

21st August 1998

Manager,
Environmental Impact Assessment Branch
Planning SA, 136 North Tce, Adelaide SA 5000

Re: Public Submission on the proposed development of the Beverley uranium mine

AND

RE: Public representation and submission on the application for a mining lease by Heathgate Resources for the proposed Beverley uranium mine

The Australian Conservation Foundation (ACF) lodge this public submission to be taken into account by the Commonwealth and SA Governments in assessment of the Beverley uranium mine proposal; and by the SA Government in determining the application for a mining lease under Sec.35 of the *SA Mining Act 1971* and Part 5 of the *Native Title (South Australia) Act 1994* and the regulations thereunder, to which the ACF and the signatory herein are an 'interested member of the public'.

Subject to the withdrawal by the SA Minister for Resources of the extension of one week granted to the ACF by the Manager, Environmental Impact Assessment Branch of Planning SA, this submission is a brief of key concerns.

The ACF are a membership based non-profit environment organisation to achieve an ecologically sustainable Australian society, to which this project proposal is anathema. We find that in the public interest and under existing legal arrangements Government(s) have an obligation to reject the proposal as presented in the draft Environmental Impact Statement (dEIS) on a range of grounds, including the those listed below (we also note that the document fails to acknowledge that it is formally a draft not a 'main report').

The mining lease application fails to comply with the requirements of the *Mining Act 1971* Regulation 35 1(L) on the basis of the grounds listed below and by failure to present proposed measures to rehabilitate groundwater, a requirement in remediation of damage to land that may result from the mining operations. The only 'remediation' proposed by the proponent in their mining lease application is that presented in the dEIS which deliberately fails to provide for rehabilitation of effected and all potentially affected groundwater bodies, and does not satisfy the obligations on the SA Government in considering approval of the application. Further, the information provided by the proponent fails to show with reasonable accuracy the requirements of Regulation 35 2.(a) and (b).

Through this submission the ACF cite other submissions made on the dEIS as supporting evidence to the ACF submission, and two documents (part of the second is included herein as an Appendix) they are to be legally addressed by Government(s) in considering the ACF submission, including consideration of the mining lease application.

1. Uranium mining compromises ESD principles

- 2. Radiation release from the project poses an unacceptable health risk**
- 3. Proponent demonstrates an inadequate knowledge of the groundwater system**
- 4. Project fails to provide for rehabilitation of groundwater and contravenes standards set in the USA for ISL uranium mining**
- 5. Proponent misrepresents the resource and natural values of the Beverley aquifer**
- 6. Unacceptable disposal of liquid waste(s) to groundwater, and failure to present Alternatives as required by the dEIS process**
- 7. Sulphuric acid ISL - an unacceptable technology**
- 8. Inadequate information presented in the dEIS to describe or assess the project, and failure to report information on the 'trial' mine operations**
- 9. Demonstrated failure to comply with ALARA requirements and suppression of knowledge of a radioactive liquid leak at the trial mine**
- 10. Trial mine operations should be closed and the proponent ordered to rehabilitate the site and the groundwater**
- 11. Contravention of the Commonwealth and SA Native Title Act(s)**
- 12. Contravention of the SA Aboriginal Heritage Act and the proponents illegal exclusion from the dEIS of obligations to Aboriginal Heritage law and protection**
- 13. Lack of provision for a full rehabilitation bond, and the economic unviability of the project when subject to full rehabilitation and to a full rehabilitation bond**

Appendix: Recommended outline for site-specific *in situ* leach facility reclamation and stabilisation cost estimates (US Nuclear Regulatory Commission, October 1997)

1. Uranium mining compromises ESD principles

All Australian Governments are signatories to the ESD principles, uranium mining compromises the needs of future generations through the waste resultant from uranium mining; the intractable nuclear waste which is the end product of the use of Australia's exported uranium to which we bear responsibility; and the risk to and damage to health and the environment from radiation released through-out operations of and potential accidents of the nuclear fuel cycle.

2. Radiation release from the project poses an unacceptable health risk

There is no safe level of exposure to ionising radiation. The proponent fails to adequately address and present the levels of radiation workers and the public have been exposed to through the trial mine operations, and are projected to be exposed to in the proposed commercial mine operations (refer to the submission by Louise Wren).

The nominated estimate of project radon emissions of 100 GBq/day (“Radiation Monitoring and Estimates” dEIS Supporting Document by Mark Sonter 1998) represents:

Firstly: an unacceptable impact on worker, public and environmental health; and

Secondly: a contravention of the dEIS process requirements as the proponent fails to present estimates of potential health and environmental impacts from this radiation emission for evaluation and assessment of the proposal (again refer to Louise Wren).

3. Proponent demonstrates an inadequate knowledge of the groundwater system

Requirements of the EIS process are not satisfied by the level of knowledge of the groundwater system, and particularly of the Beverley aquifer, presented by the proponent (refer to the submission by Gavin Mudd). In this case the precautionary principle requires that the proposed operations not proceed.

The proponent does not present or know the geographic course of the Beverley aquifer some 500 metres north or south of the company’s retention lease area. And can not present information on the actual or potential connectivity of this aquifer to other groundwater bodies off site, or on potential impact on other bodies of transferred pollution introduced to, or mobilised within, the Beverley aquifer by the ISL operations and associated proposed disposal of all liquid waste to groundwater. This open ended and unevaluated threat is legally unacceptable procedurally and environmentally, and demonstrates a lack of credibility on behalf of the proponent.

4. Project fails to provide for rehabilitation of groundwater and contravenes standards set in the USA for ISL uranium mining

Contrary to a number of requirements and public expectations in protection of the Australian environment, including the terms of reference of the dEIS, the proponent refuses to consider rehabilitation of groundwater after and during the proposed ISL operations. In addition, the ISL operations of the proponent in Australia should and must have to comply with the standards required for such operations in the US, the proposed project patently fails to comply with US standards and would not be approved in the US (refer to the submission by Paul Robinson, Research Director, Southwest Research and Information Centre, New Mexico; and the Appendix herein including Part II).

Our Government(s) must not subject the Australian environment to industrial practices and environmental impacts that are not sanctionable in the home country of the proponent, a proponent who, in the dEIS and in the Government public meetings on the dEIS, falsely claims to be applying ‘best practice’ ISL mining technology and operations.

Further, under the SA Government obligations to the mining lease application remediation information, and under Commonwealth EIA obligations, the minimum prerequisite before considering the application is a demonstrated rehabilitation of groundwater to the original composition and quality, from the trial mine operations; as would be required in the US before granting a commercial mining approval. The absence of such information contravenes requirements of the EIS and EIA process, which must be heldover until and unless the proponent can so provide this information and demonstrated capacity.

5. Proponent misrepresents the resource and natural values of the Beverley aquifer

Both the proponent and the SA Minister for Resources have explained the intended failure to rehabilitate groundwater on the basis that the Beverley aquifer does not have an economic utility and that therefore the impact of the proposed operations on the aquifer are not relevant. This is false and contrary to logic in the protection of our environment.

Further the proponent misrepresents the information contained in the dEIS, as indicating that the Beverley aquifer is over 10 000 TDS and thereby 'not worth consideration', when in fact this is only the reading for a minor sub-set of values presented.

The groundwater does have potential uses, should be protected and rehabilitated (refer to the submission by Paul Robinson), has intrinsic natural value to be recognised and protected, and is of spiritual significance to the Aboriginal community. This attitude and misrepresentation of fact expose the proponent and the proposed project as inappropriate and ineligible for approval by Government. Government should order the proponent to re-submit an amended dEIS if they wish to proceed further.

6. Unacceptable disposal of liquid waste(s) to groundwater, and failure to present Alternatives as required by the dEIS process

The proposed discharge of all liquid waste: heavy metals, uranium and other radionuclides in a sulphuric acid solution, leachate bleed and chemicals, and all discarded saturated chemical solutions used in the extraction of uranium in the processing plant, is totally unacceptable, and a contravention of the substantive and intended objectives of SA and Commonwealth environmental protection and EIA processes and legislation.

In protecting the integrity of the Australian environment there is no place for corporations and Governments to try and limit control of pollution to merely economic considerations. Nor to attempt to limit responsibility for, and assessment of, their actions to within artificial boundaries, such as between 500 metres north and south of their retention lease - the limited area of the proponent's knowledge of the course of the Beverley aquifer.

In failing to provide an alternative to this proposed single liquid waste disposal proposal the proponent fails to comply with the Terms of Reference for this dEIS and the practice of EIS's in general. The complete inappropriateness of this proposal, and the failure to provide alternatives for comparative assessment, is a fundamental failure of the obligation on the proponent to both present a credible proposal and a credible level of information including alternatives for public and Government(s) assessment, and thereby invalidates the dEIS from proceeding further.

7. Sulphuric acid ISL - an unacceptable technology

There has never been a commercial sulphuric acid ISL mine in the western world, all US commercial ISL uranium mines use a less polluting alkaline leachate. The dEIS cites the Nine Mine facility in the US as demonstrating a capacity for rehabilitation after sulphuric acid ISL but does not convey that Casper Nine Mile was a TRIAL mine and NOT a commercial uranium mine, that the attempted rehabilitation took as long as the mining trial - some 18 months, that it did not return groundwater composition and quality to pre-mining conditions, and in any case they do not intend to rehabilitate groundwater.

The proposed sulphuric acid uranium mining is world's worst practice to which the Australian environment must not be subject. The proponent should have and failed to provide a review

of uranium ISL operations around the world. This review has been prepared by Gavin Mudd and ACF refer government(s) to this document “Out of Sight - Out of Mind: The Worldwide Truth of In Situ Leach Uranium Mining” (available on <http://home.vicnet.net.au/~seasus/> and follow the links) and to the submission by Gavin Mudd.

8. Inadequate information presented in the dEIS to describe or assess the project, and failure to report information on the ‘trial’ mine operations

The trial mine was rationalised by Government as necessary to gather information for preparation of a dEIS, however the dEIS does not adequately report on the operations of the trial mine (refer to the submission by Louise Wren), and is misrepresented as establishing safe and acceptable procedures and performance for the commercial project.

The proponent does not present a proper and complete list of groundwater composition before and after application of the leachate, and excludes the range and concentrations of heavy metals mobilised by the leachate - which is intended to become part of the pollution load intended to be discharged to groundwater - failing to present, and preventing required assessment of associated risks and environmental impacts of this pollution load.

Further the proponent fails to include statistical analysis for data presented and there is an unacceptable absence of “degrees of confidence” reporting. This would be unacceptable in the US for a similar proposal: the US Nuclear Regulatory Commission and the US Environment Protection Agency have quality assurance and quality control requirements that are quite explicit and readily available, and have specific criteria and guidelines for the presentation of acceptable statistical data.

The in-complete and sub-standard information presentation and statistical analysis of this dEIS and of the mining lease application, in direct contravention of US requirements and standards for a similar proposal, is not acceptable in Australia, prevents public assessment of the project and its environmental impacts, and must be rejected by Government(s).

9. Demonstrated failure to comply with ALARA requirements and suppression of knowledge of a radioactive liquid leak at the trial mine

On March 12th the proponent lost control of pumps and pump motors in restarting part of the pressures uranium bearing leachate flow to the processing plant (the cause was not as later claimed due to use of a wrong coloured pipe) - bursting a pipe and spraying 500 litres of a radioactive sulphuric acid solution across the ground contaminating soil and the environment. The contaminated site was not rehabilitated but only cordoned off.

Public knowledge of the leak was suppressed for 5 months, the Adnyamathanha Native Title Management Committee traditional owners were not told of the leak in their negotiations with the proponent, it was not reported on in the dEIS, nor presented to the SA Government public meetings on the dEIS until admissions were forced from the proponent under ACF questioning on 5th August. This is not acceptable by the proponent or by Government(s), both of which had an obligation in the EIS process to allow and facilitate an informed assessment of, and public debate on, the proposal.

In failing to rehabilitate the site and to limit the area contaminated - leaked material has been spread further by rain and runoff since the leak occurred - the company have chosen to disregard their obligations under ALARA “as low as reasonably achievable” control of

radiation emission and management. This is a serious breach of operational management and regulation of the trial mine by the company and by both Governments and fails to comply with existing practices and standards for ISL operations in the US (refer to the submission by Paul Robinson). And clearly demonstrates their inability or unwillingness to protect the environment or to competently manage ISL uranium mining operations.

To the extent that the trial mine has been of any utility it is in demonstrating the dangers inherent in the proposal, the inability of the operator to prevent leakages that have a radiological impact on the environment, the failure of Government(s) to regulate the activity to acceptable standards and their collusion in preventing public accountability.

10. Trial mine operations should be closed and the proponent ordered to rehabilitate the site and the groundwater

The claimed rationale for the trial mine - the preparation of the dEIS - has now occurred. However the company publicly state an intention to continue to operate the trial mine - to produce uranium without a mine lease and without having been through an EIS process - up to December irrespective of the EIS process and the decision period by Government.

This is not acceptable and contravenes the pre-requisite legal requirements for the conduct of uranium mining. If allowed it represents a serious manipulation by Government(s) of the EIS requirements and processes and a serious lack of good faith by the proponent. The trial mine should be closed, and its operations be subject to a public inquiry, including the radiation leak and its cover up and the proponents failure to clean up the contaminated area, and the groundwater be rehabilitated.

11. Contravention of the Commonwealth and SA Native Title Act(s)

Both acts require the proponent to demonstrate and satisfy good faith negotiations. The proponent has failed to do so. For instance, in signing of Native Title mining agreement(s) the first and subsequent agreements signed conferred royalties of only 1/2 of 1 % and contained a clause that the proponent would not sign future agreement with the other Native Title claimants for more than this level of royalties. This was used by the proponent to constrain the right to negotiate of the subsequent parties on the issue of the level of royalties, they were in effect told that the issue was not negotiable, a legal breach of good faith by the proponent, and they should be given the right to re-address this issue.

Further, while the broad Australian community has a legal right to an 8 weeks minimum period to consider the dEIS, the Adnyamathanha community and Adnyamathanha Native Title Management Committee were only allowed up to the 21st of July. As the proponent threatened legal action against the community in the Environment, Resources and Development Court in SA, if they did not sign a Native Title Mining Agreement on the company's terms (including a maximum royalties of 1/2 of 1 %) by this date, only three weeks after release of the dEIS.

This compromises the EIS process, is a legal breach of good faith negotiations by the proponent, reflects the proponents disdain for community standards in Australia, is an unacceptable manipulation of the Australian community, demonstrates again the unsuitability of the proponent as a potential mining operator, and are matters that both Governments must address and redress prior to considering the application before them.

12. Contravention of the SA Aboriginal Heritage Act and the proponents illegal exclusion from the dEIS of obligations to Aboriginal Heritage law and protection

The proponent has not carried out and complied with procedures, consultation, site inspections and approvals for operations that do or may impact on Aboriginal Heritage under the SA Act. Further, the proponent is in breach of the SA Act by conducting operations in areas of significance to Aboriginal Heritage without the approval and site clearance of bodies and interested parties that they are required to consult with under the Act, such as the Flinders Ranges Aboriginal Heritage Consultative Committee.

The dEIS fails requirements under its Terms of Reference by omission of the SA Aboriginal Heritage Act from legislative requirements that the proponent and project must have regard to and comply with. By doing so the proponent and the dEIS seriously fails to appropriately register, and inform the public of, the requirements on and potential impacts of the project. This matter invalidates the dEIS.

The proponent must be ordered to appropriately register and inform the public of the potential impacts of the project. The public - particularly the Aboriginal community to whom the dEIS was presented as a complete information source, must be given the opportunity to consider and address these matters and potential impacts in a further due period of public consideration of the (to be amended) project proposal before and as a pre-requisite of any credible consideration of the proposal by Government

13. Lack of provision for a full rehabilitation bond, and the economic unviability of the project when subject to full rehabilitation and to a full rehabilitation bond

The proponent falsely claims to be presenting a credible rehabilitation bond proposal, by intending only a surety of one years rehabilitation costs in advance each year and intending to exclude groundwater rehabilitation costs, rather than the full cost of project rehabilitation and groundwater rehabilitation that is required to be lodged in the US (refer to the submission by Paul Robinson, Research Director, Southwest Research and Information Centre, New Mexico; and the financial assurance review procedure of the US Nuclear Regulatory Commission Appendix E including Part II - attached herein).

In the US the cost of groundwater rehabilitation at ISL uranium commercial mine and trial mine sites has ranged up to 35% of the full project costs. The proponent intends to avoid this due requirement. The economic viability of the project is drawn into question if, as shown be required in the US and as should be required here, the project had to allow for the full in advance technological capacity and economic costs of rehabilitation and the associated bond. The false and deliberately misleading claim of the proponent correctly reflects their generally demonstrated lack of credibility and suitability as a mine operator.