

Assessment conclusions

Assessment ID [6773](#)

Duty holder: Santos NA Barossa Pty Ltd
 Facility/Activity: Barossa Development Drilling and Completions
 Facility/Activity type: Petroleum Activity
 Assessment type: Environment Plan (Development)

Conclusions

Submission number

1	Acceptance criteria	Team conclusion	Outcome
	Environment Plan is appropriate for nature and scale of activity	<p>The EP is appropriate to the nature and scale of the activity because:</p> <ul style="list-style-type: none"> The description of the activity is suitable, it is consistent with the requirements of EP content requirements as outlined in Regulation 13(1). The description of the environment is thorough, appropriately considers relevant values and sensitivities (including matters protected under Part 3 of the EPBC Act, and matters of NES) and is consistent with the EP content requirements of Reg 13(2) & 13(3). The EMBA is suitably understood through modelling of worst-case spill scenarios consistent with exposure values in NOPSEMA Bulletin #1. The impact and risk assessment is commensurate to magnitude of the hazards related to the activity, and the level of analysis and evaluation is proportionate to the nature and scale of the activity. The rigour of the environmental assessment meets the requirements of Reg 13(5) - as further outlined for acceptability and ALARP evaluation assessments that follow. The assessment includes appropriate consideration of impacts and risks from the activity, including from emergency conditions as per Reg 13(6). Suitable control measures have been included as outlined in the assessment for acceptability, ALARP, EPSs and EPOs below. Those controls have been addressed via the inclusion of EPOs, EPS and MC as per Reg 13(7). Relevant person consultation has been incorporated meeting the EP content requirements as per Reg 16(b), and the requirements of Reg 11A - as further outlined for Reg 10A(g) assessment below. Legislative requirements as they relate to the activity are outlined in Appendix B of the EP (epdf 402). How legislation is relevant to the activity is defined, along with reference to the relevant sections of the EP is provided. These sections describe how the requirements of the relevant requirements are met, consistent with the requirements of Reg 13(4). 	Recommend
	Environment Plan demonstrates that the impacts and risks will be reduced to ALARP	<p>The EP has demonstrated that the environmental impacts and risks of the activity will be reduced to ALARP because:</p> <ul style="list-style-type: none"> For all risk aspects evaluated in s6 (planned events) and s7(unplanned events) of the EP, an ALARP evaluation has been included that lists additional potential control measures and justifies why standard and additional control measures are either adopted or rejected. The submission has applied the risk assessment process appropriately for planned aspects of the activity in particular for higher order hazards associated with the activity such as drilling discharges, the control measures adopted seem reasonable for reducing impacts to the environment from the activity. Unplanned aspects of the activity are described in Section 7 and include aspects such as dropped objects, IMS, marine fauna interactions, and spill scenarios. In relation to spill scenarios see spill topics. These aspects are appropriately described and evaluated to give confidence that the controls selected are appropriate and that risk is reduced to ALARP. Control measures are provided in sufficient detail to demonstrate they will be effective in reducing the impacts/risks for the duration of the activity. The approach used for the analysis for the adoption or exclusion of control measures is sound. The evaluation of the adoption of control measures is sound and the ALARP process described in S5 has been followed. The level of detail in the ALARP assessment is 	Recommend

	<p>commensurate to the nature and scale of the potential impact or risk (notwithstanding the matters requiring additional information).</p> <p>&middledot; The submission considers important information gathered from the consultation process when demonstrating impacts and risks are ALARP - such as requirements for notifications, for example. Specifically, each impact and risk evaluated in s6 and s7 of the EP (i.e. demonstration of ALARTP tables) makes a clear link to any stakeholder concerns and how these have been addressed.</p>	
Environment Plan demonstrates that impacts and risks will be of an acceptable level	<p>The EP has demonstrated that the environmental impacts and risks of the activity will be of an acceptable level because:</p> <p>&middledot; The evaluation methods selected have been followed and applied thoroughly and when considering the information presented in the EP with the evaluation and controls, justifiable conclusions can be reached regarding acceptable levels of risk/impact.</p> <p>&middledot; Acceptable levels are evaluated using information that is considered appropriate including relevant legislation, international agreements and conventions, guidelines and codes of practice including recovery plans, conservation advice and marine park zoning objectives, as well as Santos Environmental Management Policy, information provided by internal context and external stakeholder expectations and the principles of ESD. The assessment of each impact and risk considers these elements and makes explicit reference to ESD.</p> <p>&middledot; Key documents (such as recovery plans, conservation advices and management plans) are outlined in Table 3.8 and include consideration for relevant receptors and which risk aspect applies. These have been considered in the subsequent environmental assessment sections within section 6&7 for planned/unplanned aspects.</p> <p>&middledot; Uncertainty has been addressed in the evaluation impacts and risks from spill scenarios by use of modelling and recognition of assumptions made, and scalability of response options considered. In relation to planned aspects of the activity, predictions have been made in relation to risks to the environment that are generally suitably conservative.</p> <p>&middledot; The submission provides an appropriate evaluation of impacts and risks for the activity, and provides justifiable conclusions that these will be managed to an acceptable level.</p>	Recommend
Environment Plan provides for appropriate performance outcomes, standards and measurement criteria	<p>The EP provides for appropriate performance outcomes, standards and measurement criteria, because:</p> <ul style="list-style-type: none"> - Table 8-1 summarises all the relevant EPO's for the activity. Eight EPOs are identified in this section and provide suitable linkage to the range of acceptable levels identified throughout the individual environmental assessments for risk aspects of the activity described in s6 and s7 of the EP. - EPOs address all of the key risk aspects presented in the submission, and address identified impacts and risks appropriately given the nature and scale and short duration of the activity. - The EPOs in the submission reflect levels of performance that are required, and logically flow from the environmental assessments provided for the various risk aspects. - The EPSs provided in Table 8.2 of the EP are clearly detailed and able to be matched to the relevant control measures described. Overall, the EPSs provide a reasonable level of detail to secure ongoing compliance throughout the activity. - Table 8.2 of the EP provides clearly stated measurement criteria. - The EPOs, EPs and MC are linked and complement each other. 	Recommend
Environment Plan includes appropriate implementation strategy and monitoring, recording and reporting arrangements	<p>The EP includes an appropriate implementation strategy and monitoring, recording and reporting arrangements because:</p> <ul style="list-style-type: none"> - Content requirements of Regulation 14 are included - Reg14(10): The content requirements under Regulation 14 are evident and appropriately addressed given the nature and scale of the activity. ?The implementation strategy complies with the Act, regulations and other legislative requirements. - Evidence that all impacts and risks will continue to be reduced to ALARP and acceptable - Reg 14(1), Reg 14(3), Reg 14(6): Section 8 of the EP outlines the implementation strategy, including the environmental management system. Section 8.3 states that to ensure that environmental risks and impacts remain ALARP and of an acceptable level during the Activity hazards will continue to be identified, assessed and controlled as described in sections 8.10 - Document/Record Management/MOC and Reviews and 8.11 - Audits and Inspections. The implementation strategy and 	Recommend

	<p>environmental management system provide a range of systems and processes to ensure that impacts and risks will continue to be managed to ALARP and acceptable levels</p> <ul style="list-style-type: none"> - Management of change, knowledge and learning processes are included - Reg 14(3): Management of change is considered in section 8.10.2 of the EP. The MOC process includes consideration for further consultation depending on the nature and scale of the change. The MoC process also allows for the assessment of new information that may become available after EP acceptance, such as new management plans for Australian marine parks, new recovery plans or conservation advice for species, and changes to the EPBC PMST results. Accepted MoCs become part of the in-force EP or OPEP and are tracked on a register and made available on the Santos intranet. The MOC process is well described and supported by Figure 8.1. Section 8.11.4 provides a reasonable description of Santos' continuous improvement process. - The titleholder's environmental management system is effective Reg 14(1): Includes an implementation strategy (S8). Section 8.1 describes that the Santos' EMS is a framework of policies, standards, processes, procedures, tools and control measures and specifically states that the EMS ensures control measures in the EP continue to be effective and that appropriate monitoring is in place (s8.9.2 & Table 8.5) to determine whether levels of performance are being met. - Appropriate training and competencies - Reg 14(4) and Reg 14(5): Workforce training and competency is covered in section 8.5 and include activity inductions, and training and competency. Qualifications and training records will be sampled before and/or during an activity. All personnel on the MODU and support vessels will complete an induction that will include a component addressing their EP responsibilities (S8.6.1). Chain of command as well as roles and responsibilities are appropriately addressed in S8.6. Overall, appropriate training to ensure that all employees and contractors have the appropriate competencies is committed to. - Appropriate Oil Pollution Emergency Plan - Regs 14(8), 14(8AA), 14(8A), 14(8B), 14(8C), 14(8D), 14(8E): An appropriate OPEP has been provided that includes arrangements that are suitable given the spill scenarios presented, that has addressed the EP content requirements. As per 14(8)(D), an OSMP is included as Section 14 and Appendix J of OPEP. - Monitoring, recording and reporting arrangements are adequate - Reg 14(2), Reg 14(6), Reg 14(7): Reporting arrangements are described in s8.9 and Regulatory, other notification and compliance reporting requirements are summarised in Table 8-4. It is noted that while s8.9.2 (monitoring and recording of emissions and discharges) and Table 8-5 is presented at a broad level, it is clear from the control measures and performance standards in Table 8.2 that appropriate monitoring is in place for planned emissions. - Audit, review and non-conformance management is included - Reg 14(6): Section 8.11.1, 8.11.2 and 8.11.3 of the EP addresses reviews, audits and inspections. Non conformance management (section 8.11.3) will be entered into an incident management system (HSE Toolbox) and assigned corrective actions, time frames and responsible persons. - Ongoing consultation arrangements are in place - Reg 14(9): Ongoing consultation is described in Section 4.5, 4.6 and 4.7 of the EP. This includes a process for identifying new stakeholders, sending them appropriate information and notifications as necessary. Quarterly consultation updates are also provided. The ongoing consultation, as required by regulation 14(9) is considered appropriate. 	
Environment Plan demonstrates appropriate level of consultation	<p>The EP has demonstrated that the consultation process followed and the measures adopted because of the consultations are appropriate because:</p> <ul style="list-style-type: none"> &middot; The EP demonstrates that effective consultation has taken place, with accurate information provided to stakeholders. Relevant persons have been appropriately identified in accordance with Reg11A, with Table 4.1 providing a description of how stakeholders are considered 'relevant persons' for the proposed activity. Their functions, interests and activities are defined in s4.2. &middot; Information gathered through consultation is included in the EP &middot; Objections and claims have been resolved as far as reasonably practicable - with Table 4.2 summarising feedback and response. &middot; The report on consultation (s4 of the EP) is in line with the content requirements - it includes the consultation process undertaken, how the TH has identified relevant persons, the name of the relevant person consulted, a brief description of their functions, interests and activities, the dates the consultation occurred, the method of consultation, a summary of each response made by a relevant person received during the preparation of the EP and an assessment of the merits of 	Recommend

	each specific objection or claim with a response or proposed response.	
Environment Plan complies with the Act and regulations	<p>The EP complies with the Act and Regulations because: It is consistent with the principles of ESD: The risk assessment process (s5.6) highlights that when evaluating the impact and risk acceptability it will consider whether the assessment and management of risks have addressed the principles of ESD. This is then followed through in the impact and risk assessments in s6 and s7 of the EP, where individual acceptability evaluations stated risks and impacts are being managed in a way that are consistent with the principles of ecological sustainable development. These are simple high level repeated statements without specific validation. However, given the object of the Env Regulations is to ensure that petroleum activities are carried out in a manner consistent with the principles of ESD, this is reasonable. Content requirements of Regulation 13-16 are included. EP content requirements not described elsewhere above:</p> <ol style="list-style-type: none"> 1. 11(2B) An EP summary statement has been included in the EP as required by NOPSEMA policy at page 15. 2. 11A /16(b) - consultation is described in the EP in S4 and summary considering claims and responses is provided. sensitive info report also provided separately, and report on consultation and full text is provided in EP and the sensitive information report. 3. Reg 15(1) (2) (3): Details of the titleholder are provided on page 19 including the titleholders nominated liaison person, and commitment to notify NOPSEMA in the event of changes. 4. Reg 16(a): The titleholders Environment Policy is provided at page 333 5. 16(c) - reportable incidents - these are outlined on page 310 and include IMS introduction, hydrocarbon releases, and death or injury to marine fauna. Table 8-4 summarises activity notification and reporting requirements for relevant State and Commonwealth regulatory agencies, DFAT (in the event of a spill entering international waters), DAWE, AMSA , in accordance with the requirements under Regulation 29 & 30. Notifications will also be made to 'identified relevant' commercial fishers. <p>Other commitments of the Act are met - S572 removal of infrastructure: Upon MODU departure, anchors will be retrieved to the MODU and/or vessels. If well is P&A'd, well casing and conductor above seabed will be recovered. There is no other mention of other equipment being left on the seabed, in keeping with the nature of the activity. The requirements of S572 are therefore met. NOPSEMA is reasonably satisfied that, in accordance with regulation 5G of the Environment Regulations, and at the time of making the recommendation to accept the EP, the titleholder has demonstrated it has maintained financial assurance in compliance with subsection 571(2) of the OPGGS Act in relation to the activity, and that the compliance is in a form that is acceptable to NOPSEMA</p>	Recommend
Environment Plan does not involve the activity or part of the activity being undertaken in any part of a declared World Heritage property	The EP does not include an activity or part of an activity, other than arrangements for environmental monitoring or for responding to an emergency, being undertaken in any part of a declared World Heritage property	Recommend
Commonwealth Environment Program		Result
World Heritage properties		Relevant requirements met
National Heritage places		Relevant requirements met
Ramsar wetlands		Relevant requirements met
Listed threatened species and communities		Relevant requirements met
Listed migratory species		Relevant requirements met
Commonwealth marine area		Relevant requirements met
RoN decision	Decision reason	RoN
Accepted	Based on the available information and my review of the findings of the assessment team and their recommendations above, I am reasonably satisfied that the environment	

	<p>plan meets the criteria set out in regulation 10A.</p> <p>Based on the available information, I am reasonably satisfied that the titleholder complies with financial assurance requirements of the Act (subsection 571(2)) in relation to the petroleum activity. Further, I am reasonably satisfied that the compliance is in a form that is acceptable to NOPSEMA.</p> <p>The assessment has considered indirect greenhouse gas (GHG) emissions in the context of the ‘indirect consequences’ of an action: Section 527E of the EPBC Act Policy Statement; and has had regard to this matter in the EP assessment findings. I note Santos’ submission that the drilling and completions activities the subject of this EP do not facilitate to a major extent natural gas consumption/combustion and that therefore this petroleum activity is not a substantial cause of any associated scope 3 greenhouse gas emissions. In particular, I note that:</p> <ul style="list-style-type: none"> - No natural gas is recovered as a result of the drilling and completions activities - Further approvals are required prior to extraction or production of gas being permitted to occur, including a production operations EP - Infrastructure is not currently in place for the extraction or production of gas <p>I have considered Scope 1 GHG emissions (there are no Scope 2 emissions for this activity) and associated impacts to the environment through climate change and had regard to the Australian Government’s GHG emissions reduction commitments under the Paris Agreement.</p>	
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