## DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

## FCE Summary Report

| Facility : Real Alloy                                  | SRN :                | N5957      |
|--|----------------------|------------|
| Location: 267 N. Fillmore Rd                           | District :           | Kalamazoo  |
|  | County :             | BRANCH     |
| City: COLDWATER State: MI Zip Code: 49036 Com<br>Statu | pliance<br>is :      | Compliance |
| Source Class : MAJOR Sta                               | aff: Rex L           | ane        |
| FCE Begin Date : 8/15/2015 FC<br>Da                    | E Completion<br>te : | 8/15/2016  |
| Comments :   |                      |            |

## List of Partial Compliance Evaluations :

| Activity Date | Activity Type                | Compliance Status | Comments   |
|---------------|------------------------------|-------------------|--|
| 08/03/2016    | Self Initiated<br>Inspection | Compliance        | Self-Initiated Inspection  |
| 05/25/2016    | MAERS                        | Compliance        | MAERS ROP Certification Report<br>and Audit:<br>Previous year emission<br>comparison report matched<br>reasonably well for material<br>throughput versus emissions<br>reported in audit report. No<br>additions or removals were noted<br>on the respective audit reports.<br>Staff uploaded stack testing<br>spreadsheet for testing conducted<br>in 2012 and 2013 for South Plant<br>that was emailed to staff on<br>5/20/16 by Ms. Janine Grossheim,<br>Real AlloyRIL |
| 05/25/2016    | MAERS                        | Compliance        | MAERS ROP Certification Report<br>and Audit:<br>Previous year emission<br>comparison report matched<br>reasonably well for material<br>throughput versus emissions<br>reported in audit report. No<br>additions or removals were noted<br>on the respective audit reports.<br>Staff uploaded stack testing<br>spreadsheet for testing conducted<br>in 2012 and 2013 for South Plant<br>that was emailed to staff on<br>5/20/16 by Ms. Janine Grossheim,<br>Real AlloyRIL |

| Activity Date | Activity Type   | Compliance Status | Comments  |
|---------------|-----------------|-------------------|---|
| 03/31/2016    | ROP Annual Cert | Compliance        | ROP Annual Compliance<br>Certification Report: 1/1/15 -<br>12/31/15   |
|               |                 |                   | Report contains an original dated<br>signature by the ROP section<br>responsible official. The facility<br>reported one deviation that was<br>previously reported under their<br>MACT semi-annual excess<br>emissions/summary report for the<br>time period 7/1/15 - 12/31/15<br>required under 40 CFR 63.1516<br>(b). The report identified an<br>excess emissions event that<br>occurred on 9/8/15 for<br>approximately 165 minutes on<br>EUALDRYER3 which was 0.074%                         |
|               |                 |                   | of total operating time during the<br>reporting period. Torit # 2<br>exceeded the inlet temperature<br>limit of 403 degrees F (actual<br>temperature 412 degrees F) due<br>to poor charge material. The<br>facility's corrective action included<br>stopping production and checking<br>the inlet air damper system. A<br>violation notice will not be sent at<br>this time due to reported excess<br>emissions event due to its brevity<br>and corrective measures taken by<br>the facilityRIL |

| Activity Date | Activity Type   | Compliance Status | Comments   |
|---------------|-----------------|-------------------|--|
| 03/31/2016    | ROP SEMI 2 CERT | Compliance        | ROP Semi-annual Compliance<br>Certification Report: 7/1/15 -<br>12/31/15<br>Report contains an original dated<br>signature by the ROP section<br>responsible official. The facility<br>reported one deviation that was<br>previously reported under their<br>MACT semi-annual excess<br>emissions/summary report for the<br>time period 7/1/15 - 12/31/15<br>required under 40 CFR 63.1516<br>(b). The report identified an<br>excess emissions event that<br>occurred on 9/8/15 for<br>approximately 165 minutes on<br>EUALDRYER3 which was 0.074%<br>of total operating time during the<br>reporting period. Torit # 2<br>exceeded the inlet temperature<br>limit of 403 degrees F (actual<br>temperature 412 degrees F) due<br>to poor charge material. The<br>facility's corrective action included<br>stopping production and checking<br>the inlet air damper system. A<br>violation notice will not be sent at<br>this time due to reported excess<br>emissions event due to its brevity<br>and corrective measures taken by<br>the facilityRIL |
| 03/31/2016    | ROP Annual Cert | Compliance        | ROP Annual Compliance<br>Certification Report: 1/1/15 -<br>12/31/15<br>Report contains an original dated<br>signature by the ROP section<br>responsible official. Report states<br>that there were no deviation from<br>ROP terms and conditions during<br>the reporting period.   |
| 03/31/2016    | ROP SEMI 2 CERT | Compliance        | ROP Semi-annual Compliance<br>Certification Report: 7/1/15 -<br>12/31/15<br>Report contains an original dated<br>signature by the ROP section<br>responsible official. Report states<br>that there were no deviation from<br>ROP terms and conditions during<br>the reporting period.  |

| Activity Date | Activity Type   | Compliance Status | Comments   |
|---------------|-----------------|-------------------|--|
| 03/31/2016    | CO/CJ           | Compliance        | Semi-annual report for Consent<br>Order #35-2014<br>Report contains an original dated<br>signature by the section<br>responsible official. Report<br>contains an updated table on<br>compliance status with Consent<br>Order No. 35-2014, Paragraphs<br>9.A.1 through 9.C.1. |
| 03/31/2016    | CO/CJ           | Compliance        | Semi-annual report for Consent<br>Order #35-2014<br>Report contains an original dated<br>signature by the section<br>responsible official. Report<br>contains an updated table on<br>compliance status with Consent<br>Order No. 35-2014, Paragraphs<br>9.A.1 through 9.C.1. |
| 03/03/2016    | Meeting Notes   | Compliance        | Coldwater North Plant:<br>Reverbatory Furnace Flue Project<br>Coldwater South Plant: Dross<br>processing in Rotary Furnaces  |
| 02/22/2016    | Telephone Notes |                   | EUALFURN7-S1 and<br>EUALFURN8-S1 (Flue Stacks:<br>SVALFURN7-S1 and<br>SVALFURN8-S1): Testing Status  |

| Activity Date | Activity Type  | Compliance Status | Comments   |
|---------------|----------------|-------------------|--|
| 02/18/2016    | MACT (Part 63) | Compliance        | Semi-annual Excess<br>Emissions/Summary Report - Real<br>Alloy Recycling (267 North<br>Fillmore Road)<br>An ROP certification report that  |
|               |                |                   | contains an original dated<br>signature by the responsible<br>official was included with the<br>MACT report. The MACT report<br>covers the semi-annual excess<br>emissions/summary report for the<br>time period 7/1/15 - 12/31/15<br>required under 40 CFR 63.1516<br>(b). The MACT report also<br>includes the annual compliance<br>certification report for CY 2015 |
|               |                |                   | required under 40 CFR 63.1516<br>(c). The report states that there<br>were no periods of excess<br>emissions; no periods where CMS<br>was inoperative and no identified<br>SSM events for process control  |
|               |                |                   | equipment. Broken bag detectors<br>and thermo-couples were<br>certified/audited during the semi-<br>annual reporting period for MACT<br>subject process equipment. The<br>report certifies that the furnace  |
|               |                |                   | molten level remained above the<br>hearth archway during the<br>reporting period. The report also<br>certifies that aluminum<br>scrap/dross utilized in an emission  |
|               |                |                   | test in which emission limits<br>specified in 63.1505 were<br>exceeded has not been processed<br>since submittal of the revised<br>OM&M plan containing the<br>material prohibitionRIL   |

| Activity Date | Activity Type  | Compliance Status | Comments   |
|---------------|----------------|-------------------|--|
| 02/18/2016    | MACT (Part 63) | Compliance        | Semi-annual Excess<br>Emissions/Summary Report - Real<br>Alloy Specifications (368 W.<br>Garfield)   |
|               |                |                   | Garfield)<br>An ROP certification report that<br>contains an original dated<br>signature by the responsible<br>official was included with the<br>MACT report. The MACT report<br>covers the semi-annual excess<br>emissions/summary report for the<br>time period 7/1/15 - 12/31/15<br>required under 40 CFR 63.1516<br>(b). The MACT report also<br>includes the annual compliance<br>certification report for CY 2015<br>required under 40 CFR 63.1516<br>(c). The report identified an<br>excess emissions event that<br>occurred on 9/8/15 for<br>approximately 165 minutes on<br>EUALDRYER3 which was 0.074%<br>of total operating time during the<br>reporting period. Torit # 2<br>exceeded the inlet temperature<br>limit of 403 degrees F (actual<br>temperature 412 degrees F) due<br>to poor charge material. The<br>facility's corrective action included<br>stopping production and checking<br>the inlet air dampering system.<br>The report states that there were<br>no periods where CMS was<br>inoperative and no identified SSM<br>events for process control<br>equipment. Broken bag detectors<br>and thermo-couples were<br>certified/audited during the semi-<br>annual reporting period for MACT<br>subject process equipment. Table |
|               |                |                   | 4 of the report identified the<br>thermocouple for Baghouse # 2<br>was down 0.051% and Torit # 2<br>thermocouple was down 0.181%   |
|               |                |                   | of total source operating time. The<br>report certifies that the furnace<br>molten level remained above the<br>hearth archway during the<br>reporting period. A violation<br>notice will not be sent at this time  |
|               |                |                   | due to reported excess emissions<br>event due to its brevity and<br>corrective measures taken by the<br>facility, -RIL   |

| Activity Date | Activity Type | Compliance Status | Comments   |
|---------------|---------------|-------------------|--|
| 02/17/2016    | Stack Test    | Compliance        | Rotary Furnace Stack Test: PM2.5<br>and PM10                       |
|               |               |                   | Test report was received on  |
|               |               |                   | 1/27/16. Staff contacted facility                                  |
|               | )             |                   | and requested submittal of ROP                                     |
|               |               |                   | certification report for test report which was received on 2/9/16. |
|               |               |                   | Each test run consisted of   |
|               |               |                   | simultaneous operation of Rotary                                   |
|               |               |                   | Furnaces # 1 and # 2 for two heat                                  |
|               |               |                   | cycles (i.e. three hour heats; six                                 |
|               |               |                   | hour runs) while processing  |
|               |               |                   | Honda 380 dross. Per report  |
|               |               |                   | summary, the average feed rate                                     |
|               |               |                   | per furnace was 10,610 lbs./nour;                                  |
|               |               | 1                 | lime injection rate was 338  |
|               |               |                   | hour the furness bood was 90                                       |
|               |               |                   | lbs /bour. The furnace food rate                                   |
|               |               |                   | lime and trong injection rates were                                |
|               |               | 1                 | all similar to past stack testing                                  |
|               |               |                   | events for this process equipment                                  |
|               |               |                   | The average PM2.5 emission rate                                    |
|               |               |                   | Iduring testing was 0 141 lbs/ton                                  |
|               |               |                   | feed charge which is 48% of the                                    |
|               |               |                   | allowable limit (0.292 lbs./ton feed                               |
|               |               |                   | charge). The average PM10  |
|               |               |                   | emission rate during testing was                                   |
|               |               |                   | 0.160 lbs./ton feed charge which                                   |
|               |               | · ·               | Is 22% of the allowable limit                                      |
|               |               |                   | (0.737 lbs./ton feed charge). AQD                                  |
|               |               |                   | -TPU reviewed the test report and                                  |
|               |               |                   | found that the results were  |
|               |               |                   | acceptable (2/12/16 memo   |
|               |               |                   | attached). See staff's 12/16/15                                    |
|               |               |                   | Itest observation report for further                               |
|               |               |                   | information on new oxy-fuel  |
|               |               |                   | burner system that was installed                                   |
|               |               |                   | on the rotary furnaces and four                                    |
|               |               |                   | additional modules that were                                       |
|               |               |                   | added to the rotary furnace  |
|               |               |                   | baghouseRIL  |

| 02/10/2016 | Stack Test | Compliance | Furnace # 7 Emission Test: PM,<br>PM10 and HCL   |
|------------|------------|------------|--|
|            |            |            | PM10 and HCL<br>On January 4, 2016, test report<br>was received from Real Alloy<br>Specification (North plant) for PM,<br>PM10 and HCL testing of<br>Reverbatory Furnace # 7 flue<br>testing completed in November<br>2015. Report contained test data<br>for Test Runs # 1, # 3 and # 4 but<br>did not include results for Test<br>Run # 2 that was apparently<br>voided by the facility. On 1/20/16,<br>staff requested process data<br>inputs and emission summary<br>data for Test Run # 2 which was<br>submitted on 1/28/16. Per Real<br>Alloy's response, a blockage in<br>the lime feed system was detected<br>part way through Test Run # 2<br>and once cleared, the facility<br>increased the lime rate from 20 to<br>33 pounds/hour for the remainder<br>of this run and subsequent two<br>test runs. AQD staff (Rex Lane)<br>requested AQD-Technical<br>Programs Unit (TPU) review of the<br>test report on 1/20/16 due to the<br>high variability in results for PM10<br>and the average of Test Runs # 1,<br># 3 and # 4 being 85% of the |
|            |            |            | allowable emission limit. AQD-<br>TPU completed a review of the<br>test report on 2/4/16 and their<br>analytical results were similar to<br>those listed Table 2-1 of the test<br>report.  |
|            |            |            | On 2/4/16, staff contacted Mr. Jeff<br>Ferg, Real Alloy and requested<br>that the facility retest Furnace # 7<br>flue for PM10 and HCL during the<br>planned test the week of March<br>21st 2016 of Furnace # 8 flue.<br>The retest request was due the<br>large variability in PM10 results<br>between the four test runs and<br>85% of limit average (if Test Run #<br>2 results excluded); the<br>change/increase in lime feed rate   |
|            |            |            | change/increase in time feed rate<br>between and across test runs<br>during November 2015 testing;<br>replacement of the temporary lime<br>injection system with a permanent<br>system along with installation of<br>air cooler bypass ductwork which<br>may result in differences in testing<br>conditions for Flues 7 and 8; and<br>chlorine gas injection rates for<br>Test Runs # 3 and # 4 were 20%   |

| 02/10/2016 | Stack Test                | Compliance | and 30% below the planned target<br>rate. Mr. Ferg agreed to retest<br>Furnace Flue # 7 with Furnace<br>Flue # 8 following transmittal of<br>the agency's request.   |
|------------|---------------------------|------------|--|
|            |                           |            | ROP certification report was<br>submitted after the fact for this test<br>report that was received on 2/9/16<br>that contains an original dated<br>signature by the responsible<br>official for the North plantRIL |
| 12/16/2015 | Stack Test<br>Observation | Unknown    | Rotary Furnace PM10 and PM2.5<br>Emission Test - Processing Honda<br>Dross   |
| 11/16/2015 | Telephone Notes           |            | Performance Test: EUALFURN7<br>and EUALFURN8 Flues   |
| 11/10/2015 | Stack Test<br>Observation |            | EUALFURN7 Flue Emission Test   |
| 10/09/2015 | Telephone Notes           |            | Construction Status under PTI No.<br>110-15  |
| 10/05/2015 | ROP Semi 1 Cert           | Compliance | ROP Semi-annual Certification<br>Report - Real Alloy Specification<br>(North Plant)  |
|            |                           |            | Report is signed and dated by the<br>facility responsible official. Report<br>states that there were no<br>deviations during the reporting<br>periodRIL  |
| 10/05/2015 | ROP Semi 1 Cert           | Compliance | ROP Semi-annual Certification<br>Report - Real Alloy Recycling<br>(South Plant)  |
| ,          |                           |            | Report is signed and dated by the<br>facility responsible official. Report<br>states that there were no<br>deviations during the reporting<br>periodRIL  |

| Activity Date | Activity Type  | Compliance Status | Comments  |
|---------------|----------------|-------------------|---|
| 10/05/2015    | MACT (Part 63) | Compliance        | MACT Semi-annual Excess<br>Emissions/Summary and Annual<br>Compliance Certification Report<br>(North Plant - Real Alloy<br>Specification, Inc.)   |
|               |                |                   | Report is signed and dated by the<br>facility responsible official. The<br>report states that there were no<br>excess emissions or CMS<br>downtime during the reporting<br>period (63.1516(b)). The report<br>also includes an annual MACT<br>compliance certification report<br>under 40 CFR 63.1516(c) which<br>states that any period of excess<br>emissions that occurred during the<br>year were reported and that all<br>monitoring, reporting and<br>recordkeeping requirements were<br>met during the yearRIL |
| 10/05/2015    | MACT (Part 63) | Compliance        | MACT Semi-annual Excess<br>Emissions/Summary and Annual<br>Compliance Certification Report<br>(South Plant - Real Alloy<br>Recycling, Inc.)   |
|               |                |                   | Report is signed and dated by the<br>facility responsible official. The<br>report states that there were no<br>excess emissions or CMS<br>downtime during the reporting<br>period (63.1516(b)). The report<br>also includes an annual MACT<br>compliance certification report<br>under 40 CFR 63.1516(c) which<br>states that any period of excess<br>emissions that occurred during the<br>year were reported and that all<br>monitoring, reporting and<br>recordkeeping requirements were<br>met during the yearRIL |

Name:

RIL

Date:  $\theta_{15}$  | 16 Supervisor:

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