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January 8, 2019

Ms. Rebecca Radulski Senior Environmental Engineer MDEQ Air Quality Division 2100 West M-32 Gaylord, Michigan 49735

> Re: Violation Notice dated December 20, 2018: Decorative Panels International Inc. – Alpena Hardboard Mill, Renewable Operating Permit No. MI-ROP-B1476-2015a

Dear Ms. Radulski:

We are responding to the Violation Notice ("VN") dated December 20, 2018, issued to Decorative Panels International ("DPI" or "the Company") by the Michigan Department of Environmental Quality ("MDEQ"). The VN alleges #1 Press/Biofilter permit and rule violations of our above-referenced Renewable Operating Permit ("ROP") and the federal regulation known as *National Emission Standards for Hazardous Air Pollutants: Plywood and Composite Wood Products*, 40 CFR Part 63, Subpart DDDD (hereafter "Wood MACT").

This response is submitted timely before the January 11, 2019 due date. As requested by the VN, this written response addresses the alleged violations, provides a summary of the corrective actions that have been taken by DPI, and identifies steps being taken to prevent any possible reoccurrence. In the interim, DPI reserves all defenses, claims, and rights regarding this VN's allegations.

Process Description: FGMACTDDDD, Press Line 1

<u>Alleged Rule/Permit Condition Violated: Table FGMACTDDDD Table, Emission Limit</u> <u>I.1.</u>

<u>Alleged Violation/Comment: The limit requires Biofilter #1 to demonstrate compliance</u> with one of six methods listed as part of the condition.

We have been undertaking progressive corrective actions for #1 Biofilter, as explained previously to EPA and MDEQ. These measures have included engaging a published biofilter expert, James T. Boswell, Ph.D to evaluate our #1 Biofilter system; assessing bark media microbiological health monthly; power-washing ductwork; nutrient reintroduction; introducing ammonia to the Dynawave; and assessing air flow variations in the biofilter to potentially improve retention times. DPI has consistently pursued these efforts to improve the performance of #1 Biofilter following a meeting with EPA Region 5 in July of



2018 and communications with EPA in September and October related to 3rd Quarter sorbent tube testing for the #1 Biofilter. Pursuant to DPI's Malfunction Abatement Plan, based on two sorbent tube tests (conducted August 7 and August 29), a stack test for the #1 Biofilter was scheduled for November 1. However, based on correspondence and conversations with EPA in October, DPI requested to postpone a stack test so it could further implement Dr. Boswell's recommendations to improve biofilter performance prior to stack testing. EPA denied DPI's request and stack testing was conducted on November 1, 2018. Prior to and following receipt of the November 1, 2018 stack test results, the Company has continued its efforts to improve performance of the #1 Biofilter. Based on recommendations from Dr. Boswell, we have been approaching corrective actions for the #1 Biofilter along three different paths.

The first path includes improving the health of the media that is currently in place. Accordingly, we have taken media samples from varying beds in the #1 Biofilter on 9/7/18, 10/18/18, 11/14/18, 12/4/18, and 12/11/18. These samples have been analyzed by Suez Water Technologies for microbiological activity. In addition, these same samples are tested for moisture, pH, and nutrient levels to ensure that the conditions for sustainable microbiological growth are being maintained. From these results, we determined that fertilizer addition to the biofilter beds will be beneficial. Fertilizer was added to the beds on 9/21/18, 10/18/18, and 12/18/18, and will continue on a monthly basis utilizing the delivery system that applies liquid fertilizer evenly to each bed through the existing spray nozzles. We have seen improved microbiological activity based on the results reported by Suez Water Technologies based on these corrective actions.

The second path involves enhancing the performance of the Dynawave pollution control device that is part of the Biofilter #1 system. In Dr. Boswell's opinion, we should achieve an additional level of formaldehyde removal if we increase the amount of fresh water added to the unit, and if we add small amounts of ammonium hydroxide as a neutralizing agent in lieu of a portion of the sodium hydroxide. Research has shown that formaldehyde levels entering the biofilter media bed can be reduced by using ammonia to react with the formaldehyde. This, in turn, should provide a lower level of formaldehyde that will need to be controlled by the biofilter media. We procured a formaldehyde test kit from Hach and have been analyzing the formaldehyde levels in the Dynawave water on various dates each month since October, including during the compliance testing on November 1, 2018. We have adjusted the fresh water addition to determine what impact that has on the data as well. We are seeing encouraging results based on this information. We have seen reductions in the formaldehyde levels in the Dynawave water of up to 50% based only on the introduction of more fresh water to the system. During one trial introducing ammonia to the system we achieved an additional 50% reduction as well. We plan to initiate a new study of the impact of ammonium hydroxide addition to the Dynawave next week.

The third path entails assessing variance in gas stream volumetric flow rates measured from past test events. In order to ensure that our flows are consistent and we are achieving the desired retention times in the biofilter, we contacted an industrial ventilation firm to conduct a survey of the system. That survey was conducted on December 19 by two representatives from Industrial Air Solutions in Grand Rapids. We anticipate receiving those results by the end of January and are optimistic these results will help the Company determine steps necessary to improve flows and retention time.

We remain in contact with Dr. Boswell and continue to seek his input as more data becomes available. These activities, despite that the fact that the compliance test was unsuccessful, are the reason that DPI requested a 60 day extension to the testing requirement. Microbiological improvements, at the scale that we are attempting to achieve, take time and rapid improvements aren't anticipated. We have provided to the agencies updates as requested along with supporting analytical data and will continue to as we bring these new processes on line.

DPI reserves all defenses, rights and claims in response to this VN allegation, and does not admit any liability in relation to this VN response. We remain willing to discuss amicable resolution of these issues, and are committed to reaching compliance with our permit and related regulatory requirements. If you have any questions regarding any of the above, please don't hesitate to contact me.

Sincerely, Decorative Panels International, Inc.

Scott Ickes

Senior Manager, Compliance

Cc: Tim Clark, DPI Duncan Gray, DPI Tammi VanTil, Madison Consulting Charles Denton, Barnes & Thornburg