Notice

Environmental Protection Act 1994

Clean-up Notice

This clean-up notice is issued by the administering authority pursuant to section 363H of the Environmental Protection Act 1994 *to advise you of a decision requiring you to take the stated action in regard to a contamination incident.*

Origin Energy Upstream Operator Pty Ltd (ACN 105 423 532)
Level 28, 180 Ann Street
BRISBANE QLD 4000.

Your reference: EPPG00968013; CR97302; E-STAT-100007934

Our reference: C-CPLRC-100001602; E-STAT-100007934; 101/0030092

14 July 2020

Take notice: that under section 363H of the *Environmental Protection Act 1994* (the Act) a clean-up notice is issued to Origin Energy Upstream Operator Pty Ltd (ACN 105 423 532) (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment and Science (the department).

The clean-up notice is issued in respect to the activities of Origin Energy Upstream Operator Pty Ltd (Origin, you) at Ramyard 024 (Ramyard 24) pilot tank site carried out under environmental authority (EA) EPPG00968013 on land described as ATP 972, situated on Lot 24 on plan BWR183 (the premises).

A. Grounds

The clean-up notice is issued on the following grounds:

- A contamination incident has occurred whereby a release of coal seam gas (CSG) residue to land and waters occurred from partially decommissioned pilot tank, Ramyard 24.
- You are the prescribed person for a contamination incident as the owner of the alleged contaminant.
- In accordance with section 363F of the Act, the release of CSG residue to land is a contamination incident that is likely to have caused serious environmental harm.

The facts and circumstances forming the basis for these grounds are:

1. Australia Pacific LNG Pty Limited (APLNG) is the holder of EA EPPG00968013, which authorises the carrying out of petroleum activities on ATP972. Ramyard 24 pilot site is located on ATP972. ATP972 also includes the area of the release subject to the contamination incident.
2. In correspondence received by the department on 1 May 2020, you confirmed that you are carrying out activities under EA EPPG00968013 on behalf of APLNG.

3. Pursuant to section 363G of the Act, you are the prescribed person as the owner of the contaminant involved in the incident. As the producer of the CSG water and residue contained in, and subsequently released from, the Ramyard 24 pilot tank, you are considered to be the owner of the contaminant.
4. On 19 February 2020, the department received a notification from you for the event which was identified by you on 19 February 2020 at 7:22am.
5. The location of the incident was reported in your notification as ATP972 at Ramyard 024 Pilot Tank located at approximately -26.44891, 149.73063, on Lot 24 on plan BWR183.
6. The contamination incident includes the following:
    a. An area, estimated by you to include 3,700m^2 of land, in the adjacent landscape to the Ramyard 24 pilot tank pad, has been affected by the release incident including land which constitutes a drainage line that reports to a watercourse (the release area).
    b. The release was reported to have an estimated quantity of 330,000L, an electrical conductivity of 240,000 µS/cm and pH of 9.3.
7. In accordance with section 11 of the Act, the water released from Ramyard 24 can constitute a contaminant being a liquid or solid.
    a. As per the water quality sampling results provided by you on 23 March 2020 for in situ sampling conducted on 20 February 2020, an electrical conductivity of 230,000 µS/cm and a pH of 9.27, was recorded at the edge of the Ramyard tank pad at the release location directly upstream of the drainage line to the tank pad area.
    b. As per the soil quality sampling results provided by you on 1 May 2020, an electrical conductivity of 5,590 µS/cm, measured at a 1:5 ratio, was recorded at 10cm depth at sample point SB5, directly downstream in the drainage line and adjacent to the Ramyard 24 tank pad.
    c. By comparison with the same soil depth of the background site, identified as BG01, with a value of 94 µS/cm, the electrical conductivity is elevated above the background concentration.
    d. This soil salinity result is of a level that has potential to impact on the production of most pasture species, as per the DERM Salinity Management Handbook (edition 2, 2011). Being in an agricultural area, the water quality indicates a level that could result in contamination.
    e. Additionally, as per the DERM Salinity Management Handbook, the concentration of salts, including sodium concentrations at 6,040 mg/kg, have the potential to compromise the soil structure within the release area which includes the drainage channel. Loss of soil structure is therefore likely to result in the release sediments and salts to the downstream environment of the watercourse.
    f. In accordance with the department's 'Healthy Waters Management Plan for Maranoa and Balonne River Basin, 2019', the environmental values of the Balonne River basin, to which the release area reports to, include aquatic ecosystems, farm supply and irrigation. The release of further sediment and salts to the downstream environment has potential to impact on these environmental values.
8. Based on the level of contaminants released, the cost to prevent and minimise environmental harm, and rehabilitate the area back to its prior condition, is likely to exceed the threshold amount of serious environmental harm of $50,000 as per section 17 of the Act.
9. No other conditions of the relevant EA, EPPG00968013, permits the release of contaminants to land at the concentrations present in the release.

B. Requirements

You are required to do the following:

Prevent and minimise the potential for ongoing harm

1) For the period up to and including 13 November 2020, take all reasonable and practicable measures to:
   a. ensure containment of CSG residue, released to land and waters from the Ramyard 24 pilot site, to prevent further migration of contaminants to other land and other waters; and
   b. make continued assessments of the meteorological conditions that have potential to impact the release area and take relevant action in a manner that prevents contamination of other land and other waters.

Conduct an investigation and establish options for remediation and rehabilitation

2) An investigation must be undertaken, by a suitably qualified person, to accurately assess the severity and extent of impacts to receiving environments from the release of CSG residue and hypersaline water at Ramyard 24. The investigation must delineate the lateral and vertical extent of the soil impact, surface water impact and any impact to vegetation resulting from the release. The investigation must, as a minimum, consider and provide for the following:
   a. a description of all relevant local soil types in the area in accordance with the United Soil Classification System;
   b. an assessment of soils (including background soils) and surface water for all contaminants of concern;
   c. soil sampling and analysis of the impact area and representative background sites including, as a minimum, pH, all major and minor cations and anions, exchangeable sodium percentage (ESP), soil salinity and relevant metals/metalloids;
   d. describe the impacts on the receiving environment including the impact to soil structure and water quality as well as the impact on the vegetation by way of description of observable impacts, comparisons of vegetation health with representative background sites and likelihood of impact (i.e. salt tolerance of affected vegetation);
   e. assess all available information on the pre-existing vegetation in the immediate area (i.e. all available pre-disturbance vegetation assessments) and establish the salt tolerance of the relevant vegetation for comparison to the soil data (i.e. to define remedial requirements for the soils to enable the growth of relevant vegetation);
   f. include the Global Positioning System (GPS) coordinates of the all locations tested (soils, water and vegetation sampling) where samples or observations were collected or made;
   g. produce a scale map providing:
      i. mapped contaminant isopleths for soils,
      ii. sampling locations;
      iii. the impact to environmental values associated with any receiving waters; and
      iv. any impacted vegetation;
   h. highlight all impacted flow paths and/or locations that may give rise to exacerbated soil erosion;
   i. include analytical results of all monitoring activity(s), including the original certificates of analysis as received and Quality Assurance/Quality Control data;
   j. details of how the sampling was carried out, and include reference to the relevant guidance material; and
   k. Provide options and timeframes for the remediation and rehabilitation of the impacted soil, the details of any soil amelioration required and rehabilitation requirements for surface water and vegetation resultant from the release.

3) An investigation report must be developed outlining all matters detailed in and determined by requirement 2 and provide to the department by 14 August 2020.

Undertake remediation/rehabilitation and report the findings

4) By 16 October 2020, remedial and rehabilitation works as determined from requirements 2 and 3 of this notice (the investigation and the investigation report), must be completed.

5) A validation report must be developed by a suitably qualified person and provided to the department by 30 November 2020. The validation report must include details about the each of the following:

   a. the works required and undertaken to remediate and rehabilitate the incident site;

   b. how the risk of environmental harm has been managed and reduced;

   c. a description of any residual risk of environmental harm arising from the incident, including potential future releases and migration of contaminants to the receiving environment;

   d. details about how the risk to vegetation and surface water has been managed to acceptable levels; and

   e. the details about any ongoing remediation, monitoring, management or inspection of the environmental values of the receiving environment and the timeframes for the action and completion of any ongoing remediation, monitoring, management or inspection.

Provide for the required monitoring, management and inspection

6) Conduct the remediation, monitoring, management and inspection requirements in accordance with the actions and timeframes specified in the validation report.

Guidelines

7) All investigations are to be conducted with consideration of:

   a. the Monitoring and Sampling Manual, Environmental Protection (Water) Policy 2009 (version 2, June 2018) via https://environment.des.qld.gov.au/management/water/quality-guidelines/sampling-manual; and

   b. the National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) via https://www.legislation.gov.au/Details/F2013C00288.

Submission of documents to the department

8) Any written notification or submission to the department, as required by this notice, must be provided via email to **southwest.es@des.qld.gov.au** and/or PO Box 731 Toowoomba Queensland 4350.

Note:

- The requirements of the clean-up notice take effect immediately upon service of the notice.
- This notice remains in force until further notice from the administering authority.
- Suitably qualified person/s for the requirements of the clean-up notice means *a person/s who has professional qualifications, training, skills or experience in the management of soils, soil salinity, surface water and vegetation and can give authoritative assessment, advice and analysis to performance relative to the subject matter using the relevant protocols, standards, methods or literature.*

Procedure if recipient is not the owner of land on which action is required

Pursuant to section 363J of the Act, you, or the person taking the action for you (the contractor), may enter land to take action in relation to the requirements of this notice, only with the consent of the owner and occupier of the land or if written notice has been given at least 5 business days to the owner and occupier and the notice informs the owner and occupier of the intention to enter the land, the purpose of the entry, and the days and times when the entry is to be made.

In taking the action, you or your contractor must take all reasonable steps to ensure as little inconvenience is caused, and does as little damage, as is practicable in the circumstances.

Section 363J of the Act does not authorise you or your contractor to enter a building used for residential purposes.

If a person incurs loss or damage because of action taken by you or your contractor, the person is entitled to be paid by the you or your contractor the reasonable compensation because of the loss or damage that is agreed between the your or your contractor and the person or, failing agreement, decided by a court having jurisdiction for the recovery of amounts up to the amount of compensation claimed.

C. Appeal rights

The provisions regarding reviews of decisions and appeals are found in sections 519 to 539 of the Act. Internal review of the decision to issue a clean-up notice is not available. If you are dissatisfied with the decision to issue this clean-up notice, you may apply to the relevant court for a stay of the decision to issue the clean-up notice.

A person who is dissatisfied with the decision may be able to appeal against that decision to the relevant court within 22 business days after receiving notice of the decision.

A person whose interests are or would be adversely affected by a decision of the department may also be able to request a statement of reasons for a decision or a statutory order review under the *Judicial Review Act 1991*.

For further information about reviews and appeals see the information sheet – Internal review and appeal to the Planning and Environment Court (ESR/2015/1572) available on the Queensland Government website at www.qld.gov.au, using the publication number (ESR/2015/1742) as a search term.

You may have other legal rights or obligations and should seek your own legal advice.

D. Penalties

Failing to comply with a clean-up notice is an offence unless you have a reasonable excuse.

- The maximum penalty for a corporation for wilfully contravening a clean-up notice is 31,250 penalty units, totalling $ 4,164,062.50.
- The maximum penalty for a corporation contravening a clean-up notice is 22,500 penalty units, totalling $ 3,002,625.00.

If you do not comply with the clean-up notice, an authorised person may also take any of the actions stated in the notice and the department may recover from you the costs incurred in taking the actions.

Should you have any queries in relation to the notice, please contact Sarah Horton on telephone number 07 4529 8384 .

Signature

14 July 2020

Date

Liz Clarke
Manager, Compliance
Delegate of the Chief Executive
Department of Environment and Science
Environmental Protection Act 1994

Enquiries:
146 Herries Street, Toowoomba
PO Box 731 Toowoomba
Queensland 4350 Australia
Telephone + 61 7 4529 8336