

# 395 Fitzgerald Road, Drury

# s92 Response - Air Quality

### Taha Auto Limited

Attention:	
Bryce Powell	Consultant Planner

18 August 2025

Dear Bryce,

This memo has been prepared in response to the s92 queries relating to air discharges and potential air quality effects. In particular, this assessment addresses queries 7 - 10 of the s92 letter dated 3 June 2025:

- 7. Please provide a detailed air discharge assessment prepared by a qualified air quality specialist, identifying all potential sources of air emissions associated with the proposal and quantifying their likely discharge rates where possible.
- 8. Please conduct an assessment of off-site air-quality effects at nearest sensitive receptors, with comparisons to relevant NESAQ, AUP provisions and recognised good-practice guidelines.
- 9. Please provide a detailed description of all proposed mitigation measures (both structural and operational) to minimise emissions, and how these measures will be implemented and maintained under the site's Environmental Management Plan (EMP).
- 10. Please revise AEE and EMP documents incorporating the above information and demonstrating how potential air-quality effects will be managed to be no more than minor.



## **Regulatory Context**

In regard to air discharges, the proposed activity is considered to be a permitted activity under the following rule:

E14.4.1(A120) – Air discharges of volatile organic compounds (including organic solvents) from:

- a) Dispensing of motor fuels; or
- b) Ventilation or displacement of air or vapour from storage tanks containing motor fuels; or
- c) Ventilation or displacement of air or vapour from motor fuel tankers (excluding petrol vapour)

The dismantling of vehicles on the site will involved the manual removal of fuel from the vehicles. Fuel is siphoned into small containers before being immediately transferred into staff vehicles. No fuel is stored on site, however, this process is considered to be "dispensing of motor fuels" as set out in E14.4.1(A120)(a).

The permitted activity standard E14.6.1.19 Motor fuel storage outlines that any storage tank containing petrol installed from 1 January 2007 must include measures to ensure that petrol vapour arising from the storage tank filling is captured.

The National Environmental Standards for Air Quality (NES-AQ) are considered as well. Regulation 20 of the NES-AQ is the only potential regulation applying to this proposal. Regulation 20 states that:

- 1) A consent authority must decline an application for a resource consent to discharge carbon monoxide into air if the discharge to be expressly allowed by the resource consent—
  - (a) is likely, at any time, to cause the concentration of that gas in the airshed to breach its ambient air quality standard; and
  - (b) is likely to be a principal source of that gas in the airshed.
- 2) A consent authority must decline an application for resource consent to discharge oxides of nitrogen or volatile organic compounds into air if the discharge to be expressly allow by the resource consent
  - (a) Is likely, at any time, to cause the concentration of nitrogen dioxide or ozone in the airshed to breach its ambient air quality standard; and
  - (b) Is likely to be a principal source of oxides of nitrogen or volatile organic compounds in the airshed.

The discharge of petrol vapours can occur through the displacement of the headspace vapour in vehicles during refuelling and losses from nozzles during vehicle refuelling. Petrol vapours contain volatile organic compounds (VOCs), which notably includes benzene. Benzene is utilised in this assessment because it is carcinogenic, and it is subject to a relatively low ambient air quality guideline in comparison to other VOC substances such as toluene and xylene ethylene. If it can be concluded that the effects of benzene are acceptable, then it is inferred that the effects of other substances will be acceptable as well.



In Good Practice Guide for Assessing Discharges to Air from Industry (Ministry for the Environment, 2016), the national ambient air quality guideline for benzene is 3.6  $\mu$ g/m³. Auckland Council has adopted the national guideline for benzene within the Auckland Unitary Plan (see Table E14.3.1. of the AUP(OP). Furthermore, the Good Practice Guide for Assessing Discharges to Air from Industry suggests a default background concentration of 1.0  $\mu$ g/m³ for annual averages of benzene in main urban areas, which can be applied to Auckland in a general sense.

Auckland Council does conduct annual monitoring of benzene in specific locations. One sampling location is at the corner of Crowhurst Street and Khyber Pass Road. The sampling site is the location of the highly trafficked intersection and is 18m from a petrol station forecourt where vehicle refuelling takes place at a higher intensity that is proposed in this application. In 2023, the annual average benzene concentration was  $1.6 \,\mu\text{g/m}^3$  at the Crowhurst Street site, well below the threshold of  $3.6 \,\mu\text{g/m}^3$ .

#### Proposed petrol extraction, handling and refuelling

As mentioned previously, fuel will be extracted from ready-to-be dismantled vehicles into small containers before being immediately transferred into staff vehicles. The following outlines the mitigation measures that will be implemented on site during this process:

- Petrol extraction from ready-to-be dismantled vehicles will take place under the cover of the warehouse to ensure protection from rainfall.
- The warehouse has 6 large roller doors that will remain open whilst any petrol extraction, handling or refuelling takes place to ensure that there is sufficient natural ventilation. Adequate ventilation is crucial to dilute any released vapours to a safe level.
- Given that ventilation will occur via the roller doors, there is minimal risk of obstruction by storage of materials in these locations. The roller doors will provide vehicle access into and out of the warehouse and therefore will remain unobstructed for this purpose at all times.
- The amount of petrol being handled at any one time will be minimal. Nevertheless, the containers used to transfer the fuel from the ready-to-be dismantled vehicle to the staff vehicle(s) will have the following features to reduce the loss of vapour:
  - a. metal or heavy-duty plastic construction.
  - b. pouring and filling apertures sealed with self-closing spring-loaded caps.
  - c. hoses / funnels for when dispensing into fuel tank openings.
- Open-topped cans and buckets will not be used for handling or storing petrol on site as they increase the risk of spillage and the release of vapours



- The containers used in the proposed transfer of fuel are not used for storing petrol over a sustained period of time they are merely used to allow the safe transfer of fuel from the dismantled car to a staff vehicle.
- The transfer of petrol from the container to a staff vehicle will be carried out away from the dismantling area. Staff vehicles will be filled either in the open or in a separate area of the warehouse (which will be well-ventilated via the roller doors). When pouring manually from or into small containers, a hose / funnel will be used to minimise spills.
- In regard to odour effects, I note that the warehouses where petrol will be handled are located at the centre of the subject site and will have 15m+ setbacks from any adjacent site boundary (and larger setbacks to any dwelling). Any petrol-induced odour will dissipate within a short distance of where it has been extracted or handled, therefore any adverse odour effects are unlikely to be present beyond the boundary of the subject site.

#### Conclusion

The amount of fuel being transferred at any time combined with the mitigation measures (e.g., adequate ventilation and container features) will ensure that petrol vapour losses do not cause benzene concentrations to exceed the ambient air quality standard.

This conclusion is supported by Auckland Council's passive benzene sampling at the corner of Crowhurst Street and Khyber Pass Road. If a sampling location adjacent to a highly trafficked urban intersection and a busy petrol station showcases benzene levels below the acceptable level, then it would be logical to assume that the small-scale handling of petrol on the subject site would also result in acceptable levels of benzene.

Overall, it is considered that the proposed vehicle dismantling activity will have less than minor adverse air quality effects.

Reviewer

Joe Gray

Kind regards,

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Author

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