

(Insert Your Name and Address)

(Insert Date)

The Chief Executive

Department of the Environment, Tourism, Science and Innovation (DETSI)

Email: RRS.Consultation@detsi.qld.gov.au

Re: Objection to the Adoption of the Draft End of Waste (EOW) Code – Incinerator Bottom Ash Aggregate (IBAA) (EOWC010004246)

Dear Chief Executive,

This submission strongly objects to the adoption of the Draft End of Waste Code for Incinerator Bottom Ash Aggregate (IBAA). Reclassifying this heavily contaminated, toxic byproduct as a commercial “resource” for construction poses unacceptable long-term risks to human health and Queensland’s delicate ecosystems. The Draft Code fails to meet the strict legal thresholds established under the Waste Reduction and Recycling Act 2011 because the waste is not genuinely comparable to a benign product and exhibits severe, unpredictable environmental risks.

The draft code proposes allowing the use of IBAA in bound applications and unbound applications. The core flaw is that unlike traditional natural aggregates, IBAA is an unstable heterogeneous matrix generated by the thermal mass combustion of municipal solid waste. The risk lies in introducing an unpredictable chemical cocktail into open civil engineering environments turning permanent community infrastructure into decentralised, unlined hazardous waste repositories.

This introduces the likelihood of environmental harm and nuisance. Under Section 159 of the WRR Act the chief executive may make an End of Waste code only where the resource’s use presents negligible risk of environmental harm. The proposed use of IBAA violates this principle across multiple vectors:

- *Heavy Metal Leaching*: IBA contains elevated concentrations of volatile heavy metals, including lead, cadmium, arsenic, chromium, and mercury. Over time, physical weathering and acidic rainwater will break down unbound road bases, causing toxic leachate to flow into Queensland’s shallow groundwater systems and agricultural soils.
- *Persistent Organic Pollutants (POPs)*: The mass combustion process inherently forms highly carcinogenic dioxins and furans, alongside modern industrial toxins like PFAS. These compounds do not degrade and accumulate rapidly within local food chains.
- *Environmental Nuisance*: Fugitive dust generated during the transport, stockpiling, and mechanical compaction of IBAA poses an immediate inhalation hazard to construction workers and neighboring residential communities.

The proponents argue that IBAA creates a sustainable, commercial market for circular economy aggregates. This claim is economically and environmentally false:

- The market for civil aggregate in Queensland demands consistent engineering properties (e.g., hardness, density, particle size distribution). IBAA’s composition shifts constantly depending on the waste burned each day.
- Local councils and developers face massive financial risks. If civil structures built with IBAA are later found to be leaching toxins, the remediation, liability, and land decontamination costs will fall entirely onto public taxpayers.

The DETSI End of Waste Guideline explicitly mandates that a resource must align with the waste management hierarchy under Section 9 of the *WRR Act*.

- Approving an EOW code for incinerator ash legitimizes commercial mass-burn incineration. It creates an artificial commercial market for the byproducts of burning materials like plastics and organics.
- Instead of driving source-separation, high-value recycling, and circular product redesign, this code lets waste-to-energy operators circumvent strict hazardous waste storage levies by dumping toxic ash into civil markets.

The draft code is fundamentally incompatible with federal and state environmental standards:

- It directly undermines the National Environmental Protection (Assessment of Site Contamination) Measure (NEPM) guidelines regarding safe chemical thresholds for open land use.
- It circumvents the protective intent of the Queensland Energy from Waste Policy Framework, which states that resource recovery must not cause adverse environmental or public health impacts.

Decades of operational data from jurisdictions across Europe and the UK reveal that even "treated" bottom ash aggregates frequently fail compliance testing due to unexpected spikes in toxic heavy metals. Independent studies show that when IBAA is exposed to physical traffic loads and wet-dry weather cycles, its physical structure breaks down rapidly, vastly accelerating the leaching of heavy metals.

In conclusion, the Draft End of Waste Code for Incinerator Bottom Ash Aggregate fails to demonstrate negligible environmental risk or true product comparability. Reclassifying a hazardous process byproduct as a safe commercial aggregate sets a dangerous regulatory precedent.

I respectfully ask that the Chief Executive exercise discretion under the Act to reject the draft code in its entirety. IBAA must remain classified as a regulated hazardous waste that requires secure, lined, and continuously monitored containment cells.

Yours sincerely,

INSERT YOUR NAME HERE