

James Jones and Sons Ltd: Hangingshaw

Substantial Variation: SEPA Permit Reference PPC/A/1151298

Non-Technical Summary

This note relates to the Timber Treatment Plant PPC installation operated by James Jones & Sons Ltd, Hangingshaw, which is hereafter referred to as the treatment installation.

Location:

Summary Description

James Jones wishes to extend the existing Permitted timber treatment installation to include one new additional high-pressure treatment and one new low pressure treatment plant (with a second identical low pressure treatment plant planned for 2024 at the earliest).

Main High-pressure autoclave: 100m³ – likely annual throughput 45,000m³. Work Tank: 130m³. Concentrate Tank: 31.5m³

Low Pressure Plant 1: 40m³ and 32m³ reserve tank – likely annual throughput of timber 28,000m³

Low Pressure Plant 2: 40m³ and 32m³ reserve tank – installation in 2024 (earliest) - likely annual throughput of timber 28,000m³

High Pressure treatment Plant. The timber treatment process is conducted in 2 water-based treatment vessels (work tank and autoclave), which are housed within the treatment plant installation area shown in drawing AA7163 EW02J and AA7163 P12C. Bunding will ensure in excess of 110% of the largest tank capacity can be contained as shown on schematic drawing AA7163 EW14. The vessels are designed & installed to apply industrial water-based wood preservative using a pressure process for applications in use classes 1-4. Note: timber is stored until dry within the immediate timber drying area. The timber treatment process comprises 4 distinct stages,

1. Preparation of Timber for Treatment
2. Delivery, Mixing & Storage of Preservative Solution
3. Treatment of Timber
4. Storage & Handling of Treated Timber

The treatment process can be summarised:

- Load timber onto the bogie with appropriate strapping to prevent flotation
- Ensure timber is aligned properly on the bogie to allow entry into the autoclave
- Carefully move the bogie into the autoclave to the rear stop position
- Close the door, ensuring the seal is clean and free from debris to avoid leaks
- Lock the door, ensuring safety devices are in position
- Ensure there is sufficient preservative in the work tank to flood the autoclave

- Select the treatment cycle appropriate to the timber and end use of the timber
- Start the treatment process:

INITIAL VACUUM: Air is evacuated out of the autoclave and the timber, creating negative pressure. Typically, the vacuum pump will stop when the target intensity of vacuum has been achieved. Vacuum will be held in the autoclave for a set time period depending on the treatment cycle selected

VACUUM FILL: Once Initial vacuum is completed, the autoclave will fill with preservative under vacuum and the vacuum pump(s) will switch back on. The full sensor usually positioned in the vacuum line detects that the autoclave is full

PRESSURE: Hydraulic pressure is raised by the start of the pressure pump. Monitoring of the preservative uptake starts when slight positive pressure is seen in the autoclave

PRESSURE RELEASE: This occurs when the pressure phase has timed out or the required amount of preservative has been injected into the timber. Pressure is usually released back into the storage tank

INITIAL DRAIN: Preservative is returned to the work tank once pressure has been released back to atmospheric. Autoclaves are usually emptied by gravity or by additional pumps if the work tank is alongside or above. The empty sensor usually positioned in the main flood line detects that the autoclave is empty

FINAL VACUUM: This is raised and maintained for the appropriate period

VENT / FINAL DRAIN: After final vacuum, the negative pressure generated in the autoclave has to first be vented before any preservative remaining inside the autoclave is recovered back to the work tank autoclave prior to opening the door.

END OF CYCLE: When the autoclave is empty the cycle will stop, and a charge report generated. The timber can be removed, and the process restarted.

James Jones wishes to install a low-pressure timber treatment plant within the extended treatment installation boundary and incorporates the same safety and technical design detail to ensure safe operation as the above high-pressure plant and existing low-pressure plants currently in operation and Permitted within our Group Operations.

James Jones aims to continue to treat (using low pressure) approximately 28,000m³ of timber per annum, with all treated timber being stored within the treatment installation until dry and fit for storage and use.

The low-pressure timber treatment process is conducted in one 40,000 litre water-based treatment vessel and supported by one 32,000 litre reserve tank. which are both housed within the treatment installation as shown on the site plan. Bunding will ensure in excess of 110% of the largest tank capacity can be contained as shown on schematic drawing AA7163 EW14. The vessels are designed & installed to store and apply industrial water-based wood preservative using a pressure process for applications in use classes 1-2. The timber treatment process comprises 4 distinct stages, outlined below. Note: timber is stored until dry within the immediate drying area.

1. Preparation of Timber for Treatment
2. Delivery & Storage of Preservative Solution
3. Treatment of Timber
4. Storage & Handling of Treated Timber

Environmental Emission Controls

As per the existing high pressure treatment plant:

There is no wastewater outlet emission from the treatment process and/or treatment area. It operates as a closed and contained system. There are no regular or fugitive air emissions

The process is purely water based and no solvents are used. There is no measurable vapour pressure from the water-based treatment solution and therefore no possibility of fugitive emissions. There are no releases at all to air which could be classified as environmentally significant

The installation does not release any wastewater and does not rely on abatement equipment in order to protect the environment. Waste production is far below the thresholds set for low impact installations and there is no release of any substance to land that would be classed as environmentally significant.

There are no routes for contamination to move into the site general drainage system from within the treatment area, which is operated as a closed system. Clean, uncontaminated rain or surface water is diverted away from the plant area.

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