



ASH Development  
Association of Australia

Project Manager  
Queensland Waste Strategy  
Department of Environment and Resource Management  
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**RE: Queensland's Waste Strategy 2010–2020: Waste Avoidance and Recycling Consultation Draft**

The Ash Development Association of Australia (“ADAA<sup>1</sup>”) welcomes the opportunity to submit recommendations for consideration by the Department of Environment and Resource Management (“DERM”) on the *Queensland's Waste Strategy 2010–2020: Waste Avoidance and Recycling Consultation Draft* (“Paper”).

The ADAA, being an industry association with a significant interest in waste policy throughout Australian jurisdictions, supports pragmatic, scientifically sound and consultative action towards the development of good legislation, regulations and or measures. Sound policy provides our members [generators, processors and users] of recovered resources with increased levels of **legal certainty** so as to underpin current and future investment in sustainable industry development, whilst protecting the environment and human health.

This submission is the result of consultation with our major stakeholders and affected members<sup>2</sup>, in particular coal fired power station [generators] and members with operations situated throughout Queensland. Please note this submission is framed to address issues related to the, recovery, management and effective utilisation of coal combustion products.

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<sup>1</sup> Australian producers and marketers of power station ash formed the Ash Development Association of Australia (ADAA) in 1991, with the primary objective to investigate and develop economic market opportunities for the use of coal combustion products (CCPs) commonly known as power station ash, fly ash or furnace bottom ash. Our association's aims are to facilitate the responsible and increased utilisation of CCPs as valuable material rather than see them disposed of through traditional land filling methods. We aim to achieve this through increasing user awareness of the ecologically sustainable benefits arising through increased utilisation of these products, to the benefit of industry members, the environment, and the community.

<sup>2</sup> [www.adaa.asn.au/members](http://www.adaa.asn.au/members)

## Summary of recommendations

- Consider reinstating longer term **legal certainty** for coal combustion products (CCPs) namely 'fly ash' and 'furnace bottom ash' use in general, civil, construction and product manufacture applications in Queensland, through
- Incorporating into any resulting Act or subordinate Regulation/s from the 'Paper' – exemption/s and or exclusions from the category of 'waste' for the commercial and productive recovery and or use of CCPs, specifically for, CCPs produced at Australian coal fired power stations and which are destined for beneficial reuse.

Our recommendation for CCPs generated from Australian coal fired power stations is based on the demonstrated and proven environmental performance [inert materials]. The association holds that this position has been reflected in the actual implementation of waste policy changes across Australia in regards to CCPs use in construction applications. For example exemptions or approvals granted to CCPs currently include;

- DERM – Beneficial Use Approval “CCP application to land” (QLD)
- DERM – Beneficial Use Approval “CCP use in bound products” (QLD)
- DECCW – Exemption for fly ash use in agriculture (NSW)
- DECCW – Exemption for CCP application to land (NSW)
- NEPM – Proposed exemption for 'fly ash' to be removed from Schedule 1 of Waste transfer and Movements (National)

All of these exemptions, approvals and amendments for reuse have been based on extensive consultation, backed with rigorous Research and Development projects conducted and funded by public, private and government organizations. Each of these studies reaffirms the environmental benefits of CCPs reuse in various applications.

## Context of our submission

The Department of Environment and Resource Management (DERM) introduced new *Environmental Protection Regulation 2008* (EPR 2008) effective 1 January 2009. Amendments made and introduced into EPR 2008 have changed the **legal status** for the, capture, processing, transport and subsequent commercial sale and use of some 700,000 tonnes of CCPs used in concrete and other commercial manufactured products and processes. In effect these amendments revert CCPs back to the status of a regulated waste, an unintended consequence acknowledged by DERM.

Under the previous *Environmental Protection Regulation 1998* (EPR 1998), now repealed, fly ash was listed as regulated waste under Schedule 7, with certain activities in relation to regulated waste were regarded as environmentally relevant activities (ERAs) requiring approval.

Coincident with implementation of EPR 1998, an *Operational Policy (Operational Policy Environmental Operations, Determinations for the management of regulated wastes)* was negotiated and introduced which exempted various activities provided that:

Power station fly ash

- (1) Power station fly ash that is used, or is intended to be used, as a raw material in a commercial manufacturing process (e.g. concrete, asphalt,

- ceramic products, plastics, rubber, insulation, paints and specialty cements) is not regulated waste.
- (2) Commercial manufacturing operations that use power station fly ash as a raw material in a commercial or manufacturing process do not constitute ERAS 81,84 and 85.
  - (3) Persons transporting power station fly ash for use in a commercial manufacturing process are not required to hold an environmental authority for ERA 83.

In essence this Operational Policy was a non-legislative patch, which removed CCPs “fly ash” for the purposes listed from the scope of the regulated waste designation and from the application of EPA 1998. The Operational Policy has continued to be enforceable over the past 11 years, whilst providing suitable scope for the effective management of fly ash with no incidents, problems or controversy during the period of operation.

Amendments to EPA 2008 meant that all commercial manufacturing activities (e.g. cement and concrete applications) with fly ash including the recovery and processing of fly ash at power stations became environmentally relevant activities requiring development permits from 1 January 2010.

### **Unintended Consequences**

During consultation between ADAA and DERM mid 2009, these “unintended consequences” arising from the withdrawal of the “Operational Policy” and amendments to EPA 2008 were acknowledged by senior DERM personnel. Accordingly, the association was invited to make recommendations during the regulatory impact review. To date the association has not received further details about the review. For this reason it is our understanding it has not commenced.

The association, so as to mitigate the impacts on ‘business as usual’ and use of more than 700,000 tonnes per annum of CCPs used in cement and concrete manufacture, with associated CO<sup>2</sup> emissions abatement of 600,000 tonnes per annum to Queensland – commenced drafting a series of ‘Beneficial Use Approval/s’<sup>3</sup> (BUA’s).

These BUA’s were an essential **short-term** solution for these important and established markets. Moreover, so as not to undermine market confidence in the ongoing sustainable reuse of CCPs – from what is an “administrative” error. Working quickly and closely with DERM – two (2) approvals were granted before 1 January 2010, but will expire in 2013 and 2014 respectively.

Our recommendations seek to reinstate **longer-term legal certainty** for the generators, processors and users of CCPs in Queensland. Our submission was aimed to provide practical input on the ‘Paper’ and changes that could make consequent jurisdictional legislation more effective and efficient without placing unjustified barriers in front of industry past, current and future investment.

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<sup>3</sup> General Approval of a resource for beneficial use - Coal Combustion Products used in Bound Final Products – 24 December 2009 (expiry 2014), and General Approval of a resource for beneficial use - Coal Combustion Products – 22 January 2008 (expiry 2013)

To provide some context to this submission about our national membership survey results for CCPs utilisation for 2009 showed that;

- Approximately 14.6 Mt (million tonnes) of CCPs were produced within Australasia. On a per capita basis, this equates to about 664 kg/person.
- Some 4.584Mt (or 31%) of CCPs have been effectively utilised in various value-added products or to some beneficial end over the period. On a per capita basis, this equates to about 208 kg/person recycled or reused.
- Approximately 1.787 Mt (or 12%) was used in high value-added applications such as cementitious applications or concrete manufacture.
- About 0.5 Mt (or 3%) were used in non-cementitious applications
- Some 2.3 Mt (or 16%) was used in projects offering some beneficial use (e.g. onsite mine site remediation, local haul roads etc.). These uses typically generate no economic return, that is, cost recovery only.
- Surplus CCPs (10.1 Mt) are typically placed into onsite storage ponds awaiting some future opportunity for economic reuse
- More than 27 million tonnes of CCPs [fly ash] have been used in cementitious applications or concrete manufacture from 1975 to 2008 [33 years]

In closing, representatives of ADAA welcome the opportunity to discuss or clarify our submission if required.

Regards,



Craig Heidrich  
CEO  
**Ash Development Association of Australia**

**CC: Board**