

Visual guide: Odour complaints from a suburban auto repair shop

Odour complaints from a suburban auto repair shop

Premises and activities typically managed by local councils that require stacks to disperse cleaned gaseous discharges include:

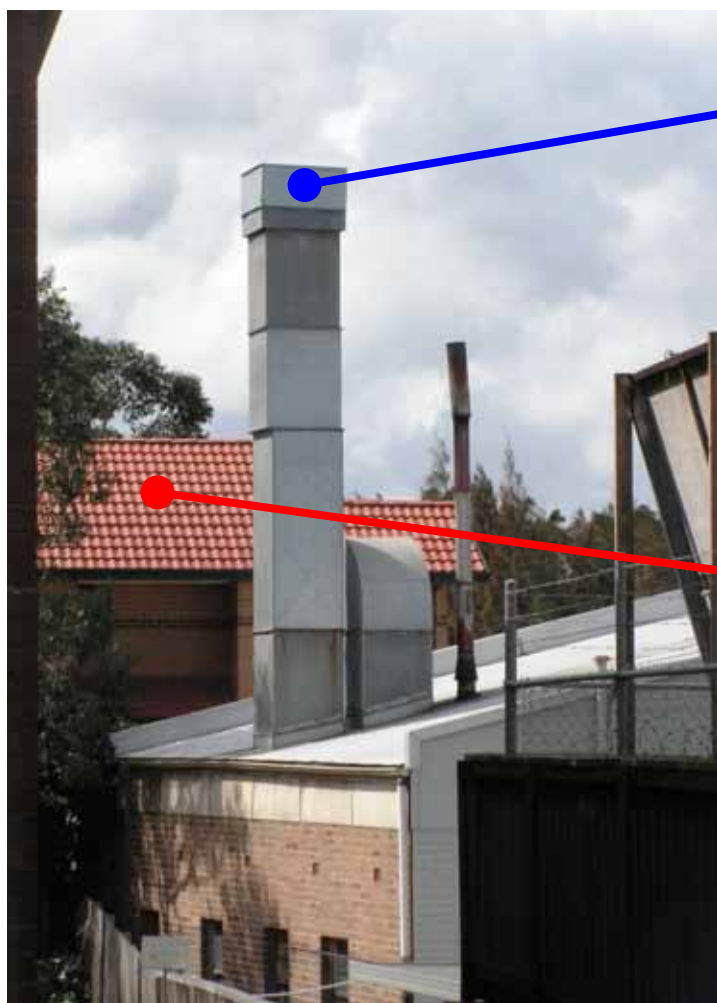
- paint shops
- furniture manufacturers
- dry cleaners
- food processors and food outlets.

The stacks for these sorts of premises are typically about 3 m above the roof line of the premises.

However, odours and other emissions from the stack may cause significant nuisance to people in surrounding properties because of the presence of nearby buildings, tall trees and the surrounding landform—whether the premises with the stack is in a small depression or on a small rise.

The stack on the paint shop ‘in isolation’

The first photograph shows a stack on the roof of an automotive repair shop that exhausts the fumes from a spray painting booth on the premises.



It is clear that the height of the stack is about 4 m and that it meets the ASA standard for the premises. This is the view looking towards the east.

However, there is a hint that the surrounding trees and buildings may have an adverse affect on the dispersion of the fumes from the stack.

Nearby buildings and tall trees

The second photograph shows the same stack in the context of the immediately surrounding buildings. Both residential homes and other commercial businesses are on a busy suburban road.



The ridge of this house is in front of the stack, and may therefore have an effect on the dispersion from the stack. It is clear that the top of the stack is probably at or just below this level—certainly not 4 m above the roof of this building which is within 50 metres.

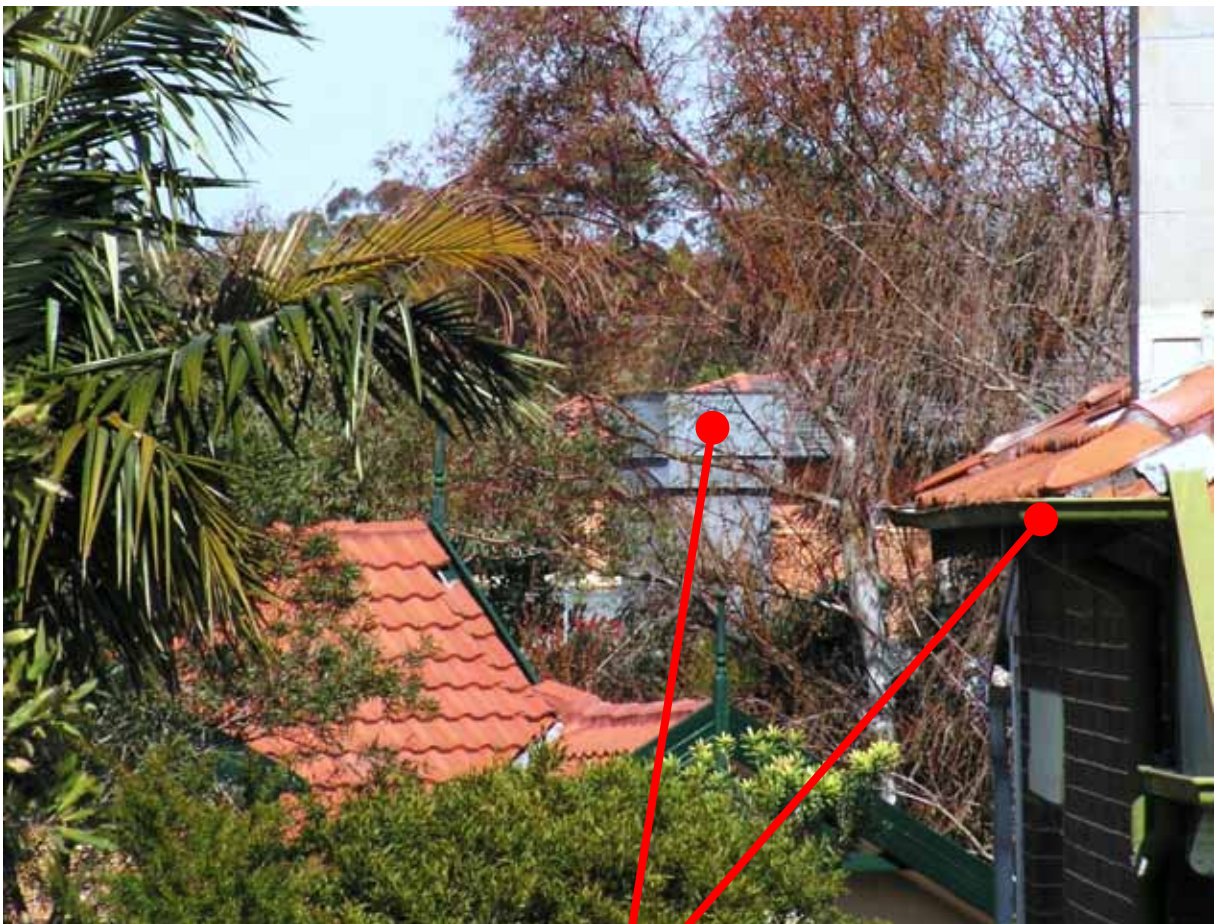
It is now also apparent that the trees behind the stack are higher and will significantly affect the dispersion of gases and vapours from the stack.

The top of the adjacent commercial premises is probably only a metre at most below the top of the stack.

Since this building is also within 50 m of the stack it is evident that it too will significantly affect the dispersion of gases and vapours from the stack when the wind is from the opposite direction.

The stack from the complainant's house

A third photograph taken from a road about 100 m to the north of the stack—that is, to the left of the house in the last photograph—shows the stack almost hidden by the branches of a small tree. Here it is obvious that the top of the stack is only a metre or so above the top of the house to its left, very nearly on the same level as the eaves of the house in the foreground, and well below the height of the roof ridge of the house behind it.



It is clear in this view that the height of the top of the stack is below the ridge cap of the complainant's house.

- In fact it is only one or two metres above the windows of this house.

This sort of situation is interesting because it shows the importance of looking at the context. The surrounding buildings and nearby topography would need to be factored into any modeling that the operator of the premises might be required to undertake in response to an odour complaint.