

NORTHERN TERRITORY CODE OF PRACTICE: ENVIRONMENT – ONSHORE PETROLEUM ACTIVITIES IN THE NORTHERN TERRITORY | CONSULTATION

Australian Energy Producers | 27 November 2024

Australian Energy Producers welcomes the opportunity to provide feedback on the Department of Lands, Planning and Environment (DLPE) draft Code of Practice: Environment Onshore Petroleum Activities in the Northern Territory (the Code).

Given the significant ongoing and future oil and gas activity in the Northern Territory (NT), and the economic and societal benefits this brings, the NT Government should be looking to implement a Code of Practice that encourages investment and activity in the NT oil and gas industry. Further, changes to the Code must be undertaken in a rigorous manner with appropriate transparency and oversight.

Australian Energy Producers has significant concerns with the draft Code in its current form, which risks unduly impacting oil and gas operations and investment in the NT. To address these concerns, it is recommended that an independent party, such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), be engaged to facilitate the review of the draft Code and to ensure that ‘*as low as reasonably practicable*’ (ALARP) principles are met based on sound scientific foundation.

Further, it is recommended that:

- A **dispensation process** should be included to allow operators to seek special consideration for alternative mandatory controls, where they can achieve equivalent outcomes.
- The **chemical risk assessment** should be revised to be more outcomes-focused and practical, including through the development of an approved chemicals register.
- **Ground water monitoring** should be fit-for-purpose, with operators allowed to design an outcomes-focused, site specific, risk-based monitoring program.
- **Produced water and waste water monitoring** requirements should be built on scientific and technical evidence and avoid being an undue burden on operators.
- The proposed **definitions of sensitive receptors** should be revised, as the current proposal risks impacting operators’ ability to conduct standard project operations.
- The Code should give further consideration to **development and production infrastructure**, to provide clarity to operators in future project phases.
- Requirements regarding the use of **synthetic based muds** needs to be detailed, and consideration needs to be given to allow the use of non-biodegradable drilling muds.
- **Bowties** should not be required for low consequence events.

Australian Energy Producers remains committed to working with the NT government to ensure the Code of Practice benefits all Territorians and industry stakeholders.

AUSTRALIAN ENERGY PRODUCERS’ RECOMMENDATIONS

1. **Independent review of the Code:** An independent party, such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), should be engaged to facilitate the review of the draft Code and to ensure that ALARP principles have been achieved based on sound scientific foundation. CSIRO were responsible for facilitating the development of the original Code, possess extensive knowledge of the industry and the recommendations set out by the Independent Scientific Inquiry into hydraulic fracturing in the NT (the Inquiry). They are therefore considered to be well placed to ensure the revised Code continues to be effective, reasonable, and defensible.

2. **The proposed Code format:** There appears to be duplication between the Environmental Management Plans (EMPs) and mandatory requirements. It is recommended these should be consolidated into mandatory requirements to reduce confusion. There are also existing requirements under the Petroleum (Environment) Regulations which outline what EMPs should contain.

3. **Scope of the Code:** The Code is currently focussed on exploration and appraisal, the Beetaloo Sub-basin, and unconventional resources. As the industry advances towards production, the Code needs to address the specific aspects of the development phase as to set minimum standards and to define what is considered ALARP and acceptable. The Code, to some extent, recognises the difference between resource types, with unconventional gas developments having a different risk profile to conventional assets. However, it is recommended this this differentiation is expanded, with grandfathering clauses to ensure existing assets in production are not adversely impacted.

4. **Dispensation:** The Code should include provisions to seek special consideration for alternative mandatory controls in extenuating circumstances, particularly for conventional assets or where local factors allow, as there may be situations where alternative approaches can achieve the same outcome. This is not designed to facilitate short cuts, but to allow adaptive change management to drive better operational and environmental outcomes (akin to section 3.5 of the current Code for Well Operations Management Plans).

5. **Groundwater monitoring requirements:** The proposed groundwater monitoring requirements have significantly increased in complexity and frequency and would therefore be difficult to implement. These monitoring requirements should be amended to allow operators to design their program according to the conceptual contaminant pathways and focus on the core objectives of the monitoring program. The proposed use of regional control bores is welcomed; however, the benefits of these proposed control bores are outweighed by an increase in impact bore monitoring frequency (resulting in no net improvement). Further, regional groundwater monitoring program requirements for production need defining, as well pad monitoring is unlikely to be practical or effective in a full-scale development scenario.

Likewise, the screening of monitoring bores (over the entire depth) is not possible in some geological scenarios (e.g., certain aquifers in the Beetaloo Sub-basin and Amadeus Basin can be very thick and deep (e.g., the Mereenie Sandstone and Palm Valley gas field)).

Further, requiring sampling of surface expressions of groundwater and groundwater-related culturally significant sites when no impact has been detected does not take into account:

- Traditional Owner consent.
- Logistical/safety challenges associated with accessing these sites.

6. **Flowback fluid, produced water, and wastewater monitoring requirements:** There is a significant increase in testing requirements for hydraulic fracturing (HF) flowback fluids in the draft Code without technical justification. No constituents in flowback fluids have been identified as hazardous to fauna. Further, testing HF stimulation fluid immediately before fracking is a new and onerous requirement (e.g., the HF fluid composition will vary considerably during the pumping phase for each stage and up to 70 stages of pumping per well are possible in the Beetaloo Sub-basin).

Wastewater monitoring requirements (e.g., daily monitoring of flowback quality) should be reconsidered as the current approach is not outcomes-based and introduces significant financial burden with limited benefit.

7. **Bowties:** While bowties are good visual tools for risk management and auditing purposes, they are complex and potentially burdensome and should be required only for high consequence risks.

8. **Definitions:** Several terms require greater definition, including: Contaminated land auditor, hazardous materials, sensitive vegetation, wastewater, well sites, and workovers (i.e., are sidetracks included as workover operations because well deepening is?).

The definition of wet season and dry season needs to be reconsidered. The current definition does not recognise differences in regional climate, with the definition of wet season more suited to Darwin than the Beetaloo Sub-basin or Amadeus Basin. Local rainfall data should be used to set the definitions of the seasons, like the new freeboard requirements. The current and draft Code requirements have resulted in most of the year being defined as 'wet season'.

9. **Chemical risk assessment and register:** The draft Code expands upon the current regulated risk assessments from chemicals used in hydraulic fracturing to cover all chemicals more broadly. Risks associated with chemicals are currently addressed through the Code, National Occupational Health and Safety legislation, Australian Standards, and EMPs. Chemical risk assessments have become an undue administrative burden for limited to no benefit and are not an effective or reasonable control. To reduce the administrative burden on operators and regulators, it is recommended that a register of approved chemicals be maintained by the government. This would increase the relevance of the chemical risk assessments, with the Department having more control over the use of higher risk chemicals.

10. **Surface disturbance and land clearing:** Operators should not be expected to exclude all infrastructure and associated operations from 1 in 100-year flood areas or riparian zones as this would unnecessarily halt exploration and development in the NT given the frequency of flooding within the various basins.

The draft Code restricts any petroleum infrastructure on a well site, as far as reasonably practical, from being visible from a major public road. This is not practical and disincentives operators and investment in the NT.

11. **Well construction and integrity:** It is not clear what criteria would be deemed acceptable in the case that secondary containment is not possible. The need for secondary containment should be site specific and risk-based.

The requirement for drilling mud to be 'biodegradable' is impracticable given many harmless substances within the mud are not biodegradable (e.g., salt) and have been extracted from the groundwater to 'make up' the mud.

Finally, Well Integrity (section 5.2.4) appears to be missing from this draft Code.

Yours sincerely,



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Australian Energy Producers