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**CRIB POINT GAS IMPORT JETTY AND PIPELINE PROJECT
ICA HEARING EVIDENCE PRESENTATION**

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INTRODUCTION

SLR Consulting Australia Pty Ltd

Noise and Vibration – Principal Consultant and Melbourne Manager

Jim Antonopoulos

- BAppSc (Physics), M.A.A.S., 24 years acoustical consulting experience
- Ongoing technical peer review services (EES noise and vibration reports) on behalf of Mornington Peninsula Shire Council in relation to this Project since December 2018
- Operational and Construction Noise Impacts

Primarily review of EES Technical Report H *Noise and vibration impact assessment*, AECOM

KEY ISSUES

- **Operational Noise Modelling and Assessment**
- **Operational Noise Cumulative Impacts**
- **Construction Noise**

EES Operational Noise Modelling Assessment

- Assessment shows compliance with no margin.
- Anomalies in sound power levels presented in report and for the LNG Carrier. Corrected data subsequently provided in AECOM responses. Noise model could not be checked independently.
- A high reliance on assumed noise attenuators on LNG Carriers (and the FSRU).
- Model sensitivity check:
 - ISO 9613 prediction algorithm
 - Limitations over water and for elevated sources
 - My own indicative model of site and single stack noise emission shows:
 - 4 to 8 dB higher noise levels predicted with other commonly used algorithm.
 - 5 dBA higher noise levels predicted with ISO 9613 algorithm when implementing 'wind farm' based corrections for elevated sources.

Implications: Project noise levels could be higher than predicted and more noise control could be required than anticipated

EES Operational Noise Modelling Assessment

- EPRs are being further developed to manage risks of non compliance. I am providing further comments to address the following EPR's:
 - Operations Noise Management NV10A:
 - Recommend additional item / requirement for ongoing compliance monitoring of the facility to ensure the range of LNG carriers are captured appropriately:
A noise monitoring program to be implemented for ongoing compliance monitoring of the facility.
 - Notification for Mooring of LNG carriers NV12:
 - Concerned that this allows non compliant operation of the facility with no formal restrictions / time constraints on addressing this. Notification of residents does not address long term or ongoing impacts.

EES Operational Noise Modelling Assessment

- Post commissioning measurements NV13:
 - Recommend additional item / requirement for ongoing compliance monitoring of the facility to ensure the range of LNG carriers are captured appropriately:

*Noise produced by the Gas Import Facility and other commercial operations at Crib Point will be measured within six months of the beginning of commercial operation **and during ongoing operations (program to be developed in consultation with EPA as per NV10A)** to confirm ongoing compliance with the Recommended Maximum Levels. Noise measurements will be undertaken in accordance with current Victorian EPA requirements to verify compliance with the Recommended Maximum Levels applied at 132 The Esplanade Crib Point, 43 Disney Street Crib Point and 103 The Esplanade Crib Point.*

EES Operational Noise Modelling Assessment

- Post commissioning measurements NV13:
 - Recommend modified wording to ensure appropriate response times to non compliance:

*Onsite noise mitigation (administrative, operating or engineering controls) will be undertaken **over a timeframe as agreed by EPA** if the measured noise levels demonstrate that the Recommended Maximum Levels are exceeded.*

- The last paragraph in NV13 (providing building treatments at the dwellings) does not align with the requirements of EPA noise policies. This item allows formal non compliance to be adopted if the noise control works are deemed non feasible by the operator. If a resident does not consent to these treatments this cannot be implemented. The responsibility of compliance is on the operator to control noise at their facility. This should either be deleted or at the very least the following added.

This option would only be viable with the express consent of a resident and in consultation with EPA.

EES Operational Noise Modelling Assessment

- Noise to Beaches / Recreational Areas
 - Operational noise 45-52 dBA
 - No formal guidance / criteria
 - Will be audible and of different character to natural environment
 - Extent and duration of existing industrial noise from existing jetty operations also relevant.

Cumulative Noise Impacts - Operational

- No formal allowance incorporated in the assessment for existing noise from United Petroleum.
- Existing United Petroleum facility could be at or above noise limits based on limited tests.
- Marginal predicted compliance of new facility introduces risk
- Consultation with EPA & existing operators is proposed to address above and included in EPR's.

Construction Noise

- The EES report identified significant exceedances of noise criteria particularly during evening operations (Saturday and Sunday)
- Noise Management is proposed with some (but not full) implementation of the NSW Construction Noise Guidelines. More formal adoption of the procedures of NSW Construction Noise Guidelines would represent best practice.
- More conservative approach may be necessary for rural areas with lower background noise environments for unavoidable night works target.
- EPR's are being modified and can be developed appropriately to address Construction Noise management.