

**Air Quality Permitting
Response to Public Comments**

May 1, 2018

Permit to Construct No. P-2012.0034

Project No. 61933

**Idaho Forest Group LLC – Riley Creek-Moyie Springs
Moyie Springs, Idaho**

Facility ID No. 021-00001

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 Idaho Forest Group LLC – Riley Creek-Moyie Springs from February 8 through March 12, 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: It is still unclear to us whether and how DEQ adjusted the average Baseline Actual Emissions (BAE) downward to exclude the non-compliant emissions that occurred during the 2014-2016 time period. We request DEQ explain whether and how it adjusted the average BAE in this way.

The BAE are calculated according to a formula identified at 40 CFR 52.21(a)(2)(iv)(c). The BAE is the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project. 40 CFR 52.21(b)(48)(i); see also id. at (b)(48)(ii). The average rate must include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions. Id. at (b)(48)(i)(a). In addition, the average rate must be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period. Id. At (b)(48)(i)(b). IFG chose a consecutive 24-month period between 2014 and 2016 as the baseline period.

We were unable to identify in the appendices attached to the SOB a discussion or explanation by DEQ, in accordance with 40 CFR 52.21(b)(48)(i)(b), showing whether or not DEQ adjusted downward the average rate of this baseline period to reflect IFG's permit violations that occurred between the months of:

- August 1, 2015 and July 31, 2016; and
- December 1, 2015 and November 30, 2016.

See Idaho Forest Group LLC – Riley Creek-Moyie Springs Revised CO Form (2016AAJ819[v2]).

We request DEQ explain whether and how it adjusted the average BAE given the noncompliant emissions cited above.

Response 1: Sections 7 and 9 of the Consent Order (CO) cited, Idaho Code § 39-108, DEQ explicitly states that there were no non-compliant emissions. Therefore, the suggested downward adjustments and corresponding discussions are not required. The CO Sections are included here in part for complete transparency in answering this comment:

Section 7 concluding sentence: "However, based on the July 13, 2016 performance test results referenced in Sections 5 and 6 of this Consent Order, DEQ determined that IFG-Moyie

had not violated its CO emissions limit even though it exceeded its boiler steam production limit.”

Line Item 9 concluding sentence: “However, based on a review of the emissions calculations associated with IFG-Moyie’s dry kiln throughput records, DEQ determined that it had not violated any of its corresponding volatile organic compound (VOC), or single or combined hazardous air pollutant (HAP) emissions limits.”

Comment 2: The SOB, at page 9, states that the AP-42 emission factor (EF) for NO_x was used with current steam production to calculate BAE. We request DEQ explain whether or not this was appropriate given that steam production during the BAE time period may be different from the “current” steam production rate.

Response 2: The BAE for NO_x was calculated from actual emissions from May 2014 to April 2016 using an EF of 0.31 pounds of NO_x emitted for every 1000 pounds of steam produced, as shown on the EI page entitled “Running 12-month Calculations”. This same AP-42 NO_x EF, 0.31 pounds of NO_x emitted for every 1000 pounds of steam produced, is also used for the Projected Actual Emissions (PAE). This EF is valid throughout a range of steam loads for the boiler.

Comment 3: We request DEQ provide further clarification and explanation as to how it approved the emissions factors chosen by IFG. In particular, we request more clarification on the EF DEQ approved for CO.

In IFG’s Emission Inventory Report, IFG stated that the CO source test results from July 2016 indicate an emission factor for Boiler CO of 0.46 lbs/klb steam. However, in Appendix A, IFG stated that it chose a more conservative emission factor of 1.3 lb/klb steam instead. We support conservative emission factors generally, and encourage DEQ to similarly apply conservative EFs for all emissions evaluated in the SOB.

We request DEQ explain why it approved an EF for CO that was above the results in IFG’s July 2016 source test and explain why similarly conservative EFs are inappropriate for the other emissions proposed in this modification.

Response 3: The CO EF’s are approved because they are based on a 2016 source test conducted in accordance with state and federal requirements. The BAE was calculated on actual emissions using an EF of 2.0 pounds of CO emitted per 1000 pounds of steam produced, for a period from May 2014 through April 2016. This was based on a performance test completed in August of 2014, and resulted in an average BAE of 373.4 T/yr of CO, as shown in the EI page entitled “Running 12-month Calculations”. A more recent performance test was completed in July of 2016, and a CO factor of 1.3 pounds of CO emitted per 1000 pounds of steam produced was developed. This EF was used to calculate PAE and resulted in an average CO emission of 353.6 T/yr. The conservative CO EF is more than double the value of the tested CO value which establishes a compliance margin for the boiler as requested by the applicant. This is a common and acceptable method provided the EF still maintains compliance with the regulatory requirements. These requirements include limiting emissions below significant thresholds, in this case the CO is decreased by 19.8 T/Yr (see Table 9 of the SOB) per 40 CFR 52.21(b)(23) to avoid triggering PSD, and for demonstrating compliance with NAAQS.

It is never advisable for a mill to set a boiler emission factor based on one source test, and clearly the original emission factor was no longer appropriate. The AP-42 emission factor is 0.60 lb/MMBtu which is equivalent to 0.95 lb/klb. Based on these considerations, IFG chose the emission factor of 1.3 lb/klb to represent worst case emissions. In the future, this boiler will be tested regularly for CO as required by the Boiler MACT regulations.

It's not clear what emission factors ICL considers non-conservative. The SO₂, NO_x and lead emission factors for the hog fuel boiler are taken directly from AP-42. The PM/PM₁₀/PM_{2.5} emissions are based on regulatory limits. As long as the applicant demonstrates compliance with NAAQS and PSD limits for the criteria pollutants using EF's derived differently from the conservative CO EF, they are not under any obligation to use the same methodology. DEQ will accept conservative EF values as long as the resulting emissions are realistic. For further information see DEQ's data hierarchy document on DEQ's website at: <http://www.deq.idaho.gov/media/655505-emissions-data-hierarchy.pdf>.

Comment 4: We request DEQ clarify statements regarding how anticipated emission reductions from installation of the ESP were included, or not, in DEQ analysis and the SOB. At page 9 of the SOB, DEQ states, "[T]he proposed ESP installation would decrease the emissions further; however, this facility did not apply this reduction." But, on the next page, DEQ states, "The procedure used by IFG – Moyie Springs for calculating Potential Actual Emissions (PAE) was the calculation approach for the ESP replacing the EFB set forth in 40 CFR 52.21.

We request DEQ explain how IFG's application and the SOB are accounting the anticipated emissions reductions associated with installation of the ESP.

Response 4: The PM₁₀/PM_{2.5} BAE for the boiler was calculated using 2 years of baseline actual data using an EF based on a 2014 source test on a per 1000 pounds of steam basis. Using 0.062 lb PM₁₀/PM_{2.5} per 1000 lb steam resulted in an average BAE of 17.01 tons per year (T/yr) as shown in the EI page entitled "Running 12-month Calculations". Since the control device was being changed on the boiler from an EFB to an ESP, the applicant chose to estimate the PAE by summing a boiler MACT upper limit for the filterable PM₁₀ with an AP-42 EF for the condensable PM₁₀/PM_{2.5} using a million Btu (MMBtu) basis. Using the resulting EF of 0.054 lb PM₁₀/PM_{2.5} per MMBtu resulted in a PAE of 23.85 T/yr PM₁₀/PM_{2.5}. Not only is the difference of the BAE to PAE for the boiler far below the significance threshold at 6.31 T/Yr, the allowable emissions for PM₁₀/PM_{2.5} for the project is decreasing.

Since the control device is changing and the source test data is no longer representative for the projected emissions, this is an acceptable methodology and is accounted for in the BAE and PAE for the boiler.

Comment 5: We request DEQ explain the discrepancy between the changes in potential to emit for GHGs listed in Table 4 of the initial SOB and the total changes in potential to emit GHGs listed in Appendix A, provided in the revised SOB.

Response 5: The greenhouse gas (GHG) discussion was removed from the proposed SOB because they do not impact the permit. This is because the project is not a major modification for regulated air pollutants and therefore does not trigger the GHG regulations.

Comment 6: Page 16 of Appendix B states, "BISON submitted a signed application on August 18, 2017, and did not respond to the conditions listed in the protocol approval letter." We request DEQ provide the conditions listed in the protocol approval letter and explain why it was appropriate for BISON not to respond to them.

Response 6: Bison submitted a modeling protocol on July 11, 2017. They then submitted an application, including the modeling analyses, prior to receiving DEQ's letter of approval of the modeling protocol, which was emailed on August 11, 2017. While it is preferred that the applicant waits until an approval letter is received before finalizing the modeling analyses, it is not mandatory. The applicant did communicate and respond with DEQ regarding items of modeling discussed in the protocol. An item of particular discussion was the selected ambient background data used in the modeling analyses. BISON selected data from a location not approved by DEQ. In the

final analyses, DEQ performed sensitivity modeling analyses utilizing refined ambient background data different than that utilized in the submitted modeling analyses. DEQ did these analyses to assure that all modeled results are protective of the NAAQS. This analysis is discussed in sections 3 and 4 of the modeling memorandum, which is part of the statement of basis. Also attached is the protocol approval letter, with conditions. As listed, the only condition needing specific attention was addressing ambient background data.

Comment 7: In Appendix E, IFG answered “N” to the question, “Is this a PSD permit Y/N (IDAPA 58.01.01.205.04).” We request DEQ explain whether or not IFG’s answer was correct in this case and why.

Response 7: This is not a PSD permit because PSD was not triggered for the project. This is because the BAE to PAE emissions increases for the project are less than the significant thresholds (see Table 10 of the SOB) as defined in 40 CFR 52.21(b)(23).

Appendix

Public Comments Submitted for

Permit to Construct No. P-2012.0034

Project No. 61933



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Tessa Stevens
Air Quality Division
DEQ State Office
1410 N. Hilton
Boise, ID 83706

Submitted via email to: tessa.stevens@deq.idaho.gov and tom.burnham@deq.idaho.gov

March 11, 2018

RE: Second Comment Period - Proposed Modification to PTC, Idaho Forest Group, Moyie Springs

Dear Ms. Stevens:

Since 1973, the Idaho Conservation League has been Idaho's leading voice for clean water, clean air and wilderness—values that are the foundation for Idaho's extraordinary quality of life. The Idaho Conservation League works to protect these values through public education, outreach, advocacy and policy development. As Idaho's largest state-based conservation organization, we represent over 25,000 supporters, many of whom have a deep personal interest in protecting Idaho's human health and environment.

Attached, please find my second set of comments on behalf of the Idaho Conservation League regarding the proposed modification to air quality permit to construct for Idaho Forest Group, Moyie Springs.

Please do not hesitate to contact me at (208) 265-9565 or mnykiel@idahoconservation.org if you have any questions regarding our comments or if we can provide you with any additional information on this matter. Thank you for your time and consideration.

Sincerely,

A handwritten signature in blue ink that reads "Matthew Nykiel".

Matthew Nykiel
Conservation Associate

ICL Comments

We appreciate DEQ's decision to extend the public comment period on this PTC, given that Appendices A and B of the Statement of Basis (SOB) had been inadvertently omitted during the December comment period. We also appreciate IFG's patience given these circumstances.

Ultimately, the revised SOB corrected inaccuracies presented in the initial SOB and clarified DEQ's analysis and evaluation, which will help the public understand the proposed modifications in light of future modifications and permit renewals.

ICL still has several questions regarding the revised SOB that we request DEQ provide further clarification.

Baseline Actual Emissions - Noncompliant Emissions

It is still unclear to us whether and how DEQ adjusted the average Baseline Actual Emissions (BAE) downward to exclude the non-compliant emissions that occurred during the 2014-2016 time period. We request DEQ explain whether and how it adjusted the average BAE in this way.

The BAE are calculated according to a formula identified at 40 CFR 52.21(a)(2)(iv)(c). The BAE is the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding when the owner or operator begins actual construction of the project. 40 CFR 52.21(b)(48)(i); see also *id.* at (b)(48)(ii). The average rate must include fugitive emissions to the extent quantifiable, and emissions associated with startups, shutdowns, and malfunctions. *Id.* at (b)(48)(i)(a). In addition, the average rate must be adjusted downward to exclude any non-compliant emissions that occurred while the source was operating above any emission limitation that was legally enforceable during the consecutive 24-month period. *Id.* at (b)(48)(i)(b).

IFG chose a consecutive 24-month period between 2014 and 2016 as the baseline period. We were unable to identify in the appendices attached to the SOB a discussion or explanation by DEQ, in accordance with 40 CFR 52.21(b)(48)(i)(b), showing whether or not DEQ adjusted downward the average rate of this baseline period to reflect IFG's permit violations that occurred between the months of:

- August 1, 2015 and July 31, 2016; and
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We request DEQ explain whether and how it adjusted the average BAE given the non-compliant emissions cited above.

Baseline Actual Emissions – Steam Production

The SOB, at page 9, states that the AP-42 emission factor (EF) for NO_x was used with current steam production to calculate BAE. We request DEQ explain whether or not this was appropriate given that steam production during the BAE time period may be different from the “current” steam production rate.

Emissions Factors

We request DEQ provide further clarification and explanation as to how it approved the emissions factors chosen by IFG. In particular, we request more clarification on the EF DEQ approved for CO.

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We request DEQ explain why it approved an EF for CO that was above the results in IFG’s July 2016 source test and explain why similarly conservative EFs are inappropriate for the other emissions proposed in this modification.

ESP Emission Reduction

We request DEQ clarify statements regarding how anticipated emission reductions from installation of the ESP were included, or not, in DEQ analysis and the SOB.

At page 9 of the SOB, DEQ states, “[T]he proposed ESP installation would decrease the emissions further; however, this facility did not apply this reduction.” But, on the next page, DEQ states, “The procedure used by IFG – Moyie Springs for calculating Potential Actual Emissions (PAE) was the calculation approach for the ESP replacing the EFB set forth in 40 CFR 52.21.

We request DEQ explain how IFG’s application and the SOB are accounting the anticipated emissions reductions associated with installation of the ESP.

GHG Analysis

We request DEQ explain the discrepancy between the changes in potential to emit for GHGs listed in Table 4 of the initial SOB and the total changes in potential to emit GHGs listed in Appendix A, provided in the revised SOB.

Ambient Air Quality Impact Analysis

Page 16 of Appendix B states, "BISON submitted a signed application on August 18, 2017, and did not respond to the conditions listed in the protocol approval letter." We request DEQ provide the conditions listed in the protocol approval letter and explain why it was appropriate for BISON not to respond to them.

PTC Fee Calculation

In Appendix E, IFG answered "N" to the question, "Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)." We request DEQ explain whether or not IFG's answer was correct in this case and why.