

**Submission
No 15**

**INQUIRY INTO COSTS FOR REMEDIATION OF SITES
CONTAINING COAL ASH REPOSITORIES**

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Daniel Mookhey, MLC
Committee Chair
NSW Parliamentary Inquiry in to cost of
remediating sites containing coal ash repositories

Dear Minister

**SUBMISSION - NSW Parliamentary Inquiry
Costs for the Remediation of Sites Containing Coal Ash Repositories**

Thank you for the opportunity to make this submission to the NSW Parliamentary Inquiry into the costs of remediating sites containing coal ash repositories.

My State electorate of Lake Macquarie is home to the State's largest coal-fired power station (Eraring Power Station) which generates almost 25 per cent of the State's power supply. It also adjoins the Swansea electorate which is home to Vales Point Power Station. Both have large and significant ash dams.

The ash dam at Eraring currently stores about 35 million tonnes of ash. The site's owner, Origin Energy, was recently successful in its application to expand the ash dam's capacity by a further 5 million tonnes, despite significant opposition from the local community.

It should be noted that Eraring Power Station has a stated plan for closure in 2032 and Vales Point in 2029.

While I accept your inquiry will primarily focus on the costs and degree of Government liability of existing ash dams, I wish to make further submissions on related matters as per part 1(g) of your terms of reference.

In summary, those matters include:

- Determining the actual liabilities of Government in remediating existing ash dams, time frames for remediation, and the costs associated with full and proper remediation;
- The adequacy of existing legislative requirements on ash dam operators, including the requirement to recycle ash;
- The ongoing health impacts of coal ash dams, including during the remediation process;
- The long-term environmental impacts of the ash dams; and

- The maintenance of existing ash dams between now and their decommissioning.

Government liability, long-term costs and timeframes

Along with many others, I was disappointed to learn that the remediation of the ash dams at Eraring and Vales Point were not included in the sales contracts to private operators. Notwithstanding the fact this cannot be undone without significant cost to taxpayers, it is absolutely imperative the Government determine what sovereign risk or liability it will hold following closure of these power stations.

It is hoped that your inquiry will be able to determine what remediation liabilities are held by the Government, and what is held by the current owners. This should include the amount of ash held in those dams and the total area to be remediated. Total costs of remediation could therefore be given a more credible estimated value.

In light of legacy contamination issues that are not uncommon throughout NSW, it is surprising that a remediation fund mechanism has not already been established. I submit that the State Government should establish a sinking fund for the purpose of the remediation process in the future. The costs associated with these clean-ups will be significant. I believe it's imperative the Government starts preparing for that cost burden now, as opposed to trying to find these large amounts when the time comes to remediate.

The timeframes for remediation should also be set now. As previously stated, the two coal-fired power stations on Lake Macquarie both have dates for their decommissioning. Plans for remediating the sites, particularly the ash dam sites, need to be formulated now so the land rehabilitation can begin immediately after, if not before, the planned closure. The timeframes for completing the remediation should also be determined.

The adequacy of legislative requirements now and in the future

It is my view that current legislative requirements relating to ash dams and the recycling of coal ash are flawed.

The management of existing ash dams in NSW is not in accord with world's best practice. We know the ash and the accumulated or concentrated elements of the ash have had an impact on the level of toxins in Lake Macquarie, even if we currently struggle to be able to quantify what that impact is. Things today are nowhere near as bad as they were in decades past, but there must be stronger legislative mechanisms which require owners to better manage particulates lost to the air and broader environment, whether from stack emissions, wind-blown fugitive emissions or through leaching into the waterways and water table.

Greater attention should be given to the monitoring of groundwater beneath and around existing ash dams, and that information should be regularly recorded and displayed in publicly-accessible websites.

While there is currently a legislative requirement to monitor air pollution on site, there is little or none in the communities surrounding these power stations and ash dams. We must demand better real-time monitoring, and better real-time public access to those results. I note the Minister for the Environment, in response to a question from me on 17 September 2019, agreed to address this issue but the details of how this would be done were to follow further briefings of the Minister. To date I have been given no further advice on the progress of improvements to air quality monitoring.

It is my view there needs to be stronger legislative requirements for ash dam owners to recycle more of the ash they generate.

Currently, Origin Energy recycles about 30 per cent of the ash generated by its operations at Eraring power station. The company has a long-held target of 80 per cent but has never got close to achieving that figure.

Markets exist for the purchase of coal ash and I have spoken to numerous companies which have expressed an interest in coal ash from these power stations, or sought access to it. These companies are primarily involved in the production of cement products and bitumen products, and say their access to coal ash has often been hampered by existing contracts or a lack of will from those who produce it. I believe there should be legislative requirements which set targets for owners and ash producers.

I note the Independent Planning Commission conditioned its recent approval of an expansion of Origin's ash dam at Eraring, ordering that 80 per cent of the ash be recycled by the end of 2021. This is the type of order which should be extended across the industry. The rate of ash recycling overseas is vastly higher than what exists locally. In fact, the Malaysian government requires that 100 per cent of coal ash be recycled in new coal-fired operations in Malaysia.

It should also be noted that one of the most obvious possible large-scale uses for this ash is in road construction. I have been advised on numerous occasions that the State Government (through the RMS) could be a key player in assisting to reuse this ash in road construction, but for unknown reasons has chosen not to pursue any use of the material which apparently has excellent properties for that purpose when appropriately prepared.

The ongoing health and environmental impacts posed by ash dams and their remediation

The health and environmental impacts of coal ash are reasonably well known and should continue to be monitored by the appropriate agencies. Less is known about any long-term impacts that components (particularly heavy metals concentrated in coal ash) will have, both in terms of human health and on the environment.

While it is prudent to properly manage the ash and ash dams now, it's also imperative to ask "what happens after the closure and what impacts could they have in the future"?

Any broad plan to remediate these toxic sites must take into account the potential health impacts to those involved in the remediation, and not just to the immediate environment.

They should also include the potential risks or liabilities created by inadequate remediation. Both health and environmental impacts will be felt for a significant time beyond the closure of coal-fired power stations, so remediation plans must give consideration to the longer term.

The maintenance of existing dams

I am hoping the inquiry might also consider the safety of existing ash dams and the threat they may pose to surrounding communities and the environment.

As has been well documented, structural problems with sections of the ash dam wall at Eraring power station forced the permanent closure of a highly-valued and much-loved community facility in Myuna Bay Sport and Recreation Centre in 2019.

It is of great concern that issues relating to the wall's structure were discovered not by routine testing from government agencies but from Origin Energy's own internal risk assessment. In that particular case, Origin Energy held private discussions with the Department of Sport with a view to closing the centre, but the rest of the community was kept in the dark about any imminent dangers until the centre's abrupt closure was made public. It was, in my view, a breach of community trust.

If there is to be legislative change that will require ash dam owners to better manage ash stockpiles and the dams which house them, then the community deserves greater assurance that the dams themselves are at least safe from collapse.

If, as Origin's report found, the structure of the Eraring ash dam was compromised by seismic activity, it would have catastrophic impacts on the local environment. It is absolutely imperative that these dams are regularly inspected, their safety assessed, and results made public so nearby communities can at least be reassured that the structure of the dams is adequate. With the power stations now slated for closure in a decade, we must ensure that the dams do not fall into any state of disrepair as owners wind operations down. The dams must be maintained to the highest standards to ensure complete community safety and protection for the surrounding environment.

Closing submissions and recommendations

In closing, I would make the following submissions:

1. That details of the sale contracts between the State Government and private operators be made public so the inquiry can ascertain if there are any conditions on the future remediation of power station ash dams.
2. That the inquiry determine the exact nature, size and cost of the government's liabilities in remediating the ash dams they owned for the many decades preceding the sale of these assets.
3. That the State Government establish a sinking fund or mechanism to prepare for the significant cost of remediating the old ash dam sites.
4. That the State Government consider a bond scheme where current owners of the ash dams are required to make a financial commitment to future remediation efforts.
5. That the State Government adopt legislative change that would require operators to meet benchmarks for recycling the ash they produce.
6. That the State Government through agencies such as RMS accept a role in repurposing coal ash in projects such as road construction.
7. That timeframes be established for the full remediation of existing ash dam sites.
8. That the inquiry consider the health and environmental impacts that may still arise from the ash dams long after they have ceased operating.
9. That the State Government establish a regular reporting mechanism where the structural safety of existing dams be determined.

I thank you again for the opportunity to make this submission to your inquiry. I would be happy to discuss this submission with the Committee at any stage in the future.

Yours sincerely,


Greg Piper MP
Member for Lake Macquarie