V. EMISSION UNIT LEVEL TERMS AND CONDITIONS

A. Electric Arc Furnace

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Process Description: Electric Arc Furnace (EAF)
Facility ID: P001
Max. Design Rate: 23.14 tons steel/hr
Capacity: 56 tons/heat
Fuel/Raw Material: Steel Scrap, Limestone, Alloying Elements
Control Device(s): Melt Shop Baghouse
Stack I.D.: S001

1. ~~Restrictions:~~

~~a. The permittee shall not cause to be discharged into the atmosphere from the EAF any gases which (§60.272a(a), §63.10686(b)(1), §63.10686(b)(2)):~~

~~1) Exit from a control device and contain particulate matter in excess of 12 mg/dscm (0.0052 gr/dscf);~~
~~2) Exit from a control device and exhibit 3 percent opacity or greater; and~~
~~3) Exit from a shop and, due solely to the operations of the EAF(s), exhibit 6 percent opacity or greater.~~

~~b. The permittee shall not cause to be discharged into the atmosphere from the dust-handling system any gases that exhibit 10 percent opacity or greater. (§60.272a(b)):~~

~~c. The permittee shall at no time conduct Melt Shop process operations unless the Melt Shop pollution control equipment is properly maintained and operated according to the following conditions: (§2103.12.a.2.B and Operating Permit Nos. 7037009-000-16400 and 7037009-000-16401)~~

~~1) The fugitive emissions capture equipment shall consist of a canopy hood system ducted to the Melt Shop Baghouse, and closed-roof scavenger points ducted to the Melt Shop Baghouse.~~
~~2) The EAF shall be equipped with a canopy hood for collection of process emissions, and such hood shall be properly maintained and operated at all times with all captured emissions ducted to the Melt Shop Baghouse.~~
~~3) The particulate control efficiency of the baghouse shall be a minimum of 98.3 percent at all times while the subject process equipment is producing particulate emissions.~~
~~4) The differential pressure drop across each baghouse compartment shall be between 3" and 12" w.c., inclusive, or as established during the most recent test required by condition V.A.2.a below, measured to the nearest ½" w.c.~~

~~d. The production of steel at the EAF shall not exceed 175,200 tons of steel in any consecutive twelve-month period. The production in any one heat shall not exceed 56 tons. (Permit No. 7037009-000-16400, issued August 1, 1978, §2103.12.a.2.B)~~

~~e. Emissions from the Melt Shop Baghouse shall not exceed the emissions limitations in Table V-A-1 below. The Melt Shop emission limitations include emissions from the Electric Arc Furnace, AOD, and Teeming. (§2103.12.a.2.B)~~

~~TABLE V-A-1 – Melt Shop Emission Limitations (Baghouse)~~

~~POLLUTANT~~	~~HOURLY EMISSION LIMIT (lb/hr)~~	~~ANNUAL EMISSION LIMIT (tons/year)*~~
~~Particulate Matter~~	~~10.98~~	~~39.64~~
~~PM-10~~	~~7.82~~	~~28.07~~
~~PM-2.5~~	~~0.78~~	~~2.80~~
~~Sulfur Oxides~~	~~2.99~~	~~11.01~~
~~Nitrogen Oxides~~	~~7.56~~	~~27.75~~
~~Carbon Monoxide~~	~~88.03~~	~~312.21~~
~~Volatile Organic Compounds~~	~~8.04~~	~~30.53~~
~~Chromium~~	~~0.086~~	~~0.326~~
~~Nickel~~	~~0.050~~	~~0.190~~
~~Lead~~	~~0.016~~	~~0.062~~
~~Manganese~~	~~0.113~~	~~0.428~~

~~* A year is defined as any 12 consecutive month period.~~

f. ~~(a) *Chlorinated plastics, lead, and free organic liquids*. For metallic scrap utilized in the EAF at the facility, the permittee shall comply with the requirements in either Condition V.A.1.f.1) or V.A.1.f.2) below. The permittee may have certain scrap at the facility subject to Condition V.A.1.f.1) and other scrap subject to Condition V.A.1.f.2) below provided the scrap remains segregated until charge make-up. (§ 63.10685(a))~~

1) ~~*Pollution prevention plan* . For the production of steel other than leaded steel, the permittee shall prepare and implement a pollution prevention plan for metallic scrap selection and inspection to minimize the amount of chlorinated plastics, lead, and free organic liquids that is charged to the furnace. For the production of leaded steel, the permittee shall prepare and implement a pollution prevention plan for scrap selection and inspection to minimize the amount of chlorinated plastics and free organic liquids in the scrap that is charged to the furnace. The permittee shall submit the scrap pollution prevention plan to the permitting authority for approval. The permittee shall operate according to the plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the permitting authority within 60 days following disapproval of a plan. The permittee may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the permitting authority. The permittee shall keep a copy of the plan onsite, and the permittee shall provide training on the plan's requirements to all plant personnel with materials acquisition or inspection duties. Each plan shall include the information in Condition V.A.1.f.1)a) through V.A.1.f.1)c) below: (§ 63.10685(a)(1))~~

~~a) Specifications that scrap materials shall be depleted (to the extent practicable) of undrained used oil filters, chlorinated plastics, and free organic liquids at the time of charging to the furnace. (§ 63.10685(a)(1)(i))~~

~~b) A requirement in the permittee's scrap specifications for removal (to the extent practicable) of lead-containing components (such as batteries, battery cables, and wheel weights) from the scrap, except for scrap used to produce leaded steel. (§ 63.10685(a)(1)(ii))~~

~~c) Procedures for determining if the requirements and specifications in Condition V.A.1.f.1) above are met (such as visual inspection or periodic audits of scrap providers) and procedures for taking corrective actions with vendors whose shipments are not within~~

specifications. (§ 63.10685(a)(1)(iii))

d) The requirements of Condition V.A.1.f.1) above do not apply to the routine recycling of baghouse bags or other internal process or maintenance materials in the furnace. These exempted materials shall be identified in the pollution prevention plan. (§ 63.10685(a)(1)(iv))

2) *Restricted metallic scrap* . For the production of steel other than leaded steel, the permittee shall not charge to a furnace metallic scrap that contains scrap from motor vehicle bodies, engine blocks, oil filters, oily turnings, machine shop borings, transformers or capacitors containing polychlorinated biphenyls, lead-containing components, chlorinated plastics, or free organic liquids. For the production of leaded steel, the permittee shall not charge to the furnace metallic scrap that contains scrap from motor vehicle bodies, engine blocks, oil filters, oily turnings, machine shop borings, transformers or capacitors containing polychlorinated biphenyls, chlorinated plastics, or free organic liquids. This restriction does not apply to any post-consumer engine blocks, post-consumer oil filters, or oily turnings that are processed or cleaned to the extent practicable such that the materials do not include lead components, chlorinated plastics, or free organic liquids. This restriction does not apply to motor vehicle scrap that is charged to recover the chromium or nickel content if the permittee meets the requirements in Condition V.A.1.g.3) below. (§ 63.10685(a)(2))

g. *Mercury requirements* . For scrap containing motor vehicle scrap, the permittee shall procure the scrap pursuant to one of the compliance options in Condition V.A.1.g.1), V.A.1.g.2), or V.A.1.g.3) below for each scrap provider, contract, or shipment. For scrap that does not contain motor vehicle scrap, the permittee shall procure the scrap pursuant to the requirements in Condition V.A.1.g.4) below for each scrap provider, contract, or shipment. The permittee may have one scrap provider, contract, or shipment subject to one compliance provision and others subject to another compliance provision. (§ 63.10685(b))

1) *Site-specific plan for mercury switches* . The permittee shall comply with the requirements in Conditions V.A.1.g.1)a) through V.A.1.g.1)c) below. (§ 63.10685(b)(1))

a) The permittee shall include a requirement in the permittee's scrap specifications for removal of mercury switches from vehicle bodies used to make the scrap. (§ 63.10685(b)(1)(i))

b) The permittee shall prepare and operate according to a plan demonstrating how the permittee's facility will implement the scrap specification in Condition V.A.1.g.1)a) above for removal of mercury switches. The permittee shall submit the plan to the permitting authority for approval. The permittee shall operate according to this plan as submitted during the review and approval process, operate according to the approved plan at all times after approval, and address any deficiency identified by the permitting authority within 60 days following disapproval of a plan. The permittee may request approval to revise the plan and may operate according to the revised plan unless and until the revision is disapproved by the permitting authority. The permitting authority may change the approval status of the plan upon 90 days written notice based upon the semiannual compliance report or other information. The plan shall include: (§ 63.10685(b)(1)(ii))

i) A means of communicating to scrap purchasers and scrap providers the need to obtain or provide motor vehicle scrap from which mercury switches have been removed and the need to ensure the proper management of the mercury switches removed from that scrap as required under the rules implementing subtitle C of the Resource Conservation and Recovery Act (RCRA) (40 CFR parts 261 through 265 and 268). The plan shall include documentation of direction to appropriate staff to communicate to suppliers

throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the permitting authority, the permittee shall provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols; (§ 63.10685(b)(1)(ii)(A))

ii) Provisions for obtaining assurance from scrap providers that motor vehicle scrap provided to the facility meet the scrap specification; (§ 63.10685(b)(1)(ii)(B))

iii) Provisions for periodic inspections or other means of corroboration to ensure that scrap providers and dismantlers are implementing appropriate steps to minimize the presence of mercury switches in motor vehicle scrap and that the mercury switches removed are being properly managed, including the minimum frequency such means of corroboration will be implemented; and (§ 63.10685(b)(1)(ii)(C))

iv) Provisions for taking corrective actions (i.e., actions resulting in scrap providers removing a higher percentage of mercury switches or other mercury-containing components) if needed, based on the results of procedures implemented in Condition V.A.1.g.1)b)iii) above. (§ 63.10685(b)(1)(ii)(D))

c) The permittee shall require each motor vehicle scrap provider to provide an estimate of the number of mercury switches removed from motor vehicle scrap sent to the permittee's facility during the previous year and the basis for the estimate. The permitting authority may request documentation or additional information at any time. (§ 63.10685(b)(1)(iii))

d) The permittee shall establish a goal for each scrap provider to remove at least 80 percent of the mercury switches. Although a site-specific plan approved under Condition V.A.1.g.1) above may require only the removal of convenience light switch mechanisms, the permitting authority will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal. (§ 63.10685(b)(1)(iv))

e) For each scrap provider, the permittee shall submit semiannual progress reports to the permitting authority that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches removed, and certification that the removed mercury switches were recycled at RCRA-permitted facilities or otherwise properly managed pursuant to RCRA subtitle C regulations referenced in Condition V.A.1.g.1)b)i) above. This information can be submitted in aggregated form and does not have to be submitted for each scrap provider, contract, or shipment. The permitting authority may change the approval status of a site-specific plan following 90 days notice based on the progress reports or other information. (§ 63.10685(b)(1)(v))

2) *Option for approved mercury programs.* The permittee shall certify in the permittee's notification of compliance status that the permittee participates in and purchases motor vehicle scrap only from scrap providers who participate in a program for removal of mercury switches that has been approved by the Administrator or the Department based on the criteria in Conditions V.A.1.g.2)a) through V.A.1.g.2)c) below. If the permittee purchases motor vehicle scrap from a broker, the permittee shall certify that all scrap received from that broker was obtained from other scrap providers who participate in a program for the removal of mercury switches that has been approved by the Administrator or the Department based on the criteria in Conditions V.A.1.g.2)a) through V.A.1.g.2)c) below. The National Vehicle Mercury Switch Recovery Program and the Vehicle Switch Recovery Program mandated by Maine State law are EPA-approved programs under Condition V.A.1.g.2) unless and until the Administrator or the Department disapproves the program (in part or in whole) under Condition V.A.1.g.2)c) below. (§ 63.10685(b)(2))

a) The program includes outreach that informs the dismantlers of the need for removal of mercury switches and provides training and guidance for removing mercury switches; (§ 63.10685(b)(2)(i))

b) The program has a goal to remove at least 80 percent of mercury switches from the motor vehicle scrap the scrap provider processes. Although a program approved under Condition V.A.1.g.2) above may require only the removal of convenience light switch mechanisms, the Administrator or the Department will credit all documented and verifiable mercury-containing components removed from motor vehicle scrap (such as sensors in anti-locking brake systems, security systems, active ride control, and other applications) when evaluating progress towards the 80 percent goal; and (§ 63.10685(b)(2)(ii))

c) The program sponsor agrees to submit progress reports to the Administrator or the Department no less frequently than once every year that provide the number of mercury switches removed or the weight of mercury recovered from the switches, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and certification that the recovered mercury switches were recycled at facilities with permits as required under the rules implementing subtitle C of RCRA (40 CFR parts 261 through 265 and 268). The progress reports shall be based on a database that includes data for each program participant; however, data may be aggregated at the State level for progress reports that will be publicly available. The Administrator or the Department may change the approval status of a program or portion of a program (e.g., at the State level) following 90-days notice based on the progress reports or on other information. (§ 63.10685(b)(2)(iii))

d) The permittee shall develop and maintain onsite a plan demonstrating the manner through which the permittee's facility is participating in the EPA-approved program. (§ 63.10685(b)(2)(iv))

i) The plan shall include facility-specific implementation elements, corporate-wide policies, and/or efforts coordinated by a trade association as appropriate for each facility. (§ 63.10685(b)(2)(iv)(A))

ii) The permittee shall provide in the plan documentation of direction to appropriate staff to communicate to suppliers throughout the scrap supply chain the need to promote the removal of mercury switches from end-of-life vehicles. Upon the request of the permitting authority, the permittee shall provide examples of materials that are used for outreach to suppliers, such as letters, contract language, policies for purchasing agents, and scrap inspection protocols. (§ 63.10685(b)(2)(iv)(B))

iii) The permittee shall conduct periodic inspections or provide other means of corroboration to ensure that scrap providers are aware of the need for and are implementing appropriate steps to minimize the presence of mercury in scrap from end-of-life vehicles. (§ 63.10685(b)(2)(iv)(C))

3) *Option for specialty metal scrap.* The permittee shall certify in the permittee's notification of compliance status that the only materials from motor vehicles in the scrap are materials recovered for their specialty alloy (including, but not limited to, chromium, nickel, molybdenum, or other alloys) content (such as certain exhaust systems) and, based on the nature of the scrap and purchase specifications, that the type of scrap is not reasonably expected to contain mercury switches. (§ 63.10685(b)(3))

4) *Scrap that does not contain motor vehicle scrap.* For scrap not subject to the requirements in Condition V.A.1.g.1) through V.A.1.g.3) above, the permittee shall certify in the permittee's notification of compliance status and maintain records of documentation that this scrap does not contain motor vehicle scrap. (§ 63.10685(b)(4))

2. Testing Requirements:

a. ~~The permittee shall perform emission tests for exhaust gas PM/PM-10 concentrations (gr/dscf) and equivalent mass emission rates (lb/hr), and CO and VOC emission rates (lb/hr) at the Melt Shop Baghouse to demonstrate compliance with condition V.A.1.c above. During the test the damper positions, the differential pressure drop across each compartment and the amperage for each fan motor shall be monitored and recorded on a continuous basis. In addition, the time of each charge, melt and tap shall be recorded and reported during the test. (§2103.12.a.2.B)~~

~~b.~~ ~~The permittee shall perform the emission testing required in V.A.2.a above in accordance with Methods Nos. 1 through 5, 9, 10, and 25A or 25B of Appendix A of 40 CFR Part 60, or other methods approved by the Department, and in accordance with Site Level Condition IV.13 above and §2108.02. (§2103.12.a.2.B, § 63.10686(d)(1))~~

~~c.~~ ~~During any performance test required under §60.8, and this permit and for any report thereof required by V.A.5.c below, or to determine compliance V.A.1.a.3) above, the permittee shall monitor the following information for all heats covered by the test: (§60.274a(h))~~

~~1) Charge weights and materials, and tap weights and materials~~
~~2) Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing and the pressure inside an EAF when direct-shell evacuation control systems are used;~~
~~3) Control device operation log; and~~
~~4) Continuous opacity monitor or Method 9 data.~~

~~d.~~ ~~During performance tests, the permittee shall not add gaseous diluents to the effluent gas stream after the fabric in any pressurized fabric filter collector, unless the amount of dilution is separately determined and considered in the determination of emissions. (§60.275a (a))~~

~~e.~~ ~~When emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to the provisions of 40 CFR Part 60 Subpart AAa but controlled by a common capture system and control device, the permittee shall use either or both of the following procedures during a performance test (see also § 60.276a(e)): (§60.275a (b))~~

~~1) Determine compliance using the combined emissions.~~
~~2) Use a method that is acceptable to the Department and the Administrator and that compensates for the emissions from the facilities not subject to 40 CFR Part 60 Subpart AAa.~~

~~f.~~ ~~When emission from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to 40 CFR Part 60 Subpart AAa, the permittee shall demonstrate compliance with V.A.1.a.3) above based on emissions from only the EAF. (§60.275a (c))~~

~~g.~~ ~~In conducting the performance tests, the permittee shall use as reference methods and procedures the test methods in 40 CFR Part 60 Appendix A or other methods and procedures as specified in §60.275a, except as provided in § 60.8(b). (§60.275a (d))~~

~~h.~~ ~~The permittee shall determine compliance with the particulate matter and opacity standards in V.A.1.a and V.A.1.b above as follows: (§60.275a (e))~~

~~1) Method 5 shall be used for negative-pressure fabric filters to determine the particulate matter~~

concentration and volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 4 hours and 4.50 dscm (160 dscf) and, when a single EAF or AOD vessel is sampled, the sampling time shall include an integral number of heats.

2) Method 9 and the procedures of §60.11 shall be used to determine opacity.

3) To demonstrate compliance with V.A.1.a.1), V.A.1.a.2), and V.A.1.a.3) above, the Method 9 test runs shall be conducted concurrently with the particulate matter test runs, unless inclement weather interferes.

i. To comply with V.A.3.j. and V.A.2.c.1) through V.A.2.c.4) above, the permittee shall obtain the information required in these conditions during the particulate matter runs. (§60.275a (f))

j. Any control device subject to the provisions of 40 CFR Part 60 Subpart AAa shall be designed and constructed to allow measurement of emissions using applicable test methods and procedures. (§60.275a (g))

k. Where emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to 40 CFR Part 60 Subpart AAa but controlled by a common capture system and control device, the permittee may use any of the following procedures during a performance test: (§60.275a (h))

1) Base compliance on control of the combined emissions;

2) Utilize a method acceptable to the Department and the Administrator that compensates for the emissions from the facilities not subject to to 40 CFR Part 60 Subpart AAa, or;

3) Any combination of the criteria of V.A.2.k.1) and V.A.2.k.2) above.

l. Where emissions from any EAF(s) or AOD vessel(s) are combined with emissions from facilities not subject to 40 CFR Part 60 Subpart AAa, determinations of compliance with V.A.1.a.3) above will only be based upon emissions originating from the EAF. (§60.275a (i))

m. Unless the presence of inclement weather makes concurrent testing infeasible, the permittee shall conduct concurrently the performance tests required under § 60.8 and this permit to demonstrate compliance with V.A.1.a.1), V.A.1.a.2), and V.A.1.a.3) above. (§60.275a (j))

n. The testing required by V.A.2.a above shall be repeated at least once every five years from the date of the prior valid test. (§2103.12.h.1; 25 PA Code §129.100)

o. The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 above and Article XXI §2108.02. (§2103.12.h.1)

3. Monitoring Requirements:

a. Except as provided under Conditions V.A.3.c and V.A.3.d below, a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) shall be installed, calibrated, maintained, and operated by the permittee. (§60.273a(a))

b. All continuous monitoring systems required by Condition V.A.3.a above shall be approved by the Department prior to being installed in accordance with the requirements of §2108.03. (§2108.03)

c. No continuous monitoring system shall be required on any control device serving the dust-

handling system. (§60.273a (b))

d. A continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the control device(s) is not required on any modular, multi-stack, negative-pressure or positive-pressure fabric filter if observations of the opacity of the visible emissions from the control device are performed by a certified visible emission observer; or on any single-stack fabric filter if visible emissions from the control device are performed by a certified visible emission observer and the permittee installs and continuously operates a bag leak detection system according to paragraph (e) of this section. Visible emission observations shall be conducted at least once per day for at least three 6-minute periods when the furnace is operating in the melting and refining period. All visible emissions observations shall be conducted in accordance with Method 9. If visible emissions occur from more than one point, the opacity shall be recorded for any points where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emission, only one set of three 6-minute observations will be required. In that case, the Method 9 observations shall be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. Records shall be maintained of any 6-minute average that is in excess of the emission limit specified in V.A.1.a above. (§60.273a (e))

e. A furnace static pressure monitoring device is not required on any EAF equipped with a DEC system if observations of shop opacity are performed by a certified visible emission observer as follows: Shop opacity observations shall be conducted at least once per day when the furnace is operating in the meltdown and refining period. Shop opacity shall be determined as the arithmetic average of 24 consecutive 15-second opacity observations of emissions from the shop taken in accordance with Method 9. Shop opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of visible emissions, only one observation of shop opacity will be required. In this case, the shop opacity observations shall be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. (§60.273a (d))

f. A bag leak detection system shall be installed and continuously operated on all single-stack fabric filters if the permittee elects not to install and operate a continuous opacity monitoring system as provided for under Condition V.A.3.e above. In addition, the permittee shall meet the visible emissions observation requirements in Condition V.A.3.e above. The bag leak detection system shall meet the specifications and requirements of Conditions V.A.3.f.1) throughV.A.3.f.8) below: (§60.273a (e))

1) The bag leak detection system shall be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less. (§60.273a (e)(1))
2) The bag leak detection system sensor shall provide output of relative particulate matter loadings and the permittee shall continuously record the output from the bag leak detection system using electronic or other means (*e.g.,* using a strip chart recorder or a data logger.) (§60.273a (e)(2))
3) The bag leak detection system shall be equipped with an alarm system that will sound when an increase in relative particulate loading is detected over the alarm set point established according to Condition V.A.3.f.4) below, and the alarm shall be located such that it can be heard by the appropriate plant personnel. (§60.273a (e)(3))
4) For each bag leak detection system required by Condition V.A.3.f above, the permittee shall develop and submit to the Administrator or the Department or delegated authority, for approval, a site-specific monitoring plan that addresses the items identified in Conditions

V.A.3.f.4)a) through V.A.3.f.4)e) below. For each bag leak detection system that operates based on the triboelectric effect, the monitoring plan shall be consistent with the recommendations contained in the U.S. Environmental Protection Agency guidance document "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015). The permittee shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan shall describe the following: (§60.273a (e)(4))

a) Installation of the bag leak detection system;
b) Initial and periodic adjustment of the bag leak detection system including how the alarm set-point will be established;
c) Operation of the bag leak detection system including quality assurance procedures;
d) How the bag leak detection system will be maintained including a routine maintenance schedule and spare parts inventory list; and
e) How the bag leak detection system output shall be recorded and stored.

5) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time (if applicable). (§60.273a (e)(5))
6) Following initial adjustment, the permittee shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or the Department or delegated authority except as provided for in Conditions V.A.3.f.6)a) and V.A.3.f.6)b) below. (§60.273a (e)(6))
   a) Once per quarter, the permittee may adjust the sensitivity of the bag leak detection system to account for seasonal effects including temperature and humidity according to the procedures identified in the site-specific monitoring plan required under Condition V.A.3.f.4) above.
   b) If opacities greater than zero percent are observed over four consecutive 15-second observations during the daily opacity observations required under Condition V.A.3.c above and the alarm on the bag leak detection system does not sound, the permittee shall lower the alarm set point on the bag leak detection system to a point where the alarm would have sounded during the period when the opacity observations were made.
7) For negative pressure, induced air baghouses, and positive pressure baghouses that are discharged to the atmosphere through a stack, the bag leak detection sensor shall be installed downstream of the baghouse and upstream of any wet scrubber. (§60.273a (e)(7))
8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors. (§60.273a (e)(8))

g. For each bag leak detection system installed according to Condition V.A.3.f above, the permittee shall initiate procedures to determine the cause of all alarms within 1 hour of an alarm. Except as provided for under Condition V.A.3.h below, the cause of the alarm shall be alleviated within 3 hours of the time the alarm occurred by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the following: (§60.273a (f))

1) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate emissions; (§60.273a (f)(1))
2) Sealing off defective bags or filter media; (§60.273a (f)(2))
3) Replacing defective bags or filter media or otherwise repairing the control device; (§60.273a (f)(3))
4) Sealing off a defective baghouse compartment; (§60.273a (f)(4))
5) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; and (§60.273a (f)(5))
6) Shutting down the process producing the particulate emissions. (§60.273a (f)(6))

h. ~~In approving the site-specific monitoring plan required in Condition V.A.3.f.4) above, the Administrator or Department or delegated authority may allow the permittee more than 3 hours to alleviate specific conditions that cause an alarm if the permittee identifies the condition that could lead to an alarm in the monitoring plan, adequately explains why it is not feasible to alleviate the condition within 3 hours of the time the alarm occurred, and demonstrates that the requested additional time will ensure alleviation of the condition as expeditiously as practicable. (§60.273a (g))~~

~~i.~~ ~~Except as provided under paragraph V.A.3.l below, the permittee shall either: check and record the control system fan motor amperes on a once per shift basis; install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through each separately ducted hood; or install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate at the control device inlet on a once-per-shift basis. The monitoring device(s) may be installed in any appropriate location in the exhaust duct such that reproducible flow rate monitoring will result. The flow rate monitoring device(s) shall have an accuracy of ±10 percent over its normal operating range and shall be calibrated according to the manufacturer's instructions. The Department may require the permittee to demonstrate the accuracy of the monitoring device(s) relative to 40 CFR Part 60 Appendix A Methods 1 and 2. (§60.274a(b))~~

~~j.~~ ~~When the permittee is required to demonstrate compliance with V.A.1.a.3) above, and at any other time that the Department or the Administrator may require (under section 114 of the Act, as amended), either: the control system fan motor amperes, the volumetric flow rate through each separately ducted hood, or the volumetric flow rate at the control device inlet shall be determined during all periods in which a hood is operated for the purpose of capturing emissions from the EAF. The permittee may petition the Department and/or the Administrator for reestablishment of these parameters whenever the permittee can demonstrate to the Department's and the Administrator's satisfaction that the affected facility operating conditions upon which the parameters were previously established are no longer applicable. The values of these parameters as determined during the most recent demonstration of compliance shall be maintained at the appropriate level for each applicable period. Operation at other than baseline values may be subject to the requirements of § 60.276a(c). (§60.274a(c))~~

~~k.~~ ~~Except as provided under V.A.3.l below, the permittee shall perform monthly operational status inspections of the equipment that is important to the performance of the total capture system (*i.e.*, pressure sensors). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion). Any deficiencies shall be noted and proper maintenance performed. (§60.274a(d))~~

~~l.~~ ~~The permittee may petition the Department and the Administrator to approve any alternative to either the monitoring requirements specified in V.A.3.i above or the monthly operational status inspections specified in V.A.3.k above if the alternative will provide a continuous record of operation of each emission capture system. (§60.274a(e))~~

~~m.~~ ~~Except as provided for under Condition V.A.3.e above, if emissions during any phase of the heat time are controlled by the use of a DEC system, the permittee shall install, calibrate, and maintain a monitoring device that allows the pressure in the free space inside the EAF to be monitored. The pressure shall be recorded as 15-minute integrated averages. The monitoring device may be installed in any appropriate location in the EAF or DEC duct prior to the introduction of ambient air such that reproducible results will be obtained. The pressure monitoring device shall have an~~

~~accuracy of ±5 mm of water gauge over its normal operating range and shall be calibrated according to the manufacturer's instructions. (§60.274a(f))~~

~~n. Except as provided for under Condition V.A.3.e above, when the permittee of an EAF controlled by a DEC is required to demonstrate compliance with the standard under §60.272a(a)(3), and at any other time the Department may require (under section 114 of the Clean Air Act, as amended), the pressure in the free space inside the furnace shall be determined during the meltdown and refining period(s) using the monitoring device required under Condition V.A.3.g above. The permittee may petition the Administrator or the Department for reestablishment of the pressure whenever the permittee can demonstrate to the Administrator's or the Department's satisfaction that the EAF operating conditions upon which the pressures were previously established are no longer applicable. The pressure determined during the most recent demonstration of compliance shall be maintained at all times when the EAF is operating in a meltdown and refining period. Operation at higher pressures may be considered by the Administrator or the Department to be unacceptable operation and maintenance of the affected facility. (§60.274a(g))~~

~~o. The permittee shall conduct an inspection on the Melt Shop Baghouse once per week to demonstrate compliance with conditions V.A.1.d.1) and V.A.1.d.2) above. (§2103.12.h.1)~~

~~p. The permittee shall check and record the fan motor amperes for the emission control system, i.e., Melt Shop Baghouse, on a once-per-shift basis. (§2103.12.h.1)~~

~~q. The permittee shall, at all times, have instrumentation to continuously monitor the differential pressure drop across each compartment of the Melt Shop Baghouse during operation of the EAF. Such instrumentation shall measure the pressure drop to within ½" w.c. and be properly~~ operated, ~~calibrated, and maintained according to manufacturer's specifications. (§2103.12.h.1)~~

4. Record Keeping Requirements:

a. ~~The permittee shall maintain records of the following information (§60.274a(a)):~~

~~1) All data obtained under V.A.3.e above, and~~
~~2) All monthly operational status inspections performed under V.A.3.g above.~~

b. The permittee shall maintain records to demonstrate compliance with the requirements of §2105.06 and RACT Order No. 241. Such records shall provide sufficient data and calculations to clearly demonstrate that all requirements of §2105.06 and RACT Order No. 241 are met. Data and information required to determine compliance shall be recorded and maintained by the permittee and shall include, but not be limited to the following (RACT Order No. 241, Condition 1.2; §2103.12.j.1; 25 PA Code §129.100):

1) Number of heats and production for the EAF (daily, monthly, 12-month);
2) Time and duration of each furnace charge and tap (per charge/tap, monthly average, 12-month);
3) Differential pressure drop across each compartment of the Melt Shop Baghouse; and
4) Stack test protocols and reports.

c. ~~The permittee shall maintain a copy of the manufacturer's specifications for the Melt Shop Baghouse and records of control system inspections and performance evaluations and all records of calibration checks, adjustments, and maintenance performed on all equipment that is subject to this permit. (§2103.12.j.1)~~

d. ~~The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance. (§2103.12.h.1)~~

e. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2; §60.276a(a); 25 PA Code §129.100)

f. ~~*Recordkeeping and reporting requirements.* In addition to the records required by §63.10, the permittee shall keep records to demonstrate compliance with the requirements for the permittee's pollution prevention plan in Condition V.A.1.g.1) above and/or for the use of only restricted scrap in Condition V.A.1.g.2) above and for mercury in Conditions V.A.1.h.1) through V.A.1.h.3) above as applicable. The permittee shall keep records documenting compliance with Condition V.A.1.h.4) above for scrap that does not contain motor vehicle scrap. (§ 63.10685(e))~~

~~1) If the permittee is subject to the requirements for a site-specific plan for mercury under Condition V.A.1.h.1) above, the permittee shall: (§ 63.10685(e)(1))~~

~~a) Maintain records of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, and an estimate of the percent of mercury switches recovered; and (§ 63.10685(e)(1)(i))~~

~~b) Submit semiannual reports of the number of mercury switches removed or the weight of mercury recovered from the switches and properly managed, the estimated number of vehicles processed, an estimate of the percent of mercury switches recovered, and a certification that the recovered mercury switches were recycled at RCRA-permitted facilities. The semiannual reports shall include a certification that the permittee has conducted inspections or taken other means of corroboration as required under Condition V.A.1.h.1)b)iii) above. The permittee may include this information in the semiannual compliance reports required under Condition V.A.4.f.3) below. (§ 63.10685(e)(1)(ii))~~

~~2) If the permittee is subject to the option for approved mercury programs under Condition V.A.1.h.2) above, the permittee shall maintain records identifying each scrap provider and documenting the scrap provider's participation in an approved mercury switch removal program. If the permittee purchases motor vehicle scrap from a broker, the permittee shall maintain records identifying each broker and documentation that all scrap provided by the broker was obtained from other scrap providers who participate in an approved mercury switch removal program. (§ 63.10685(e)(2))~~

~~3) The permittee shall submit semiannual compliance reports to the Administrator or the Department for the control of contaminants from scrap according to the requirements in §63.10(e). The report shall clearly identify any deviation from the requirements in Conditions V.A.1.g and V.A.1.h above and the corrective action taken. The permittee shall identify which compliance option in Condition V.A.1.h above applies to each scrap provider, contract, or shipment. (§ 63.10685(e)(3))~~

5. Reporting Requirements:

~~a. The permittee shall report the following information semiannually to the Department in accordance with General Condition III.15 above. The reports shall contain all required information for the time period of the report: (§2103.12.k.1)~~

~~1) Monthly and 12-month data required to be reported by condition V.A.4.a above; and~~

2) Non-compliance information required to be recorded by V.A.4.d above.

b. The permittee shall submit a written report of exceedances of the control device opacity to the Department and the Administrator semi-annually. For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average opacity is 3 percent or greater. (§60.276a(b))

c. Either operation of control system fan motor amperes at values exceeding ±15 percent of the value established under V.A.3.f above or operation at flow rates lower than those established under V.A.3.f above may be considered by the Department or the Administrator to be unacceptable operation and maintenance of the affected facility. Operation at such values shall be reported to the Department and the Administrator semiannually. (§60.276a(c))

d. When the permittee is required to demonstrate compliance with the standard under V.A.2.e.2) above or a combination of V.A.2.e.1) and V.A.2.e.2) above, the permittee shall obtain approval from the Department and the Administrator of the procedure(s) that will be used to determine compliance. Notification of the procedure(s) to be used shall be postmarked at least 30 days prior to the performance test. Notification procedures of §2108.02 shall also apply. (§60.276a(e); §2108.02)

e. The permittee shall conduct the demonstration of compliance with V.A.1.a above and furnish the Department and the Administrator a written report of the results of the test. This report shall include the following information: (§60.276a(f))

1) Facility name and address;
2) Plant representative;
3) Make and model of process, control device, and continuous monitoring equipment;
4) Flow diagram of process and emission capture equipment including other equipment or process(es) ducted to the same control device;
5) Rated (design) capacity of process equipment;
6) Those data required under V.A.2.e above;
   a) List of charge and tap weights and materials;
   b) Heat times and process log;
   c) Control device operation log; and
   d) Continuous opacity monitor or Method 9 data.
7) Test dates and test times;
8) Test company;
9) Test company representative;
10) Test observers from outside agency;
11) Description of test methodology used, including any deviation from standard reference methods;
12) Schematic of sampling location;
13) Number of sampling points;
14) Description of sampling equipment;
15) Listing of sampling equipment calibrations and procedures;
16) Field and laboratory data sheets;
17) Description of sample recovery procedures;
18) Sampling equipment leak check results;
19) Description of quality assurance procedures;
20) Description of analytical procedures;

~~21) Notation of sample blank corrections; and~~
~~22) Sample emission calculations.~~

~~f. All shop opacity observations in excess of the emission limits specified in V.A.1.a.2) and V.A.1.a.3) above shall indicate a period of excess emission, and shall be reported to the Department semi-annually, according to § 60.7(c). (§60.276a(g); §2103.12.k.1)~~

~~g. Reporting instances of non-compliance in accordance with condition V.A.5.a.2) above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8, if appropriate. (§2103.12.k.1)~~

6. Work Practice Standards

a. The permittee shall not, at any time, operate the Electric Arc Furnace and Melt Shop Baghouse unless they are properly operated and maintained according to good engineering and air pollution control practices. Such practices shall include, but are not limited to, minimizing the input of outside air and minimizing the opening of the slag door. (RACT Order No. 241, Conditions 1.1; §2105.06; §2105.03; 25 PA Code §129.99)

b. ~~The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. (§2105.03)~~

B. Argon-Oxygen Decarburization Vessel

Process Description:	Argon-Oxygen Decarburization (AOD) Vessel
Facility ID:	P002
Max. Design Rate:	35.5 TPH
Capacity:	25.1 TPH; 175,000 TPY (Based on EAF Steel Production)
Fuel/Raw Material:	Molten Steel, Scrap Steel, Alloy Elements, Flux
Control Device(s):	Melt Shop Baghouse
Stack I.D.:	S001

1. Restrictions:

a. At no time shall the permittee allow the AOD Vessel to operate unless it is being maintained and operated in accordance with good engineering practice and within the manufacturer's specifications. (RACT Order No. 241, Condition 1.1; 25 PA Code §129.99).

b. ~~The permittee shall at no time conduct AOD process operations unless the Melt Shop pollution control equipment is properly maintained and operated according to the following conditions: (§2103.12.a.2.B; ACHD Operating Permit No. 7037009-000-16401, issued August 1, 1978)~~

1) ~~The fugitive emissions capture equipment shall consist of a canopy hood system ducted to the Melt Shop Baghouse, and closed roof scavenger points ducted to the Melt Shop Baghouse.~~
2) ~~The AOD shall be equipped with a canopy hood for collection of process emissions, and such hood shall be properly maintained and operated at all times with all captured emissions ducted to the Melt Shop Baghouse.~~

c. ~~The production of steel at the AOD shall be limited by EAF steel production to not exceed 175,200 tons of steel in any consecutive twelve-month period. (§2103.12.a.2.B)~~

2. ~~Testing Requirements:~~

a. ~~The Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit. Such testing shall be performed in accordance with Site Level Condition IV.13 above and Article XXI §2108.02. (§2103.12.h.1)~~

3. ~~Monitoring Requirements:~~

~~None except as provided in V.A.3 above.~~

4. Record Keeping Requirements:

a. Records shall be kept by the facility to demonstrate compliance with the requirements of §2105.06 and RACT Order No. 241. Such records shall provide sufficient data and calculations to clearly demonstrate that all requirements of §2105.06 and RACT Order No. 241 are met. Data and information required to determine compliance shall be recorded and maintained by the permittee and shall include (RACT Order No. 241, Condition 1.2; §2103.12.j.1; 25 PA Code §129.100):

1) Number of heats and production for the AOD (daily, monthly, 12-month);
2) Time and duration of each vessel charge and tap (per charge/tap, monthly average, 12-month);
3) Differential pressure drop across each compartment of the EAF Melt Shop Baghouse; and

4) Stack test protocols and reports.

b. ~~The permittee shall record all instances of non-compliance with the conditions of this permit upon occurrence along with corrective action taken to restore compliance.(§2103.12.h.1)~~

c. All records shall be retained by the facility for at least five (5) years. These records shall be made available to the Department upon request for inspection and/or copying. (§2103.12.j.2; 25 PA Code §129.100)

5. Reporting Requirements:

a. ~~The permittee shall report the following information semiannually to the Department in accordance with General Condition III.15. The reports shall contain all required information for the time period of the report: (§2103.12.k.1)~~

~~1) Monthly and 12-month data required to be reported by condition V.B.4.a; and~~
~~2) Non-compliance information required to be recorded by V.B.4.b above.~~

~~b.~~ ~~Reporting instances of non-compliance in accordance with condition V.B.5.a.2) above, does not relieve the permittee of the requirement to report breakdowns in accordance with Site Level Condition IV.8, if appropriate. (§2103.12.k.1)~~

6. Work Practice Standards

a. The permittee shall not, at any time, operate the AOD Vessel and Melt Shop Baghouse unless they are properly operated and maintained according to good engineering and air pollution control practices. (RACT Order No. 241, Conditions 1.1; §2105.06; §2105.03; 25 PA Code §129.100)

b. ~~The permittee shall calibrate, maintain, and operate all instrumentation, process equipment, and control equipment according to manufacturer's recommendations and good engineering practices. (§2105.03)~~

Pages 40 through 76 have been redacted