

INPEX – Ichthys Project Offshore Facility (Operation) KCI #100

Flaring Status Update

Document No: A781358

Item for: Decision

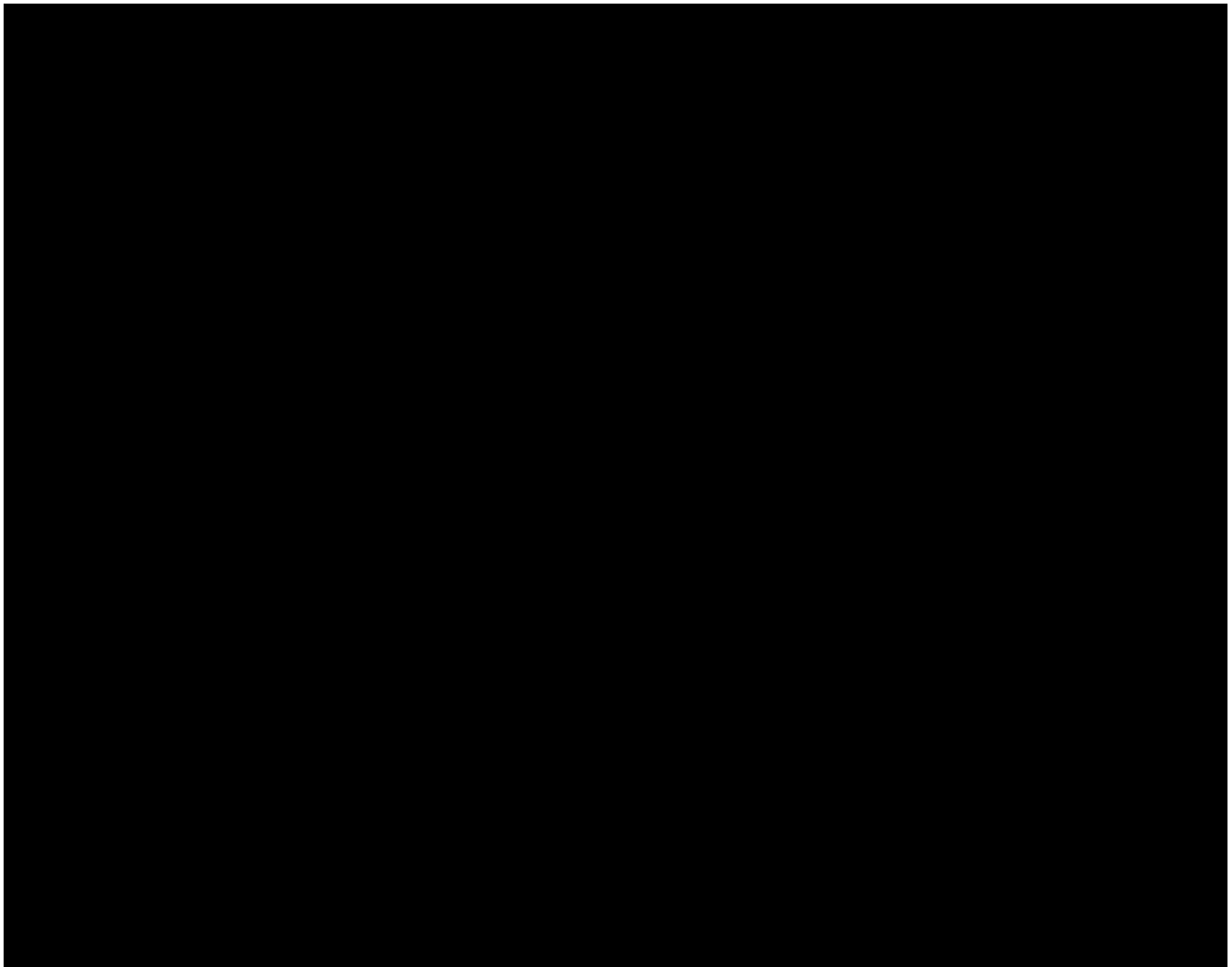
Meeting Date: 13 May 2021

Recommendation that you agree:

Key Points

- The INPEX 'Environmental Operations Team' has consistently demonstrated a willingness to proactively engage NOPSEMA on the flaring issue and has been transparent with regard all regulatory lines of enquiry. INPEX have implemented actions to resolve the commissioning issues beyond the requirements of any regulatory compliance measures to date.
- A recent compliance inspection undertaken indicates an improved reduction in flaring (RMS ID: 2109, 29 March 2021). Total annual flared gas from the offshore facilities has approximately halved from levels in July 2018 – June 2019 (499000 kScm³) to levels recorded in January – December 2020 (221000 kScm³).
- Latest intel confirms that the FPSO flash-gas compressor system (i.e. responsible for reducing all offshore flaring emissions by up to 70%) has been operating with >80% uptime in 2021. The CPF off-gas recovery compressor system is not presently operable.
- The 5-year EP revision is due to be submitted before December 2021. As of 3 May 2021, INPEX has already completed a draft revision of the 'Greenhouse Gas Emissions' section and requested early engagement with NOPSEMA for discussion of regulatory expectations.

Impact and Benefit



Background

- The in-force EP assumed that after the first 12 months of production (i.e. by 27 July 2019) all equipment would have completed commissioning and start-up procedures.
- The FPSO and CPF are designed for non-continuous operational flaring except during process upset events. Mitigation controls and associated environmental performance standards specified in the EP include the flash-gas compressor system, off-gas recovery system, waste heat recovery units, nitrogen removal systems, legislated emissions standards (e.g. Marine Orders - Part 97, MARPOL 73/78, the POTS Act), low sulphur content fuel oil and marine diesel, a flaring management plan, etc.
- There have been delays in commissioning key emission reduction technologies such as the flash-gas compressor system and off-gas recovery compressor system on the FPSO and CPF facilities, respectively.
- This has resulted in unplanned flaring on a continual basis until the emissions reduction packages are operable. Once all the packages are commissioned flaring will only occur during process upset conditions.

- Flaring has the potential to cause behavioural responses in light-sensitive marine fauna, cause localised changes to air quality and subsequent exposure of marine avifauna to air pollutants, and contribute to climate change.
- The EP includes a Flaring Management Plan with annual flaring targets. Forecasted monthly flaring targets are used to track actual operating performance. For the period of March to December 2020, actual flaring exceeded forecasted targets. For the period of January to February 2021, actual flaring was well below forecasted targets.
- In response to Recommendation 1960-2, a revised environmental risk assessment based on continuous flaring was undertaken by INPEX to determine if the risks and impacts were still being managed to levels which were acceptable and ALARP. The environmental risk assessment was collected for review as part of a recent follow-up compliance inspection (RMS ID: 2109, 29 March 2021). No changes to the management of flaring have been made in the EP. Additional processes have been implemented by Inpex to ensure critical equipment is commissioned as soon as practicable to reduce light and air emissions from flaring.

Consultation

- Discussed with [REDACTED].

Author(s) and date

- Compliance Committee member sponsoring the paper: [REDACTED].
- Author: [REDACTED]
- Date of paper finalised for Compliance Committee circulation: 10 May 2021.

Attachments

Key NOPSEMA 'Environment and Decommissioning' division compliance activities undertaken in relation to INPEX offshore facilities 'flaring' management include:

- ELT endorsed biannual petroleum environment inspection cycle for INPEX Ichthys Operations since 2018 (including 'Emissions and Discharges Management – Flaring' scope).
- Seismic and Production Operations (SPO) team 'Improvement Focus Area – Industry wide flaring intelligence gathering'.
- Problem centric strategic projects - Greenhouse Gas and Climate Change Project (Environment Division).
- Ongoing quarterly titleholder liaison meetings with INPEX to provide progress updates.
- Awareness to Compliance Committee (Key Compliance Issue #100 - Environmental pollution: flaring and plastics - Ichthys Project Offshore Facility).



Table 1: [Redacted]

[Redacted Table Content]

