



## LMI Environmental, LLC

October 24, 2019

Kenzie Billings  
Oregon Department of Environmental Quality  
700 NE Multnomah St., Suite 600  
Portland, OR 97232

**RE: Response to ODEQ's Oct 4, 2019 request to Roseburg for additional information on CAO submittal**

Dear Ms. Billings,

Thank you for your October 4, 2019 reply to Roseburg Forest Products' (RFP) previous information submission regarding its Medford MDF facility's Cleaner Air Oregon permitting process. RFP thanks you for your concurrence on many of the previously listed requests. Based on your most recent reply, there are still a couple of open issues. I address those below:

***3. Regarding our request for NCASI emission factor references in your emission inventory submittal, in order to approve the factors referencing the "2018 NCASI database," DEQ requires that Roseburg furnish the supporting technical information for review listed in the attached table for those factors that do not match the values in NCASI Technical Bulletin No. 1013."***

RFP Response – Attached please find the technical information for those factors referenced in the question above. The technical information provided consists of the data available for those factors on NCASI's database.

***4. DEQ does not agree with Roseburg's assertion that the wood-fueled boiler does not emit dioxins/furans. Pursuant to OAR 340-245-0030(4)(a), DEQ will establish appropriate emission rates and provide Roseburg with these values upon final approval of the facility's emissions inventory.***

RFP Response – Based on conversations with J.R. Giska, we understand that DEQ was concerned about RFP's dioxin/furan emission factors based on a misunderstanding of the difference in the dioxin/furan formation mechanisms relevant to a sander dust burner as opposed to a traditional biomass stoker boiler. Mr. Giska suggested that RFP provide additional information to support its position that dioxin/furan formation from a burner such as that used at the Medford facility would be de minimis.

To provide some background, RFP's Medford boiler is equipped with a suspension burner which is fundamentally different from the wood-fired stoker burners from which most NCASI dioxin/furan emission factors are derived. Due to their design, suspension burners burn hot, quickly and completely. The resulting air stream and ash cools quickly. As noted in the attached memos from John Richards, P.E. and NCASI, the de novo formation process for wood combustion is related to smoldering such as occurs in a hog fuel boiler which, in turn generates products of incomplete

combustion (PICs). Without PICS, the potential for the generation of dioxins and furans is extremely small.

Such conditions do not occur in a sanderdust burner where each particle burns explosively and completely in the burner. Based on these two attached documents and the papers that they cite, RFP believes that it has adequately documented that dioxin/furan levels would be de minimis and that assigning factors from other fuel types/burner configurations is not appropriate. That said, we have recently been told that there are dioxin/furan data from the testing of a single sanderdust burner. We have not yet verified that these data are obtainable or from a comparable suspension burner and so cannot comment on whether they might be relevant to the Medford sanderdust suspension burner. We shall supplement this letter if we are able to obtain those data and they are from a comparable burner/fuel.

If, after reading the enclosed memos, DEQ still does not agree, RFP requests the opportunity to discuss the issue rather than DEQ unilaterally establish emission factors for RFP. A collaborative approach should encourage such discussion.

***5. In our previous letter, we mistakenly requested source testing data from September 2006. Thank you for submitting the applicable RCO source testing data. Please verify that Roseburg's current operating parameters are represented by the submitted source test results.***

RFP Response – yes, the source test data is representative of the facility's current operating parameters.

We hope you find the responses above and the enclosures helpful. If you find that additional information would be beneficial, or if you disagree with the information we have conveyed, we hope that you will let us know so we can provide that to you. We appreciate your assistance and cooperation with this process and look forward to hearing back from you.

Thank you,



Ellen Porter

c: Chantal Green, Roseburg Forest Products  
Tom Wood, Stoel Rives