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Contact Email:

INPEX Operations Australia Pty Ltd 100 St Georges Terrace PERTH WESTERN AUSTRALIA 6000

Dear

WRITTEN ADVICE - ICHTHYS PROJECT OFFSHORE FACILITY (OPERATION) - AIR EMISSIONS MANAGEMENT

I refer to the inspection by NOPSEMA Inspectors and and for the Ichthys Project Offshore Facility (Operation) activity on 29-30 March 2021.

As a result of the inspection, NOPSEMA Inspectors formed the view that management of emissions to air associated with the operational activity may not have been compliant with the accepted Ichthys Project Offshore Facility (Operation) environment plan (EP) as required by Regulation 7 of the OPGGS (Environment) Regulations 2009 (Environment Regulations).

The reasons that led the inspectors to form this view include:

- 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
 accepted 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. Specifically, the accepted 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.
- This has resulted in unplanned flaring on a continual basis when the emissions reduction packages are inoperable. For example, the total annual flared gas from the offshore facilities was approximately 500,000 kScm³ in July 2018 June 2019, and in excess of 200,000 kScm³ in January December 2020.
- Although INPEX have demonstrated that additional processes and resources have been implemented to
 ensure critical equipment is commissioned as soon as practicable, the ongoing 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.



For these reasons the operational activity may not have been compliant with the environmental performance outcome for air emissions management specified in the accepted EP.

NOPSEMA has considered the above matters and has determined that the appropriate response to this possible non-compliance is to clarify NOPSEMA's expectations regarding INPEX's management of air emissions from the Ichthys Project Offshore Facility (Operation) activity.

In accordance with regulation 19(1), a proposed 5-year revision of the Ichthys Project Offshore Facility (Operation) EP must be submitted to NOPSEMA at least 14 days before 8 December 2021. To address the environmental management of air emissions (GHG and atmospheric) from the Ichthys Project Offshore Facility in a timely manner, NOPSEMA expects INPEX to submit a proposed revision earlier and no later than **90 days** from the date of this letter.

NOPSEMA expects the EP revision to address:

- Historical air emission levels (GHG and atmospheric) and a prediction of air emissions levels from all facility point sources over the life of the EP and project based on credible emissions estimation methods.
- Defined acceptable levels for air emissions based on compliance with relevant requirements, company policy/ambitions, principles of ESD, international best practice and performance benchmarking.
- 3. Predictions of air emissions impacts that recognises features of the Australian environment subject to climate change, contribution of GHG emissions from the activity to climate change and impacts on sensitive receptors within the airshed.
- 4. Consideration of control measures to avoid, reduce and offset air emissions from the activity including, but not limited to:
 - a. Adoption of best practice low emissions and renewable technologies, carbon sequestration and controls for avoiding emissions.
 - Implementing a GHG Environmental Management System/Plan and an Energy Efficiency
 Management System aligned with ISO 14001 and ISO 50001, considering methane abatement
 technologies outlined in IEA's Methane Tracker 2021 and flaring controls contained in World
 Bank IFC EHS Guidance (2015); and,
 - c. Consideration of offsets based on offset integrity principles and accountable methods.
- 5. Consideration of measures to continuously reduce air emissions to ALARP over the life of the EP and project such as a framework for considering changes to technology and policy over time, revising emissions targets, implementing an abatement/improvement plan, and reviewing performance.
- 6. Commitments to monitor and report on performance to ensure emissions are reduced over time and EPO and EPS are met.

INPEX is invited to engage with NOPSEMA to ensure expectations for the management air emissions in the proposed EP revision are understood prior to submission.

In submitting the 5-year revision, INPEX should have regard to relevant policies, guidelines and information paper resources published on the NOPSEMA website.



cc:

While this written advice does not constitute an enforcement action, it may be taken into consideration when determining any future enforcement action for similar contraventions. If these matters are not satisfactorily addressed, NOPSEMA may request a proposed revision of the EP for the activity under regulation 18 of the Environment Regulations.

Please respond to NOPSEMA within **7 days** of receiving this letter with INPEX's proposed actions to address the matters raised above.

Should you have any queries regarding the above please contact me on .
Yours sincerely
01 June 2021

INPEX Operations Australia

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