



Clean Air Act Compliance Inspection Report

United States Environmental Protection Agency
Region 10 – Seattle, WA

Clean Air Act Full Compliance Evaluation Inspection Report

Pacific Veneer
Aberdeen, Washington

Inspection Date: March 22, 2022

Report Author Signature

Date

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1. Basic Facility and Inspection Information

Facility: Pacific Veneer
100 N Decatur St
Aberdeen, WA 98520

Mailing Address: Same

AFS/FRS Number: 110012701166

SIC: 2436 (Softwood Veneer and Plywood)

NAICS: 321212 (Softwood Veneer and Plywood Manufacturing)

Permit Number: 15NOC1099

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Date of Inspection: March 22, 2022

Inspection Start/End Times: 8:30 AM – 12:40 PM

Inspection Notice: This was an unannounced inspection.

This was a multi-media Clean Air Act (CAA) and Emergency Planning and Community Right-to-Know Act (EPCRA) Section 313 compliance inspection by the Environmental Protection Agency (EPA). EPA Region 10 led the CAA and EPCRA Section 313 inspection and the Olympic Region Clean Air Agency participated in the inspections. This report only covers the CAA inspection. The purpose was to identify potential compliance concerns with CAA regulations, specifically to gather information in order to determine if facility is in compliance with the Standards of Performance (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units (Subpart Dc) and subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Plywood and Composite Wood Products Manufacture (Subpart DDDD).

The following facility description is based on information provided by a facility representative in the opening conference as well as a written response by the facility to the records requests.

The facility was constructed in 1987 by Weyerhaeuser Co and was later purchased by Willis Enterprises Inc. in 2009. The facility produces green and dry veneer. The raw materials are logs, which are brought onto the site via truck. The facility mostly uses fir species and western hemlock, but occasionally spruce, alder, and pine are also used. Logs are unloaded by front end loaders with log grapples a log stacker and sorted in the yard by size and species before being loaded into the debarker infeed deck. Logs are also screened for quality and rejected logs are separated. The rejected logs have too many knots, rot pockets, or are too small in diameter, and are sent to the whole-log chipper to be used as hog fuel in the boiler, along with the peeled bark. The accepted logs are debarked in the ring debarker and bucked to 8-foot lengths at the cut-off saw. The logs are then transported via a conveyor and automatically sorted by diameter into bunker pockets by electric eyes.

The bucked logs are picked up from the bunker pockets by a front-end loader and loaded into the log steaming vaults where they are conditioned for peeling by a 160 to 185°F water spray. The length of the conditioning period is dependent on the species and size of the blocks. At the end of the conditioning period, the vault water spray is turned off, the vault is opened and the

conditioned logs are loaded by a front-end loader onto the lathe infeed deck. The conditioned logs travel up a log ladder and are scanned for orientation in the charger so they are centered correctly for the lathe. The blocks are then loaded into the lathe and peeled into a veneer ribbon.

The veneer ribbon is clipped automatically into sheets by the rotary clipper. The veneer sheets are sorted and stacked at the autostacker (full and half sheets) or on the green chain (random, fishtails, and some half sheets). Finished stacks are picked up by the green-end shipper and taken to the veneer dryer to be dried to target dryness or directly to the shipping department. In the shipping department, veneer stacks are strapped, labeled, and loaded onto trucks for shipment to customers.

The facility submitted two Notices of Construction (NOCs) to the Olympic Region Clean Air Agency (ORCAA) under different ownerships. The facility was previously owned by Weyerhaeuser Company and was purchased by Willis Enterprises, Inc., in 2009. NOC #93NOC569 was issued to Weyerhaeuser Company on March 28, 1994, for the construction of a new hog fuel boiler and veneer dryer at the facility. ORCAA determined that Pacific Veneer was a minor source with the new hog fuel boiler and veneer dryer and did not require an air operating permit under Title V of the CAA. ORCAA later issued NOC #15NOC1099 to Willis Enterprises, Inc., on September 10, 2015, and approved the use of two cyclones at the facility. The two cyclones serve various mechanical wood processing operations. The cyclones were previously unpermitted and not reviewed by ORCAA prior to construction. ORCAA determined that Pacific Veneer remained a minor source after construction of the two cyclones.

Disclaimer

This report is a summary of observations and information gathered from the facility at the time of the inspection and from a subsequent records review. The information provided does not constitute a final decision on compliance with CAA regulations or applicable permits, nor is it meant to be a comprehensive summary of all activities and processes conducted at the facility.

2. Compliance History

A review of EPA's Enforcement and Compliance History Online database¹ shows that at the time of the inspection, the facility was reported as having no CAA violations in the last three years. ECHO shows no formal or informal enforcement actions in the last five years.

3. Inspection Elements/Order

a. Pre-Inspection Observations

We went directly to the facility. No observations were made prior to the scheduled inspection.

b. Entry and Opening Conference with facility representatives

¹ See <https://echo.epa.gov/>

Inspector Whyte and I arrived at about 8:30 AM on March 22, 2022. We met Mike Shults, ORCAA Compliance Supervisor, in the facility parking lot and walked into Pacific Veneer's front office together. Inspector Whyte and I announced ourselves and presented our credentials and informed the staff that we were conducting an unannounced CAA and EPCRA Section 313 inspection. Sue Eissler, Operations Support, escorted Inspector Whyte, Shults and I to a breakroom as she contacted the environmental and managerial staff. Ms. Eissler stated that Dave Newberry, Plant Superintendent, was currently out, but was on his way back to the facility. Mr. Newberry arrived at 9:00 AM and escorted our group to a conference room. We presented our credentials to Mr. Newberry and started the opening conference at 9:10 AM. I explained to Mr. Newberry the purpose of the inspection and gave an overview of the inspection process. I also explained that this was a multi-media inspection to determine compliance with CAA and EPCRA Section 313 and identified myself as the lead for both inspections. I informed Mr. Newberry that EPA Region 10 had received a citizen complaint regarding the facility's reporting to the Toxics Release Inventory (TRI) and that the citizen complaint had prompted this inspection. I also informed Mr. Newberry that Inspector Whyte would be taking photographs and videos during the inspection, and to please inform us if any information gathered was considered Confidential Business Information.

We then reviewed the scope of the inspection, talked through facility processes, and identified areas that we would like to observe during our walkthrough. Mr. Newberry explained that this facility was constructed in 1987 by Weyerhaeuser Company and was later purchased by Willis Enterprises Inc. in 2009. He stated that he was brought on by Willis Enterprises Inc. at that time though most of the workforce was not retained through the change of ownership. Currently, Pacific Veneer has 68 employees, and the facility operates 24/7. The veneer dryer operates 24 hours Tuesday to Sunday and part of Monday – it is shut down for maintenance and cleaning for a half-day on Mondays. The lathe and log processor operates four to five days a week. The boiler operates 24 hours, 7 days a week.

Mr. Newberry explained that the boiler is a thermal oil boiler and uses hog fuel as its fuel source. The thermal oil indirectly heats the veneer dryer and a heat exchanger for the log vault water. While some of the hog fuel is sourced from the facility's log chipper and debarker, the facility also uses material from Willis Enterprises Inc.'s other facilities, and purchases shavings or fines from external sources. Mr. Newberry added that wood debris from the log vaults is also mixed in with the hog fuel. I asked for clarification on the NOC issued in 1994 regarding the construction of the boiler – specifically if an older boiler was removed and a new boiler was constructed (as it states in the NOC) or if the existing boiler was modified. Mr. Newberry answered that the existing boiler was modified and an additional cell was added for the veneer dryer. Inspector Whyte and I asked if the hog fuel was wet or dry, and Mr. Newberry explained that the hog fuel is stored outside and they try their best to keep it dry, but most of the hog fuel is wet when burned in the boiler. He also confirmed that the max heat input for the boiler is 57 MMBtu. The boiler uses thermal oil to indirectly heat the veneer dryers and log vaults water. We then discussed the air control device for the boiler. The air control device is a dry electrostatic precipitator (ESP). Pacific Veneer operates a continuous opacity

monitoring system (COMS) on the boiler stack and reports any excess emissions to ORCAA in a quarterly report.

The group later discussed the veneer dryer. The facility operates an indirectly heated veneer dryer. I asked Mr. Newberry for the maximum throughput rate (MsF 3/8") of the veneer dryer, and he was unable to answer. He explained that throughput was really dependent on tree species, moisture levels, and other factors. Inspector Whyte asked what types of tree species were used for the veneer and Mr. Newberry answered that it was approximately 80% hemlock and 20% douglas fir. He added that the facility rarely uses spruce and does not use hardwoods. The facility does not treat the veneer after the veneer dryer. We confirmed with Mr. Newberry that the facility uses one wet ESP to control emissions from the veneer dryer. When I asked how the facility disposed of the ESP wastewater, Mr. Newberry explained that the ESP dewateres and produces a sludge (the facility refers to it as "geo-goo") that is mixed in with the hog fuel. That geo-goo and hog fuel mixture is then burned in the boiler. We then discussed the facility's emissions inventories and how those are calculated every year. The facility submits production data to ORCAA and ORCAA calculates actual emissions using AP-42 emission factors. Inspector Shults informed Inspector Whyte and I that a stack test was completed for the veneer dryer/wet ESP in 2007 and the pollutants tested were VOC, formaldehyde, total PM and methanol.

We also asked if other generators were located onsite, and Mr. Newberry answered that the facility has an emergency engine for the heat transfer oil pump and a backup air compressor. Lastly, Mr. Newberry stated that the facility did not have any presses or kilns. The opening conference concluded at 10:05 AM.

4. Facility Walk-Through

The inspection team was escorted by Mr. Newberry during the facility walkthrough.

The inspection included a thorough walkthrough of the facility and taking photographs/videos.

The walkthrough began at 10:10 AM. A digital photo log is Attachment 1 to this report. A Map of the facility is Attachment 4.

Dry ESP

The dry ESP filters emissions from the hog fuel boiler. We examined the ash dumpster, where fines collected by the ESP are stored, and were informed by Mr. Newberry that the dumpster is emptied weekly, and the ash is sent to Pay More Recycle & Salvage. We observed steam from the warm ash and fines on the ground around the ash dumpster (photo #P3220004). I also observed and Inspector Whyte photographed fines on the ground under the dry ESP (photo #P3220003 and P3220005). Inspector Whyte and I surveyed the stack while the hog fuel boiler and dry ESP were in operation and did not observe any visible emissions from the stack.

Chipper Cyclone

Our group walked from the dry ESP to the chipper cyclone, which are both located in the same area of the facility (between the main building and log vaults). The chipper cyclone filters emissions from the rechipping operation. Wood chips filtered by the cyclone are deposited into a hopper and then later mixed with the hog fuel. I observed wood chips on the ground under the cyclone and on the cyclone equipment and ductwork (photo #P3220006).

Log Vault Conditioning Water Area

We walked to the south side of the log vaults where the conditioning water is stored. The log vault conditioning water is a closed loop and repeatedly recycled between conditioning periods. The conditioning water is pumped out from the log vaults into an uncovered holding area located behind the log vaults (photo #P3220009). The conditioning water collects wood debris from the log vaults and a conveyor system separates the wood waste from the conditioning water (photo #P3220008). The wood waste is then collected and mixed with hog fuel, and the mixture is burned in the boiler.

Hog Fuel Boiler

Mr. Newberry escorted Inspector Whyte, Shults, and I into the boiler building. We first inspected the boiler grates and Mr. Newberry explained that the facility cleans the grates twice a day (once per each 12-hour shift). We then walked into the boiler control room. I spoke with the control room operator who demonstrated how the facility monitors the boiler fire rate and oxygen levels, the thermal oil system, and opacity from the boiler stack. The COMS and oxygen concentration monitors were clearly marked and unobstructed, and I observed opacity at 3.1% and oxygen concentration at 24.3% at 11:05 AM. Per the facility's NOC, emissions from the boiler shall not exceed 10% opacity for three consecutive minutes in any one hour. A sign was posted in the control room which directed operators to report any opacity event that exceeds 10% within 24 hours. The operator explained that the facility reports any opacity exceedance, regardless of duration, to ORCAA. The last opacity exceedance occurred on February 5th, 2022, according to Mr. Newberry.

Log Vaults

Inspector Whyte, Shults, and I were escorted out of the boiler building and to the log vaults. The log vaults are located outdoors in the northern end of the facility. On the way to the log vaults, we walked past a silo and a hog fuel bin where hog fuel is stored. The hog fuel bin was partially enclosed with a tent and very full of material brought in from off-site. We also observed the debarker and cut-off saw from afar. The log vaults were open, and a front-end loader operator was unloading the conditioned logs from the log vaults to the lathe area. Mr. Newberry explained that logs are conditioned in the log vaults for 14 to 16 hours and the conditioning water contains chemical additives. Inspector Whyte and I observed a crack in the northern concrete wall of the log vaults and visible emissions leaking from the crack (photo #P3220017). Inspector Whyte and I were able to look inside of log vaults and observed visible emissions from the opened vaults (photo #P3220019).

Boiler Building

After inspecting the log vaults, we walked back to the boiler building. We were escorted to a backup diesel generator inside of the furnace building, that was installed in 1987 according to Mr. Newberry (photo #P3220022). The boiler building has two floor levels and we walked up to

the 2nd level to observe the hog fuel dropping into the furnace. The boiler grates are located on the 1st level. Mr. Newberry explained that the facility continuously feeds hog fuel to the boiler. We then went back to the control room, and I asked the control room operator to demonstrate how they monitor volts and amps for the dry ESP. The operator showed Inspector Whyte and I the monitors that displayed volts and amps for the dry ESP, and I noted that they were clearly marked and unobstructed (photos #P3220024 and #P3220025).

Lathe Area

Mr. Newberry escorted Inspector Whyte, Shults, and I to the lathe area. The lathe is located in the north end of the main building. Inspector Whyte and I observed the lathe peel the log blocks into veneer ribbons. I noted that the walls and equipment around the lathe area were covered in saw dust. At the time, the facility was producing hemlock veneer when Inspector Whyte and I observed the lathe. Mr. Newberry escorted our group from the lathe to the main stacker. Inspector Whyte and I watched as the veneer ribbons went through a scanner which photo scans each ribbon and can detect defects in each ribbon. Mr. Newberry explained that defects are cut off of a ribbon and are sent to the veneer chipper. Inspector Whyte and I observed as green veneer was stacked in the main stacker and examined the sheet count monitor. Mr. Newberry explained that the monitor generated a shift tally of the veneer sheets produced.

Veneer Dryer

Our group walked to the veneer dryer, which is located in the south end of the main building. Inspector Whyte and I watched the veneer dryer while it was in operation and observed continuous visible emissions leaking from 3 doors on the north side of the veneer dryer (video #P3220037). I noted that there was a blue haze in the building as well. When I pointed out the leaks to Mr. Newberry, he stated that the observed leaks were “pretty good” compared to other days. I then asked how and when the facility would repair the leaks, and Mr. Newberry answered that the facility would not repair the leaks until Monday (which is when the veneer dryer is offline for maintenance and cleaning). I also noted scorch marks and accumulation of dark material at the tops of doors on the north side of the veneer dryer (video #P3220038). I did not observe leaks on the south side of the veneer dryer and noted that the doors were in better condition than the north side.

Wet ESP

Mr. Newberry escorted Inspector Whyte, Shults, and I outside to the wet ESP. The wet ESP is located outside on the south end of the main building. The wet ESP was in operation, and I observed steam emitting from the stack. Mr. Newberry showed our group the geo-goo hopper. The geo-goo is the filtered material from the wet ESP and is a thick brown sludge (photo #P3220040). I noted geo-goo on the floor under the hopper. According to Mr. Newberry, the facility disposes of the geo-goo in the boiler about three times a month. I asked Mr. Newberry if the facility disposed of anything else in the boiler and he answered that the facility disposes of hydraulic fluid about two to three times a year in the boiler. Mr. Newberry said that when they occasionally spill hydraulic oil, they mix the hydraulic oil with the hog fuel to clean it up and burn the mixture in the boiler. He did not know the amount that was burned. We then discussed the opacity requirements for the veneer dryer in the facility’s NOC. Per the facility’s NOC, emissions from the veneer dryer shall not exceed 10 % opacity for three consecutive minutes in any one hour. I asked Mr. Newberry how the facility would determine compliance with the

opacity limit, and he explained that the facility would call CH Murphy (an environmental consultant) to take opacity readings and did not have employees who were certified in Method 9 (the method used to demonstrate compliance with opacity limits). Mr. Shults explained that the opacity requirement was for the veneer dryer in lieu of the wet ESP, because the wet ESP emitted steam from its stack, and it would be difficult to take an opacity reading. Mr. Shults and I then discussed how the facility would take an opacity reading from the veneer dryer inside of the building and concluded that it would also be difficult without a large opening/door. I then asked Mr. Newberry where operators monitored amps and volts for the wet ESP, and he was unable to locate where the facility monitored those operating parameters.

Maintenance Shop

We walked back through the main building and to the maintenance shop. Inspector Whyte and I inspected the vehicle maintenance area and noted that it was free of clutter and organized. Mr. Newberry explained that employees worked on facility vehicles or fabricated metal parts for various facility equipment in this area. He pointed out the used oil heater, which was located on the ceiling, to Inspector Whyte and I (photo #P3220048). We were then escorted outside of the maintenance shop and to an enclosed storage area on the exterior of the building, which contained oil and used oil according to Mr. Newberry (photo #P3220049). Mr. Newberry explained that this used oil is picked up for disposal, because it's "what they can't burn." Our group then walked along the main building to the front office, and I noted a hole in the eastside of the main building by the veneer dryer.

The walkthrough ended at 12:05 PM.

5. Closing Conference

At 12:15 PM, our group returned to the facility conference room to discuss the inspection. We were joined by Todd Charlton, Operations Manager, for the closing conference. I led the closing conference and summarized the parts of the facility we had visited during the inspection and our observations related to CAA and TRI. This report only covers observations related to CAA. I went through my inspection notes and described potential compliance concerns from the inspection. The following were identified as potential compliance concerns during the closing conference:

1. During the walkthrough, Inspector Whyte and I observed visible emissions from the veneer dryer. The facility's NOC requires that the veneer dryer shall be operated and maintained as to prevent leakage of dryer exhaust which bypasses the particulate control system (i.e., the wet ESP). Furthermore, the NOC requires that all work to repair dryer leaks shall be completed as soon as is practical within a reasonable time frame. The facility completes repairs on Mondays, which is when the veneer dryer is taken offline for maintenance. I expressed concerns that the veneer dryer was leaking emissions, which contain hazardous air pollutants, and those emissions were bypassing the control system. I also shared my observation that there was a blue haze in the veneer dryer area, which indicates that emissions were collecting in the building. The building roof vents did not route to an air control device and a portion of those emissions would eventually vent to atmosphere.

2. According to facility representatives, the boilers burn used hydraulic oil in addition to hog fuel. They described in situations where hydraulic oil is spilled, they will mix the used hydraulic oil with hog fuel and then burn the mixture in the boiler. The facility representatives stated this occurred about 2 to 3 times a year but did not know the quantity. I explained that a fuel legitimacy test is usually required for nonhazardous secondary materials (materials which are not fuel) in order to show how the secondary material (i.e., the used hydraulic oil) meets legitimacy criteria (demonstrating that the material is a fuel and not a waste). Mr. Charlton indicated that the facility had not completed a fuel legitimacy test for the used hydraulic oil.
3. The facility burns geo-goo, a process waste from the wet ESP, in the boiler. Mr. Charlton indicated that the facility had not completed a fuel legitimacy test for the geo-goo. I explained that disposal of a waste in the boiler was a potential compliance concern, and the boiler may be subject to other federal regulations for burning a solid waste. At that time, I stated that I was unsure if the geo-goo would be categorized as a hazardous or non-hazardous solid waste and I would have to research further. I did follow-up with Ms. Eissler post-inspection via e-mail in order to determine how long the facility had disposed of the geo-goo in the boiler. Ms. Eissler responded that Willis Enterprises (current owner and operator) has been disposing the geo-goo since the facility was purchased and production started in November 2009. Ms. Eissler also added that it had also been routine practice by Weyerhaeuser (previous owner and operator) prior to Weyerhaeuser closing the facility in January 2009.

I also explained that the inspection would not be complete until I have reviewed all the records that the facility submitted, reviewed my notes and written an inspection report. Inspector Whyte and I departed the facility at about 12:40 PM.