 KAFP 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 69: 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 68. KAFP 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]

### **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 on Page 8-9. 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 70: RM-M1 through RM-M8W and RM-H1 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 practice. [SRCAA (formerly SCAPCA) Order #91-01, Condition 2, 12/12/91]
- MRRR: KAFP is required to develop and follow an operation and maintenance plan for the remelt area, as required in Condition 1 of SRCAA (formerly SCAPCA) Order #91-01, Condition 3 of NOC #683, Condition 3 of NOC #676, Condition 11 of NOC #660, Condition D of SRCAA (formerly SCAPCA) Order #96-05, Condition C of Order #96-06, and Condition B of Order #96-04.
- a. At a minimum, the plan shall address the following:
- i. for all melters and holders, procedures for startup and upset conditions (including failure of opacity monitors) [SRCAA (formerly SCAPCA) Order #91-01, Condition 1, 12/12/91];
  - ii. for all melters and holders, timely access for SRCAA (formerly SCAPCA) compliance personnel [SRCAA (formerly SCAPCA) Order #91-01, Condition 1, 12/12/91];
  - iii. for all melters and holders, segregation of scrap material [SRCAA (formerly SCAPCA) Order #91-01, Condition 1, 12/12/91];
  - iv. for all melters and holders, procedures for calculation of Operating Hours [SRCAA (formerly SCAPCA) Order #91-01, Condition 1, 12/12/91];
  - v. procedures for molten metal charging by truck and for skimming as detailed in Appendices C & D of the January 16, 1996 CONSENT DECREE AND FINAL JUDGMENT BETWEEN THE UNITED STATE AND KAISER ALUMINUM & CHEMICAL CORPORATION or as otherwise approved by SRCAA; [NOC #683, Condition 3, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 3, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01];
  - vi. for the melters and holders of DC2 and DC8, RM(M)-2E, RM(M)-2W, RM(H)-2, RM(M)-8E, RM(M)-8W, RM(H)-8, routine maintenance activities required to keep the melters and holders in proper operating condition with regard to minimizing emissions, including manufacturer recommended operation and maintenance procedures for the burners [NOC #683, Condition 3, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 3, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01];
  - vii. for the melters and holders of DC2 and DC8, RM(M)-2E, RM(M)-2W, RM(H)-2, RM(M)-8E, RM(M)-8W, RM(H)-8, a description of recordkeeping activities including those records being kept, method(s) of recordkeeping, and length of time that records are kept [NOC #683, Condition 3, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 3, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01,

and 11/27/01];

viii. for the holder dry scrubbing/baghouse system, routine maintenance activities required to keep the control system in proper operating condition including manufacturer recommended operation and maintenance procedures [NOC #660, Condition 11, 9/29/95 as revised on 10/25/99 and 11/7/00– STATE/LOCAL ONLY] [SRCAA (formerly SCAPCA) Order #96-05, Condition D, 4/24/96 as revised on 5/8/96 and 10/4/00];

ix. for the holder dry scrubbing/baghouse system, a quality assurance/quality control plan for the continuous opacity monitor system [NOC #660, Condition 11, 9/29/95 as revised on 10/25/99 and 11/7/00– STATE/LOCAL ONLY];

x. for the holder dry scrubbing baghouse system, a description of recordkeeping activities including those records being kept, method(s) of recordkeeping, and length of time that records are kept [NOC #660, Condition 11, 9/29/95 as revised on 10/25/99 and 11/7/00– STATE/LOCAL ONLY] [SRCAA (formerly SCAPCA) Order #96-05, Condition D, 4/24/96 as revised on 5/8/96 and 10/4/00] ;

xi. for the induction furnace baghouse, routine maintenance activities, required to keep the control system in proper operating condition, including manufacturer recommended operation and maintenance procedures [SRCAA (formerly SCAPCA) Order #96-06, Condition C, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00];

xii. for the induction furnace baghouse, a description of recordkeeping activities, including those records being kept, method(s) of recordkeeping, and length of time that records are kept [SRCAA (formerly SCAPCA) Order #96-06, Condition C, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00];

xiii. for the skim cooler baghouse, routine maintenance activities, required to keep the control system in proper operating condition, including manufacturer recommended operation and maintenance procedures [SRCAA (formerly SCAPCA) Order #96-04, Condition B, 4/24/96 as revised on 5/8/96]; and

xiv. for the skim cooler, procedures to be followed when the equipment fails, requiring that the uncooled skim be handled in accordance with Condition 111 of this permit [WAC 173-401-615(1) & (2), 9/16/02]; and

xv. for the skim cooler baghouse, a description of recordkeeping activities, including those records being kept, method(s) of recordkeeping, and length of time that records are kept [SRCAA (formerly SCAPCA) Order #96-04, Condition B, 4/24/96 as revised on 5/8/96].

b. Maintenance records shall be kept for equipment necessary for minimizing or otherwise reducing emissions from the melters, holders, induction furnace baghouse, and skim cooler baghouse. Compliance with this requirement may be achieved by implementing a computerized preventative maintenance system that regularly schedules and tracks maintenance activities. [NOC #683, Condition 12, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 12, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01] [NOC #660, Condition 11, 9/29/95 as revised on 10/25/99 and 11/7/00– STATE/LOCAL ONLY] [SRCAA (formerly SCAPCA) Order #96-05, Condition D, 4/24/96 as revised on 5/8/96 and 10/4/00] [SRCAA (formerly SCAPCA) Order #96-06, Condition D, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00] [SRCAA (formerly SCAPCA) Order #96-04, Condition C, 4/24/96 as revised on 5/8/96];

c. The plan must be updated every two years and be subject to review and approval by the Control Officer. Updates shall include any measures adopted pursuant to Condition 8(e)(iii) of SRCAA (formerly SCAPCA) Order #91-01 (actions planned to prevent recurrences of opacity exceedances). [SRCAA (formerly SCAPCA) Order #91-01, Condition 1, 12/12/91]

d. Required records shall be kept for a minimum of five years, and include information required in Condition 24- Records of Required Monitoring Information. Records shall be kept in accordance with Condition 28- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives. [NOC #683, Condition 12, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 12, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01] [NOC #660, Condition 11 & 12, 9/29/95 as revised on 10/25/99 and 11/7/00- STATE/LOCAL ONLY] [SRCAA (formerly SCAPCA) Order #96-05, Condition D & E, 4/24/96 as revised on 5/8/96 and 10/4/00] [SRCAA (formerly SCAPCA) Order #96-06, Condition C & D, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00] [SRCAA (formerly SCAPCA) Order #96-04, Condition B & C, 4/24/96 as revised on 5/8/96]

Condition 71: 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]

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 (formerly SCAPCA) Order #91-01. For these units, the opacity limits in Conditions 71, 72, & 73 supersede the 20% opacity limits, as allowed under WAC 173-400-040(1)(d) and SRCAA Regulation I, Section 6.02.A.4.

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. Except as provided in Condition 23 – Monitoring System Malfunction, KAFP is required to install and operate COMS to monitor opacity from the melter and holder stacks. Each monitor must meet EPA Performance Specification 1, 40 CFR Part 60, Appendix B. KAFP must implement the quality assurance plan for the COMs approved by SRCAA in accordance with Condition 11 of SRCAA (formerly SCAPCA) Order #91-01. The opacity monitors must be operated in accordance with 40 CFR §60.13 (1995) except that for the holder dry scrubbing system baghouse opacity monitor, 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.

In addition, KAFP 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 25<sup>th</sup> of the next month following the reporting month.

[SRCAA (formerly SCAPCA) Order #91-01, Condition 3 & 11, 12/12/91] [NOC #660, Condition 6 & 13, 9/29/95 as revised on 10/25/99 and 11/7/00 – STATE/LOCAL ONLY] [SRCAA (formerly SCAPCA) Order #96-05, Condition B, 4/24/96 as revised on 5/8/96 and 10/4/00] [SRCAA (formerly SCAPCA) Order #96-03, Condition B, 4/24/96 as revised on 10/4/00]

Condition 72: RM-M1 through RM-M8W and RM-H1 through RM-H8: 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 71

MRRR: The same monitoring is required as for Condition 71. 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. KAFP is required to install and operate COMs to monitor opacity from the melter and holder stacks. In addition, KAFP is required to submit a monthly report to SRCAA that summarizes the results from the COMS monitoring during that month.

[SRCAA (formerly SCAPCA) Order #91-01, Condition 3, 7, & 11 12/12/91] [NOC #660, Condition 6 & 13, 9/29/95 as revised on 10/25/99 and 11/7/00 – STATE/LOCAL ONLY]  
[SRCAA (formerly SCAPCA) Order #96-05, Condition B, 4/24/96 as revised on 5/8/96 and 10/4/00] [SRCAA (formerly SCAPCA) Order #96-03, Condition B, 4/24/96 as revised on 10/4/00]

Condition 73: RM-M1 through RM-M8W and RM-H1 through RM-H8: 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 71

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, KAFP will be 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 KAFP 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 73 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.

The method described in a. will assure that KAFP identifies 30-minute intervals that exceed 40% opacity because there is no mathematical way that KAFP 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%, KAFP is required to examine the 3-minute average opacity averages for that hour to determine whether the 40% opacity limit given in Condition 73 was met during each 30-minute operating interval. In addition, KAFP 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 (formerly SCAPCA) Order #96-05, Condition B, 4/24/96 as revised on 5/8/96 and 10/4/00] [NOC #660, Condition 6 & 13, 9/29/95 as revised on 10/25/99 and 11/7/00 – STATE/LOCAL ONLY] [SRCAA (formerly SCAPCA) Order #96-03, Condition B, 4/24/96 as revised on 10/4/00] [WAC 173-401-615(1) & (2), 9/16/02] – portions of this MRRR are gapfilling

Condition 74: 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*<sup>th</sup> furnace for the *j*<sup>th</sup> four hour block  
 $OP_{ij}$  = highest 60 minute average opacity for the *i*<sup>th</sup> furnace for the *j*<sup>th</sup> four hour block

Equation 2 shall be used to calculate PM emissions in pounds,  $PM_{ij}$ , from the *i*<sup>th</sup> furnace, for the *j*<sup>th</sup> 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 
$$PM = \sum_{i=1}^{10} \sum_{j=1}^{10} PM_{ij}$$

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), KAFP 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.

KAFP 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 25<sup>th</sup> of each month;

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

Condition 75: 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 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]

MRRR: KAFP 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 10.b, 9/29/95 as revised on 10/25/99 and 11/7/00 – STATE/LOCAL ONLY] [NOC #683, Condition 11.b.ii, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 11.b.ii, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01]

Condition 76: RM-M2E, RM-M2W, RM-H2, RM-M8E, RM-M8W, & RM-H8: Only natural gas shall be used as fuel. [NOC #683, Condition 5, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 5, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01]

MRRR: No monitoring is required. The melters and holders currently only have the capability to burn natural gas. As with all permit terms, KAFP 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 77: RM-H2 & RM-H8: HCl & Cl<sub>2</sub> emissions shall be controlled using the dry scrubbing baghouse system and in accordance with Condition 78. Only “Trona,” or another SRCAA approved reagent may be used in the dry scrubbing baghouse system. [NOC #683, Condition 6, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 6, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01]

MRRR: To ensure that HCl and Cl<sub>2</sub> emissions are adequately controlled, KAFP must maintain sufficient reagent availability, which is expressed in terms of the “reagent availability ratio.” To determine the reagent availability ratio, KAFP must calculate the daily amount of unreacted reagent in each cell of the baghouse. In the case where no more than one cell is cleaned on a single day, Equations 1 and 2 shall be used for this calculation, where:

$C(k,i)$  = the amount of unreacted reagent in cell, k, for day, i, in units of pounds of HCl that can be controlled

$R_i$  = the amount of reagent fed into the baghouse system on day, i, in pounds

$X_{hcl}$  = the amount of chlorine that is emitted as HCl. Based on previous testing, a value of 0.48 shall be used. This value may be revised, upon SRCAA’s approval, provided that test data supports the revised factor.

$Ph_{cl}$  = the amount of HCl that can be controlled by the reagent, in units of pounds of HCl per pound of reagent. For Trona, this value is 0.472. For any alternate reagent, a corresponding value of  $Ph_{cl}$  will need to be determined.

$F_i$  = the amount of chlorine flux used for day, i, in pounds

$j$  = the cell that was cleaned at the start of day, i

Equation 1 – If k is not equal to j (i.e., the calculation is being done for a cell that was not cleaned at the start of the day)

$$C(k, i) = C(k, i - 1) + 1/6 * (Phcl * Ri - Xhcl * Fi)$$

Equation 2 – If k is equal to j (i.e., the calculation is being done for the cell that was cleaned at the start of the day):

$$C(k, i) = 1/6 * (Phcl * Ri - Xhcl * Fi)$$

The pressure drop in the dry scrubbing baghouse must be maintained at a minimum of 3 inches of water (i.e., the minimum pressure drop recommended by the manufacturer), or an alternate minimum pressure drop, approved by SRCAA. Before each cell in the baghouse is cleaned, the Rosemount system shall check the pressure drop across the baghouse. If the pressure drop is below 3.5 inches of water, the cell shall not be cleaned. At least semiannually, a check shall be performed to verify that the Rosemount system is programmed so that cell cleaning is not performed if the pressure drop is below 3.5 inches of water. Semiannual checks shall be completed by July 31, for 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 of a written statement from the Casting Department, Environmental Department, or an equivalent department, certifying that the required Rosemount programming is in place. Records shall be kept of each check.

If more than one cell must be cleaned in a day, due to the pressure drop being too high or another operational problem, the cleaning schedule may be revised with SRCAA's approval. Prior to commencing a new cleaning schedule, Equations 1 and 2, used to calculate unreacted reagent, shall be revised to incorporate the new cleaning schedule. SRCAA approval shall be obtained before any new or revised equations are implemented. However, if at any time the pressure drop rises above 9 inches of water, or an alternate maximum pressure drop approved by SRCAA, a cell may be cleaned.

From Equations 1 and 2, the reagent availability ratio, AR<sub>i</sub>, for day i, shall be calculated from Equation 3:

Equation 3:

$$AR_i = \frac{C(1, i) + C(2, i) + C(3, i) + C(4, i) + C(5, i) + C(6, i) + Xhcl * Fi}{Xhcl * Fi}$$

To assure there is adequate unreacted reagent in the baghouse at all times, if the reagent feed system is not running at the time of a scheduled cell cleaning (i.e., there is a breakdown of the feeder), the cell shall not be cleaned.

In order to complete the required calculations, except as provided in Condition 23 – Monitoring System Malfunctions, KAFP is required to monitor flux use and reagent addition and keep the following records in accordance with 40 CFR §63.1517(a)(1) and (a)(2):

- a. a record of the total amount of reagent added for each hour during which the dry

scrubbing baghouse system operated;

- b. a record of the total amount of chlorine used for each hour during which the holder furnaces operated, calculated as the monthly total chlorine usage divided by the total number of hours the holder furnace operated during that month. The monthly total chlorine usage should be calculated based on monthly total Zendox usage and a determination of the pounds of chlorine per unit mass of Zendox.
- c. a record of the reagent feed rate setting for each day during which the dry scrubbing baghouse system operated;
- d. a record of the amount of reagent injected into the dry scrubbing baghouse system for each day of operation;
- e. a record of the amount of chlorine used in the holder furnaces for each day of operation;
- f. a record of the semi-annual check to verify that the Rosemount system is programmed so that baghouse cleaning is not performed if the pressure drop is below 3.5 inches of water;
- g. a record of the calculated reagent availability ratio for each day of operation;
- h. a record of the average hourly flux usage rate in pounds per hour for each month; and
- i. a record of the target reagent feed rate for each month.

[NOC #676, Condition 7, 9, & 10, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01] [NOC #683, Condition 7, 9, & 10, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01]

Condition 78: Sufficient reagent availability shall be maintained in the dry scrubbing baghouse system to ensure a high level of HCl removal. The reagent availability ratio shall be maintained at greater than or equal to 1.1. [NOC #683, Condition 7, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 7, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01]

MRRR: The same monitoring is required as for Condition 77. KAFP must monitor the flux use and reagent addition, calculate the reagent availability ratio daily, and keep records of the parameters that affect the reagent availability ratio. [NOC #676, Condition 7, 9, & 10, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01] [NOC #683, Condition 7 & 9, & 10, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01]

Condition 79: The reagent feed setting shall be maintained at or above the target reagent feed rate, TRF. By the end of the fifth business day of each month, the feed rate must be adjusted, if necessary, to meet this requirement. [NOC #683, Condition 8, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 8, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01]

MRRR: KAFP is required to calculate the target reagent feed rate, TRF, using Equation 4 below, where:

TRF = target reagent feed rate, in pounds per hour

Xhcl = the amount of chlorine that is emitted as HCl. Based on previous testing, a value of 0.48 shall be used. This value may be revised, upon SRCAA's approval, provided that testing data supports the revised factor.

Phcl = the amount of HCl that can be controlled by the reagent, in units of pounds of HCl per pound of reagent. For Trona, this value is 0.472. For any alternate reagent, a corresponding value of Phcl shall be determined.

Favg = the average hourly flux usage rate in pounds per hour, based on the previous calendar month's flux usage

Equation 4:

$$\frac{TRF * Phcl}{Xhcl * Favg} \geq 1.3$$

By the end of the fifth business day (i.e., Monday through Friday, excluding holidays) of each month, Favg shall be calculated for the previous month, and the target feed rate, TRF shall be calculated for the current month.

In order to complete the required calculations, KAFP is required to monitor flux use and reagent addition and keep the records listed in the MRRR associated with Condition 77.

[NOC #676, Condition 8, 9, & 10, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01] [NOC #683, Condition 8, 9, & 10, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01]

Condition 80: RM-M2E, M-M2W, 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 11, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01]  
[NOC #676, Condition 11, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01]

MRRR: The MRRR includes the same as for Condition 75. KAFP 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. In addition, KAFP will be required to prepare an O&M plan for the remelt area, as described in detail in the MRRR for Condition 70. For the melters and holders of DC2 and DC8, RM(M)-2E, RM(M)-2W, RM(H)-2, RM(M)-8E, RM(M)-8W, RM(H)-8, the plan must include procedures for molten metal charging by truck and for skimming as detailed in Appendices C & D of the January 16, 1996 CONSENT DECREE AND FINAL JUDGMENT BETWEEN THE UNITED STATE AND KAISER ALUMINUM & CHEMICAL CORPORATION or as otherwise approved by SRCAA, routine maintenance activities required to keep the melters and holders in proper operating condition with regard to minimizing emissions, including manufacturer recommended operation and maintenance procedures for the burners and a description of recordkeeping activities including those records being kept, method(s) of recordkeeping, and length of time that records are kept

[NOC #683, Condition 3 & 11.b.ii, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 3 & 11.b.ii, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01] [NOC #660, Condition 10.b, 9/29/95 as revised on 10/25/99 and 11/7/00 – STATE/LOCAL ONLY]

- Condition 81: RM-M2E, RM-M2W, RM-H2, RM-M8E, RM-M8W & RM-H8: A copy of NOC #683 and the approval letter and NOC #676 and the approval letter shall be kept on file at the facility. [NOC #676, Condition 13, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01] [NOC #683, Condition 13, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01]
- MRRR: No monitoring is required. As with all permit terms, KAFP 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 82: 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 5/8/96 and 10/4/00]
- MRRR: Source testing conducted in July of 2000 on the holder furnace baghouse showed that grain loading from the holders was less than 0.003 grains per dry standard cubic foot. Average airflow during the test was ~24,000, indicating daily PM emissions of ~15 pounds PM 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). KAFP will be required to prepare an O&M plan for the remelt area, as described in detail in the MRRR for Condition 70. For the holder dry scrubbing/baghouse system, 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 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

KAFP 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, KAFP shall take the following actions:

a. As a means of demonstrating compliance, verify and certify that:

- i. the PM emissions are not the result of equipment malfunction and the equipment, if any, causing the emissions is performing its normal, designed function; and
- ii. the holder baghouse is being operated properly in accordance with the O&M described in Condition 5M.

If a.i. and/or a.ii. are not being met, corrective action must be taken within 1 hour of any 3-minute average reading of 5 percent or more opacity. After corrective action is taken, if required, and if a.i. and a.ii. are being met but visible emissions above 5% (based on a three-minute average) are still observed, KAFP must source test according to b. below to demonstrate compliance.

b. As a means of demonstrating compliance with the PM or grain loading emission limit, perform, or have performed, RM 5 on the holder baghouse. 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 must be submitted to SRCAA as soon as possible, but no later than 45 days after testing. If the standard is exceeded, KAFP

must take appropriate and timely corrective action to address the problem.

Taking corrective action does not relieve KAFP from the obligation of reporting any permit deviations as required in Condition 30-Prompt Reporting of Deviations.

KAFP must maintain records of each verification and certification. Records must include the date and time of the actions, observations made, any verifications made regarding a.i. and/or a.ii., the results of any RM 5 tests, a description of any corrective action taken, and any other information required in permit condition 24-Records of Required Monitoring Information. Records must be kept in accordance with the permit term regarding Retention of Records, and, upon request, such records must be made available for inspection by SRCAA staff or other authorized representatives.

[NOC #660, Condition 11, 9/29/95 as revised on 10/25/99 and 11/7/00– STATE/LOCAL ONLY] [SRCAA (formerly SCAPCA) Order #96-05, Condition B & D, 4/24/96 as revised on 5/8/96 and 10/4/00] [SRCAA (formerly SCAPCA) Order #91-01, Condition 3 & 11, 12/12/91] [WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 8/15/01 (2/19/91)] [WAC 173-400-060, 2/19/91] [WAC 173-400-060, 8/15/01 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 8/15/01 – STATE/LOCAL ONLY] [– portions of this MRRR are gapfilling]

Condition 83: RM-H1 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 5/8/96 and 10/4/00]

MRRR: The required monitoring is the same as for Condition 82. In addition, KAFP is required to keep the following records for a period of at least five years and made available to SRCAA upon request:

- a. Records of daily reagent use in the dry scrubbing baghouse system; and
- b. Records of aggregate daily chlorine use [NOC #660, Condition 4, 9/29/95 as revised on 10/25/99 and 11/7/00 – STATE/LOCAL ONLY]

[NOC #683, Condition 12, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 12, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01] [NOC #660, Condition 3, 4, 11 & 12, 9/29/95 as revised on 10/25/99 and 11/7/00– STATE/LOCAL ONLY] [SRCAA (formerly SCAPCA) Order #96-05, Condition B, D & E, 4/24/96 as revised on 5/8/96 and 10/4/00] [SRCAA (formerly SCAPCA) Order #96-06, Condition C & D, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00] [SRCAA (formerly SCAPCA) Order #96-04, Condition B & C, 4/24/96 as revised on 5/8/96] [SRCAA (formerly SCAPCA) Order #91-01, Condition 3 & 11, 12/12/91]

Condition 84: RM-H1 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: KAFP is required to develop and follow an operation and maintenance plan for the remelt area, as described in the MRRR for Condition 70. In addition, KAFP is required to install and 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.

In addition to the O&M plan and the COM, KAFP only uses natural gas and, on an industry-wide basis, charges relatively clean scrap, so particulate emissions should be minimized. Both of these items (i.e., use of natural gas and clean charge) provide additional assurance that the opacity limit will be met.

[NOC #683, Condition 12, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01]  
[NOC #676, Condition 12, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01] [NOC #660, Condition 11 & 12, 9/29/95 as revised on 10/25/99 and 11/7/00– STATE/LOCAL ONLY] [SRCAA (formerly SCAPCA) Order #96-05, Condition B, D & E, 4/24/96 as revised on 5/8/96 and 10/4/00] [SRCAA (formerly SCAPCA) Order #96-06, Condition C & D, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00] [SRCAA (formerly SCAPCA) Order #96-04, Condition B & C, 4/24/96 as revised on 5/8/96] [SRCAA (formerly SCAPCA) Order #91-01, Condition 3 & 11, 12/12/91]

Condition 85: RM-H1 through RM-H8: Sodium bicarbonate or Trona shall be used as reagent unless otherwise approved by SRCAA. [NOC #660, Condition 2, 9/27/95 as revised on 10/25/99 and 11/7/00 – STATE/LOCAL ONLY]

MRRR: KAFP is required to keep the following records shall be kept for a period of at least five years and made available to SRCAA upon request:

- a. Records of daily reagent use in the dry scrubbing baghouse system [NOC #660, Condition 3, 9/29/95 as revised on 10/25/99 and 11/7/00 – STATE/LOCAL ONLY];  
and
- b. Records of aggregate daily chlorine use [NOC #660, Condition 4, 9/29/95 as revised on 10/25/99 and 11/7/00 – STATE/LOCAL ONLY]

Condition 86: RM-H1 through RM-H8: Prior to using fluxes resulting in the release of air contaminants not previously emitted or that would cause increased emissions, SRCAA shall be notified and, if required, a NOC shall be filed with and approved by SRCAA. [NOC #660, Condition 4, 9/27/95 as revised on 10/25/99 and 11/7/00– STATE/LOCAL ONLY]

MRRR: No monitoring is required. As with all permit terms, KAFP 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 87: RM-H1 through RM-H8: PM emissions from the baghouse shall not exceed 0.015 gr/dscf. [NOC #660, Condition 5, 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 82. 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 2000 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, KAFP will be required to prepare an O&M plan for the remelt area, as described in detail in the MRRR for Condition 70. For the holder dry scrubbing/baghouse system, 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 baghouse, including those records being kept, method(s) of recordkeeping, and length of time that records are kept

KAFP is also required to operate a COM on the holder baghouse stack. The O&M plan must include a quality assurance/quality control plan for the continuous opacity monitor system. 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 baghouse exceeds 5%, as measured by the COMs, based on a three-minute average, KAFP is required to take the actions described in the monitoring associated with Condition 82.

In addition to the O&M plan and the COM, KAFP only uses natural gas and, on an industry-wide basis, charges relatively clean scrap, so particulate emissions should be minimized. Both of these items (i.e., use of natural gas and clean charge) provide additional assurance that the grain loading limit will be met.

[NOC #660, Condition 11, 9/29/95 as revised on 10/25/99 and 11/7/00– STATE/LOCAL ONLY] [SRCAA (formerly SCAPCA) Order #96-05, Condition B & D, 4/24/96 as revised on 5/8/96 and 10/4/00] [SRCAA (formerly SCAPCA) Order #91-01, Condition 3 & 11, 12/12/91] [WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 8/15/01 (2/19/91)] [WAC 173-400-060, 2/19/91] [WAC 173-400-060, 8/15/01 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 8/15/01 – STATE/LOCAL ONLY] – portions of this MRRR are gapfilling

Condition 88: 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: KAFP is required to develop and follow an operation and maintenance plan for the remelt area, as described in the MRRR for Condition 70. In addition, KAFP is required to install and 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.

KAFP is required to file a monthly report to SRCAA that includes a description of any excess emissions documented by the dry scrubbing/baghouse system's continuous opacity monitoring system (COMS) for the previous month, including the range of the emissions in percent opacity, the data and time of the commencement and completion of each period of excess emissions, and the cause of such emission, if determined. If a malfunction is indicated in the report, any corrective actions taken shall also be described. 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.

[NOC #683, Condition 12, 5/29/96 as revised on 10/25/99, 6/26/01, and 11/27/01] [NOC #676, Condition 12, 7/10/96 as revised on 11/26/96, 10/25/99, 6/26/01, and 11/27/01] [NOC #660, Condition 11, 12, & 13, 9/29/95 as revised on 10/25/99 and 11/7/00– STATE/LOCAL ONLY] [SRCAA (formerly SCAPCA) Order #96-05, Condition B, D & E, 4/24/96 as revised on 5/8/96 and 10/4/00] [SRCAA (formerly SCAPCA) Order #96-06, Condition C & D, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00] [SRCAA (formerly SCAPCA) Order #96-04, Condition B & C, 4/24/96 as revised on 5/8/96]

[SRCAA (formerly SCAPCA) Order #91-01, Condition 3 & 11, 12/12/91]

Condition 89: RM-H1 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 9 of NOC #660 shall be followed. [NOC #660, Condition 9, 9/27/95 as revised on 10/25/99 and 11/7/00– STATE/LOCAL ONLY]

MRRR: Anytime the by-pass stack(s) associated with the dry scrubbing/baghouse system is used, KAFP is required to notify SRCAA as soon as possible but no later than 24 hours after the breakdown begins. Notification may occur by 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 from any time when the emission control system has been by-passed, KAFP shall implement the SRCAA approved HOLDER BAGHOUSE BREAKDOWN PROCEDURE to minimize visible emissions from the holders.

Any by-pass conducted shall be reported on the monthly report required in Condition 13 of NOC #660. 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 9, 9/29/95 as revised on 10/25/99 and 11/7/00 – STATE/LOCAL ONLY]

Condition 90: 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 5/8/96, 10/4/00, and 10/19/00]

MRRR: The required monitoring was established for the purposes of Compliance Assurance Monitoring (CAM), authorized by 40 CFR Part 64, 7/1/01. The monitoring is the same as for Condition 59.

In addition, while not a part of CAM, 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. KAFP is required to prepare an O&M plan for the remelt area, as described in detail in the MRRR for Condition 70. 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.

[SRCAA (formerly SCAPCA) Order #96-06, Condition C, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00] [SRCAA (formerly SCAPCA) Order #96-06, Condition C, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00] [40 CFR Part 64, 7/1/01]

Condition 91: RM-21: Visible emissions from the induction furnace baghouse shall not exceed 10%. [SRCAA (formerly SCAPCA) Order #96-06, Condition A, 4/24/96 as revised on 5/8/96,

10/4/00, and 10/19/00]

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 59 must be met. These three conditions are met by the induction furnace baghouse, as explained in the MRRR for Condition 59.

The proposed CAM is the same as for the particulate matter grain loading standard (Condition 59). The proposed CAM has been designed to rely on two performance indicators: baghouse opacity monitoring and induction furnace baghouse pressure drop monitoring. The indicator ranges for the opacity standard are the same as those described in the MRRR for Condition 59 for the particulate matter standard. The applicability of these indicator ranges to the opacity standard is described below.

a) Induction Furnace Baghouse Visible Emissions

Visible emissions was selected as one of the performance indicators because it is indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there should not be any visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator. Since the selected indicator range is no visible emissions, the CAM assures compliance with the 10% opacity limit.

b) Induction Furnace Baghouse Pressure Drop

Baghouse pressure drop was selected as one of the performance indicators because it provides a means of detecting a change in operation that may lead to an increase in emissions. An increase in pressure drop may indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are becoming blinded, or the airflow has increased. A decrease in pressure drop may indicate broken or loose bags, but this is also indicated by the presence of visible emissions. If KAFP keeps the pressure drop within the acceptable range (i.e., 1-8 inches of water), the opacity standard should be met.

In addition, while not a part of CAM, 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. KAFP is required to prepare an O&M plan for the remelt area, as described in detail in the MRRR for Condition 70. 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.

In addition to the O&M plan, KAFP only uses natural gas and, on an industry-wide basis, charges relatively clean scrap, so particulate emissions should be minimized. Both of these items (i.e., use of natural gas and clean charge) provide additional assurance that the opacity limit will be met.

[SRCAA (formerly SCAPCA) Order #96-06, Condition C, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00] [SRCAA (formerly SCAPCA) Order #96-06, Condition C, 4/24/96 as revised on 5/8/96, 10/4/00, and 10/19/00] [WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 8/15/01 (2/19/91)] [WAC 173-400-060, 2/19/91] [WAC 173-400-060, 8/15/01 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 8/15/01 – STATE/LOCAL ONLY] [40 CFR §63.8, 2002] [40 CFR Part 64, 7/1/01]

Condition 92: RM-20: PM emissions shall not exceed 0.025 gr/dscf of exhaust gas. [NOC #239, Condition 3, 11/15/89 as revised on 1/15/01 and 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.

The required monitoring was established for the purposes of Compliance Assurance Monitoring (CAM) for the skim cooler, 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 skim cooler 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 skim cooler, KAFP has estimated the pre-controlled PTE of particulate matter to be 403 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 skim cooler is estimated to be 9.1 tons per year, based on the estimate given in the KAFP AOP renewal application. Therefore, the skim cooler 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 skim cooler, the particulate emissions of the PSEU are controlled by a baghouse. It is not possible for the skim cooler to bypass the baghouse. 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 skim cooler, the PSEU is subject to a grain loading particulate limit of 0.025 gr/dscf given in a Notice of Construction approval (Condition 92), a 10% visible emissions limit given in a Notice of Construction approval (Condition 93), and a 50 pound per day particulate emission limit given in a Notice of Construction approval (Condition 95).

The proposed CAM has been designed to rely on two performance indicators: skim cooler baghouse opacity monitoring and skim cooler baghouse pressure drop monitoring. Each of these is discussed in detail below:

#### b) Skim Cooler Baghouse Visible Emissions

Visible emissions (opacity) was selected as one of the performance indicators because it is indicative of good operation and maintenance of the baghouse. There is no established relationship between visible emissions and particulate emissions from the skim cooler baghouse because the opacity was not recorded when the skim cooler baghouse was source tested in 1995. However, opacity is an appropriate performance indicator for the grain loading limit because it is indicative of good operation and maintenance of the baghouse. When the baghouse is operating optimally, there should be minimal visible emissions from the exhaust. In general, an increase in visible emissions indicates reduced performance of the baghouse (e.g., loose or torn bags). If the baghouse is in good working order, the emissions should be similar to those measured during the 1995 source test.

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. KAFP will be required to perform weekly inspections during daylight hours, while the skim cooler is operating, for the purpose of monitoring the baghouse exhaust for the presence of visible emissions. A weekly frequency was selected because the skim cooler 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. KAFP 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 28- 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 skim cooler baghouse, no corrective action is required. If visible emissions are observed, the following actions shall be taken:

If visible emissions are observed from the skim cooler baghouse, 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 30-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 24-Records of Required Monitoring Information and Condition 28-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 skim cooler baghouse. 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 24- Records of Required Monitoring Information and Condition 28-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., standard given in Condition 93), and the particulate emissions, as determined by EPA Method 5, do not exceed any applicable particulate standards (i.e., standards given in Conditions 92 and 95), no further corrective action is required.

If a violation of any applicable opacity standard (i.e., standard given in Condition 93) is documented), and/or a violation of any applicable particulate standard (i.e., standards given in Conditions 92 and 95), 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 24- Records of Required Monitoring Information and Condition 28-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives.

KAFP must report all skim cooler baghouse opacity excursions and opacity and/or particulate matter exceedances to SRCAA as part of the semiannual monitoring report, described in Condition 29. 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.

c) Skim Cooler Baghouse Pressure Drop:

Baghouse pressure drop was selected as one of the performance indicators because it provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop may indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are becoming blinded, or the airflow has increased. A decrease in pressure drop may indicate broken or loose bags; this may also be indicated by the presence of visible emissions, which was the first indicator discussed. A pressure drop across the baghouse also serves to indicate that there is airflow through the control device. There is no established relationship between baghouse pressure drop and particulate emissions from the skim cooler baghouse because the pressure drop was not recorded when the skim cooler baghouse was source tested in 1995. However, KAFP has proposed to keep the baghouse pressure drop in the manufacturer recommended range because when the baghouse is operating properly, there should not be any visible emissions from the exhaust, and the emissions should be consistent with those measured during the 1995 source test.

KAFP is required to monitor the pressure drop across the skim cooler baghouse continuously with a differential pressure gauge whenever the skim cooler is in operation. At least once every day that the skim cooler is operated, the instantaneous pressure drop across the baghouse must be recorded. Daily pressure drop records shall be kept in accordance with Condition 24-Records of Required Monitoring Information and Condition 28-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives. The baghouse pressure gauge must be calibrated annually, in accordance with the manufacturer recommended procedures. Records of each calibration shall be kept in accordance with Condition 24- Records of Required Monitoring Information and Condition 28-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives.

The indicator range chosen for the skim cooler baghouse pressure drop is 1 to 6 inches of water. This range is based on manufacturer recommendations and on KAFP observations of the normal operational pressure drop values. If the pressure drop is outside of this acceptable range, 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., pressure drop brought within acceptable range) 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 30-Prompt Reporting of Deviations. Records shall be kept of the date, time, duration, and magnitude of all pressure drop 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 24- Records of Required Monitoring Information and Condition 28-Retention of Records and, upon request, shall be made available to SRCAA staff or other authorized representatives. KAFP is required to report all pressure drop excursions to SRCAA as part of the semiannual monitoring report, described in Condition 29. The report shall include the date, time, duration, and magnitude of all pressure drop excursions that occurred during the reporting period.

While not a part of CAM for the particulate matter emission limits, KAFP is also required to properly operate and maintain the skim cooler baghouse. If the skim cooler baghouse is kept in proper working order, the grain loading should not exceed should not exceed the level measured during the last source test. KAFP is required to prepare an O&M plan for the remelt area, as described in detail in the MRRR for Condition 70. 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 94 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.

[SRCAA (formerly SCAPCA) Order #96-04, Condition B, 4/24/96 as revised on 5/8/96] [WAC 173-401-615(1) & (2), 9/16/02] [SRCAA (formerly SCAPCA) Order #96-04, Condition B, 4/24/96 as revised on 5/8/96] [40 CFR Part 64, 7/1/01]

Condition 93: RM-20: Visible emissions shall not exceed 10%. [NOC #239, Condition 4, 11/15/89 as revised on 1/15/01 and 6/6/02]

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 92 must be met. These three conditions are met by the skim cooler baghouse, as explained in the MRRR for Condition 92.

The proposed CAM is the same as for the particulate matter grain loading standard (Condition 92). The proposed CAM has been designed to rely on two performance indicators: baghouse opacity monitoring and skim cooler baghouse pressure drop monitoring. The indicator ranges for the opacity standard are the same as those described in the MRRR for Condition 92 for the particulate matter standard. The applicability of these indicator ranges to the opacity standard is described below.

b) Skim Cooler Baghouse Visible Emissions

Visible emissions was selected as one of the performance indicators because it is

indicative of good operation and maintenance of the baghouse. When the baghouse is operating properly, there should not be any visible emissions from the exhaust. Any increase in visible emissions indicates reduced performance of a particulate control device, therefore, the presence of visible emissions is used as a performance indicator. Since the selected indicator range is no visible emissions, the CAM assures compliance with the 10% opacity limit.

b) Skim Cooler Baghouse Pressure Drop

Baghouse pressure drop was selected as one of the performance indicators because it provides a means of detecting a change in operation that may lead to an increase in emissions. An increase in pressure drop may indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged, the bags are becoming blinded, or the airflow has increased. A decrease in pressure drop may indicate broken or loose bags, but this is also indicated by the presence of visible emissions. If KAFP keeps the pressure drop within the acceptable range (i.e., 1-6 inches of water), the opacity standard should be met.

While not a part of CAM for the particulate matter emission limits, KAFP is also required to properly operate and maintain the skim cooler baghouse. If the skim cooler baghouse is kept in proper working order, the grain loading should not exceed should not exceed the level measured during the last source test. KAFP is required to prepare an O&M plan for the remelt area, as described in detail in the MRRR for Condition 70. 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 94 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.

In addition to the O&M plan, KAFP only uses natural gas and, on an industry-wide basis, charges relatively clean scrap, so particulate emissions should be minimized. Both of these items (i.e., use of natural gas and clean charge) provide additional assurance that the opacity limit will be met.

[SRCAA (formerly SCAPCA) Order #96-04, Condition B, 4/24/96 as revised on 5/8/96] [WAC 173-401-615(1) & (2), 9/16/02] [SRCAA (formerly SCAPCA) Order #96-04, Condition B, 4/24/96 as revised on 5/8/96] [WAC 173-400-050(1), 8/15/01 (2/19/91)] [WAC 173-400-060, 2/19/91] [WAC 173-400-060, 8/15/01 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 8/15/01 – STATE/LOCAL ONLY] [40 CFR Part 64, 7/1/01]

Condition 94: 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 1/15/01 and 6/6/02]

MRRR: KAFP will be required to prepare an O&M plan for the remelt area, as described in detail in the MRRR for Condition 92. 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, 11/15/89, as revised on 1/5/01 and 6/6/02]

Condition 95: 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: 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, which translates to 4.7 lbs/day. By scaling up the source test results, at the grain loading limit of 0.01 gr/dscf, the daily PM emission rate would translate to 42.7 lbs/day, which is lower than the 50 lb/day PM10 emission limit. Therefore, the monitoring established for the 0.01 gr/dscf emission limit given in Condition 92 will assure compliance with the 50 lb/day emission limit.

The required monitoring was established for the purposes of Compliance Assurance Monitoring (CAM), authorized by 40 CFR Part 64, 7/1/01. The monitoring is the same as for Condition 92.

[SRCAA (formerly SCAPCA) Order #96-04, Condition B, 4/24/96 as revised on 5/8/96]  
[40 CFR Part 64, 7/1/01]

Condition 96: 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(5), 5/8/07]

MRRR: No monitoring is required. As with all permit terms, KAFP 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 97: 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, KAFP is required to comply with all of the provisions of the OM&M plan as submitted to SRCAA (i.e., plan dated February 2, 2007), 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), 9/24/02. Records must be kept documenting conformance with the OM&M plan.

In addition, KAFP follow the written plan, dated February 2, 2007, or a subsequent SRCAA approved revision that contains procedures to be followed for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process equipment used to comply with the standard. KAFP must keep records of each event as required by 40 CFR §63.10(b). In addition to the information required in 40 CFR §63.6(e)(3), the plan must include the following:

- a. Procedures to determine and record the cause of the malfunction and the time and date the malfunction began and ended; and
- b. Corrective actions to be taken in the event of a malfunction of a process or control device, including procedures for recording the actions taken to correct the malfunction or minimize emissions.

If actions taken by the permittee during a startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation given in 40 CFR 63, Subpart RRR), or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan, KAFP is required to submit a startup, shutdown, and malfunction report (S/S/M report). The S/S/M report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy. S/S/M reports shall be submitted to SRCAA semiannually with the monitoring reports required in Condition 29.

Any time an action taken by KAFP during a startup, shutdown, or malfunction is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall report to SRCAA the actions taken, by telephone call or facsimile transmission. The report shall be made within 2 working days after commencing such actions. Within 7 working days after the end of the event, KAFP shall send a letter to SRCAA explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. The letter shall also contain the name, title, and signature of the owner or operator or other responsible official who is certifying the accuracy of the report.

[40 CFR §63.10(d)(5)(i) & (ii), 4/20/06] [40 CFR §63.1510(a) (b) (o), (p) & (s), 9/3/04]  
[40 CFR §63.1516(a), 12/30/02] [40 CFR §63.1517, 12/20/02] [WAC 173-400-075(5), 5/8/07]

Condition 98: Conditions 99 through 104 apply at all times, except during periods of startup, shutdown, or malfunction, or as otherwise specified in 40 CFR Part 63, Subpart RRR.

[40 CFR §63.6(f), 4/20/06] [40 CFR §63.6(h), 4/20/06] [40 CFR § 63.1501(a), 9/24/02]  
[WAC 173-400-075(5), 5/8/07]

MRRR: No monitoring is required. The purpose of this condition is to improve understanding of applicability of Conditions 99 through 104, which are based on 40 CFR Part 63, Subpart RRR.

Condition 99: RM-SAPU: Except as noted in Condition 98, the 3-day, 24-hour rolling average Dioxin / Furan (D/F) emissions shall not exceed the D/F emission limit for the secondary aluminum processing unit, 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), 10/3/05] [WAC 173-400-075(5), 5/8/07]

MRRR: This Condition applies to the combined emissions of group 1 furnaces that charge other than “clean charge.” At KAFP, 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 MRRR for this condition are outlined in the secondary aluminum MACT, given in 40 CFR 63, Subpart RRR. The required MRRR is summarized below.

KAFP 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. The results from the performance tests showed that both the melter and the induction furnace were in compliance with the D/F emission limit without any add-on controls. For the melter furnace, the D/F emissions measured during the source test, conducted on January 14-17, 2003 were 2.19 e-6 gr/ton, which is lower than the emission limit of 2.1 e-4 gr/ton. For the induction furnace, the D/F emissions measured during the source test, conducted on October 18-19, 2006 were 2.48 e-10 gr/ton, which is lower than the emission limit of 2.1 e-4 gr/ton.

Therefore, provided that the weight 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, KAFP 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), 9/24/02.

In addition, KAFP 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.

KAFP 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, KAFP is required to implement the written operation, maintenance, and monitoring (OM&M) plan that covers the SAPU, dated February 2, 2007, 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.

[40 CFR §63.8, 2002] [40 CFR §63.1510(a), (b), (e), (j), (o), (p), (s), (t), & (u), 9/3/04  
[40 CFR §63.1517, 12/30/02] [WAC 173-400-075(5), 5/8/07]

Condition 100: RM-SAPU: RM-SAPU: Except as noted in Condition 98, each emission unit in the 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), 12/30/02] [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. KAFP must prepare an 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, KAFP 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), 9/3/04] [40 CFR §63.1517, 12/30/02]  
[WAC 173-400-075(5), 5/8/07]

Condition 101: RM-SAPU: RM-SAPU: Except as noted in Condition 98, feed/charge shall be measured in accordance with 40 CFR §63.1506(d). [40 CFR §63.1506(a)&(d), 12/30/02] [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. KAFP must prepare an OM&M plan and keep records documenting conformance with the plan. In addition, KAFP 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), 9/3/04.

[40 CFR §63.1510(a), (b), (e), (o), (p), & (s), 9/3/04] [40 CFR §63.1517, 12/30/02]  
[WAC 173-400-075(5), 5/8/07]

Condition 102: RM-SAPU: Except as noted in Condition 98, each emission unit shall be operated with a total reactive flux injection rate at or below the level established during the

performance test. [40 CFR §63.1506(a), (m)(5), & (n)(1), 12/30/02] [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. The induction furnaces are not operated with reactive flux, so this requirement only applies to the melter furnaces. During the initial performance test, performed in 2003, KAFP recorded the flux addition and calculated the flux injection rate, using the procedures in 40 CFR §63.1512(o). This value is considered confidential business information and is contained in SRCAA's confidential files. KAFP is required to install, calibrate, operate, and maintain a device to continuously measure and record the weight of reactive flux injected.

In addition, KAFP must prepare an 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), 9/3/04] [40 CFR §63.1517, 12/30/02] [WAC 173-400-075(5), 5/8/07]

Condition 103: RM-SAPU: Except as noted in Condition 98, each group 1 furnace without add-on air pollution control devices must be operated in accordance with the measures documented in the OM&M plan and within the parameter values or ranges established in the OM&M plan. [40 CFR §63.1506(a), (n)(2) & (p), 12/30/02] [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. All of the melters and the induction furnaces are considered group 1 furnaces without add-on air pollution control devices. KAFP must prepare an OM&M plan with process parameter parameters and keep records documenting conformance with the plan. KAFP must also continuously measure and record the weight of reactive flux injected to each melter furnace, according to 40 CFR §63.1510(j), 9/24/02 and measure and record the total weight of feed/charge to, or the aluminum production from, the melters, in accordance with 40 CFR §63.1510(e), 9/24/02.

The semiannual reports, described in the MRRR for Condition 97, are also required.

[40 CFR §63.1510(a), (b), (e), (j), (o), (p), & (s), 9/3/04] [40 CFR §63.1517, 12/30/02] [WAC 173-400-075(5), 5/8/07]

Condition 104: RM-SAPU: When a process parameter or control device operating parameter deviates from the value or range established in the OM&M plan, corrective action must be taken in accordance with 40 CFR §63.1506(p). [40 CFR §63.1506(a) & (p), 12/30/02] [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. KAFP is required to prepare an OM&M plan that includes

corrective actions to be taken when the process or operating parameters deviate from the value or range. KAFP is also required to prepare and implement a written startup, shutdown, and malfunction plan, as described in the MRRR for Condition 97. The semiannual report, described in the MRRR for Condition 97, is also required.

[40 CFR §63.10(d)(5)(i) & (ii), 4/20/06] [40 CFR §63.1510(a) (b) (o), (p) & (s), 9/3/04]  
 [40 CFR §63.1516(a),12/30/02] [40 CFR §63.1517, 12/20/02] [WAC 173-400-075(5), 5/8/07]

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, and SRCAA (formerly SCAPCA) Order #91-01) 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, KAFP 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 KAFP'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 <sup>th</sup> 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 Trentwood Works. 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 10/25/99 and 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 10/25/99 and 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 according 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 11/26/96, 10/25/99, and 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 11/26/96, 10/25/99, and 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 according with EPA reference methods found in 40 CFR Parts 51 and 60 (1995).	Particulate emissions testing of the melters was performed on April 13-16, 1999. This is a one-time requirement that has been met.
NOC #676, Condition 4, 7/10/96 as revised on 11/26/96, 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 #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 1/15/01 and 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.	Emissions 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, 12/30/02	Initial performance testing for D/F required under 40 CFR 63, Subpart RRR	Initial performance testing was performed on January 14-17, 2003 for the melters and October 18-19, 2006 for the induction furnaces. This is a one-time requirement that has been met.
40 CFR §63.1511, 12/30/02	Initial notification and compliance status report	KAFP submitted the initial notification to SRCAA on July 24, 2000. The notification of compliance status report was submitted to SRCAA on May 15, 2003 for the melters and December 28, 2006 for the induction furnaces. This is a one-time requirement that has been met.

**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 on Pages 9-10.

The following requirements are included in this section:

Condition 105: HL-6: PM emissions shall not exceed 0.01 gr/dscf [NOC #188, Condition 3, 3/4/88 as revised on 4/8/88 and 1/18/01]

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 51 must be met. These three conditions are met by the #4 scalper wet cyclone, as explained in the MRRR for Condition 51.

The proposed CAM is the same as for the visible emissions (opacity) standard (Condition 51). 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 51 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 106: HL-6: The #4 scalper shall be operated such that:

- scalping may not occur unless the wet cyclone fan and pump are running; and
- if the wet cyclone pump or fan stops during ingot scalping, scalping will stop also. [NOC #188, Condition 4, 3/4/88 as revised on 4/8/88 and 1/18/01]

MRRR: The required monitoring is the same as for Condition 105. [NOC #188, Condition 4, 3/4/88 as revised on 4/8/88 and 1/18/01]

Condition 107: HL-5: The ingot soaking pits' PLCs and burners must be maintained in good operating condition. [NOC #443, Condition 4, 7/21/93]

MRRR: KAFP 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. Records shall include information required in Condition 24- Records of Required Monitoring Information. Records shall be kept in accordance with Condition 28- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives. [NOC #443, Condition 5, 7/21/93]

Condition 108: HL-5: Before any fuel other than natural gas is used, 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, KAFP 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 109: HL-5: NOx emissions from the 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 KAFP 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 NOx 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 NOx emissions should not exceed 0.1 pounds per million BTU. KAFP 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. Records shall include information required in Condition 24- Records of Required Monitoring Information. Records shall be kept in accordance with Condition 28- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives. [NOC #443, Condition 5, 7/21/93]
- Condition 110: 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, KAFP 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 111: 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: KAFP 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. Records shall include information required in Condition 24- Records of Required Monitoring Information. Records shall be kept in accordance with Condition 28- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives. [NOC #674, Condition 2, 12/15/95] [WAC 173-401-630, 8/15/01]
- Condition 112: 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, KAFP 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 113: 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 KAFP to tune the burners on the pusher furnace within 90 days of the approval. KAFP 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. KAFP 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 114: HL-4: Carbon monoxide emissions from the 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 113. 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 KAFP to keep the furnace in proper working order. KAFP 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 115: 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 KAFP submits sufficient documentation to set such a level. [NOC #674, Condition 7, 12/18/95]

MRRR: KAFP is required to keep monthly records of fuel use, or of an alternate parameter as approved by SRCAA (e.g., pounds of aluminum produced). Records shall be kept in accordance with Condition 28- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives. [NOC #674, Condition 7, 12/15/95] [WAC 173-401-630, 10/4/93]

Condition 116: 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, KAFP 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 117: 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 KAFP to perform EPA Method 5 testing to determine the total particulate concentrations in the exhaust gases. KAFP 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%. KAFP 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. Records shall include information required in Condition 24- Records of Required Monitoring Information. Records shall be kept in accordance with Condition 28- 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] NOTE: This is a gapfilling MRRR.

Condition 118: 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 117. 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. KAFP 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. Records shall include information required in Condition 24- Records of Required Monitoring Information. Records shall be kept in accordance with Condition 28- 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] NOTE: This is a gapfilling MRRR.

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, and NOC #86 for the 80" hot rolling mill) 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 KAFP's operating permit.

CITATION	DESCRIPTION	REASON NOT INCLUDED IN THE PERMIT
NOC #188, Condition 1, 3/1/88 as revised on 4/8/88 and 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 4/8/88 and	Construction of the system must be consistent with the design	Construction of the #4 scalper has been completed.

1/18/01	specifications submitted to SRCAA.	
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 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.	Testing of the 80" hot rolling mill was performed on April 10-24, 1985. Test results showed PM emissions of 0.028 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.

### Annealing Furnace Sources

This subsection of the permit covers emission units in the annealing furnace 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 on Page 10.

The following requirements are included in this section:

Condition 119: CM-1: Kaiser shall follow the Inert Furnaces O&M plan, dated February 2007, for the

electrostatic precipitators. Changes to the plan shall be approved by SRCAA prior to implementation. [NOC 69, Condition 1, 3/16/84 as revised on 2/26/96]

MRRR: To demonstrate that the O&M plan is followed, KAFP is required to keep maintenance records for the inert annealing furnaces' electrostatic precipitators. Compliance with the requirement may be demonstrated by implementing a computerized preventative maintenance system that regularly schedules and tracks maintenance activities. Records shall include information required in Condition 24- Records of Required Monitoring Information and shall be kept for five years in accordance with Condition 28- Retention of Records. Upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives. [NOC #69, Condition 2, 3/16/84 as revised on 2/26/96] [WAC 173-401-630, 10/4/93]

### **Boiler Sources**

This subsection of the permit covers boiler 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 4 on Page 10-11.

The following requirements are included in this section:

Condition 120: 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 59 (facility-wide requirement) requires KAFP 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.

In addition, 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, KAFP 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. KAFP 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, a description of any corrective action taken, and any other information required in Condition 24- Records of Required Monitoring Information. The records shall be kept in accordance with Condition 28- Retention of Records, and, upon request, 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 121: 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 28- 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.

### **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 on Page 11.

The following requirements are included in this section:

Condition 122: 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: KAFP 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. Records shall be kept in accordance with Condition 28- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives. [NOC #681, Conditions 1, 2, & 3, 2/28/96]

Condition 123: 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, KAFP 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 124: 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, KAFP 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 125: 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: KAFP 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. Records shall be kept in accordance with Condition 28- Retention of Records, and, upon request, such records shall be made available for inspection by SRCAA staff or other authorized representatives. [NOC #881, Conditions 2, 4, & 5, 5/8/98]

Condition 126: 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.

Taking corrective action does not relieve the permittee from complying with the pH 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 the daily average, and any corrective action taken as a result of a pH reading shall be kept in accordance with Condition 28-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 127: 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, KAFP 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 128: 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, KAFP 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 129: 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, KAFP 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 KAFP’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 Oven Sources**

This subsection of the permit covers heat treat oven 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 on Page 12.

The following requirements are included in this section:

Condition 130: A copy of the NOCs #1322, #1334, #1335, and #1336 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] [NOC #1334, Condition 3, 2/21/06 as revised on 11/16/07] [NOC #1335, Condition 3, 2/21/06] [NOC #1366, Condition 3, 10/27/06]

MRRR: No monitoring is required. As with all permit terms, KAFP 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 131: HHT-2: SRCAA shall be notified at least one week prior to the anticipate start-up of HHT-2 after the modifications (i.e., installation of 24 additional burners) are completed. [NOC #1334, Condition 1, 2/21/06 as revised on 11/16/07]

MRRR: No monitoring is required. As with all permit terms, KAFP 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 132: HHT-2: The NOC #1334 order of approval shall become invalid if:

- a. Construction of the proposed modification is not commenced within eighteen months after the receipt of the approval, or
- b. Construction is discontinued for a period of eighteen months or more, or
- c. Construction is not completed within eighteen months of commencement.

SRCAA may extend any of the eighteen month periods referenced above, provided the proponent demonstrates that an extension is justified and the criteria given in SRCAA Regulation I Section 5.13.B are met. [NOC #1334, Condition 2, 2/21/06 as revised on 11/16/07]

MRRR: No monitoring is required. As with all permit terms, KAFP 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 133: HHT-1, HHT-2, & HHT-3: The heat treat ovens shall be maintained in good operating condition. [NOC #1322, Condition 4, 2/8/06] [NOC #1334, Condition 4, 2/21/06 as revised on 11/16/07] [NOC #1366, Condition 4, 10/27/06]

MRRR: KAFP is required to follow the Horizontal Heat Treat Furnaces Operation and Maintenance (O&M) Plan, dated September 18, 2007, or a subsequent SRCAA approved revision. Once approved, the O&M plan shall be followed.

The O&M plan and the completed recordkeeping forms used to document maintenance

activities performed on the heat treat ovens shall be kept on-site for the previous five years of operation and made available to SRCAA personnel upon request. [NOC #1322, Condition 4 & 10 a., 2/8/06] [NOC #1334, Condition 4 & 10 a., 2/21/06 as revised on 11/16/07] [NOC #1366, Condition 4 & 10 a., 10/27/06]

Condition 134: HHT-1, HHT-2, & HHT-3: At high fire, NOx emissions from each oven shall not exceed 192 ppmv @ 3% O<sub>2</sub>. [NOC #1322, Condition 5, 2/8/06] [NOC #1334, Condition 5, 2/21/06 as revised on 11/16/07] [NOC #1366, Condition 5, 10/27/06]

MRRR: KAFP is required to perform a combustion test to measure NOx and CO emissions from each heat treat oven at high fire (i.e., during period when all 12 burners are firing for 2-plate furnace and all 24 burners are firing for 4-plate furnaces) using a combustion analyzer or other SRCAA approved test method. For HHT-3, KAFP shall perform an initial combustion test no later than 30 days after the oven commences operation in production mode. For HHT-1, HHT-2, and HHT-3, KAFP shall perform a combustion test at least once during each calendar year, unless SRCAA approves a less frequent testing schedule. A report documenting the results of each combustion test shall be submitted to SRCAA within 30 days of each test. A copy of each combustion test performed on the heat treat ovens shall be kept on-site for five years and made available to SRCAA personnel upon request. [NOC #1322, Conditions 5 & 10 b., 2/8/06] [NOC #1334, Conditions 5 & 10 b., 2/21/06 as revised on 11/16/07] [NOC #1366, Conditions 5 & 10 b., 10/27/06]

Condition 135: HHT-1, HHT-2, & HHT-3: At high fire, CO emissions from each oven shall not exceed 50 ppmv @ 3% O<sub>2</sub>. [NOC #1322, Condition 5, 2/8/06] [NOC #1334, Condition 5, 2/21/06 as revised on 11/16/07] [NOC #1366, Condition 5, 10/27/06]

MRRR: The monitoring is the same as for Condition 134. KAFP is required to perform a combustion test to measure CO emissions from each heat treat oven at high fire. [NOC #1322, Conditions 5 & 10 b., 2/8/06] [NOC #1334, Conditions 5 & 10 b., 2/21/06 as revised on 11/16/07] [NOC #1366, Conditions 5 & 10 b., 10/27/06]

Condition 136: 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] [NOC #1334, Condition 6, 2/21/06 as revised on 11/16/07] [NOC #1366, Condition 6, 10/27/06]

MRRR: No monitoring is required. As with all permit terms, KAFP 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 137: 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] [NOC #1334, Condition 7, 2/21/06 as revised on 11/16/07] [NOC #1366, Condition 7, 10/27/06]

MRRR: If the heat treat ovens are kept in proper working order, the opacity should not exceed 10%. KAFP is required to follow the Horizontal Heat Treat Furnaces Operation and

Maintenance (O&M) Plan, dated September 18, 2007, or a subsequent SRCAA approved revision, as described in detail in the MRRR for Condition 133.

KAFP 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, the actions described in the MRRR for Condition 51 must be taken. Inspections are only required weekly because there is not a lot of variability in the operation of the heat treat ovens.

In addition to the O&M plan, KAFP only uses natural gas, so particulate emissions should be minimized. Use of natural gas provides additional assurance that the opacity limit will be met.

WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 1/10/05 (2/19/91)] [WAC 173-400-060, (2/19/91)] [WAC 173-400-060, 1/10/05 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 1/10/05 – STATE/LOCAL ONLY] [NOC #1322, Condition 4 & 10 a., 2/8/06] [NOC #1334, Condition 4 & 10 a., 2/21/06 as revised on 11/16/07] [NOC #1366, Condition 4 & 10 a., 10/27/06] - NOTE: Portions of this MRRR are gapfilling.

Condition 138: 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] [NOC #1334, Condition 8, 2/21/06 as revised on 11/16/07] [NOC #1366, Condition 8, 10/27/06]

MRRR: No monitoring is required. As with all permit terms, KAFP 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 139: HHT-1: No more than 29.4 million standard cubic feet (scf) of natural gas (equivalent to 30,000 MMBtu) shall be burned in the heat treat oven during any consecutive 12 month period. [NOC #1322, Condition 9, 2/8/06]

MRRR: KAFP is required to total and record the amount of natural gas burned in each heat treat oven during the previous month by no later than the 15<sup>th</sup> of the following month. If the amount of natural gas burned in HHT-1 during any month exceeds 2.45 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] [NOC #1334, Condition 9 & 10 c., 2/21/06 as revised on 11/16/07] [NOC #1366, Condition 9 & 10 c., 10/27/06]

Condition 140: HHT-2: No more than 127.5 million standard cubic feet (scf) of natural gas (equivalent to 130,000 MMBtu) shall be burned in each heat treat oven during any consecutive 12 month period. [NOC #1334, Condition 9, 2/21/06 as revised on 11/16/07]

MRRR: KAFP is required to total and record the amount of natural gas burned in each heat treat oven during the previous month by no later than the 15<sup>th</sup> 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. 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] [NOC #1334, Condition 9 & 10 c., 2/21/06 as revised on 11/16/07] [NOC #1366, Condition 9 & 10 c., 10/27/06]

- Condition 141: HHT-3: No more than 58.8 million standard cubic feet (scf) of natural gas (equivalent to 60,000 MMBtu) shall be burned in each heat treat oven during any consecutive 12 month period. [NOC #1366, Condition 9, 2/21/06]
- MRRR: KAFP is required to total and record the amount of natural gas burned in each heat treat oven during the previous month by no later than the 15<sup>th</sup> of the following month. If the amount of natural gas burned in HHT-3 during any month exceeds 4.9 million scf, the amount of natural gas burned in that oven 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] [NOC #1334, Condition 9 & 10 c., 2/21/06 as revised on 11/16/07] [NOC #1366, Condition 9 & 10 c., 10/27/06]
- Condition 142: 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: KAFP is required to follow the operation and maintenance (O&M) plan for the emergency generator set associated with the heat treat ovens. The O&M plan shall provide a detailed description of how the generator set will be operated to minimize air emissions. Manufacturer O&M plans/manual are generally acceptable. The O&M plan must be kept on site and made available to SRCAA personnel upon request. Maintenance records shall be kept for the emergency generator set and shall include, at a minimum, dates and nature of any maintenance performed. Records shall be kept The O&M plan and the completed recordkeeping forms used to document maintenance activities performed on the heat treat ovens shall be kept on-site for the previous five years of operation and made available to SRCAA personnel upon request. [NOC #1335, Condition 4 & 10 a., 2/21/06]
- Condition 143: The 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, KAFP 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 144: Only fuel oil #2 with a sulfur content of 0.05% (by weight) or less shall be used to fuel the emergency generator set associated with the heat treat ovens, unless approval is obtained from SRCAA to use an alternate fuel. [NOC #1335, Condition 6, 2/21/06]

- MRRR: KAFP is required to keep records, documenting the sulfur content of the fuel supplied to the generator associated with the heat treat ovens. Invoices constitute sufficient documentation, provided they show that each load of fuel received was low sulfur grade fuel. Records shall be kept for the previous five years of operation and made available to SRCAA personnel upon request. [NOC #1335, Condition 6 & 10 b., 2/21/06]
- Condition 145: The emergency generator set / diesel engine associated with the heat treat ovens shall not be operated more than 929.3 hours in any consecutive twelve-month period. [NOC #1335, Condition 7, 2/21/06]
- MRRR: KAFP is required to total and record the hours of operation for the generator set associated with the heat treats in the previous month by no later than the 15<sup>th</sup> of the next month. If the hours of operation for the generator set during any month exceed 77 hours, the hours of operation during the last consecutive twelve month period shall be totaled and recorded. All records shall be kept for the previous five years of operation and made available to SRCAA personnel upon request. [NOC #1335, Condition 7 & 10 c., 2/21/06]
- Condition 146: Visible emissions from the diesel engine exhaust stack associated with the heat treat ovens shall not exceed 10%. [NOC #1335, Condition 8, 2/21/06]
- MRRR: If the diesel engine is kept in proper working order, the opacity should not exceed 10%. KAFP is required to follow an O&M plan for the engine, as described in detail in the MRRR for Condition 142.
- KAFP 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, the actions described in the MRRR for Condition 51 must be taken. Inspections are only required weekly because the diesel engine does not operate continuously.
- WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 1/10/05 (2/19/91)] [WAC 173-400-060, (2/19/91)] [WAC 173-400-060, 1/10/05 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 1/10/05 – STATE/LOCAL ONLY] [NOC #1335, Condition 4 & 10 a., 2/21/06]- NOTE: Portions of this MRRR are gapfilling.
- Condition 147: Particulate emissions from the diesel engine associated with the heat treat ovens 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 146, is exceeded. [NOC #1335, Condition 9, 2/21/06]
- MRRR: The monitoring is the same as for Condition 146. KAFP is required to follow an O&M plan for the engine, as described in detail in the MRRR for Condition 142. The manufacturer guaranteed particulate emission rate for the engine diesel engine is below 0.01 gr/dscf. Therefore, provided that the engine 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), KAFP 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 diesel engine 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, KAFP is required to take actions as described in the MRRR associated with Condition 59.

WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 1/10/05 (2/19/91)] [WAC 173-400-060, (2/19/91)] [WAC 173-400-060, 1/10/05 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 1/10/05 – STATE/LOCAL ONLY] [NOC #1335, Condition 4 & 10 a., 2/21/06]- NOTE: Portions of this MRRR are gapfilling.

Condition 148: HHT-3: SRCAA shall be notified at least one week prior to the anticipated start-up date of HHT-3. [NOC #1366, Condition 1, 10/27/06]

MRRR: No monitoring is required. As with all permit terms, KAFP 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 149: HHT-3: The NOC #1366 order of approval shall become invalid if:

- a. Construction is not commenced within eighteen months after the receipt of the approval, or
- b. Construction is discontinued for a period of eighteen months or more, or
- c. Construction is not completed within eighteen months of commencement.

SRCAA may extend any of the eighteen month periods referenced above, provided the proponent demonstrates that an extension is justified and the criteria given in SRCAA Regulation I Section 5.13.B are met. [NOC #1366, Condition 2, 10/27/06]

MRRR: No monitoring is required. As with all permit terms, KAFP 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 heat treat ovens and diesel generator contain conditions that are one-time requirements that have been fulfilled. These conditions are listed below and are not included in KAFP’s operating permit.

<b>CITATION</b>	<b>DESCRIPTION</b>	<b>REASON NOT INCLUDED IN THE PERMIT</b>
NOC #1322, Condition 1, 2/8/06	Notification of start-up of HHT-1	This is a one-time requirement that has been met
NOC #1322, Condition 2, 2/8/06	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	Initial combustion testing requirement	Initial combustion testing has been completed. This is a one-time requirement that has been met.
NOC #1334, Condition 1, 2/21/06 as revised on 11/16/07	Notification of start-up of HHT-2	This is a one-time requirement that has been met
NOC #1334, Condition 2, 2/21/06 as revised on 11/16/07	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.
NOC #1334, Condition 5.a., 2/8/06 as revised on 11/16/07	Initial combustion testing requirement	Initial combustion testing has been completed. This is a one-time requirement that has been met.
NOC #1334, Condition 1, 2/21/06 as revised on 11/16/07	Notification of start-up of diesel engine	This is a one-time requirement that has been met.
NOC #1334, Condition 2, 2/21/06 as revised on 11/16/07	NOC approval becomes void if construction not commenced within 18 months.	Construction began within the allowable time.

### **Alutek Sources**

This subsection of the permit covers emission units at Alutek, a support facility to KAFP, 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 7 on Page 13.

The following requirements are included in this section:

Condition 150: 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, KAFP 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 151: The dust collector associated with the plate sander shall be maintained in good operating condition. [NOC #1316, Condition 4, 11/7/05]

MRRR: KAFP 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 KAFP 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. All records shall be kept for the previous five years of operation and made available to SRCAA personnel upon request.

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

Condition 152: 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: KAFP 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, KAFP must take timely and appropriate corrective action. Taking corrective action does not relieve KAFP from the obligation to comply with underlying emission limitation, nor does it relieve KAFP from reporting any permit deviations as required in Condition 30-Prompt Reporting of Deviations.

KAFP 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 24-Records of Required Monitoring Information. Records must be kept in accordance with Condition 28-Retention of

Records, and, upon request, such records must be made available for inspection by SRCAA staff or other authorized representatives.

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

Condition 153: 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 10%. KAFP is required to follow an O&M plan for the baghouse, as described in detail in the MRRR for Condition 151.

KAFP 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, the actions described in the MRRR for Condition 51 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), 1/10/05 (2/19/91)] [WAC 173-400-060, (2/19/91)] [WAC 173-400-060, 1/10/05 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 1/10/05 – STATE/LOCAL ONLY] [NOC #1316, Condition 4 & 9, 11/7/05]

Condition 154: 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 153, is exceeded. [NOC #1316, Condition 7, 11/7/05]

MRRR: The monitoring is the same as for Condition 153. KAFP is required to follow an O&M plan for the baghouse, as described in detail in the MRRR for Condition 153. 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), KAFP 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, KAFP is required to take actions as described in the MRRR associated with Condition 59.

[WAC 173-401-615(1) & (2), 9/16/02] [WAC 173-400-050(1), 1/10/05 (2/19/91)] [WAC

173-400-060, (2/19/91)] [WAC 173-400-060, 1/10/05 – STATE/LOCAL ONLY] [WAC 173-400-105(4), 8/20/93] [WAC 173-400-105(4), 1/10/05 – STATE/LOCAL ONLY] [NOC #1316, Condition 4 & 9, 11/7/05]

Condition 152: 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, KAFP 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 153: 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: The monitoring is the same as for Condition 151. KAFP is required to follow the O&M manual for the baghouse, which includes a description of procedures that KAFP will implement 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 154: 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, KAFP 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 KAFP'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, 3/4/04 - 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 KAFP is an air operating permit source, the rule does not apply.

#### **2PS. Registration – [WAC 173-400-100, 1/10/05]**

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 KAFP 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, 10/7/04]**

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 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.

- a. Visible Emissions from 10 Melters and 8 Holders - [WAC 173-400-040(1), 8/15/01] [SRCAA Regulation I, Section 6.02, 3/4/04 – STATE/LOCAL ONLY]

Findings: WAC 173-400-040(1) & 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(1)(d) and SRCAA Regulation I, Section 6.02.4 allow approval of an alternate opacity limit, under certain circumstances. An alternate opacity limit has been established 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), so the 20% standards in WAC 173-400-040(1) 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 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), 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-B1 Through UT-B3 of This Permit.

- a. Standards of Performance for Fossil-Fuel Fired Steam Generators - [40 CFR Part 60, Subpart D, 1999]

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-B1 through UT-B3 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, 1999]

Findings: 40 CFR Part 60, Subpart Da establishes standards for electric utility steam generating units. The three boilers at the facility, designated as UT-B1 through UT-B3 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, 1999]

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-B1 through UT-B3 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, 1999]

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-B1 through UT-B3 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), 5/8/07(8/20/93)]

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-B1 through UT-B3 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 KAFP (designated as CM-1 in this permit). The terms of the Order remained in effect until three actions were fulfilled by KAFP. 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(3), 1/10/05]

Findings: SRCAA will not grant a shield from WAC 173-400-040(3) because WAC 173-400-040(3)(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 KAFP 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 KAFP 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 KAFP are older than August 2, 1991 this regulation does not apply based on the tank size criteria. However, while KAFP'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.  
April Westby, P.E.

DATE: \_\_\_\_\_

\_\_\_\_\_  
Ronald J. Edgar, Chief of Technical Services

DATE: \_\_\_\_\_

\_\_\_\_\_  
William Dameworth, Control Officer

DATE: \_\_\_\_\_