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Ms Alice Smith
Environmental Planning Officer – Mining Projects
Department of Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Ms Smith

RE: Heritage Council comments on Environmental Assessment for the Liddell Coal Operation Modification DA 305-11-01.

Reference is made to your emails requesting any comment the Heritage Council may have on the Environmental Assessment (EA) undertaken for the proposed modification to the Liddell Coal Operations (DA 305-11-01).

It is noted that the proposed works involve an extension of the existing Entrance Pit and South Pit to the south east and an extension of mine life until 2028 but no changes are proposed to the approved annual production levels, operating hours or mining methods and equipment.

However, the EA (and the Aboriginal and Historic Heritage Assessment listed as Appendix J) details that the extension of the South Pit may have adverse impacts on the State Heritage Listed site known as the Chain of Ponds Hotel and Outbuildings (SHR No. 00242). This complex, which is made up of three 1840s stone and brick buildings, is situated on the other side of the Old New England Highway on land owned by Coal & Allied adjacent to the Liddell Coal Operation proposed South Pit extension. At its closest, the South Pit will be located within 65m of the Chain of Ponds Complex (Section 7.7.4 – page 169).

The potential impacts to the Chain of Ponds Complex from the extension of the south pit include impacts to the buildings stabilisation from blasting vibrations and damage from flyrock.

Due to the potential impacts to this highly significant complex of buildings, Liddell Coal commissioned an investigation of blast vibration vulnerability for the Chain of Ponds Inn by Bill Jordan and Associates. This report (chapter 7) recommended a series of mitigation measures to ensure that the south pit blasting would not impact on the complex which include:

- Blast design to ensure that vibration and overpressure levels remain below 50mm/s and 150dBI at the Inn;

- Blast design to incorporate consideration of the natural frequency of the buildings;
- The buildings behaviour to ground vibrations and overpressure is progressively monitored as blasting comes closer to allow for adjustment to blast design as required and
- Certain elements of the buildings identified in the structure assessment are stabilised to prevent damaging movements, subject to future structural design.

A Flyrock Impact Assessment was included as Appendix P to the EA which recommended that all blasts be undertaken with the free face pointing away from the Chain of Ponds Inn.

It is noted that the proposed stabilisation works would be undertaken by Liddell would and consist of:

1. support for the front verandah with scaffold falsework – all attachments would be with straps or ties, not fasteners;
2. Wrap the chimney of Building C in pallet-wrapping plastic and timber cribbing and strapping. The chimney would also be supported with external counter-weighted scaffold tower with cantilevered support for the chimney, and internal falsework will be installed beneath the base of the chimney.
3. Support the chimneys on Building A. This may be possible using pre-tensioned ties rather than external scaffolding, after further investigation and detailed design.
4. Support any vulnerable walls with propped or tied timbers. Further design of measures required will be subject to progressive monitoring results and subsequent design.

The results of the Bill Jordan assessment were then used by Enviro Strata Consulting to develop a blast management strategy for the complex to ensure that the blasting within the south pit extension area could be undertaken within the parameters recommended by Bill Jordan and Associates and that the complex was not impacted by flyrock.

Accordingly, the Environmental Assessment and its relevant Appendices have been considered and the following comments are provided:

- A. There is no evidence in the EA that the owners of the Chain of Ponds Complex, Coal & Allied, would agree to the proposed building stabilisation measures. **Consultation outlining Coal & Allied agreement to this mitigation measure must be included in the EA.**
- B. There is no timeframe for the building stabilisation measures. No time is given for when they will be erected and no timeline provided for how long they will be used. **This should be determined and included in the EA so that the potential impacts of this stabilisation measure on the buildings can be assessed.**
- C. The EA contains no maintenance plan for the structural improvements should the building stabilisation measures are required in the medium to long term. **This should be included.**
- D. If (despite the mitigation measures proposed) the blasting from the South Pit does damage the Chain of Ponds Complex, there are no measures outlined to 'make good' these impacts. **This should be considered and included in the EA.**
- E. Draft Statement of Commitment 18 for Non-Indigenous Heritage states that a suitably qualified person will be engaged to monitor the condition of the Chain of Ponds Inn. It is considered that this person must be a suitably qualified structural

engineer with detailed knowledge and experience in monitoring historic stone buildings. **This draft Statement of Commitment should be changed to reflect this.**

Apart from the information highlighted in points A-E, the proposed mitigation strategy is considered adequate in the short term to protect the Chain of Ponds Complex. Longer term measures will need to be considered and included in the EA to ensure that this significant complex of buildings remains standing and undamaged into the future.

If you have any questions regarding the above advice, please feel free to contact Katrina Stankowski at Katrina.Stankowski@heritage.nsw.gov.au.

Yours sincerely



10/10/2013

Vincent Sicari
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As Delegate of the NSW Heritage Council