# Summary of Requirements for Secondary Aluminum Production Facilities



Disclaimer

When using this document/information remember that it is not legally binding and does not replace the National Emission Standard for Hazardous Air Pollutants for Secondary Aluminum Production (March 23, 2000 63 FR 15690) for purposes of application of the rule . This document is not intended, nor can it be relied on, to create any rights enforceable by any party in litigation with the United States. The EPA may change this document/information at any time without public notice.

**Table 1. Summary of Requirements for Aluminum Scrap Shredders.**

| | Requirement(s) | 40CFR Section | Deadline/Frequency | Trigger |
|---|---|---|---|---|
| **Emission Standards** | • 0.023g PM per dscm (0.010 grain/dscf)<br>• 10 percent opacity from any PM add-on APCD if a COM or VE monitoring is chosen as monitoring option | §63.1505(b) | Existing sources: 3/23/03<br>New sources: 3/23/00 or upon startup, whichever is later | New sources: startup |
| **Operating Requirements** | • Operate in accordance w/OM&M plan<br>• If equipped w/add-on APCD: design & install emission capture & collection system in accordance w/Industrial Ventilation: A Manual of Recommended Practice; vent captured emissions through a closed system, except that dilution air may be added to control temperature at fabric filter inlet<br>• If equipped w/fabric filter: operate a bag leak detection system or a COM, or conduct VE observations<br>• If operating a bag leak detection system: initiate corrective action w/in 1 hour of alarm & complete corrective action in accordance w/OM&M plan; operate bag leak detection system such that alarm does not sound more than 5 percent of operating time during a 6-month reporting period<br>• If operating a COMS: initiate corrective action w/in 1 hour of any 6-minute average reading of 5 percent or more opacity & complete corrective action in accordance w/OM&M plan<br>• If conducting VE observations: initiate corrective action w/in 1 hour of any observation of VE during a daily VE test & complete corrective action in accordance w/OM&M plan | §63.1510(b); 63.1506(c),(e) | Must operate according to these requirements on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |

**Table 1. Summary of Requirements for Aluminum Scrap Shredders.**

| | | | | |
|---|---|---|---|---|
| **Testing Requirements** | • Submit notification of intent to conduct performance test<br>• Submit site-specific test plan<br>• Conduct performance test to measure PM emissions at control system outlet<br>• If using VE observations as monitoring option: record VE observations from each stack for all consecutive 6-minute periods during PM emissions test<br>• If using COM: conduct performance evaluation, measure opacity from each stack for all consecutive 6-minute periods during performance test<br>• Establish operating parameter values | • 63.1515(a)(6)<br>• 63.7(c)(2)<br>• 63.1512(a); 63.7(a)(2); 63.1511(e)<br>• 63.1512(a)<br>• 63.1512(l)<br>• 63.1511(g) | • 60 days before test<br>• 60 days before test<br>• Within 180 days after compliance deadline, & every 5 years thereafter<br>• During performance test | |
| **Monitoring Requirements** | • If equipped w/add-on APCD: annually inspect all emission capture, collection, & transport systems to ensure that systems continue to operate in accordance w/standards<br>• If operating a bag leak detection system: install & operate in accordance w/Fabric Filter Bag Leak Detection Guidance or manufacturers specifications, record voltage output from bag leak detector, establish alarm set points<br>• If operating a COMS: design & install in accordance w/PS-1, determine & record 6-minute block averages<br>• If conducting VE observations: conduct & record results of 30-minute daily test in accordance w/Method 9 | §63.1510(d),(f) | Must monitor on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |

**Table 1. Summary of Requirements for Aluminum Scrap Shredders.**

| | | | | |
|---|---|---|---|---|
| **Reporting Requirements** | • Initial notification<br>• Notification of anticipated date of performance test<br>• Site-specific test plan<br>• OM&M plan<br>• Notification of compliance status report<br>• Excess emissions reports<br>• Annual compliance certification/summary report<br>• SSM reports<br>• Report of malfunctions outside of SSM plan that affect CMS<br>• Report of actions inconsistent w/SSM plan | • 63.9(b)(2)<br>• 63.1515(a)(6)<br>• 63.7(c)(2)(iv)<br>• 63.1510(b)<br>• 63.1515(b)<br>• 63.1516(b)<br>• 63.1516(b),(c)<br>• 63.10(d)(5)(i)<br>• 63.8(c)(1)(ii)<br>• 63.6(e)(3)(iv); 63.10(d)(5)(ii) | • 120 days after eff. date or startup<br>• 60 days before performance test<br>• 60 days before performance test<br>• As part of Part 70(71) application<br>• 60 days after compliance date<br>• Semi-annually, 60 days after cal. half<br>• Semi-annually, 60 days after cal. half<br>• 30 days after calendar half when a SSM occurred<br>• 24 hrs. after event (phone report) & 14 days after event (letter report)<br>• 2 working days after event (phone report) & 7 working days after event (letter report) | |

**Table 1. Summary of Requirements for Aluminum Scrap Shredders.**

| | | | | |
|---|---|---|---|---|
| **Recordkeeping Requirements** | • For capture/collection systems: records of annual inspection<br>• For bag leak detection systems: number of total operating hours during each 6-month reporting period, records of each alarm, time of alarm, times corrective action was initiated & completed, brief description of cause of alarm & corrective action taken<br>• For COMS: records of opacity msmt. data, records where average opacity of any 6-minute period exceeds 5 percent w/ brief explanation of cause of emissions, time emissions occurred, times corrective action was initiated & completed, & corrective action taken; date & time of each period when COMS was inoperative or out of control, records of each period of excess emissions during a startup, shutdown, or malfunction, procedures that are part of a QC plan for COMS<br>• For VE observations: records of all Method 9 observations, records of any VE during a 30-minute daily test w/brief explanation of cause of emissions, time emissions occurred, times corrective action was initiated & completed, corrective action taken<br>• Copies of all notifications & reports & their supporting documentation<br>• Records of occurrence & duration of each SSM or malfunction of operation of process & control equipment<br>• Records of actions inconsistent w/SSM plan & actions consistent w/SSM plan<br>• Records of measurements needed to demonstrate compliance<br>• Records of performance test results<br>• Records of any approved alternative monitoring or test procedure<br>• SSM plan<br>• OM&M plan | • 63.1517(b)(14)<br>• 63.1517(b)(1)(i)<br>• 63.1517(b)(1)(ii); 63.1517(b)(6)<br>• 63.1517(b)(1)(iii)<br>• 63.1517(a)<br>• 63.1516(a)<br>• 63.1516(a)<br>• 63.10(b)(2)(vii)<br>• 63.10(b)(2)(viii)<br>• 63.1517(b)(15)<br>• 63.1517(b)(16)<br>• 63.1517(b)(16) | Keep records for at least 5 years, may keep off-site after first 2 years; records must be accessible within 24 hours of request | |

## Table 2. Summary of Requirements for Thermal Chip Dryers.

| | Requirement(s) | 40CFR Section | Deadline/Frequency | Trigger |
|---|---|---|---|---|
| **Emission Standards** | • 0.40 kg THC, as propane, per Mg feed/charge ( 0.08 lb/ton)<br>• 2.50 :g D/F TEQ per Mg feed/charge (3.5 x $10^{-5}$ gr/ton) | §63.1505(c) | Existing sources: 3/23/03<br>New sources: 3/23/00 or upon startup, whichever is later | New sources: startup |
| **Operating Requirements** | • Operate in accordance w/OM&M plan<br>• Operate a device that measures & records the weight of feed/charge for each operating cycle or time period used in performance test<br>• If equipped w/add-on APCD: design & install emission capture & collection system in accordance w/Industrial Ventilation: A Manual of Recommended Practice; vent captured emissions through a closed system, except that dilution air may be added to control temperature at fabric filter inlet<br>• If equipped w/afterburner: Maintain average afterburner operating temperature for each 3-hour period at or above average operating temperature established during performance test; use only unpainted aluminum chips as feedstock | §63.1510(b); 63.1506(c), (d), (f) | Must operate according to these requirements on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |
| **Testing Requirements** | • Submit notification of intent to conduct performance test<br>• Submit site-specific test plan<br>• Conduct performance test to measure THC & D/F emissions at control device outlet while unit processes only unpainted aluminum chips, measure total weight of feed/charge used during tests<br>• If equipped w/afterburner: conduct performance evaluation of temperature monitoring device, measure & record average afterburner temperature for each 15 minute period during performance test<br>• Establish operating parameter values | • 63.1515(a)(6)<br>• 63.7(c)(2)<br>• 63.1512(b),(k); 63.7(a)(2); 63.1511(e)<br>• 63.1512(m)<br>• 63.1511(g) | • 60 days before test<br>• 60 days before test<br>• Within 180 days after compliance deadline, & every 5 years thereafter<br>• During performance test | |

**Table 2. Summary of Requirements for Thermal Chip Dryers.**

| | | | | |
|---|---|---|---|---|
| **Monitoring Requirements** | • Monitor weight of each feed/charge using a device or other procedure w/accuracy of ±1%; calibrate device according to manufacturers specifications or at least once every 6 months<br>• If equipped w/add-on APCD: annually inspect all emission capture, collection, & transport systems to ensure that systems continue to operate in accordance w/standards<br>• If equipped w/afterburner: monitor avg. temperature for each 15-minute block; determine 3-hour block averages; conduct annual inspection<br>• Record type of material charged to unit for each operating cycle or time period used in performance test<br>• Certify that only unpainted aluminum chips were used as feedstock for each 6-month reporting period | §63.1510(d), (e), (g),(k) | Must monitor on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |
| **Reporting Requirements** | • Initial notification<br>• Notification of anticipated date of performance test<br>• Site-specific test plan<br>• OM&M plan<br>• Notification of compliance status report<br>• Excess emissions reports<br>• Annual compliance certification/summary report<br>• SSM reports<br>• Report of malfunctions outside of SSM plan that affect CMS<br>• Report of actions inconsistent w/SSM plan | • 63.9(b)(2)<br>• 63.1515(a)(6)<br>• 63.7(c)(2)(iv)<br>• 63.1510(b)<br>• 63.1515(b)<br>• 63.1516(b)<br>• 63.1516(b),(c)<br>• 63.10(d)(5)(i)<br>• 63.8(c)(1)(ii)<br>• 63.6(e)(3)(iv); 63.10(d)(5)(ii) | • 120 days after eff. date or startup<br>• 60 days before performance test<br>• 60 days before performance test<br>• As part of Part 70(71) application<br>• 60 days after compliance date<br>• Semi-annually, 60 days after cal. half<br>• Semi-annually, 60 days after cal. half<br>• 30 days after calendar half when a SSM occurred<br>• 24 hrs. after event (phone report) & 14 days after event (letter report)<br>• 2 working days after event (phone report) & 7 working days after event (letter report) | |

**Table 2. Summary of Requirements for Thermal Chip Dryers.**

| | | | | |
|---|---|---|---|---|
| **Recordkeeping Requirements** | • For afterburner: records of 15-minute average operating temperature, including any period when average temperature in any 3-hour block period falls below compliant operating parameter value w/brief explanation of cause & corrective action taken; records of annual inspection | • 63.1517(b)(2) | Keep records for at least 5 years, may keep off-site after first 2 years; records must be accessible within 24 hours of request | |
| | • For capture/collection systems: records of annual inspection | • 63.1517(b)(14) | | |
| | • Records of all charge materials | • 63.1517(b)(9) | | |
| | • Records of feed/charge weights for each operating cycle or time period used in performance test | • 63.1517(b)(7) | | |
| | • Copies of all notifications & reports & their supporting documentation | • 63.1517(a) | | |
| | • Records of occurrence & duration of each SSM or malfunction of operation of process & control equipment | • 63.1516(a) | | |
| | • Records of actions inconsistent w/SSM plan & actions consistent w/SSM plan | • 63.1516(a) | | |
| | • Records of measurements needed to demonstrate compliance | • 63.10(b)(2)(vii) | | |
| | • Records of performance test results | • 63.10(b)(2)(viii) | | |
| | • Records of any approved alternative monitoring or test procedure | • 63.1517(b)(15) | | |
| | • SSM plan | • 63.1517(b)(16) | | |
| | • OM&M plan (major sources only) | • 63.1517(b)(16) | | |

**Table 3. Summary of Requirements for Scrap Dryers/Delacquering Kilns/Decoating Kilns.**

| | Requirement(s) | 40CFR Section | Deadline/Frequency | Trigger |
|---|---|---|---|---|
| **Emission Standards** | • 0.03 kg THC, as propane, per Mg feed/charge (0.06 lb/ton)<br>• 0.04 kg PM per Mg feed/charge (0.08 lb/ton)<br>• 0.25 :g D/F TEQ per Mg feed/charge ($3.5 \times 10^{-6}$ gr/ton)<br>• 0.40 kg HCl per Mg feed/charge (0.80 lb/ton)<br>• 10 percent opacity from any PM add-on APCD if a COM is chosen as monitoring option<br>• Alternative limits (if equipped w/afterburner that has design residence time of at least 1 second & is operated at temperature of at least 750°C(1400°F)):<br>  • 0.10 kg THC, as propane, per Mg feed/charge (0.20 lb/ton)<br>  • 0.15 kg PM per Mg feed/charge (0.30 lb/ton)<br>  • 5.0 :g D/F TEQ per Mg feed/charge ($7.0 \times 10^{-5}$ gr/ton)<br>  • 0.75 kg HCl per Mg feed/charge (1.50 lb/ton)<br>  • 10 percent opacity from any PM add-on APCD if a COM is chosen as monitoring option | §63.1505(d), (e) | Existing sources: 3/23/03<br>New sources: 3/23/00 or upon startup, whichever is later | New sources: startup |

**Table 3. Summary of Requirements for Scrap Dryers/Delacquering Kilns/Decoating Kilns.**

| | | | | |
|---|---|---|---|---|
| **Operating Requirements** | • Operate in accordance w/OM&M plan<br>• Maintain easily visible labels that identify type of affected source, applicable operational standards & control methods, afterburner operating temperature & design residence time<br>• Operate a device that measures & records weight of feed/charge for each operating cycle or time period used in performance test<br>• If equipped w/add-on APCD: design & install emission capture & collection system in accordance w/Industrial Ventilation: A Manual of Recommended Practice; vent captured emissions through a closed system, except that dilution air may be added to control temperature at fabric filter inlet<br>• If equipped w/afterburner: Maintain average afterburner operating temperature for each 3-hour period at or above average operating temperature established during perf. test<br>• If operating a bag leak detection system: initiate corrective action w/in 1 hour of alarm & complete corrective action in accordance w/OM&M plan; operate bag leak detection system such that alarm does not sound more than 5 percent of operating time during a 6-month reporting period<br>• If operating a COMS: initiate corrective action w/in 1 hour of any 6-minute average reading of 5 percent or more opacity & complete corrective action in accordance w/OM&M plan<br>• Maintain 3-hour block average inlet temperature for each fabric filter at or below average temperature established during performance test plus 14°C(25°F)<br>• For continuous inject fabric filters: maintain free-flowing lime in hopper to feed device at all times, maintain lime feeder setting at same level established during performance test | §63.1510(b); 63.1506(b),(c),(d),(g) | Must operate according to these requirements on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |

**Table 3. Summary of Requirements for Scrap Dryers/Delacquering Kilns/Decoating Kilns.**

| | | | | |
|---|---|---|---|---|
| **Testing Requirements** | • Submit notification of intent to conduct performance test | • 63.1515(a)(6) | • 60 days before test | |
| | • Submit site-specific test plan | • 63.7(c)(2) | • 60 days before test | |
| | • Conduct performance test to measure THC, D/F, HCl, & PM emissions at control device outlet, measure total weight of feed/charge during tests; if subject to alternative emission limits, maintain average afterburner temp. in each 3-hour block period at or above 760°C during test | • 63.1512(c),(k); 63.7(a)(2); 63.1511(e) | • Within 180 days after compliance deadline, & every 5 years thereafter | |
| | • If using COM: conduct performance evaluation, measure opacity from each stack for all consecutive 6-minute periods during performance test | • 63.1512(l) | | |
| | • If equipped w/afterburner: conduct performance evaluation of temperature monitoring device, measure & record average afterburner temperature for each 15 minute period during performance test | • 63.1512(m) | | |
| | • If using lime-injected fabric filter: measure & record average inlet temperature every 15 minutes during performance test, record feeder setting | • 63.1512(n),(p) | | |
| | • Establish operating parameter values | • 63.1511(g) | • During performance test | |

**Table 3. Summary of Requirements for Scrap Dryers/Delacquering Kilns/Decoating Kilns.**

| | | | | |
|---|---|---|---|---|
| **Monitoring Requirements** | • Monitor weight of each feed/charge using a device or other procedure w/accuracy of ±1%; calibrate device according to manufacturers specifications or at least once every 6 months<br>• Inspect labels at least once per calendar month to confirm that they are intact & legible<br>• If equipped w/add-on APCD: annually inspect all emission capture, collection, & transport systems to ensure that systems continue to operate in accordance w/standards<br>• If operating a bag leak detection system: install & operate in accordance w/Fabric Filter Bag Leak Detection Guidance or manufacturers specifications, record voltage output from bag leak detector, establish alarm set points<br>• If operating a COMS: design & install in accordance w/PS-1, determine & record 6-minute block averages<br>• For afterburners & lime-injected fabric filter inlets: monitor avg. temperature for each 15-minute block, determine 3-hour block averages; conduct annual afterburner inspection<br>• For continuous injection fabric filters: inspect each feed hopper or silo every 8 hours to verify that lime is free-flowing, inspect every 4 hours for 3 days if blockage occurs; monitor feeder setting daily | §63.1510(c)-(i) | Must monitor on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |
| **Reporting Requirements** | • Initial notification<br>• Notification of anticipated date of performance test<br>• Site-specific test plan<br>• OM&M plan<br>• Notification of compliance status report<br>• Excess emissions reports<br>• Annual compliance certification/summary report<br>• SSM reports<br>• Report of malfunctions outside of SSM plan that affect CMS<br>• Report of actions inconsistent w/SSM plan | • 63.9(b)(2)<br>• 63.1515(a)(6)<br>• 63.7(c)(2)(iv)<br>• 63.1510(b)<br>• 63.1515(b)<br>• 63.1516(b)<br>• 63.1516(b),(c)<br>• 63.10(d)(5)(i)<br>• 63.8(c)(1)(ii)<br>• 63.6(e)(3)(iv); 63.10(d)(5)(ii) | • 120 days after eff. date or startup<br>• 60 days before performance test<br>• 60 days before performance test<br>• As part of Part 70(71) application<br>• 60 days after compliance date<br>• Semi-annually, 60 days after cal. half<br>• Semi-annually, 60 days after cal. half<br>• 30 days after calendar half when a SSM occurred<br>• 24 hrs. after event (phone report) & 14 days after event (letter report)<br>• 2 working days after event (phone report) & 7 working days after event (letter report) | |

**Table 3. Summary of Requirements for Scrap Dryers/Delacquering Kilns/Decoating Kilns.**

| | | | | |
|---|---|---|---|---|
| **Recordkeeping Requirements** | • Records of monthly inspections for proper unit labeling<br>• For capture/collection systems: records of annual inspection<br>• For bag leak detection systems: number of total operating hours during each 6-month period, records of each alarm, time of alarm, times corrective action initiated & completed, brief description of cause of alarm & corrective action taken<br>• For COMS: records of opacity msmt. data, records where average opacity of any 6-minute period exceeds 5 percent w/ brief explanation of cause of emissions, time emissions occurred, times corrective action was initiated & completed, & corrective action taken; date & time of each period when COMS was inoperative or out of control, records of each period of excess emissions during a startup, shutdown, or malfunction, procedures that are part of a QC plan for COMS<br>• For afterburner: records of 15-minute average operating temperature, including any period when average temperature in any 3-hour block period falls below compliant operating parameter value plus 14°C(25°F) with a brief explanation of cause & corrective action taken; records of annual inspection<br>• For lime-injected fabric filters: records of 15-minute average operating temperature, including any period when average temperature in any 3-hour block period falls below compliant operating parameter value with a brief explanation of cause & corrective action taken; records of inspections at least once every 8 hours, records of daily lime feeder setting<br>• Records of feed/charge weights for each operating cycle or time period used in performance test<br>• Copies of all notifications & reports & their documentation<br>• Records of occurrence & duration of each SSM or malfunction of operation of process & control equipment<br>• Records of actions inconsistent w/SSM plan & actions consistent w/SSM plan<br>• Records of measurements needed to demonstrate compliance<br>• Records of performance test results<br>• SSM plan<br>• OM&M plan (major sources only)<br>• Records of any approved alternative monitoring/test procedure | • 63.1517(b)(13)<br>• 63.1517(b)(14)<br>• 63.1517(b)(1)(i)<br>• 63.1517(b)(1)(ii) 63.1517(b)(6)<br>• 63.1517(b)(2)<br>• 63.1517(b)(3), (4)<br>• 63.1517(b)(7)<br>• 63.1517(a)<br>• 63.1516(a)<br>• 63.1516(a)<br>• 63.10(b)(2)(vii)<br>• 63.10(b)(2)(viii)<br>• 63.1517(b)(16)<br>• 63.1517(b)(15) | Keep records for at least 5 years, may keep off-site after first 2 years; records must be accessible within 24 hours of request | |

**Table 4. Summary of Requirements for Sweat Furnaces.**

| | Requirement(s) | 40CFR Section | Deadline/Frequency | Trigger |
|---|---|---|---|---|
| **Emission Standards** | • 0.80 ng D/F TEQ per dscm ($3.5 \times 10^{-10}$ gr/dscf) @ 11% $O_2$ | §63.1505(f) | Existing sources: 3/23/03<br>New sources: 3/23/00 or upon startup, whichever is later | New sources: startup |
| **Operating Requirements** | • Operate in accordance w/OM&M plan<br>• If equipped w/add-on APCD: design & install emission capture & collection system in accordance w/Industrial Ventilation: A Manual of Recommended Practice; vent captured emissions through a closed system, except that dilution air may be added to control temperature at fabric filter inlet<br>• If equipped w/afterburner: Maintain average afterburner operating temperature for each 3-hour period at or above average operating temperature established during performance test or 1600°F if a performance test was not conducted & afterburner has design residence time of 2 seconds or greater & operating temperature of 1600°F or greater | §63.1506(c), (h) | Must operate according to these requirements on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier; if no performance test is required, must operate according to these requirements on & after compliance deadline | Initial performance test |
| **Testing Requirements** | • Submit notification of intent to conduct performance test<br>• Submit site-specific test plan<br>• Conduct performance test to measure D/F emissions at control device outlet; no performance test is required if afterburner has design residence time of 2 seconds or greater & operating temperature of 1600°F or greater<br>• If equipped w/afterburner: conduct performance evaluation of temperature monitoring device, measure & record average afterburner temperature for each 15-minute period during performance test<br>• Establish operating parameter values | • 63.1515(a)(6)<br>• 63.7(c)(2)<br>• 63.1512(f); 63.7(a)(2); 63.1511(e)<br>• 63.1512(m)<br>• 63.1511(g) | • 60 days before test<br>• 60 days before test<br>• Within 180 days after compliance deadline, & every 5 years thereafter<br>• During performance test | |
| **Monitoring Requirements** | • If equipped w/add-on APCD: annually inspect all emission capture, collection, & transport systems to ensure that systems continue to operate in accordance w/standards<br>• If equipped w/afterburner: monitor avg. temperature for each 15-minute block; determine 3-hr block averages; conduct annual inspection | §63.1510(d),(g) | Must monitor on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |

**Table 4. Summary of Requirements for Sweat Furnaces.**

| | | | | |
|---|---|---|---|---|
| **Reporting Requirements** | • Initial notification<br>• Notification of anticipated date of performance test<br>• Site-specific test plan<br>• OM&M plan<br>• Notification of compliance status report<br>• Excess emissions reports<br>• Annual compliance certification/summary report<br>• SSM reports<br>• Report of malfunctions outside of SSM plan that affect CMS<br>• Report of actions inconsistent w/SSM plan | • 63.9(b)(2)<br>• 63.1515(a)(6)<br>• 63.7(c)(2)(iv)<br>• 63.1510(b)<br>• 63.1515(b)<br>• 63.1516(b)<br>• 63.1516(b),(c)<br>• 63.10(d)(5)(i)<br>• 63.8(c)(1)(ii)<br>• 63.6(e)(3)(iv); 63.10(d)(5)(ii) | • 120 days after eff. date or startup<br>• 60 days before performance test<br>• 60 days before performance test<br>• As part of Part 70(71) application<br>• 60 days after compliance date<br>• Semi-annually, 60 days after cal. half<br>• Semi-annually, 60 days after cal. half<br>• 30 days after calendar half when a SSM occurred<br>• 24 hrs. after event (phone report) & 14 days after event (letter report)<br>• 2 working days after event (phone report) & 7 working days after event (letter report) | |
| **Recordkeeping Requirements** | • For afterburner: records of 15-minute average operating temperature, including any period when average temperature in any 3-hr block period falls below compliant operating parameter value with a brief explanation of cause & corrective action taken; records of annual inspection<br>• For capture/collection systems: records of annual inspection<br>• Copies of all notifications & reports & their supporting documentation<br>• Records of occurrence & duration of each SSM or malfunction of operation of process & control equipment<br>• Records of actions inconsistent w/SSM plan & actions consistent w/SSM plan<br>• Records of measurements needed to demonstrate compliance<br>• Records of performance test results<br>• Records of any approved alternative monitoring or test procedure<br>• SSM plan<br>• OM&M plan (major sources only) | • 63.1517(b)(2)<br>• 63.1517(b)(14)<br>• 63.1517(a)<br>• 63.1516(a)<br>• 63.1516(a)<br>• 63.10(b)(2)(vii)<br>• 63.10(b)(2)(viii)<br>• 63.1517(b)(15)<br>• 63.1517(b)(16)<br>• 63.1517(b)(16) | Keep records for at least 5 years, may keep off-site after first 2 years; records must be accessible within 24 hours of request | |

## Table 5. Summary of Requirements for Dross-Only Furnaces.

| | Requirement(s) | 40CFR Section | Deadline/Frequency | Trigger |
|---|---|---|---|---|
| **Emission Standards** | • 0.15 kg PM per Mg feed/charge (0.30 lb/ton)<br>• 10 percent opacity from any PM add-on APCD if a COM is chosen as monitoring option | §63.1505(g) | Existing sources: 3/23/03<br>New sources: 3/23/00 or upon startup, whichever is later | New sources: startup |
| **Operating Requirements** | • Operate in accordance w/OM&M plan<br>• Operate a device that measures & records weight of feed/charge for each operating cycle or time period used in performance test<br>• If equipped w/add-on APCD: design & install emission capture & collection system in accordance w/Industrial Ventilation: A Manual of Recommended Practice; vent captured emissions through a closed system, except that dilution air may be added to control temp. at fabric filter inlet<br>• If operating a bag leak detection system: initiate corrective action w/in 1 hour of alarm & complete corrective action in accordance w/OM&M plan; operate bag leak detection system such that alarm does not sound more than 5 percent of operating time during a 6-month reporting period<br>• If operating a COMS: initiate corrective action w/in 1 hour of any 6-minute average reading of 5 percent or more opacity & complete corrective action in accordance w/OM&M plan<br>• Operate each furnace using dross as sole feedstock | §63.1510(b); 63.1506(c),(d),(i) | Must operate according to these requirements on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |
| **Testing Requirements** | • Submit notification of intent to conduct performance test<br>• Submit site-specific test plan<br>• Conduct performance test to measure PM emissions at control device outlet while unit processes only dross, measure total weight of feed/charge during performance test<br>• If using COM: conduct performance evaluation, measure opacity from each stack for all consecutive 6-minute periods during performance test<br>• Establish operating parameter values | • 63.1515(a)(6)<br>• 63.7(c)(2)<br>• 63.1512(g),(k); 63.7(a)(2); 63.1511(e)<br>• 63.1512(l)<br>• 63.1511(g) | • 60 days before test<br>• 60 days before test<br>• Within 180 days after compliance deadline, & every 5 years thereafter<br>• During performance test | |

**Table 5. Summary of Requirements for Dross-Only Furnaces.**

| | | | | |
|---|---|---|---|---|
| **Monitoring Requirements** | • Monitor weight of each feed/charge using a device or other procedure w/accuracy of ±1%; calibrate device according to manufacturers specifications or at least once every 6 months<br>• If equipped w/add-on APCD: annually inspect all emission capture, collection, & transport systems to ensure that systems continue to operate in accordance w/standards<br>• If operating a bag leak detection system: install & operate in accordance w/Fabric Filter Bag Leak Detection Guidance or manufacturers specifications, record voltage output from bag leak detector, establish alarm set points<br>• If operating a COMS: design & install in accordance w/PS-1, determine & record 6-minute block averages<br>• Record materials charged to each unit for each operating cycle or time period used in performance test<br>• Certify that dross was only charge material used during each 6-month reporting period | §63.1510(d),(e),(f),(l) | Must monitor on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |
| **Reporting Requirements** | • Initial notification<br>• Notification of anticipated date of performance test<br>• Site-specific test plan<br>• OM&M plan<br>• Notification of compliance status report<br>• Excess emissions reports<br>• Annual compliance certification/summary report<br>• SSM reports<br>• Report of malfunctions outside of SSM plan that affect CMS<br>• Report of actions inconsistent w/SSM plan | • 63.9(b)(2)<br>• 63.1515(a)(6)<br>• 63.7(c)(2)(iv)<br>• 63.1510(b)<br>• 63.1515(b)<br>• 63.1516(b)<br>• 63.1516(b),(c)<br>• 63.10(d)(5)(i)<br>• 63.8(c)(1)(ii)<br>• 63.6(e)(3)(iv); 63.10(d)(5)(ii) | • 120 days after eff. date or startup<br>• 60 days before performance test<br>• 60 days before performance test<br>• As part of Part 70(71) application<br>• 60 days after compliance date<br>• Semi-annually, 60 days after cal. half<br>• Semi-annually, 60 days after cal. half<br>• 30 days after calendar half when a SSM occurred<br>• 24 hrs. after event (phone report) & 14 days after event (letter report)<br>• 2 working days after event (phone report) & 7 working days after event (letter report) | |

**Table 5. Summary of Requirements for Dross-Only Furnaces.**

| | | | | |
|---|---|---|---|---|
| **Recordkeeping Requirements** | • For capture/collection systems: records of annual inspection<br>• For bag leak detection systems: number of total operating hours during each 6-month reporting period, records of each alarm, time of alarm, times corrective action was initiated & completed, brief description of cause of alarm & corrective action taken<br>• For COMS: records of opacity msmt. data, records where average opacity of any 6-minute period exceeds 5 percent w/ brief explanation of cause of emissions, time emissions occurred, times corrective action was initiated & completed, & corrective action taken; date & time of each period when COMS was inoperative or out of control, records of each period of excess emissions during a startup, shutdown, or malfunction, procedures that are part of a QC plan for COMS<br>• Records of all charge materials<br>• Records of feed/charge weights for each operating cycle or time period used in performance test<br>• Copies of all notifications & reports & their supporting documentation<br>• Records of occurrence & duration of each SSM or malfunction of operation of process & control equipment<br>• Records of actions inconsistent w/SSM plan & actions consistent w/SSM plan<br>• Records of measurements needed to demonstrate compliance<br>• Records of performance test results<br>• Records of any approved alternative monitoring or test procedure<br>• SSM plan<br>• OM&M plan (major sources only) | • 63.1517(b)(14)<br>• 63.1517(b)(1)(i)<br>• 63.1517(b)(1)(ii); 63.1517(b)(6)<br>• 63.1517(b)(9)<br>• 63.1517(b)(7)<br>• 63.1517(a)<br>• 63.1516(a)<br>• 63.1516(a)<br>• 63.10(b)(2)(vii)<br>• 63.10(b)(2)(viii)<br>• 63.1517(b)(15)<br>• 63.1517(b)(16)<br>• 63.1517(b)(16) | Keep records for at least 5 years, may keep off-site after first 2 years; records must be accessible within 24 hours of request | |

## Table 6. Summary of Requirements for Rotary Dross Coolers.

| | Requirement(s) | 40CFR Section | Deadline/Frequency | Trigger |
|---|---|---|---|---|
| **Emission Standards** | • 0.09 g PM per dscm (0.04 gr/dscf)<br>• 10 percent opacity from any PM add-on APCD if a COM is chosen as monitoring option | §63.1505(h) | Existing sources: 3/23/03<br>New sources: 3/23/00 or upon startup, whichever is later | New sources: startup |
| **Operating Requirements** | • Operate in accordance w/OM&M plan<br>• If equipped w/add-on APCD: design & install emission capture & collection system in accordance w/Industrial Ventilation: A Manual of Recommended Practice; vent captured emissions through a closed system, except that dilution air may be added to control temperature at fabric filter inlet<br>• If operating a bag leak detection system: initiate corrective action w/in 1 hour of alarm & complete corrective action in accordance w/OM&M plan; operate bag leak detection system such that alarm does not sound more than 5 percent of operating time during a 6-month reporting period<br>• If operating a COMS: initiate corrective action w/in 1 hour of any 6-minute average reading of 5 percent or more opacity & complete corrective action in accordance w/OM&M plan | §63.1510(b); 63.1506(c),(j) | Must operate according to these requirements on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |
| **Testing Requirements** | • Submit notification of intent to conduct performance test<br>• Submit site-specific test plan<br>• Conduct performance test to measure PM emissions at control device outlet<br>• If using COM: conduct performance evaluation, measure opacity from each stack for all consecutive 6-minute periods during performance test<br>• Establish operating parameter values | • 63.1515(a)(6)<br>• 63.7(c)(2)<br>• 63.1512(i); 63.7(a)(2); 63.1511(e)<br>• 63.1512(l)<br>• 63.1511(g) | • 60 days before test<br>• 60 days before test<br>• Within 180 days after compliance deadline, & every 5 years thereafter<br>• During performance test | |
| **Monitoring Requirements** | • If equipped w/add-on APCD: annually inspect all emission capture, collection, & transport systems to ensure that systems continue to operate in accordance w/standards<br>• If operating a bag leak detection system: install & operate in accordance w/Fabric Filter Bag Leak Detection Guidance or manufacturers specifications, record voltage output from bag leak detector, establish alarm set points<br>• If operating a COMS: design & install in accordance w/PS-1, determine & record 6-minute block averages | §63.1510(d),(f) | Must monitor on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |

**Table 6. Summary of Requirements for Rotary Dross Coolers.**

| | | | | |
|---|---|---|---|---|
| **Reporting Requirements** | • Initial notification<br>• Notification of anticipated date of performance test<br>• Site-specific test plan<br>• OM&M plan<br>• Notification of compliance status report<br>• Excess emissions reports<br>• Annual compliance certification/summary report<br>• SSM reports<br>• Report of malfunctions outside of SSM plan that affect CMS<br>• Report of actions inconsistent w/SSM plan | • 63.9(b)(2)<br>• 63.1515(a)(6)<br>• 63.7(c)(2)(iv)<br>• 63.1510(b)<br>• 63.1515(b)<br>• 63.1516(b)<br>• 63.1516(b),(c)<br>• 63.10(d)(5)(i)<br>• 63.8(c)(1)(ii)<br>• 63.6(e)(3)(iv); 63.10(d)(5)(ii) | • 120 days after eff. date or startup<br>• 60 days before performance test<br>• 60 days before performance test<br>• As part of Part 70(71) application<br>• 60 days after compliance date<br>• Semi-annually, 60 days after cal. half<br>• Semi-annually, 60 days after cal. half<br>• 30 days after calendar half when a SSM occurred<br>• 24 hrs. after event (phone report) & 14 days after event (letter report)<br>• 2 working days after event (phone report) & 7 working days after event (letter report) | |

**Table 6. Summary of Requirements for Rotary Dross Coolers.**

| | | | | |
|---|---|---|---|---|
| **Recordkeeping Requirements** | • For capture/collection systems: records of annual inspection<br>• For bag leak detection systems: number of total operating hours during each 6-month reporting period, records of each alarm, time of alarm, times corrective action was initiated & completed, brief description of cause of alarm & corrective action taken<br>• For COMS: records of opacity msmt. data, records where average opacity of any 6-minute period exceeds 5 percent w/ brief explanation of cause of emissions, time emissions occurred, times corrective action was initiated & completed, & corrective action taken; date & time of each period when COMS was inoperative or out of control, records of each period of excess emissions during a startup, shutdown, or malfunction, procedures that are part of a QC plan for COMS<br>• Copies of all notifications & reports & their supporting documentation<br>• Records of occurrence & duration of each SSM or malfunction of operation of process & control equipment<br>• Records of actions inconsistent w/SSM plan & actions consistent w/SSM plan<br>• Records of measurements needed to demonstrate compliance<br>• Records of performance test results<br>• Records of any approved alternative monitoring or test procedure<br>• SSM plan<br>• OM&M plan (major sources only) | • 63.1517(b)(14)<br>• 63.1517(b)(1)(i)<br>• 63.1517(b)(1)(ii); 63.1517(b)(6)<br>• 63.1517(a)<br>• 63.1516(a)<br>• 63.1516(a)<br>• 63.10(b)(2)(vii)<br>• 63.10(b)(2)(viii)<br>• 63.1517(b)(15)<br>• 63.1517(b)(16)<br>• 63.1517(b)(16) | Keep records for at least 5 years, may keep off-site after first 2 years; records must be accessible within 24 hours of request | |

**Table 7a. Summary of Requirements for Group 1 Furnaces with Add-on Control Devices.**

| | Requirement(s) | 40CFR Section | Deadline/Frequency | Trigger |
|---|---|---|---|---|
| **Emission Standards** | • Group 1 furnaces other than melting/holding furnaces processing only clean charge: 0.20 kg PM per Mg feed/charge (0.40 lb/ton)<br>• Melting/holding furnaces processing only clean charge: 0.40 kg PM per Mg feed/charge (0.80 lb/ton)<br>• Furnaces processing other than clean charge: 15 :g D/F TEQ per MG feed/charge ($2.1 \times 10^{-4}$ gr/ton)<br>• 0.20 kg HCl per Mg feed/charge (0.40 lb/ton) or 10 percent of uncontrolled HCl emissions, by weight<br>• 10 percent opacity from any PM add-on APCD if a COM is chosen as monitoring option<br>• Sidewell group 1 furnaces that conduct reactive fluxing (except for cover flux) in hearth, or in sidewell when level of molten metal falls below top of passage between sidewell & hearth:<br>  • 0.02 kg HCl per Mg feed/charge (0.04 lb/ton)<br>  • 0.005 kg PM per Mg feed/charge (0.01 lb/ton)<br>  • 10 percent opacity from any PM add-on APCD if a COM is chosen as monitoring option | §63.1505(i) | Existing sources: 3/23/03<br>New sources: 3/23/00 or upon startup, whichever is later | New sources: startup |

**Table 7a. Summary of Requirements for Group 1 Furnaces with Add-on Control Devices.**

| | | | | |
|---|---|---|---|---|
| **Operating Requirements** | • Operate in accordance w/OM&M plan<br>• Maintain easily visible labels that identify type of affected source, applicable operational standards & control methods<br>• Operate a device that measures & records weight of feed/charge or aluminum production for each operating cycle or time period used in performance test<br>• Design & install emission capture & collection system in accordance w/Industrial Ventilation: A Manual of Recommended Practice; vent captured emissions through a closed system, except that dilution air may be added to control temperature at fabric filter inlet<br>• If operating a bag leak detection system: initiate corrective action w/in 1 hour of alarm & complete corrective action in accordance w/OM&M plan; operate bag leak detection system such that alarm does not sound more than 5 percent of operating time during a 6-month reporting period<br>• If operating a COMS: initiate corrective action w/in 1 hour of any 6-minute average reading of 5 percent or more opacity & complete corrective action in accordance w/OM&M plan<br>• Maintain 3-hour block average inlet temperature for each fabric filter at or below average temperature established during performance test plus 14°C(25°F)<br>• For continuous lime injection system: maintain free-flowing lime in hopper to feed device at all times, maintain lime feeder setting at same level established during performance test<br>• Maintain total reactive chlorine flux injection rate for each operating cycle or time period used in performance test at or below average rate established during performance test<br>• Operate each sidewell furnace such that:<br>  • level of molten metal remains above top of passage between sidewell & hearth during reactive flux injection, unless hearth has add-on APCD<br>  • reactive flux is added only in sidewell unless hearth has add-on APCD | §63.1510(b); 63.1506(b),(c),(d),(m) | Must operate according to these requirements on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |

**Table 7a. Summary of Requirements for Group 1 Furnaces with Add-on Control Devices.**

| | | | | |
|---|---|---|---|---|
| **Testing Requirements** | • Submit notification of intent to conduct performance test | • 63.1515(a)(6) | • 60 days before test | |
| | • Submit site-specific test plan | • 63.7(c)(2) | • 60 days before test | |
| | • Conduct performance test to measure PM, HCl & D/F at control device outlet, measure HCl at control inlet & outlet for emission reduction standard, D/F test not necessary if furnace processes only clean charge, measure total weight of feed/charge or aluminum production during performance test; can measure reactive flux addition rate & assume all is emitted instead of conducting HCl test | • 63.1512(d),(k); 63.7(a)(2); 63.1511(e) | • Within 180 days after compliance deadline, & every 5 years thereafter | |
| | • Sidewell group 1 furnaces that conduct reactive fluxing in hearth, or in sidewell when level of molten metal falls below top of passage between sidewell & hearth, must measure emissions from both sidewell & hearth | • 63.1512(d) | | |
| | • If using COM: conduct performance evaluation, measure opacity from each stack for all consecutive 6-minute periods during performance test | • 63.1512(l) | | |
| | • If using lime-injected fabric filter: measure & record average inlet temperature every 15 minutes during performance test, record feeder setting | • 63.1512(n),(p) | | |
| | • Measure weight of gaseous or liquid reactive flux injected for each 15-minute period; record identity, composition, & total weight of each addition of solid reactive flux | • 63.1512(o) | | |
| | • Establish operating parameter values | • 63.1511(g) | • During performance test | |

**Table 7a. Summary of Requirements for Group 1 Furnaces with Add-on Control Devices.**

| | | | | |
|---|---|---|---|---|
| **Monitoring Requirements** | • Inspect labels at least once per calendar month to confirm that they are intact & legible<br>• Monitor weight of each feed/charge using a device or other procedure w/accuracy of ±1%; calibrate device according to manufacturers specifications or at least once every 6 months<br>• Monitor weight of gaseous or liquid reactive flux injected using a device w/accuracy of ±1%; calibrate device according to manufacturers specifications or at least once every 6 months<br>• Calculate & record gaseous or liquid reactive flux injection rate & total reactive flux injection rate for each operating cycle or time period used in performance test<br>• Annually inspect all emission capture, collection, & transport systems to ensure that systems continue to operate in accordance w/standards<br>• If operating a bag leak detection system: install & operate in accordance w/Fabric Filter Bag Leak Detection Guidance or manufacturers specifications, record voltage output from bag leak detector, establish alarm set points<br>• If operating a COMS: design & install in accordance w/PS-1, determine & record 6-minute block averages<br>• For lime-injected fabric filters: monitor avg. inlet temperature for each 15-minute block, determine 3-hour block averages<br>• For continuous injection fabric filters: inspect each feed hopper or silo every 8 hours to verify that lime is free-flowing, inspect every 4 hours for 3 days if blockage occurs, monitor feeder setting daily<br>• For sidewell group 1 furnaces: record in an operating log that for each charge level of molten metal was above top of passage between sidewell & hearth during reactive flux injection, unless hearth has add-on APCD<br>• Record time, weight & type of flux for each addition of reactive flux other than chlorine<br>• Certify that level of molten metal remained above top of passage between sidewell & hearth during reactive fluxing, & reactive flux was added only to sidewell or hearth w/add-on APCD during 6-month reporting period | §63.1510(c),(d), (e),(f),(h),(i),(j),(n) | Must monitor on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |

**Table 7a. Summary of Requirements for Group 1 Furnaces with Add-on Control Devices.**

| | | | | |
|---|---|---|---|---|
| **Reporting Requirements** | • Initial notification<br>• Notification of anticipated date of performance test<br>• Site-specific test plan<br>• OM&M plan<br>• Notification of compliance status report<br>• Excess emissions reports<br>• Annual compliance certification/summary report<br>• SSM reports<br>• Report of malfunctions outside of SSM plan that affect CMS<br>• Report of actions inconsistent w/SSM plan | • 63.9(b)(2)<br>• 63.1515(a)(6)<br>• 63.7(c)(2)(iv)<br>• 63.1510(b)<br>• 63.1515(b)<br>• 63.1516(b)<br>• 63.1516(b),(c)<br>• 63.10(d)(5)(i)<br>• 63.8(c)(1)(ii)<br>• 63.6(e)(3)(iv); 63.10(d)(5)(ii) | • 120 days after eff. date or startup<br>• 60 days before performance test<br>• 60 days before performance test<br>• As part of Part 70(71) application<br>• 60 days after compliance date<br>• Semi-annually, 60 days after cal. half<br>• Semi-annually, 60 days after cal. half<br>• 30 days after calendar half when a SSM occurred<br>• 24 hrs. after event (phone report) & 14 days after event (letter report)<br>• 2 working days after event (phone report) & 7 working days after event (letter report) | |

**Table 7a. Summary of Requirements for Group 1 Furnaces with Add-on Control Devices.**

| | | | | |
|---|---|---|---|---|
| **Recordkeeping Requirements** | • Records of monthly inspections for proper unit labeling<br>• For capture/collection systems: records of annual inspection<br>• For bag leak detection systems: number of total operating hours during each 6-month reporting period, records of each alarm, time of alarm, times corrective action was initiated & completed, brief description of cause of alarm & corrective action taken<br>• For COMS: records of opacity msmt. data, records where average opacity of any 6-minute period exceeds 5 percent w/ brief explanation of cause of emissions, time emissions occurred, times corrective action was initiated & completed, & corrective action taken; date & time of each period when COMS was inoperative or out of control, records of each period of excess emissions during a startup, shutdown, or malfunction, procedures that are part of a QC plan for COMS<br>• For lime-injected fabric filters: records of 15-minute average operating temperature, including any period when average temperature in any 3-hr block period falls below compliant operating parameter value with a brief explanation of cause & corrective action taken; records of inspections at least once every 8 hours, records of daily lime feeder setting<br>• Records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate & calculations, including records of any period rate exceeds compliant operating parameter value & corrective action taken<br>• Records of feed/charge weights for each operating cycle or time period used in performance test<br>• Operating log for each sidewell group 1 furnace documenting conformance w/operating stds. for maintaining level of molten metal above top of passage between sidewell & hearth during reactive flux injection & for adding reactive flux only to sidewell, or a hearth equipped w/add-on APCD<br>• Copies of all notifications & reports & their supporting documentation<br>• Records of occurrence & duration of each SSM or malfunction of operation of process & control equipment<br>• Records of actions inconsistent w/SSM plan & actions consistent w/SSM plan | • 63.1517(b)(13)<br>• 63.1517(b)(14)<br>• 63.1517(b)(1)(i)<br>• 63.1517(b)(1)(ii) 63.1517(b)(6)<br>• 63.1517(b)(3), (4)<br>• 63.1517(b)(5)<br>• 63.1517(b)(7)<br>• 63.1517(b)(10)<br>• 63.1517(a)<br>• 63.1516(a) | Keep records for at least 5 years, may keep off-site after first 2 years; records must be accessible within 24 hours of request | |

**Table 7a. Summary of Requirements for Group 1 Furnaces with Add-on Control Devices.**

| | | | | |
|---|---|---|---|---|
| **Recordkeeping Requirements (cont'd.)** | • Records of measurements needed to demonstrate compliance<br>• Records of performance test results<br>• Records of any approved alternative monitoring or test procedure<br>• SSM plan<br>• OM&M plan (major sources only) | • 63.10(b)(2)(vii)<br>• 63.10(b)(2)(viii)<br>• 63.1517(b)(15)<br><br>• 63.1517(b)(16)<br>• 63.1517(b)(16) | | |

## Table 7b. Summary of Requirements for Group 1 Furnaces without Add-on Control Devices.

| | Requirement(s) | 40CFR Section | Deadline/Frequency | Trigger |
|---|---|---|---|---|
| **Emission Standards** | • Group 1 furnaces other than melting/holding furnaces processing only clean charge: 0.20 kg PM per Mg feed/charge (0.40 lb/ton)<br>• Melting/holding furnaces processing only clean charge: 0.40 kg PM per Mg feed/charge (0.80 lb/ton)<br>• Furnaces processing other than clean charge: 15 :g D/F TEQ per MG feed/charge ($2.1 \times 10^{-4}$ gr/ton)<br>• 0.20 kg HCl per Mg feed/charge (0.40 lb/ton) | §63.1505(i) | Existing sources: 3/23/03<br>New sources: 3/23/00 or upon startup, whichever is later | New sources: startup |
| **Operating Requirements** | • Operate in accordance w/OM&M plan<br>• Maintain easily visible labels that identify type of affected source, applicable operational standards & control methods<br>• Operate a device that measures & records weight of feed/charge or aluminum production for each operating cycle or time period used in performance test<br>• Maintain total reactive chlorine flux injection rate for each operating cycle or time period used in performance test at or below average rate established during performance test<br>• Operate each furnace in accordance w/work practice/pollution prevention measures documented in OM&M plan & w/in parameter values/ranges established in OM&M plan<br>• Operate each melting/holding furnace that processes only clean charge such that clean charge is only feedstock | §63.1510(b); 63.1506(b),(d),(n) | Must operate according to these requirements on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |
| **Testing Requirements** | • Submit notification of intent to conduct performance test<br>• Submit site-specific test plan<br>• Conduct performance test to measure PM, D/F, & HCl at furnace exhaust outlet, measure total weight of feed/charge or aluminum production during performance test, can measure reactive flux addition rate & assume all is emitted instead of conducting HCl test; D/F test is not required if furnace processes only clean charge, in which case test must be conducted using only clean charge<br>• Measure weight of gaseous or liquid reactive flux injected for each 15-minute period; record identity, composition, & total weight of each addition of solid reactive flux<br>• Establish operating parameter values | • 63.1515(a)(6)<br>• 63.7(c)(2)<br>• 63.1512(e),(k); 63.7(a)(2); 63.1511(e)<br>• 63.1512(o)<br>• 63.1511(g) | • 60 days before test<br>• 60 days before test<br>• Within 180 days after compliance deadline, & every 5 years thereafter<br>• During performance test | |

**Table 7b. Summary of Requirements for Group 1 Furnaces without Add-on Control Devices.**

| | | | | |
|---|---|---|---|---|
| **Monitoring Requirements** | • Inspect labels at least once per calendar month to confirm that they are intact & legible<br>• Monitor weight of each feed/charge using a device or other procedure w/accuracy of ±1%; calibrate device according to manufacturers specifications or at least once every 6 months<br>• Monitor weight of gaseous or liquid reactive flux injected using a device w/accuracy of ±1%; calibrate device according to manufacturers specifications or at least once every 6 months<br>• Calculate & record gaseous or liquid reactive flux injection rate & total reactive flux injection rate for each operating cycle or time period used in performance test<br>• Record time, weight, & type of flux for each addition of reactive flux other than chlorine<br>• Develop site-specific monitoring plan | §63.1510(c),(e),(j),(o),(p),(q) | Must monitor on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |
| **Reporting Requirements** | • Initial notification<br>• Notification of anticipated date of performance test<br>• Site-specific test plan<br>• OM&M plan<br>• Site-specific monitoring plan<br>• Notification of compliance status report<br>• Excess emissions reports<br>• Annual compliance certification/summary report<br>• SSM reports<br>• Report of malfunctions outside of SSM plan that affect CMS<br>• Report of actions inconsistent w/SSM plan | • 63.9(b)(2)<br>• 63.1515(a)(6)<br>• 63.7(c)(2)(iv)<br>• 63.1510(b)<br>• 63.1510(o)(1)<br>• 63.1515(b)<br>• 63.1516(b)<br>• 63.1516(b),(c)<br>• 63.10(d)(5)(i)<br>• 63.8(c)(1)(ii)<br>• 63.6(e)(3)(iv); 63.10(d)(5)(ii) | • 120 days after eff. date or startup<br>• 60 days before performance test<br>• 60 days before performance test<br>• As part of Part 70(71) application<br>• 6 months before compliance date<br>• 60 days after compliance date<br>• Semi-annually, 60 days after cal. half<br>• Semi-annually, 60 days after cal. half<br>• 30 days after calendar half when a SSM occurred<br>• 24 hrs. after event (phone report) & 14 days after event (letter report)<br>• 2 working days after event (phone report) & 7 working days after event (letter report) | |

**Table 7b. Summary of Requirements for Group 1 Furnaces without Add-on Control Devices.**

| | | | | |
|---|---|---|---|---|
| **Recordkeeping Requirements** | • Records of monthly inspections for proper unit labeling<br>• Records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate & calculations, including records of any period rate exceeds compliant operating parameter value & corrective action taken<br>• Records of feed/charge weights for each operating cycle or time period used in performance test<br>• Records of all charge materials (for group 1 melting/holding furnaces w/o add-on APCD processing only clean charge)<br>• Copies of all notifications & reports & their supporting documentation<br>• Records of occurrence & duration of each SSM or malfunction of operation of process & control equipment<br>• Records of actions inconsistent w/SSM plan & actions consistent w/SSM plan<br>• Records of measurements needed to demonstrate compliance<br>• Records of performance test results<br>• Approved site-specific monitoring plan & records documenting conformance w/plan<br>• Records of any approved alternative monitoring or test procedure<br>• SSM plan<br>• OM&M plan (major sources only) | • 63.1517(b)(13)<br>• 63.1517(b)(5)<br>• 63.1517(b)(7)<br>• 63.1517(b)(9)<br>• 63.1517(a)<br>• 63.1516(a)<br>• 63.1516(a)<br>• 63.10(b)(2)(vii)<br>• 63.10(b)(2)(viii)<br>• 63.1517(b)(8)<br>• 63.1517(b)(15)<br>• 63.1517(b)(16)<br>• 63.1517(b)(16) | Keep records for at least 5 years, may keep off-site after first 2 years; records must be accessible within 24 hours of request | |

**Table 8. Summary of Requirements for In-line Fluxers.**

| | Requirement(s) | 40CFR Section | Deadline/Frequency | Trigger |
|---|---|---|---|---|
| **Emission Standards** | • 0.02 kg HCl per Mg feed/charge (0.04 lb/ton) – does not apply if using no reactive flux material<br>• 0.005 kg PM per Mg feed/charge (0.01 lb/ton) – does not apply if using no reactive flux material<br>• 10 percent opacity from any PM add-on APCD if a COM is chosen as monitoring option | §63.1505(j) | Existing sources: 3/23/03<br>New sources: 3/23/00 or upon startup, whichever is later | New sources: startup |
| **Operating Requirements** | • Operate in accordance w/OM&M plan<br>• Maintain easily visible labels that identify type of affected source, applicable operational standards & control methods<br>• Operate a device that measures & records weight of feed/charge or aluminum production for each operating cycle or time period used in performance test<br>• If equipped w/add-on APCD: design & install emission capture & collection system in accordance w/Industrial Ventilation: A Manual of Recommended Practice; vent captured emissions through a closed system, except that dilution air may be added to control temperature at fabric filter inlet<br>• If operating a bag leak detection system: initiate corrective action w/in 1 hour of alarm & complete corrective action in accordance w/OM&M plan; operate bag leak detection system such that alarm does not sound more than 5 percent of operating time during a 6-month reporting period<br>• If operating a COMS: initiate corrective action w/in 1 hour of any 6-minute average reading of 5 percent or more opacity & complete corrective action in accordance w/OM&M plan<br>• For continuous lime-injection systems: maintain free-flowing lime in hopper to feed device at all times, maintain lime feeder setting at same level established during performance test<br>• Maintain total reactive chlorine flux injection rate for each operating cycle or time period used in performance test at or below average rate established during performance test<br>• For in-line fluxers using no reactive flux materials: operate using no reactive flux materials | §63.1510(b); 63.1506(b),(c),(d),(k),(l) | Must operate according to these requirements on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |

**Table 8. Summary of Requirements for In-line Fluxers.**

| | | | | |
|---|---|---|---|---|
| **Testing Requirements** | • Submit notification of intent to conduct performance test | • 63.1515(a)(6) | • 60 days before test | |
| | • Submit site-specific test plan | • 63.7(c)(2) | • 60 days before test | |
| | • Conduct performance test to measure PM & HCl (at control device outlet if equipped w/add-on APCD), measure total weight of feed/charge or aluminum production during performance test, can measure reactive flux addition rate & assume all is emitted instead of conducting HCl test; no tests are necessary if unit uses no reactive flux materials | • 63.1512(h),(k); 63.7(a)(2); 63.1511(e) | • Within 180 days after compliance deadline, & every 5 years thereafter | |
| | • Measure weight of gaseous or liquid reactive flux injected for each 15-minute period; record identity, composition, & total weight of each addition of solid reactive flux | • 63.1512(o) | | |
| | • If using COM: conduct performance evaluation, measure opacity from each stack for all consecutive 6-minute periods during performance test | • 63.1512(l) | | |
| | • If using lime-injected fabric filter: measure & record average inlet temperature every 15 minutes during performance test, record feeder setting | • 63.1512(n),(p) | | |
| | • Establish operating parameter values | • 63.1511(g) | • During performance test | |

**Table 8. Summary of Requirements for In-line Fluxers.**

| | | | | |
|---|---|---|---|---|
| **Monitoring Requirements** | • Inspect labels at least once per calendar month to confirm that they are intact & legible<br>• Monitor weight of each feed/charge using a device or other procedure w/accuracy of ±1%; calibrate device according to manufacturers specifications or at least once every 6 months<br>• Monitor weight of gaseous or liquid reactive flux injected using a device w/accuracy of ±1%; calibrate device according to manufacturers specifications, or at least once every 6 months<br>• Calculate & record gaseous or liquid reactive flux injection rate & total reactive flux injection rate for each operating cycle or time period used in performance test<br>• If equipped w/add-on APCD: annually inspect all emission capture, collection, & transport systems to ensure that systems continue to operate in accordance w/standards<br>• If operating a bag leak detection system: install & operate in accordance w/Fabric Filter Bag Leak Detection Guidance or manufacturers specifications, record voltage output from bag leak detector, establish alarm set points<br>• If operating a COMS: design & install in accordance w/PS-1, determine & record 6-minute block averages<br>• For fabric filters: monitor avg. inlet temperature for each 15-minute block, determine 3-hr block averages; annually inspect afterburner internal parts<br>• For continuous injection fabric filters: inspect each feed hopper or silo every 8 hours to verify that lime is free-flowing, inspect every 4 hours for 3 days if blockage occurs, monitor feeder setting daily<br>• Record time, weight, & type of flux for each addition of reactive flux other than chlorine<br>• For in-line fluxers using no reactive flux: certify that only nonreactive, non-HAP-containing/non-HAP-generating flux gases, agents, or materials were used during 6-month reporting period | §63.1510(c),(d), (e),(f),(h),(i),(j),(m) | Must monitor on & after date on which initial performance test is conducted or required to be conducted, whichever is earlier | Initial performance test |

**Table 8. Summary of Requirements for In-line Fluxers.**

| | | | | |
|---|---|---|---|---|
| **Reporting Requirements** | • Initial notification<br>• Notification of anticipated date of performance test<br>• Site-specific test plan<br>• OM&M plan<br>• Notification of compliance status report<br>• Excess emissions reports<br>• Annual compliance certification/summary report<br>• SSM reports<br>• Report of malfunctions outside of SSM plan that affect CMS<br>• Report of actions inconsistent w/SSM plan | • 63.9(b)(2)<br>• 63.1515(a)(6)<br>• 63.7(c)(2)(iv)<br>• 63.1510(b)<br>• 63.1515(b)<br>• 63.1516(b)<br>• 63.1516(b),(c)<br>• 63.10(d)(5)(i)<br>• 63.8(c)(1)(ii)<br>• 63.6(e)(3)(iv); 63.10(d)(5)(ii) | • 120 days after eff. date or startup<br>• 60 days before performance test<br>• 60 days before performance test<br>• As part of Part 70(71) application<br>• 60 days after compliance date<br>• Semi-annually, 60 days after cal. half<br>• Semi-annually, 60 days after cal. half<br>• 30 days after calendar half when a SSM occurred<br>• 24 hrs. after event (phone report) & 14 days after event (letter report)<br>• 2 working days after event (phone report) & 7 working days after event (letter report) | |

**Table 8. Summary of Requirements for In-line Fluxers.**

| | | | | |
|---|---|---|---|---|
| **Recordkeeping Requirements** | • Records of monthly inspections for proper unit labeling<br>• For capture/collection systems: records of annual inspection<br>• For bag leak detection systems: number of total operating hours during each 6-month period, records of each alarm, time of alarm, times corrective action was initiated & completed, brief description of cause of alarm & corrective action taken<br>• For COMS: records of opacity msmt. data, records where average opacity of any 6-minute period exceeds 5 percent w/ brief explanation of cause of emissions, time emissions occurred, times corrective action was initiated & completed, & corrective action taken; date & time of each period when COMS was inoperative or out of control, records of each period of excess emissions during a startup, shutdown, or malfunction, procedures that are part of a QC plan for COMS<br>• For lime-injected fabric filters: records of 15-minute average operating temperature, including any period when average temperature in any 3-hr block period falls below compliant operating parameter value with a brief explanation of cause & corrective action taken; records of inspections at least once every 8 hours, records of daily lime feeder setting<br>• Records of 15-minute block average weights of gaseous or liquid reactive flux injection, total reactive flux injection rate & calculations, including records of any period rate exceeds compliant operating value & corrective action taken<br>• Records of feed/charge weights for each operating cycle or time period used in performance test<br>• Operating log for each in-line fluxer using no reactive flux materials documenting each flux gas, agent, or material used<br>• Copies of all notifications & reports & their supporting documentation<br>• Records of occurrence & duration of each SSM or malfunction of operation of process & control equipment<br>• Records of actions inconsistent w/SSM plan & actions consistent w/SSM plan<br>• Records of measurements needed to demonstrate compliance<br>• Records of performance test results<br>• Records of any approved alternative monitoring or test procedure | • 63.1517(b)(13)<br>• 63.1517(b)(14)<br>• 63.1517(b)(1)(i)<br>• 63.1517(b)(1)(ii) 63.1517(b)(6)<br>• 63.1517(b)(3), (4)<br>• 63.1517(b)(5)<br>• 63.1517(b)(7)<br>• 63.1517(b)(11)<br>• 63.1517(a)<br>• 63.1516(a)<br>• 63.1516(a)<br>• 63.10(b)(2)(vii)<br>• 63.10(b)(2)(viii)<br>• 63.1517(b)(15) | Keep records for at least 5 years, may keep off-site after first 2 years; records must be accessible within 24 hours of request | |

**Table 8. Summary of Requirements for In-line Fluxers.**

| | | | | |
|---|---|---|---|---|
| **Recordkeeping Requirements (cont'd.)** | • SSM plan<br>• OM&M plan (major sources only) | • 63.1517(b)(16)<br>• 63.1517(b)(16) | | |

## Table 9. Summary of Requirements for Group 2 Furnaces.

| | Requirement(s) | 40CFR Section | Deadline/Frequency | Trigger |
|---|---|---|---|---|
| **Emission Standards** | • no emission standards | | | |
| **Operating Requirements** | • Operate in accordance w/OM&M plan<br>• Maintain easily visible labels that identify the type of affected source, applicable operational standards & control methods<br>• Operate each furnace using only clean charge as feedstock<br>• Operate each furnace using no reactive flux | §63.1510(b); 63.1506(b),(o) | | |
| **Testing Requirements** | • no performance test required | | | |
| **Monitoring Requirements** | • Inspect labels at least once per calendar month to confirm that they are intact & legible<br>• Record description of materials charged to each furnace, including any nonreactive, non-HAP-containing/non-HAP-generating fluxing materials or agents<br>• Certify that only clean charge was processed & no reactive fluxing was performed during 6-month reporting period | §63.1510(c),(r) | | |
| **Reporting Requirements** | • Initial notification<br>• OM&M plan<br>• Notification of compliance status report<br>• Excess emissions reports<br>• Annual compliance certification/summary report<br>• SSM reports<br>• Report of malfunctions outside of SSM plan that affect CMS<br>• Report of actions inconsistent w/SSM plan | • 63.9(b)(2)<br>• 63.1510(b)<br>• 63.1515(b)<br>• 63.1516(b)<br>• 63.1516(b),(c)<br>• 63.10(d)(5)(i)<br>• 63.8(c)(1)(ii)<br>• 63.6(e)(3)(iv); 63.10(d)(5)(ii) | • 120 days after eff. date or startup<br>• As part of Part 70(71) application<br>• 60 days after compliance date<br>• Semi-annually, 60 days after cal. half<br>• Semi-annually, 60 days after cal. half<br>• 30 days after calendar half when a SSM occurred<br>• 24 hrs. after event (phone report) & 14 days after event (letter report)<br>• 2 working days after event (phone report) & 7 working days after event (letter report) | |

**Table 9. Summary of Requirements for Group 2 Furnaces.**

| | | | | |
|---|---|---|---|---|
| **Recordkeeping Requirements** | • Records of all charge materials & fluxing materials or agents<br>• Records of monthly inspections for proper unit labeling<br>• Copies of all notifications & reports & their supporting documentation<br>• Records of occurrence & duration of each SSM or malfunction of operation of process & control equipment<br>• Records of actions inconsistent w/SSM plan & actions consistent w/SSM plan<br>• Records of measurements needed to demonstrate compliance<br>• Records of any approved alternative monitoring or test procedure<br>• SSM plan<br>• OM&M plan (major sources only) | • 63.1517(b)(12)<br>• 63.1517(b)(13)<br>• 63.1517(a)<br>• 63.1516(a)<br>• 63.1516(a)<br>• 63.10(b)(2)(vii)<br>• 63.1517(b)(15)<br>• 63.1517(b)(16)<br>• 63.1517(b)(16) | Keep records for at least 5 years, may keep off-site after the first 2 years; records must be accessible within 24 hours of request | |

**Table 10. Summary of Requirements for Secondary Aluminum Processing Units (SAPUs).**

| | Requirement(s) | 40CFR Section | Deadline/Frequency | Trigger |
|---|---|---|---|---|
| **Emission Standards** | • 3-day, 24-hour rolling average PM, HCl, & D/F emissions not to exceed:<br>$L_{C,HAP_j} = \sum_{i=1}^{n} \left( L_{ti,HAP\ j} \times T_{ti} \right) \div \sum_{i=1}^{n} T_{ti}$<br>where:<br>$L_{C,HAPj}$ = emission limit for HAP j for SAPU<br>$L_{ti,HAPj}$ = emission limit for emission unit i for HAP j<br>$T_{ti}$ = feed/charge rate for emission unit i | §63.1505(k) | Existing sources: 3/23/03<br>New sources: 3/23/00 or upon startup, whichever is later | New sources: startup |
| **Operating Requirements** | • Operate in accordance w/OM&M plan<br>• Operate all group 1 furnaces & in-line fluxers according to their operating requirements | §63.1510(b); 63.1506 | Must operate according to these requirements on & after date on which OM&M plan is approved | OM&M plan approval |
| **Testing Requirements** | • Submit notification of intent to conduct performance test<br>• Submit site-specific test plan<br>• Conduct performance tests to measure PM, HCl, & D/F from group 1 furnaces (D/F test not required if processing only clean charge), & to measure PM & HCl from in-line fluxers according to their testing requirements<br>• A single representative group 1 furnace or in-line fluxer not controlled by an add-on APCD may be tested to determine emission rate of all like affected sources at a facility with approval of permitting authority<br>• Establish operating parameter values | • 63.1515(a)(6)<br>• 63.7(c)(2)<br>• 63.1512(j); 63.7(a)(2); 63.1511(e)<br>• 63.1511(f)<br>• 63.1511(g) | • 60 days before test<br>• 60 days before test<br>• Within 180 days after compliance deadline, & every 5 years thereafter<br>• During performance test | |
| **Monitoring Requirements** | • Monitor all group 1 furnaces & in-line fluxers according to their monitoring requirements<br>• Include information about each emission unit, its control methods, emission limits, monitoring requirements, etc. in OM&M plan<br>• Calculate & record 3-day, 24-hour rolling average emissions of PM, HCl, & D/F for each SAPU on daily basis OR show that each individual emission unit is in compliance with its applicable emission limits | §63.1510(s),(t),(u) | Must monitor on & after date on which OM&M plan is approved | OM&M plan approval |

**Table 10. Summary of Requirements for Secondary Aluminum Processing Units (SAPUs).**

| | | | | |
|---|---|---|---|---|
| **Reporting Requirements** | • Initial notification<br>• Notification of anticipated date of performance test<br>• Site-specific test plan<br>• OM&M plan<br>• Notification of compliance status report<br>• Excess emissions reports<br>• Annual compliance certification/summary report<br>• SSM reports<br>• Report of malfunctions outside of SSM plan that affect CMS<br>• Report of actions inconsistent w/SSM plan | • 63.9(b)(2)<br>• 63.1515(a)(6)<br>• 63.7(c)(2)(iv)<br>• 63.1510(b)<br>• 63.1515(b)<br>• 63.1516(b)<br>• 63.1516(b),(c)<br>• 63.10(d)(5)(i)<br>• 63.8(c)(1)(ii)<br>• 63.6(e)(3)(iv); 63.10(d)(5)(ii) | • 120 days after eff. date or startup<br>• 60 days before performance test<br>• 60 days before performance test<br>• As part of Part 70(71) application<br>• 60 days after compliance date<br>• Semi-annually, 60 days after cal. half<br>• Semi-annually, 60 days after cal. half<br>• 30 days after calendar half when a SSM occurred<br>• 24 hrs. after event (phone report) & 14 days after event (letter report)<br>• 2 working days after event (phone report) & 7 working days after event (letter report) | |
| **Recordkeeping Requirements** | • Records required for each group 1 furnace & in-line fluxer<br>• Site-specific SAPU emission plan (if applicable)<br>• Records of total charge weight or total aluminum produced for each 24-hour period & calculations of 3-day, 24-hour rolling average emissions<br>• Copies of all notifications & reports & their supporting documentation<br>• Records of occurrence & duration of each SSM or malfunction of operation of process & control equipment<br>• Records of actions inconsistent w/SSM plan & actions consistent w/SSM plan<br>• Records of measurements needed to demonstrate compliance<br>• Records of performance test results<br>• Records of any approved alternative monitoring or test procedure<br>• SSM plan<br>• OM&M plan (major sources only) | • 63.1517(b)(16)<br>• 63.1517(b)(17)<br>• 63.1517(a)<br>• 63.1516(a)<br>• 63.1516(a)<br>• 63.10(b)(2)(vii)<br>• 63.10(b)(2)(viii)<br>• 63.1517(b)(15)<br>• 63.1517(b)(16)<br>• 63.1517(b)(16) | Keep records for at least 5 years, may keep off-site after first 2 years; records must be accessible within 24 hours of request | |