Visy's Recycled Paper Mill – Reservoir

COMMUNITY UPDATE – MARCH 2022

This update has been prepared to keep the local community informed on progress made against the Odour Management Plan (OMP). The key objective of the Visy Odour Management Plan (OMP) is to provide a strategic multi-stage plan to identify, prioritise and implement effective and practicable control of odour emissions from Visy's Reservoir site to reduce odour impacts on the community to an acceptable level. A full copy of the OMP can be accessed at: **www.visy.com.au/vp2reservoir.**

Stage one: Biocide program, extension of vacuum stacks and increase of discharge velocity

The stage one works involved

- combining the two vacuum stacks; –
- extending the height of the stack by a height of at least 3.0 metres above the nearest structure; and
- increasing exit velocity to > 10m/s

These works were completed on 21 October 2021.

Stage two: Alternative bacteria control program to reduce Volatile Fatty Acids (VFA)

Volatile fatty acids (VFA) are a by-product of the paper recycling process. Whilst not hazardous, VFAs can result in an odour depending on weather conditions.

Interim measures to reduce VFA

The interim measures to reduce VFA by introducing more freshwater into the system commenced on 8 November 2021. The additional fresh water and biocide control has been effective in reducing VFA in the process water from over 8,000 ppm to between 3,000 to 4,000 ppm.

Alternative bacteria control program

The alternative bacteria control program commenced on 24 November 2021. The program aim is to manage the bacterial growth leading to the generation of VFA and sulphides in the process.

Figure 1 below shows the significant reduction in VFAs since the alternative bacteria control program commenced.

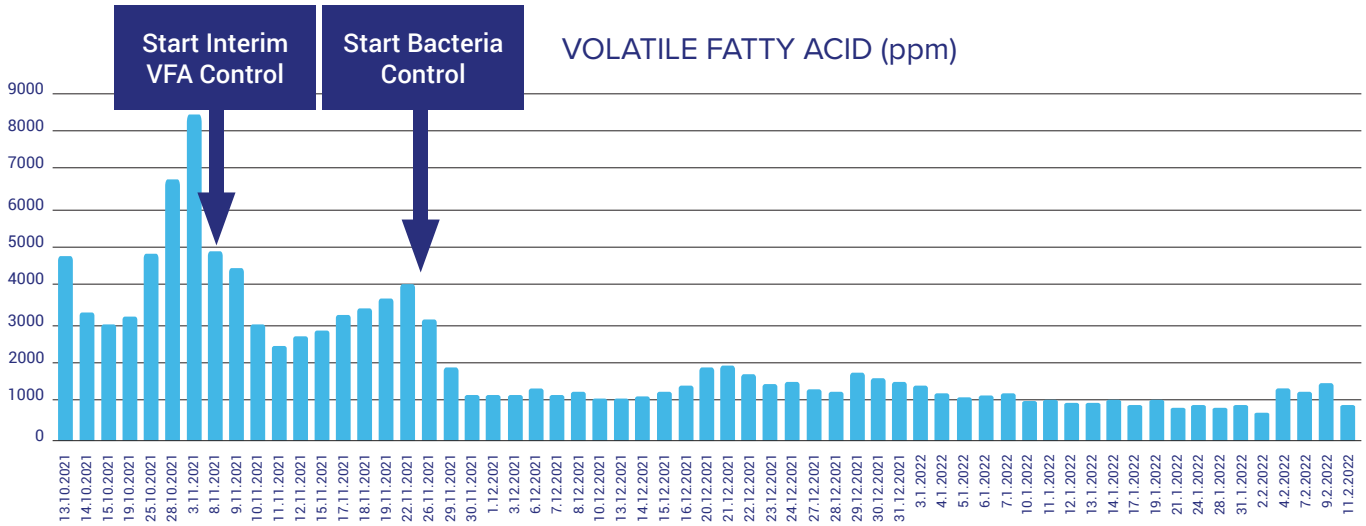

Figure 1: Volatile Fatty Acid in the Water System

Stage three: Modify existing hood recovery system

Stage 3 is currently in the project scoping and engineering phase. The proposed work involves improving odour capture from the process to minimise fugitive odours and direct air through the modified stacks to improve the odour dispersion. Engineering and installation of proposed modifications for this stage will take place over the next 12 to 18 months.

Stage four: Modify existing roof fans

The first phase to seal off the ridge vent is complete.

The second phase is to extend the discharge stacks on the existing roof fans to achieve effective dispersion of odours. The modifications will be completed by 1 June 2022.

Ongoing odour assessment to track progress

Olfactometry testing

Olfactometry testing involves extracting air samples from each odour source and quantifying the odour relative to each source by concentration and mass rate. The higher the concentration and/or mass rate, the more significant the odour contribution from that source.

Initial sampling was conducted by an independent NATA–approved odour emissions expert, Ektimo, in September 2020 prior to any odour control works. The initial sampling identified the key significant odour sources and allowed prioritising of odour control works. Ektimo conducted a second round of testing on key significant sources in December 2021 after stage 1 and 2 works.

Results for comparison are plotted below in Figure 2 and 3. Both show there has been a significant reduction in odour concentration and the odour mass rate in December 2021.

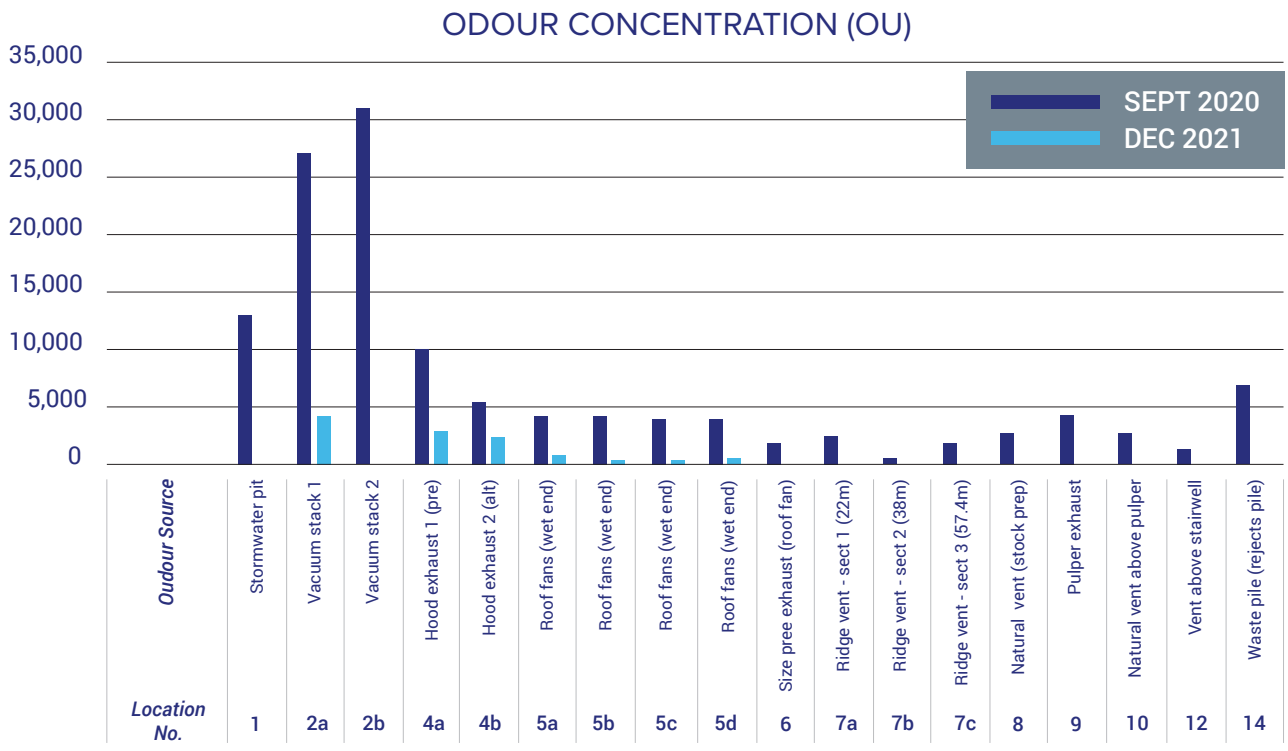

Figure 2: Sampling of Key Odour Sources - Odour Concentration (OU)

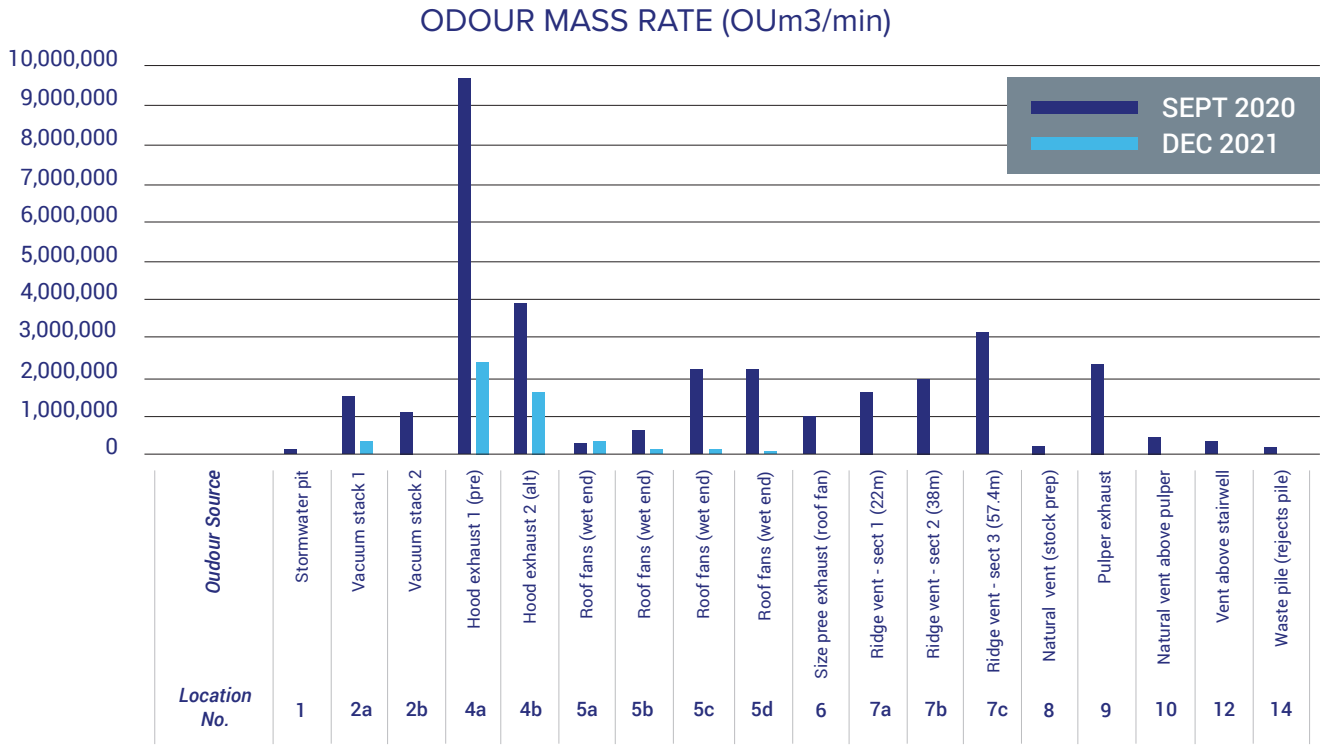

Figure 3: Sampling of Key Odour Sources – Odour Mass Rate (OUm3/min)

Odour survey

Visy has engaged industry air and odour technical expert, AOC Specialists, to conduct odour surveys in the residential areas to determine the extent and characteristics of the odour plume from the Visy mill.

The odour surveys have been conducted on three occasions between October 2021 and February 2022, downwind of the site under 'worst case' meteorological conditions. A summary of key findings provided below indicates that the odour characteristic has changed, and the intensity and extent of the odour plume has decreased.

12 October 2021 – Obvious odour was detected for most of the time from 150 to 480 metres to the south of the site and occasionally up to 860 metres from the site. The general observation was the odour had a sulphur/anaerobic, wet paper characteristic.

7 December 2021 – Obvious odour was detected for most of the time up to 550metres to the north of the site and occasionally up to 630 metres. Odour was not detectable at 750 metres from the site. The general observation was that odour has a wet paper characteristic with the previous sulphur/anaerobic characteristic no longer detected.

2 February 2022 – Obvious odour was detected for half the time up to 520 metres to the north of the site and occasionally up to 580 metres from the site. No odour was detected from 600 to 800 metres from the site. The general observation from the odour survey was that the odour no longer had a sulphur characteristic and that the intensity had decreased from previous surveys.

Odour complaints

Figure 4 illustrates the number of odour complaints the EPA (Environment Protection Authority) received from the local community during the period April 2021 to January 2022.

The peak number of complaints occurred over the September/October 2021 period, coinciding with high VFA in the water system (refer to figure 1 above).

Since Stage 1 & 2 odour control actions were implemented in late November 2021, the number of community odour complaints to the EPA has reduced.

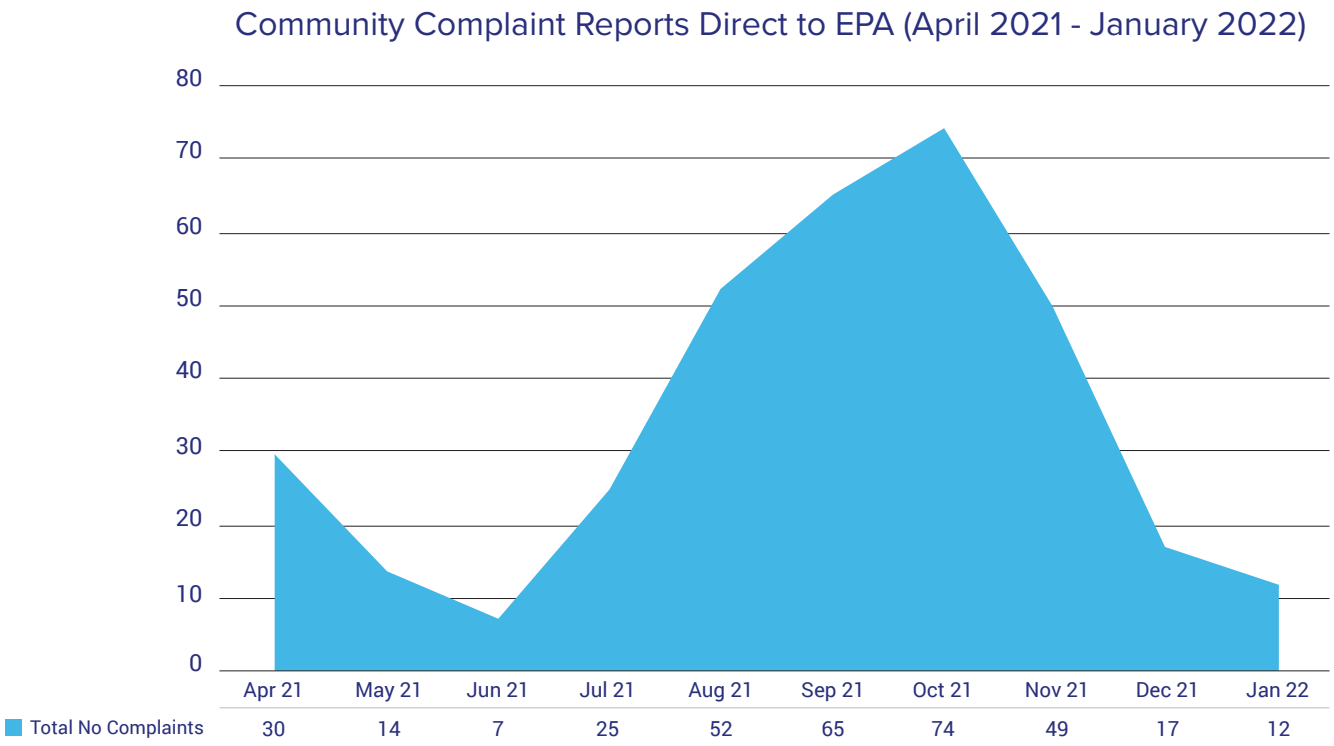

Figure 4: Community Odour Complaints to EPA