



Community Environment Network Inc.

An alliance of community and environment groups from Lake Macquarie, Wyong and Gosford.

Independent Planning Commission NSW
Level 3, 201 Elizabeth Street
SYDNEY NSW 2000

Re: Submission on Eraring Power Station - Ash Dam Expansion MOD 1

Dear Madam or Sir,

The Community Environment Network (CEN) is a network of community and environment groups in the Central Coast and Lake Macquarie. CEN was established in 1997 and has the Mission of Supporting Ecologically Sustainable Development (ESD) and opposing threats to ESD.

CEN has a membership of 400, including 70 groups. These groups in turn have a membership of approximately 5,000 members. CEN is a highly credible organization and has contributed an estimated \$10 million to the Central Coast and Lake Macquarie environment from grants, contracts and donations plus another \$20 million in work by volunteers as 'In Kind' in the 20 years since formation.

This submission is prepared for CEN by Dr Heinz-Joachim Muller, a member of the Executive Committee of CEN. He also attended the site visit of the commission.

Objection:

The submission objects the proposal by Origin Energy to expand its ash dump as set out in its Ash Dam Augmentation Project Environmental Assessment, because CEN sees a number of severe issues with this proposal relating to the community and the environment:

No public meeting held or planned.

The decision taken by the commission not to hold a public meeting in relation to this matter, because there were less than 25 submissions is disappointing. Tens of thousands of people live in the area around the power station and are affected by potential risks from the ash dam. While most people will not think much about the ash dam as it is essentially out of sight, but all people will have to live with this dangerous heritage.

No waterproof lining of the ash dam nor of the planned extension.

Lining of coal ash dams is internationally best practice. For instance, in the US extensions to ash dams must be lined, even if the original ash dam has been unlined. On the site visit the explanation was given that the packing of the ash itself will act as a watertight layer. However, coal ash is particulate matter and as such water permeable to some extent.

No environmental bond.

There is no environmental bond for unplanned safety issues or for the final closure and safe remediation of the ash dam after the closure of the coal fired power station in 2032.

Reuse targets for ash are not met.

Reuse targets for ash are 80%. However, at the moment only about 35% of the ash is reused. According to this report

(<https://www.powerengineeringint.com/2015/03/18/managing-coal-ash/>) the Eraring power station is far behind of what can be done with reuse of coal ash.

“ ... the Netherlands recycles 100 per cent of its coal ash because landfill is not allowed in the country. In Germany, where around 10 million tonnes of coal ash are produced per year, around 97 per cent is re-used, with the rest stored only on a temporary basis. ...”

No long-term solution for coal ash

With the current re-use rate this extension can only provide storage until about 2024. With the power plant running until 2032, there will be another dam extension with similar ramifications required in the near future.

Danger by very large dam

This is already a very large dam. And it will be even larger and steeper after this extension raising the height by more than 10 meters on the Western edge of the ash dam. This can create a major hazard in case of the dam wall collapsing by an earthquake or by land slide caused by flooding rain.

Particulate emissions

There have been issues with dust blown off the ash dam in the past. A wider and steeper ash dam will be even more exposed to the forces of wind, creating an even larger risk of dust being blown off the ash dam into the surrounding residential areas.

Ground water assessment insufficient

The established sampling and analysis of the ground is insufficient. There are just four groundwater sampling sites with a samples taken every half year. And the critical components like heavy metals, arsenic and selenium are not even tested.

Difficult to rehabilitate

The rather steep slope of the ash dam will make the site difficult to stabilise and to rehabilitate after the end of the life time of the power station. In contrast to the ash dam of the Vales Point Power Station (which is rather flat) can be used as a solar farm after

rehabilitation, which is a good use because hardly anything else could be done on such a land.

Old mineshafts under the area planned for extension cause extra risk

Various methods have been put forward in the application to either fill or seal the existing old mineshafts under the extension area to prevent the penetration from ash dam water into the ground water. However, no clear indication has been given which method or methods will eventually be used. There is also a lack of risk analysis and reference to best practice methods and their chance of success in the application.

Conclusion

Storing so much dangerous material in close proximity to residential areas and close to wetlands and water bodies is a serious problem. Placing an ash dam extension over old underground mining sites is causing an additional risk of leachates getting into ground water. Coal ash should not be 'stored' but it should be reused, as done in other developed countries. CEN objects to the proposal.

Yours sincerely,
Dr Heinz-Joachim Muller
Executive Committee member of CEN