

Fact Sheets – Bell Bay Pulp Mill

Dioxins and Furans

- Pulp mills using old technology based on elemental chlorine bleaching have historically produced and released into the environment a group of chlorinated organic compounds, including some that are commonly termed “dioxins and furans”.
- A number of the group of dioxins and furan chemicals are recognized as persistent environmental pollutants, and are regulated internationally by the Stockholm Convention on Persistent Organic Pollutants.
- Some dioxins and furans, are very highly toxic while others are much less so, with varying toxicities to different organisms, such as fish, birds and mammals. Most human exposure is through food, primarily meat, dairy, fish and shellfish. Dioxins and furans can be formed by natural and man-made processes, such as forest fires or pesticide manufacture respectively, and furans tend to accumulate in aquatic sediments or terrestrial soils leading into the food chain and often in the fatty tissue of higher animals.
- The Bell Bay Pulp Mill is based on Elemental Chlorine Free technology, and uses an improved technology known as ECF ‘light’. The result of this is that the tendency for dioxin and furan formation in the bleaching process and subsequent release to the environment has been virtually eliminated when compared to older technology.
- The hydrodynamic research studies conducted for the Commonwealth environmental assessment demonstrated that levels of toxic dioxins and furans in the pulp mill effluent were below the threshold for detection. This means that concentrations of these substances were shown to be below both Commonwealth and Tasmanian regulatory limits or possibly absent altogether.
- Sediment transport modelling undertaken for the Commonwealth and the State reported that, in a worst-case scenario, the levels of dioxins and furans that might accumulate in marine sediments after 10 years of mill operation would be up to approximately 1% of the level allowed under the Commonwealth permit.