The issues worth asking about

A prioritized review of Woodfibre LNG's 4,149-page air-emissions application. Application 455458; authorization reference 113083.

Recommendation: use five priority issues. They are documented assessment or protection questions, not five proven examples of misconduct, unsafe operation or an invalid assessment.

1. Untreated releases need clear operating limits.

The proposed response to a thermal-oxidizer failure includes venting unburned gas while troubleshooting. The public assessment needs a clear link between its outage assumptions and enforceable action.

2. Failure-related organic pollutants need a clear assessment.

The updated organic-pollutant screening covers normal and stabilizing operations; the failure assessment emphasizes sulphur compounds. Ask for a demonstrated basis for covering or excluding other pollutants during failures.

3. Predicted boundary exceedances need a response.

The application predicts localized nitrogen-dioxide objective exceedances, but considers a separate emission-reduction and management plan unnecessary.

4. The receiving-environment monitoring plan is unfinished.

The application says it is being developed. Monitoring locations, scope and response rules should be reviewable before relevant discharges begin.

5. Predicted lichen effects need follow-through.

The detailed ecology appendix identifies widespread exceedance of a sensitive nitrogen-deposition threshold and recommends monitoring. This deserves more than a generic statement that the assessment is desktop-based.

Read the evidence, applicant explanations and specific requests on the following pages. Page references count the application cover as PDF page 1.

Failure scenarios and exposure

1. Define the limits on untreated venting

Documented: PDF p. 60 says acid gas will be released unburned through the high-pressure flare when the thermal oxidizer is unavailable. Troubleshooting can occur before an orderly shutdown. The assessment assumes two outage events and 96 total hours per year. It uses that assumed duration in estimating the likelihood of odour-criterion exceedances. These modelling assumptions are not, by themselves, operating limits.

Why it matters: conclusions about how rarely an impact occurs depend on outage frequency and duration. A statement that shutdown follows unsuccessful troubleshooting does not specify a public, measurable time limit or exposure trigger.

Applicant explanation: temporary venting avoids emissions associated with unnecessary shutdowns and restarts. Maximum concentrations were modelled with venting throughout five years of weather, and the applicant considers those maxima conservative. The reported sulphur criteria are odour-based; the maxima are near the facility, not predictions for Britannia homes.

Request: publish and justify maximum troubleshooting duration, cumulative outage limits, monitoring and notification triggers, and the conditions requiring reduced throughput or shutdown. Show sensitivity to longer outages. Include the justification for excluding simultaneous high-sulphur feed and oxidizer failure, rather than treating that exclusion alone as proof of an unsafe design.

Application PDF p. 60, p. 149, p. 150, p. 151, p. 193 | TAR p. 12; TDR pp. 39-41; DMP p. 29

2. Close the abnormal-operation pollutant question

Documented: the updated volatile organic compound and polycyclic aromatic hydrocarbon screening presents normal and stabilizing-operation results. The oxidizer-trip assessment presents total reduced sulphur and hydrogen sulphide results. The notice separately lists volatile organic compound emissions during a trip. No updated standalone human-health risk assessment accompanies this application.

Why it matters: screening a working treatment system does not automatically establish the exposure implications of bypassing it. The consequential question is whether the earlier assessment or another conservative case actually bounds these releases.

Applicant explanation: the updated screening predicts concentrations well below its comparison criteria and generally below the earlier environmental assessment. It relies on that earlier health assessment. It is inaccurate to say benzene or all organic pollutants were simply ignored.

Request: identify the compound-specific evidence that bounds commissioning, process upsets and untreated venting, or assess those scenarios and explain protection of sensitive populations. Treat this as an unresolved coverage question, not established harmful exposure.

Application PDF p. 5, p. 112, p. 149, p. 243, p. 244, p. 245 | Notice table 2; TDR pp. 2, 39; DMP Appendix B pp. B-1 to B-3

Protection and ecological effects

3. Explain the response to boundary exceedances

Documented: the report predicts localized one-hour nitrogen-dioxide results above the BC objective in cases including marine emissions and background. The process-upset discussion reports 126.5 micrograms per cubic metre against 113, with exceedances extending roughly 500 metres northeast and southwest of the northern fenceline. Yet the report says a separate emission-reduction and management plan is not necessary.

Applicant explanation: the exceedances are localized, primarily associated with marine sources and background, and arise under conservative assumptions. Assessed community and sensitive-receptor results remain below the objective. Marine emissions are included in the assessment although the application describes vessels as outside this permit.

Request: identify who may use the affected areas, the responsible authorities, and the controls or response thresholds that address the predicted exceedances. Explain why the proposed approach is adequate. This is not evidence that residential concentrations exceed standards or that a permit offence has occurred.

Application PDF p. 82, p. 83, p. 92, p. 196 | TAR pp. 34-35, 44; DMP p. 32

4. Complete the monitoring plan before emissions

Documented: the receiving-environment programme is still being developed. The application describes existing provincial monitoring and facility instrumentation, including continuous monitoring on the thermal oxidizer. These are not a complete published community monitoring programme.

Request: publish the final locations, pollutants, baseline rationale, methods, quality assurance, reporting schedule, and action thresholds. Make commencement conditions and responsibilities clear. Independent operation or auditing and public access are proposed protections, not requirements established by this review.

Application PDF p. 61, p. 93, p. 94 | TAR pp. 13, 45-46

5. Act on the predicted effects to sensitive lichens

Documented: the detailed appendix reports exceedance of a 2 kg/ha/year nitrogen-deposition threshold across 10,934.3 hectares in the Application Case and 11,314.2 hectares in the Cumulative Case. It predicts changes to sensitive lichen groups and recommends monitoring. This is a threshold-exceedance area, not an area of proven ecosystem destruction.

Applicant explanation: background deposition is already close to the threshold. Small added amounts therefore create a large exceedance area. Predicted declines from baseline in lichen diversity indices are about 1-13% across most of the study area, varying by group; larger changes are predicted close to the facility. The appendix considers its conservative Level 0 assessment sufficient.

Request: require the recommended deposition and lichen monitoring, field verification where needed, and a defined response if effects exceed predictions. Use the detailed appendix rather than presenting the shorter TAR's 12-30% figure as a uniform project-caused loss.

Application PDF p. 86, p. 4097, p. 4122, p. 4136, p. 4141, p. 4142 | TAR p. 38; terrestrial appendix pp. iii, 18, 32, 37-38

What stays off the headline list

A shorter list is stronger only if it also records what was screened out. These topics can remain in the technical question bank without being called egregious deficiencies.

Old weather data or no direct local observations as model inputs: the report uses approved modelling methods and compares predicted with observed winds. Age or modelling configuration alone does not demonstrate materially wrong predictions. PDF pp. 223-225, 275-276.

Four sampling sites in two creeks: the aquatic assessment explains its study boundaries, uses existing water data and conservative deposition assumptions. I have not established that the site count changes the conclusions. PDF pp. 385-394, 428.

No updated standalone health assessment: relevant to issue 2, but not sufficient alone to establish an inadequate health assessment. The report includes a current health discussion and an updated organic-pollutant screening. PDF pp. 83-84, 112, 243-245.

Wildfire days removed from the particulate baseline: a real scope choice, but not proof of improper practice. Ask about smoke-event operating precautions if useful; do not headline it as a demonstrated modelling failure. PDF pp. 80, 120, 215.

Local residential coverage: absence of a community name from the sensitive-receptor table does not prove it was unmodelled. There is a large gridded receptor network and a health discussion mentioning Britannia. Request labelled coordinates and results. PDF pp. 83-84, 174-176.

Two technical checks worth expert attention

Release location: p. 60 says condensate-tank vapour vents locally, but its footnote assigns that stream to the flare for modelling; p. 66 describes it going to the flare. Reconcile the actual outlet and demonstrate that the model bounds it. The existence of inconsistent descriptions is clear; the size of any exposure error is not.

Short-term ship movements: the marine tables use loading emissions for hourly/daily calculations, including one tug, while annual estimates include manoeuvring and three tugs. Ask whether a separate short-term manoeuvring case was assessed or shown to be bounded. Tables alone do not establish the size or direction of a modelling error. PDF pp. 196-200.

Review coverage and limits

The complete 4,149-page PDF was obtained and its text extracted for screening. Of those pages, 3,608 (PDF pp. 485-4092) are a freshwater laboratory-results appendix. Narrative assessments, limitations, scenario definitions and relevant supporting tables were examined in depth; image-only pages received OCR and selected figures were inspected. This is a whole-package screening with targeted close reading, not a line-by-line audit of every laboratory value or map, an independent model rerun, or an expert certification. Other material issues may remain.

Source: Woodfibre LNG Project, Waste Discharge Authorization Permit Application for Air Emissions, October 2026. Main technical reports dated October 16, 2026; aquatic assessment dated October 20, 2026. Open the complete application. The shortlist concerns the submitted package; later plans or regulatory responses could resolve issues.