TECHNICAL REVIEW DOCUMENT
For
DRAFT RENEWAL OF OPERATING PERMIT 95OPPB086

EVRAZ Rocky Mountain Steel – Rail Mill
Pueblo County
Source ID 101/0048

May 2018 – Date

Operating Permit Engineer: Nicholas Dummer
Operating Permit Supervisor review: Matt Burgett
Compliance Unit review: Tom Lovell

I. Purpose

This document establishes the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered by the renewed Operating Permit for the EVRAZ Rocky Mountain Steel Rail Mill (herein, Source). The previous Operating Permit for this facility was issued on December 28, 2010 and expired on December 28, 2015. However, since a timely and complete renewal application was submitted, under Colorado Regulation No. 3, Part C, Section IV.C all of the terms and conditions of the existing permit shall not expire until the renewal Operating Permit is issued and any previously extended permit shield continues in full force and operation.

This document is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. The conclusions made in this report are based on information provided in the original application submitted on September 8, 2014, comments on the draft permit submitted on August 21, 2018, previous inspection reports and various email correspondence, as well as telephone conversations with the applicant. Please note that copies of the Technical Review Document for the original permit and any Technical Review Documents associated with subsequent modifications of the original Operating Permit may be found in the Division files as well as on the Division website at www.colorado.gov/cdphe/airTitleV. This narrative is intended only as an adjunct for the reviewer and has no legal standing.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.
II. Description of Source

The EVRAZ Rocky Mountain Steel (herein, Source) facility at this site is a steel manufacturing plant. The sources addressed in this operating permit are those related to the portion of the plant dedicated to the production of steel rails. Briefly, the rails are produced by the following sequence: bloom heat batch identified with paint; blooms heated to 2300ºF in walking beam furnace; heated blooms descaled with high pressure water spray; blooms rolled into rail shapes; rails straightened, cut, and coding painted on. Lubricant can be used in the rolling process and paints are used to color code billets and products. Both of these activities are considered insignificant activities due to emissions below exemption thresholds.

The facility is located adjacent to Interstate 25 on the south side of Pueblo, Colorado at 2100 South Freeway. The area in which the plant operates is designated as attainment for all criteria pollutants.

There are no affected states within 50 miles of the plant. The Great Sand Dunes National Monument is a Federal Class I designated area within 100 kilometers of the facility. Florissant Fossil Beds National Monument is a Federal land area within 100 kilometers of the facility. Florissant Fossil Beds National Monument has been designated by the State to have the same sulfur dioxide increment as a Federal Class I area.

This facility is located in an area designated as attainment for all pollutants. This facility is categorized as a PSD major stationary source (potential to emit (PTE) > 100 tons per year (tpy)) for PM, NOx, and CO. Future modifications at this facility resulting in a significant net emissions increase (see Colorado Regulation No. 3, Part D, Sections II.A.27 and 44) or a modification which is major by itself (PTE > 100 tpy) for any pollutant listed in Colorado Regulation No. 3, Part D, Section II.A.44 for which the area is in attainment or attainment/maintenance may result in the application of the PSD review requirements.

There are five other Operating Permits which are collocated with this one and are considered associated for the purposes of determining PSD applicability. These are the Rail Mill, Seamless Mill, Steelmaking, Utilities, and Harsco Metals (95OPPB086, 95OPPB089, 95OPPB097, 95OPPB098, 09OPPB341).

Potential and actual emissions (from most recent APENs) from the Source facility and the total emissions from all collocated sources are as follows:

<table>
<thead>
<tr>
<th>Equipment</th>
<th>AIRS ID</th>
<th>PM</th>
<th>PM(_{10})</th>
<th>PM(_{2.5})</th>
<th>NO(_x)</th>
<th>CO</th>
<th>SO(_2)</th>
<th>VOC</th>
<th>HAPs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITAM Walking Beam Furnace</td>
<td>108</td>
<td>3.51</td>
<td>3.51</td>
<td>3.51</td>
<td>32.34</td>
<td>38.81</td>
<td>0.28</td>
<td>2.54</td>
<td>0.87</td>
</tr>
<tr>
<td>Paint / Solvent / Thinner Use</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Varies</td>
</tr>
</tbody>
</table>

**RAIL MILL ACTUAL EMISSIONS (as reported on most recent APEN from 2014)**
III. Applicable Requirements

Accidental Release Program – 112(r)

Section 112(r) of the Clean Air Act mandates a new federal focus on the prevention of chemical accidents. Sources subject to these provisions must develop and implement risk management programs that include hazard assessment, a prevention program, and an emergency response program. They must prepare and implement a Risk Management Plan (RMP) as specified in the Rule.

Based on the information provided by the Source, this facility is not subject to the provisions of Section 112(r) of the Federal Clean Air Act.

Hazardous Air Pollutants (HAP)

The Rail Mill is a minor emissions source of HAP. However, due to its collocation with other Rocky Mountain Steel facilities, it is considered major for HAP. Note that this is a change from the previous issuance of the permit in which the facility was designated minor for HAP; however, since the previous issuance, the Source performed stack testing which showed that emissions of HAP were in exceedance of the major source HAP thresholds.

Compliance Assurance Monitoring

The CAM provisions of 40 CFR Part 64 do not apply to sources in this Operating Permit since there are no control devices used to achieve compliance with an emissions limitation or standard and have pre-control emissions over the major source threshold.

40 CFR Part 63, Subpart MMMM – National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products

The requirements of Subpart MMMM apply to surface coating of miscellaneous metal parts which use 250 or more gallons per year of coatings that contain HAP. There are various surface coating operations at the facility, and the painting covered under this...
Operating Permit is subject to the requirements of Subpart MMMM. The Source must not use surface coatings in excess of 2.6 pounds of organic HAP per gallon of surface coating, as defined in §63.3981, at the rail mill.


The requirements of Subpart SSSS only apply to surface coating of metal coil as defined in §63.5110. The steel coated in this Operating Permit is not packaged in a roll or coil prior to coating thus it is not an affected source under Subpart SSSS.


The requirements of Subpart EEEE only apply to “facilities or portions of a facility that melt scrap, ingot, and/or other forms of iron and/or steel and pours the resulting molten metal into molds to produce final or near final shape products…” (§63.7765). The facility as a whole is considered a foundry according to this definition; however, Subpart EEEE only applies to “emissions from metal melting furnaces, scrap preheaters, pouring areas, pouring stations, automated conveyor and pallet cooling lines, automated shakeout lines, and mole and core making lines” (§63.7682(b)). Since none of the processes in this Operating Permit fit these unit designations for affected sources within the foundry, there are no associated requirements for this Operating Permit under Subpart EEEE.


The requirements of Subpart FFFF only apply to facilities which are “an establishment engaged in the production of steel from iron ore” (§63.7852). Since the facility only produces steel from scrap material, it is not an affected source under Subpart FFFF. Further discussion of applicability is discussed in the 2nd renewal technical review document when the facility was an area source of HAP emissions; the rule still did not apply.


The requirements of Subpart YYYY only apply to those facilities which are considered area sources of HAP; i.e. non-major sources. Since the Source facility is a major source of HAP emissions, the requirements of Subpart YYYY do not apply. Further discussion of applicability is discussed in the 2nd renewal technical review document when the facility was an area source of HAP emissions; the rule still did not apply.

40 CFR Part 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Area Sources

The requirements of Subpart ZZZZ only apply to those facilities which are considered area sources of HAP; i.e. non-major sources. Since the Source facility is a major source of HAP emissions, the requirements of Subpart ZZZZ do not apply. Further
discussion of applicability is discussed in the 2nd renewal technical review document when the facility was an area source of HAP emissions; the rule still did not apply.


The requirements of Subpart HHHHHH only apply to those facilities which are considered area sources of HAP; i.e. non-major sources. Since the Source facility is a major source of HAP emissions, the requirements of Subpart HHHHHH do not apply. Further discussion of applicability is discussed in the 2nd renewal technical review document when the facility was an area source of HAP emissions; the rule still did not apply.


The requirements of Subpart XXXXXX only apply to those facilities which are considered area sources of HAP; i.e. non-major sources. Since the Source facility is a major source of HAP emissions, the requirements of Subpart XXXXXX do not apply. Further discussion of applicability is discussed in the 2nd renewal technical review document when the facility was an area source of HAP emissions; the rule still did not apply.


The requirements of MACT DDDDD do not apply to the furnace in this Operating Permit because it does not meet the definition of a process heater as described in §63.75 since the combustion gases in the furnace come into direct contact with the process materials.

IV. Modifications Requested by the Source

Since the previous issuance of the Operating Permit, the Source requested the following modifications; unless otherwise noted, all requests were incorporated into the Operating Permit:

Section I – General Activities and Summary

- The Source requested a correction to a misspelling of the name of the responsible official from Ben Lutz to Ben Lutze.
- Change the Responsible Official from Craig West to James Rodacy.

Section II – Specific Permit Terms

- The Source requested that an AOS be added to the permit which addresses startup periods during which the 0.07 lb NOx/MMBtu will not apply. The Source requested that during periods of startup, the requirement will not apply, instead
a block average for NOx emissions will apply which is calculated as the annual limit divided by 365 days to give a lb NOx/day limit.

Since the requirement comes from a Federal Consent Decree (Civil Action 03-M-0608) which has been cancelled, the Source does not need to request a modification to the Consent Decree to make this change to the requirement which was previously required at all times.

The Division disagrees with the Source’s approach to addressing this in the Operating Permit. An AOS is normally associated with a requirement that addresses a future modification prior to it occurring. This does not fit that description.

The Division disagrees that this approach is necessary. A review of outages from the previous 34 months and there were no exceedances reported during that time which would indicate that this limit is unreasonable. Further, the approach to including a startup provision creates unnecessary permit complexity and inspection burden.

- The Source requested an update to the natural gas heat content from 1010 to 1020 BTU/scf, and an increase in annual fuel consumption from 840 MMscf/yr to 924 MMscf/yr. Emissions limits were increased by 10% as a result of this change. These changes were addressed in a previous minor modification to the Operating Permit.

- Change Condition 2.1.1 which required quarterly updates to the MSDS to annual or longer due to years of data which show that the VOC and HAP contents are largely consistent. This request was granted and the requirement was changed to on a per calendar year basis. The Division believes that the requirements associated with ongoing calculations to monitor VOC and HAP emissions are adequately captured with other permit requirements, namely Conditions 2.1.3 and 2.1.4 which require updates to the previous year’s calculations in the event that VOC/HAP contents are higher in the new paints.

Appendices

- The Source requested that the list of permit exemptions and APEN exemptions from Colorado Regulation No. 3 be added as an appendix to the Operating Permit. This request is not being incorporated as there is no tangible gain from doing so and it could provide unnecessary additional inspection burdens.

V. Other Modifications

In addition to the source requested modifications, the Division has included changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this renewal. These changes are as follows:

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• It should be noted that the monitoring and compliance periods and report and certification due dates are shown as examples. The appropriate monitoring and compliance periods and report and certification due dates will be filled in after permit issuance and will be based on permit issuance date. Note that the source may request to keep the same monitoring and compliance periods and report and certification due dates as were provided in the original permit. However, it should be noted that with this option, depending on the permit issuance date, the first monitoring period and compliance period may be short (i.e. less than 6 months and less than 1 year).

• Modified the language concerning postmarked dates for report submittals to reflect the Division’s current standard language.

Section I – General Activities and Summary

• There were no changes to Section I.

Section II – Specific Permit Terms

• Condition 1.1 – The requirement to maintain records of monthly and annual emissions calculations was made explicit.

• Condition 1.2 – The requirement to maintain records of monthly and annual fuel use was made explicit.

• Condition 1.3 – The requirement to maintain records of weighted average data and calculations was made explicit. This condition was also updated to address the request as discussed in Section IV of this TRD, above.

• Condition 1.4 – The requirement for the Source to program the DAS to use a heating value of 1020 Btu/scf within 30 days of issuance of the revised permit was removed as this period has lapsed and the Source is now required to use the 1020 Btu/scf heating value in all CEMS calculations, as appropriate.

• Previous Condition 1.10 was remove from the permit as it referenced the requirements of 40 CFR Part 60, Subpart A, General Provisions which only apply to sources which are subject to another NSPS. Since the Furnace is not subject to an NSPS, the requirements of the NSPS General Provisions do not apply.

• Condition 2 – The Source requested that a change be made to the MSDS requirement such that other means of materials data may be substituted in lieu of standard MSDS since some manufacturers are moving toward other means of information distribution. The Division is comfortable with this provided the data comes from the manufacturer or some equivalent source. It remains the responsibility of the Source to maintain adequate records for the purposes of demonstrating compliance with Condition 2.

• Condition 2.1 – The MSDS updating period was changed from a calendar quarter requirement to a calendar year requirement in accordance with the request from the Source as discussed in Section IV of this TRD, above.
• Condition 2.3.7 – The alternate semiannual compliance date schedule summary table was updated to remove the initial semiannual period of July 1, 2013 – October 31, 2013 with the report due on December 1, 2013 since these dates have since lapsed. The ongoing semiannual compliance reporting schedule with June 1 and December 1 due dates remains.

Section III – Permit Shield

• There were no changes to the permit shield.

Section IV – General Permit Conditions

• The General Permit Conditions were updated to the most recent version (3/13/2018). The most significant change was the addition of new major source requirements in Condition 24.

Appendices

• The formatting of the Appendices was updated for consistency and clarity.

• The insignificant activities list was updated to reflect the Colorado Regulation No. 3, Part C, Section II.E. requirements to maintain records of certain insignificant activities to verify that they ought to remain on the list, as appropriate.

• The modifications listed in Appendix F were removed.