Environmental Protection Order

This environmental protection order is issued by the administering authority pursuant to section 358 of the Environmental Protection Act 1994.

CS Energy Limited (ACN: 078 848 745)
Level 2, HQ (North Tower)
540 Wickham Street
FORTITUDE VALLEY QLD 4006

Your reference: C-CPLRC-100154950

Our reference: STAT-E-100155233| C-CPLRC-100154950 | EPPR00536313

8/12/2021

Dear Sir/Madam,

Take notice: that under the *Environmental Protection Act 1994* (EP Act) this environmental protection order (EPO) is issued to CS Energy Limited (ACN: 078 848 745) (you) by the administering authority. The administering authority is the Chief Executive of the Department of Environment and Science (the department).

The EPO is issued with respect to the activities of CS Energy Limited on land described as Lot 1/RP615528 and Lot 4/SP103557 situated at Biloela Callide Road, Biloela QLD (the premises).

A. Grounds

This EPO is issued on the following grounds:

1. The department requires you to take reasonable measures to secure compliance with the general environmental duty outlined under section 358(d)(i) of the *Environmental Protection Act 1994* (the Act). The general environmental duty is detailed in s319 of the Act, which states the following:

   'A person must not carry out any activity that causes, or is likely to cause, environmental harm unless the person takes all reasonable and practicable measures to prevent or minimise the harm (the general environmental duty).'

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

1. You hold Environmental Authority EPPR00536313 (the EA) which authorises Environmentally Relevant Activities (ERA) at Lot 1/RP615528 and Lot 4/SP103557:
   - 14 – Electricity Generation, 2: Generating electricity by using a fuel, other than gas, at a rating capacity of, (b) more than 150MW electrical.
   - 08 – Chemical Storage, 1: Storing a total of 50t or more of chemicals of dangerous goods class 1 or class 2, division 2.3 under subsection (1)(a)

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- 08 – Chemical Storage, 3: Storing more than 500 cubic metres of chemicals of class C1 or C2 combustible liquids under AS 1940 or dangerous goods class 3 under subsection (1)(c)
- 56 – Regulated Waste Storage, Receiving and storing regulated waste
- 60 – Waste disposal, 1: Operating a facility for disposing of, in a year, the following quantity of waste mentioned in subsection (1)(a), (d) more than 200,000t
- 63 – Sewage Treatment, 1: Operating sewage treatment works, other than no-release works, with a total daily design capacity of, (b)(ii) more than 100 but not more than 1500EP otherwise

2. Fly ash is classified as a regulated waste under Schedule 9 of the Environmental Protection Regulation 2019.
3. ERA 60 authorises disposal of fly ash in Ash Dam B as conditioned in the EA.
4. On 10 November 2021, CS Energy notified the department that as of 9 November 2021, Ash Dam B's recorded water level of RL 212.97 metres (m) exceeded the current mandatory reporting limit (MRL) of RL 212.92 m.
5. On 10 November 2021, CS Energy submitted the Contingency Plan to the department that was developed from the *CS Energy Limited Callide Power Station WCF Corrective Action Plan Revision 0* (the Corrective Action Plan), as required by condition 2(E10) of the EA.
6. During the site inspection on 23 November 2021, CS Energy informed the department that the design storage allowance (DSA) of Ash Dam B was RL 213.58 m. On 2 December 2021, CS Energy informed the department that Ash Dam B's water level was recorded as RL 213.55 m.
7. On 23 November 2021, CS Energy stated that GHD had determined that there is a potential risk of Ash Dam B stability as the shear key had not been sighted during an inspection. The *Ash Dam B Inspection Report 2021* was submitted to the department on 17 November 2021 and states, '*GHD reviewed the stability of the spillway wall and determined that there may be a risk of the wall sliding at FSL (assuming no cohesion) and overturning during the design flood event (PMF).*'
8. The department has determined that there is an increased likelihood of an uncontrolled release into Callide Creek from Ash Dam B, until it can be confirmed that the shear key is found in the required locations of Ash Dam B.
9. The likelihood is further increased likelihood given it is the start of the wet season with a wetter than average wet season predicted and the GHD advice outlining potential risks with the spillway's stability.
10. The general environmental duty requires you to take all reasonable and practicable measures to minimise environmental harm when undertaking an activity that may cause environmental harm.
11. A release from Ash Dam B has the potential to cause environmental harm by adversely affecting the environmental values of the receiving environment identified in the *Environmental Protection (Water and Wetland Biodiversity) Policy 2019*. The map titled *'WQ1306 – Callide Creek Catchment'* outlines that the environmental values of surrounding waters, including Callide Creek, as aquatic ecosystems, irrigation, farm supplies, stock water, human consumption, primary recreation, secondary recreation, visual recreation, drinking water, industrial use and cultural and spiritual values.
12. Table 1 below identifies contaminant threshold limits, Ash Dam B monitoring results and potential environmental values impacted in the event of an uncontrolled release to Callide Creek or groundwater.

Table 1 – Comparison of contaminant limits and Ash Dam B contaminant monitoring results in relation to EVs at risk in the event of an uncontrolled release.

Guideline referenced	Guideline value	Monitoring result of Ash Dam B[1]	Environmental value potentially impacted
Australian Drinking Water Guideline	Manganese: 0.5 mg/L Fluoride: 1.5 mg/L	Manganese: 0.735 mg/L Fluoride: 2.4 mg/L and 1.6 mg/L[2]	Drinking water
Environmental Protection (Water) Policy 2009 Callide Creek Catchment Environmental Values and Water Quality Objective[3]	Total dissolved solids: 5,000 to 10,000 mg/L	Total dissolved solids: 6,525 mg/L	Stock water
Environmental Protection (Water) Policy 2009 Callide Creek Catchment Environmental Values and Water Quality Objectives[3]	Sulfate: <20mg/L Ammonia N: 0.02mg/L pH: 6.5 to 8.5 Conductivity baseflow: 1500 µS/cm Conductivity high flow: 600 µS/cm Suspended solids: <30 mg/L	Sulfate: 1,725mg/L Ammonia N: 0.035mg/L[4] pH: 4[5] Conductivity: 8,068 µS/cm Suspended solids: 31 mg/L and 2,230 mg/L[6]	Aquatic ecosystem
Environmental Protection (Water) Policy 2009 Callide Creek Catchment Environmental Values and Water Quality Objectives referred to Australian Water Quality Guidelines for irrigation salinity standards. *Australian and New Zealand Guidelines for Fresh and Maine Water Quality, Volume 3, Primary Industries*	Very high (water salinity rating) conductivity for very tolerant crops: 5200 to 8100 µS/cm Extreme (water salinity rating) conductivity which is generally too saline for crops: >8100 µS/cm	Conductivity: 8,068 µS/cm	Irrigation

Note:
1: Unless otherwise specified, all results are the mean monitoring results undertaken by CS Energy at the north-east and south-west corner of Ash Dam B on 4 March 2021 and 22 October 2021.

2: The manganese concentration was recorded on 22 October 2021 at the south-west corner of Ash Dam B. The fluoride concentration of 2.4 mg/L was recorded on 4 March 2021 and the fluoride concentration of 1.6 mg/L was recorded on 22 October 2021. Both results were recorded at the south-west corner of Ash Dam B
3: The department notes that water quality objectives specified under the Environmental Protection (Water) Policy 2009 Callide Creek Catchment Environmental Values and Water Quality Objectives were created to monitor the receiving environment and therefore should only be used as a benchmark when reviewing Ash Dam B data.
4: On 4 March 2021 at the monitoring location at the south-west corner of Ash Dam B, the LOR was recorded for Ammonia N. This value was halved when calculating the mean result.
5: This is the pH concentration that was recorded at the north-east corner of Ash Dam B on 4 March 2021.
6: The suspended solids concentration of 31 mg/L was recorded at the north-east corner of Ash Dam B on 4 March 2021. The suspended solids concentration of 2,230 mg/L was recorded at the south-west corner of Ash Dam B on 22 October 2021.

13. In correspondence to the department dated 2 December 2021, CS Energy outline that the maximum potential of water reduction of Level 1 actions is 3.6 ML/day. As of 2 December 2021, CS Energy has implemented action with the maximum potential water reduction of 1.6 ML/day.
14. The Corrective Action Plan considers actions to reduce water in Ash Dam B that you are not authorised to undertake under the EA, including discharging wastewater to Callide Creek from Ash Dam B and the cooling tower blowdown as well as implementing a temporary spillway rise.
15. The department has determined that, given the facts and circumstances detailed above, there is an increased likelihood of environmental harm occurring as a result of CS Energy's management of Ash Dam B and you have not taken all reasonable and practicable measures to minimise the risk of environmental harm.

B. Requirements

In accordance with this EPO, you are required to do the following:

1. **By 5:00 pm on Friday, 17 December 2021**, you must update the Corrective Action Plan and Contingency Plan to include additional measures to reduce Ash Dam B's level below the MRL and remove measures that are not authorised under the EA or the EP Act.
2. **By 5:00 pm on Friday, 17 December 2021**, you must submit the updated Corrective Action Plan and Contingency Plan to the department by emailing cwes_gladstone@des.qld.gov.au.
3. **By 5:00pm on Friday 17 December 2021** you must update the site water balance and spill risk assessment to reflect the current water inventory. A copy of the assessment is to be provided to the department by emailing cwes_gladstone@des.qld.gov.au.
4. **Between 17 December 2021 and 30 April 2022,** you must maintain an up-to date water balance model and retain professional capability such that you provide an accurate spill risk assessment to the department within 24 hours of a reasonable request (based on forecasted weather events).
5. **From Monday, 13 December 2021 and until requirement 10 of this EPO has been met**, you must inform the department weekly of the outcome of all dam safety inspections undertaken in line with the ANCOLD guidelines by emailing cwes_gladstone@des.qld.gov.au by 5:00 pm.
6. **In the event Ash Dam B water level exceeds RL 213.58m,** CS Energy must notify the department within 24 hours and undertake a weekly sampling program with the 'prior to a release' sampling actions specified under *Callide Power Station Ash Dam B ADMP – Spillway Management Plan Revision 0* (Spillway Management Plan) including all the parameters specified in Table 5-2 of the Spillway Management Plan.
7. Upon receiving the sample results required by requirement 6 of this EPO, you must submit them to the department by emailing cwes_gladstone@des.qld.gov.au **by 5:00 pm the next business day.**

8. **By 5:00 pm Monday, 31 January 2021,** you must submit to the department a strategy that outlines CS Energy's planned actions, including specified timeframes, to assess the stability of Ash Dam B's spillway during 2022.
9. **By 5:00 pm Monday, 31 January 2021,** you must submit to the department a strategy that outlines CS Energy's planned actions, including specified timeframes, to implement temporary remedial works to support Ash Dam B's spillway wall until a suitability qualified person can confirm the extent of risk the wall has of overturning or sliding.
10. Once the water level of Ash Dam B remains continuously below RL 212.92 m for at least one week, you must notify the department with photographic evidence to show that Ash Dam B's level is below the MRL (RL 212.92 m) by emailing cwes_gladstone@des.qld.gov.au **by 5:00 pm the next business day**.
11. This EPO will remain open until all required submissions under the EPO have been received by the department and the water level of Ash Dam B remains continuously below RL 212.92 m for at least one week.

C. Obligations

If you propose to dispose of the place or business to which the EPO relates, you **must** advise the buyer of the existence of this EPO.

If you cease to carry out the activity to which this EPO relates, you **must** give written notice of ceasing to carry out the activity to the department within 10 days of ceasing the activity.

Take notice:

- the requirements of this order take effect immediately upon service of the order;
- failure to comply with this order is an offence under the Act;
- this order remains in force until further notice from the administering authority.

D. Penalty

Failure to comply with an EPO is an offence.

- The maximum penalty for an individual for wilfully contravening an EPO is 6250 penalty units, totalling $861,562.50 or five years' imprisonment.
- The maximum penalty for a corporation for wilfully contravening an EPO is 31,250 penalty units, totalling $4,307812.50.
- The maximum penalty for an individual for contravening an EPO is 4500 penalty units, totalling $620,325.00.
- The maximum penalty for a corporation for contravening an EPO is 22,500 penalty units, totalling $3,101,625.00.

Failure to provide written notice to the buyer is an offence.

- The maximum penalty for an individual is 50 penalty units, totalling $6,892.50.
- The maximum penalty for a corporation is 250 penalty units, totalling $34,462.50.

Failure to provide written notice within 10 business days of ceasing the activity to the department is an offence.

- The maximum penalty for an individual is 50 penalty units, totalling $6,892.50.

- The maximum penalty for a corporation is 250 penalty units, totalling $34,462.50.

Section 3 of the Penalties and Sentences Regulation 2015 prescribes the monetary value of a penalty unit.

E. Reviews and appeals

The provisions regarding reviews of decisions and appeals are found in sections 519 to 539 of the EP Act.

A person who is dissatisfied with an original decision made by the Department of Environment and Science (the department) may apply to have that decision internally reviewed.

Information about initiating an appeal in relation to this notice is contained within the Internal Reviews and Appeals Information Sheet (available at www.qld.gov.au using the publication number ESR /2015/1742 as a search term).

A request for review or appeal is to be made using the approved form 'Application for review of original decision' (available at www.qld.gov.au using the publication number ESR/2015/1573 as a search term.

Applications for reviews are to be sent to Permit and Licence Management, Department of Environment and Science: via email at palm@des.qld.gov.au , or by mail to the following address: GPO. Box 2454, Brisbane, QLD, 4001.

Where an application has been made for a decision to be reviewed, the applicant may also apply to the relevant court for a stay of the decision to secure the effectiveness of the review.

Once the original decision has been reviewed, a person who is dissatisfied with the review decision may be able to appeal against that decision to the relevant court within 22 business days after receiving notice of the review decision.

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

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

Pursuant to section 540 of the Act, the department is required to maintain a register of certain documents and information authorised under the Act. A copy of this document will be kept on the public register. The register is available for inspection by members of the public who are able take extracts, or copies of the documents from the register. Documents that are required to be kept on the register are published in their entirety, unless alteration is required by the Act. There is no general discretion allowing the department to withhold documents or information required to be kept on the public register. For more information on the department's public register, search 'public register' at www.qld.gov.au. For queries about privacy matters please email privacy@des.qld.gov.au or telephone 13 74 68.

Should you have any queries in relation to the notice, please contact Lindsey File on (07) 4971 6500 or email cwes_gladstone@des.qld.gov.au.



Signature

8/12/2021

Date

Kate Grayson

Delegate of the Chief Executive

Department of Environment and Science

Environmental Protection Act 1994

Enquiries: David Love

COMPLIANCE CENTRE: Gladstone
Ph: (07) 4971 6500
Email: cwes_gladstone@des.qld.gov.au