



Air Quality Permitting Response to Public Comments

December 10, 2018

Permit to Construct No. P-2017.0055

Project No. 61952

**Rule Steel
Caldwell, Idaho**

Facility ID No. 027-00156

Prepared by:
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AIR QUALITY DIVISION

Final

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BACKGROUND

The Idaho Department of Environmental Quality (DEQ) provided for public comment on the proposed permit to construct for Rule Steel from October 23, 2018 through November 22, 2018, in accordance with IDAPA 58.01.01.209.01.c. During this period, comments were submitted in response to DEQ's proposed action. Each comment and DEQ's response is provided in the following section. All comments submitted in response to DEQ's proposed action are included in the appendix of this document.

PUBLIC COMMENTS AND RESPONSES

Public comments regarding the technical and regulatory analyses and the air quality aspects of the proposed permit are summarized below. Questions, comments, and/or suggestions received during the comment period that did not relate to the air quality aspects of the permit application, the Department's technical analysis, or the proposed permit are not addressed. For reference purposes, a copy of the Rules for the Control of Air Pollution in Idaho can be found at: <http://adminrules.idaho.gov/rules/current/58/0101.pdf>.

Comment 1: Confirmation that emissions from building doorways are considered fugitive emissions.

There are several places within the draft permit where building/shop doorways are referenced as emissions points. Rule Steel requests these references be clarified as building fugitive emissions. For Example: "Plasma cutting shop doors 1 – 8" be revised to "Plasma cutting shop fugitive emissions".

This requested change aligns with Idaho regulations in IDAPA 58.01.01.005, where Fugitive Emissions are defined as "Those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.", and Idaho DEQ guidance on controlling fugitive dust noting that a vent is defined as "an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities."

The doorways to the Rule Steel buildings are used for the movement of materials into and out of various areas, and the doorways should not be considered stacks, vents, or equivalent openings for the purpose of venting air from inside the buildings.

Response 1: Fugitive emissions are defined in IDAPA 58.01.01.006.47 as, "Those emissions which could not reasonable pass through a stack, chimney, vent, or other functionally equivalent opening." DEQ has a long standing history in determinations that doorways and/or windows of a building are considered "functionally equivalent openings" by which emissions generated from sources within a building are released. These emissions are then considered non-fugitive (point source) emissions and are included in Potential to Emit (IDAPA 58.01.01.006.88) calculations for permit applicability determinations. Additionally, the definition of stationary source includes any building. See IDAPA 58.01.01.006.121. The Potential to emit for Rule Steel's emission inventory submitted with its application included emissions generated from plasma cutting and welding operations located inside a building and vented to the outside air through doorways. Therefore, the emission point descriptions for plasma cutting and welding in the permit are correct (Table 2.1 and 3.1 respectively).

Comment 2: Removal of Stainless Steel limit on plasma cutting activities.

A new condition added to the draft permit (Condition 2.6) limits the facilities ability to process stainless steel through the plasma cutters. Rule Steel provided an emission inventory indicating 5 percent is the upper-bound of stainless steel that would be processed through the facility. However, the purpose of providing this information to Idaho DEQ was to describe current/future facility operations, and not to request a stainless steel limit imposing additional monitoring and recordkeeping requirements. Rule Steel requests the 5 percent stainless steel be removed for several reasons.

- The stainless steel limit is unnecessary. The 5 percent estimate is an upper bound representing the maximum usage under the facilities projected operation. However, the facility toxic air pollutant (TAP) modeling provided to Idaho DEQ for nickel indicates that more than 90 percent stainless steel could be processed by the plasma cutters. This higher percentage of cutting stainless steel is over 18 times more than the facility could process under current operating scenarios. An arbitrary limit of 5 percent stainless steel is unwarranted and unnecessary for plasma cutting operations.
- No other permits for steel fabrication facilities that we reviewed have similar stainless steel material usage limits. There are other steel fabrication facilities in Idaho that cut both stainless steel and carbon steel, and our review found there were no such material limitations for plasma cutters in other Idaho DEQ permits. Requiring Rule Steel to conduct additional monitoring/recordkeeping compared to other steel fabrication facilities creates a competitive disadvantage for Rule Steel.

Response 2: Prior to the permit going to public comment a permit condition was added that created an upper limit of 5% stainless steel processed through the plasma cutting operation. This was done because, as per the permit application and the emissions inventory submitted, the ratio of carbon steel to stainless steel processed at the facility was 95% and 5% respectively. In addition, although the processing of 5% stainless steel at the facility was not presented as the maximum potential of stainless steel that could be cut in the plasma cutter, it was presented as the highest historical amount processed. In addition, the amount of stainless steel processed at the facility is solely based upon market demand. Thus, per the application, the 95% carbon steel and 5% stainless steel processed was used to determine the facility's metal plasma cutting potential to emit (PTE).

From this PTE the portion of emissions that are Toxic Air Pollutants (TAPs) were modeled and submitted by the facility in the application to demonstrate compliance with the TAPs Rules. The estimated processing of 5% stainless steel resulted in a modeled nickel emission concentration of approximately 35% of the allowable Ambient Air Concentration for a Carcinogen (AACC). However, during a final discussion with the facility prior to final permit issuance, it was determined that DEQ could allow up to 15% stainless steel to be processed at the facility. This was done because, as discussed previously, the submitted modeled nickel emission concentration was approximately 35% of the allowable AACC, and a tripling of the stainless steel processed at the facility would still meet the AACC. Therefore, the processing of 5% stainless steel was revised to the requirement to process no more than 15% stainless steel. It is required to ensure compliance with the TAPs increment and will remain an enforceable limit in the permit.

As for the comment, "...the facility toxic air pollutant (TAP) modeling provided to Idaho DEQ for nickel indicates that more than 90 percent stainless steel could be processed by the plasma cutter...", prior to final permit issuance the applicant's consultant scaled the data used in the previously submitted modeling analysis to determine that 90% of the steel processed at the facility could be stainless steel. However, this analysis was not submitted with the initial

application. Therefore, DEQ staff was not able to review the assumptions made in this analysis, and there was no way at this late time during processing of the application to determine the validity of this statement.

As for the comment, “No other permits for steel fabrication facilities that we reviewed have similar stainless steel material usage limits...,” in all cases of issuing air permits DEQ relies upon the assumptions used by the facility to determine the maximum PTE of air emissions. This maximum PTE is then used to determine compliance with State and Federal Rules. Then, the assumptions are used to establish enforceable permit limits for the emissions generating operations at facility.

Appendix

Public Comments Submitted for

Permit to Construct

P-2017.0055

From: [Kyle Heikamp](#)
To: [Rakael Pope](#); [Tamya Chin](#)
Cc: [Greg Burkhardt](#); [Les Pollard](#)
Subject: Docket No. AQ-1633 (Rule Steel Draft PTC)
Date: Wednesday, November 21, 2018 6:57:58 PM

Rakael,

We have had a chance to review the draft permit, and this email includes our comments on the draft permit documents.

1. Confirmation that emissions from building doorways are considered fugitive emissions.

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This requested change aligns with Idaho regulations in IDAPA 58.01.01.005, where Fugitive Emissions are defined as "Those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.", and Idaho DEQ guidance on controlling fugitive dust noting that a vent is defined as "an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities."

The doorways to the Rule Steel buildings are used for the movement of materials into and out of various areas, and the doorways should not be considered stacks, vents, or equivalent openings for the purpose of venting air from inside the buildings.

2. Removal of Stainless Steel limit on plasma cutting activities.

A new condition added to the draft permit (Condition 2.6) limits the facilities ability to process stainless steel through the plasma cutters. Rule Steel provided an emission inventory indicating 5 percent is the upper-bound of stainless steel that would be processed through the facility. However, the purpose of providing this information to Idaho DEQ was to describe current/future facility operations, and not to request a stainless steel limit imposing additional monitoring and recordkeeping requirements. Rule Steel requests the 5 percent stainless steel be removed for several reasons.

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limitations for plasma cutters in other Idaho DEQ permits. Requiring Rule Steel to conduct additional monitoring/recordkeeping compared to other steel fabrication facilities creates a competitive disadvantage for Rule Steel.

Please feel free to contact me with any questions or comments on the requested changes to the draft permit.

Kyle

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