

NOTICE TO CARRY OUT ENVIRONMENTAL AUDIT PROGRAM

(Issued pursuant to Section 48(1) of the *Waste Management and Pollution Control Act 1998*)

ISSUED TO: Vopak Terminal Darwin Pty Ltd
ACN 107 742 174

OF: 31 Bundarra Road
BELLEVUE HILL NSW 2023

WHEREAS the Northern Territory Environment Protection Authority (NT EPA) is satisfied for the reasons stated in **Attachment A** to this notice that you are a person required to carry out an Environmental Audit Program in relation to 780 and 800 Berrimah Road, East Arm Darwin NT 0822, also known as Portions 5719 and 5783 Hundred of Bagot, as delineated in Blue in **Attachment C** (the premises) to:

- (i) Evaluate the types, amount, distribution and mobility of petroleum hydrocarbons, per- and poly-fluoroalkyl substances (PFAS) and other contaminants of concern (copper, lead, zinc and ammonia) present in the environment at the premises that have the potential to cause environmental harm.

NOW TAKE NOTICE that you are required to comply with each of the requirements specified in **Attachment B** to this notice on and from the date of issue of this notice or such later date as may be specified in this notice.

ISSUE DATE: 25 October 2021



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AMY DENNISON
EXECUTIVE DIRECTOR
ENVIRONMENTAL REGULATION
DELEGATE OF THE NT EPA

Important Notice

Failure to comply with this notice is an offence under Section 51 and 52 of the *Waste Management and Pollution Control Act 1998* and may incur significant penalties and other statutory action.

This notice takes effect on the date on which it is served upon you. Pursuant to Section 108(h) of the *Waste Management and Pollution Control Act 1998*, **you have the right to apply for a review of the decision to issue you with this Notice to carry out an Environmental Audit Program. If you intend to apply for a review, YOU MUST MAKE AN APPLICATION WITHIN 28 DAYS after the day on which this notice of the decision was given.** For information on how to lodge an application for review, contact the Northern Territory Environment Protection Authority, telephone 8924 4041.

Pursuant to Section 112 of the *Waste Management and Pollution Control Act 1998* the person issued with this notice must fulfil certain obligations before selling, leasing, sub-leasing, giving or exchanging land, premises, a vehicle or business which is the subject of this Notice.

ATTACHMENT A

REASONS FOR ISSUING THIS NOTICE

1. Land Development Corporation (ABN 11 768 147 358) leases the premises to **Vopak Terminal Darwin Pty Ltd** (Vopak) for the occupation and use of the premises;
2. Vopak operates a bulk fuel terminal at the premises that provides ship and truck loading facilities to the Darwin area and regional Northern Territory, for the import and distribution of petroleum products, biodiesel and sulfuric acid;
3. On 26 September 2020, at approximately 18:52 hours, Vopak operators discovered foam coming up through pavers near the fuel additive tanks and pumps within the premises, which was subsequently identified as a leak in the fire suppression system (the incident);
4. The incident caused Ansulite aqueous film-forming foam to come into contact with the environment;
5. Ansulite is known to contain per- and poly-fluoroalkyl substances (PFAS), including but not limited to PFAS precursors;
6. PFAS readily leaches from soil to groundwater and can move long distances;
7. PFAS contamination is environmentally significant due to its persistence in the environment, its potential for bioaccumulation and high solubility in water;
8. The primary source of PFAS appears to have been eliminated by repairing the leak;
9. However, other sources of PFAS may remain and include contaminated infrastructure (concrete and drains), and residual soil or sediment contamination (in which the leaking pipe was buried);
10. The full nature and extent of PFAS contamination at the premises is unknown and has the potential for harm or risk of future harm or adverse impact on the environment;
11. On 8 October 2020, sampling of the groundwater bores at the premises was undertaken by EcOz Environmental Consultants on behalf of Vopak;
12. The resulting report titled, *Groundwater Quality Monitoring Early Wet Season, October 2020 Vopak Terminal Darwin* ("the monitoring report") identified PFAS contamination in the groundwater at the premises;
13. The monitoring report identified high concentrations of fluorotelomer sulfonic acid, a PFAS precursor, in the monitoring bores surrounding the area where the incident occurred and near the firewater storage tank;
14. The monitoring report identified a variety of perfluoroalkyl carboxylic acids in high concentrations in the same monitoring bores;
15. The monitoring report identified the presence of heavy metals including copper, lead, and zinc in the groundwater at the premises, above the *Australian and New Zealand Environment and Conservation Council* (ANZECC) trigger values for dissolved metals in groundwater;
16. The monitoring report also identified ammonia concentrations in groundwater at the premises that exceed the Darwin Harbour Water Quality Objectives (DHWQO) for the Darwin Harbour region;
17. The monitoring report asserts that the incident was the primary source of PFAS contamination at the premises (location identified in **Attachment D**);
18. The monitoring report identifies the following secondary sources of PFAS contamination at the premises:

- (a) The contaminated stormwater (highlighted in green and labelled “stormwater filled bunded area of tanks 101 and 102” in **Attachment E**); and
 - (b) The firewater storage tank area (labelled “pump house” in **Attachment E**);
19. The monitoring report also identified Total Petroleum Hydrocarbons (TPH) in low concentrations in groundwater at the premises;
 20. Given the nature of Vopak activities hydrocarbon contamination from potential fuel leaks and spills is an ongoing risk to the environment;
 21. The premises is located within the Darwin Harbour Region that is a Declared Beneficial Use area (no. G27 declared on 29 June 2010), the beneficial uses that apply are aquaculture, environment, cultural and rural stock and domestic;
 22. The premises is located within the Darwin Harbour Site of Conservation Significance (SOCS no. 6) a site of national and international conservational significance;
 23. As such the nature and extent of petroleum hydrocarbon and PFAS contamination at the premises requires further investigation to determine the source, with confidence;
 24. Based on the aforementioned reasons an environmental audit program is necessary to evaluate the types, amount, distribution and mobility of petroleum hydrocarbons, per- and poly-fluoroalkyl substances (PFAS) and other contaminants of concern (copper, lead, zinc and ammonia) present in the environment at the premises that have the potential to cause environmental harm.

ATTACHMENT B

NOTICE REQUIREMENTS

1. Pursuant to section 48(1) of the *Waste Management and Pollution Control Act 1998* Vopak Terminal Darwin Pty Ltd (Vopak) (ACN 107 742 174) is required to carry out an environmental audit program (the program) to evaluate the types, amount, distribution and mobility of petroleum hydrocarbons, per- and poly-fluoroalkyl substances (PFAS) and other contaminants of concern (copper, lead, zinc and ammonia) present in the environment at the premises (as identified in **Attachment C**) that have the potential to cause environmental harm;
2. The program must be performed by a person registered under section 68 of the *Waste Management and Pollution Control Act 1998*, in this case an environmental auditor accredited under the New South Wales or Victorian auditor accreditation schemes (the auditor);
3. Within **30 days** from the date of this notice, Vopak must engage the auditor;
4. Within **60 days** from the date of this notice, Vopak must submit to the NT EPA the scope of works for the program, prepared by the auditor, prior to commencing the program;
5. The scope of works must include those activities undertaken by or for Vopak at the premises, including those actions taken in response to the incident;
6. Within **180 days** from the date of this notice, Vopak must submit to the NT EPA the results of the program in the form of an **Environmental Audit Report** prepared by the auditor;
7. The **Environmental Audit Report** must include:
 - (a) an assessment of the types, amount, distribution and mobility of petroleum hydrocarbons, per- and poly-fluoroalkyl substances (PFAS), and other contaminants of concern (copper, lead, zinc and ammonia) present in the environment at the premises that have the potential to cause environmental harm;
8. The **Environmental Audit Report** must assess the risk of environmental harm from activities conducted at the premises, as determined by:
 - (a) review of systems, plans, procedures, monitoring programs, data, records, reports or information that is relevant to the scope of the audit as the auditor sees fit;
 - (b) inspection of activities, processes, plant and equipment at the premises that is relevant to the scope of the audit as the auditor sees fit; and
 - (c) collection and/or modelling of data that is that relevant to the scope of the audit as the auditor sees fit; and
9. The **Environmental Audit Report** must:
 - (a) determine if the activities conducted at the premises cause a risk of any possible harm to the environment;
 - (b) where a risk of possible harm to the environment has been identified recommend the measures necessary to reduce the risk to an acceptable level; and
 - (c) propose a reasonable timetable for implementation of recommended measures.

ATTACHMENT C THE PREMISES

780 & 800 Berrimah Road, East Arm (Lot 5719 & 5783, Hundred of Bagot) Vopak Terminal Darwin



ATTACHMENT D

Vopak monitoring bore locations and location of foam leak (the incident)



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ATTACHMENT E

Location of contaminated stormwater and relevant infrastructure at the premises

