

Singapore’s comments on the draft guidance on BAT/BEP for controlling and where feasible reducing mercury emissions to the atmosphere, as set out in Article 8 of the Minamata Convention on Mercury.

The draft guidance presents useful information to the industry in minimising mercury emissions and their adverse environmental impact from sources such as coal-fired power plants, coal-fired industrial boilers and waste incineration facilities.

2 The draft guidance also provides a good reference on the technologies for emissions control and reduction, as well as emission monitoring techniques that are commercially available and emerging in the market. This is useful to the industry on the Best Available Techniques (BAT) that they could opt to address emissions of mercury.

3 In addition comments for specific topics under the draft chapter on waste incineration facilities are below:

Document	Section / Para	Comments
Draft Chapter – “Waste Incineration Facilities”	3.6.Treatment techniques of solid residues from incineration	The draft guidance indicates that in Switzerland, the treatment of fly ashes with acid waste water from the scrubber is widespread. The guidance could include details of this as a case study as experience from using such technologies could be useful for other countries.
	5.4.4 Sewage sludge incineration techniques	The guidance could include details or case studies on BAT for incineration of sewage sludge generated from adjacent / connected sewage treatment plant (e.g. AEB Amsterdam in Netherlands operates a waste-to-energy plant that co-incinerates municipal solid waste with sewage sludge from an adjacent wastewater reclamation plant).
	5.5 Best available techniques for flue-gas treatment	<p>The draft guidance indicates that the BAT for controlling mercury emissions from waste incineration facilities is considered to be Fabric Filters (FFs) in combination with dry or wet methods for controlling volatiles.</p> <p>It is not necessarily true that replacing Electrostatic Precipitators (ESPs) with FFs will improve the flue gas treatment performance especially in terms of dust removal efficiency.</p> <p>If an existing plant that adopts a dry system were to replace its ESP with FF, higher operating and maintenance costs may be incurred to ensure high reliability of FF since the FF would need to perform the 2 functions of removing dust and controlling mercury emissions. Having a 2-stage cleaning system with ESP and FF will help to provide treatment resilience, avoid unscheduled shutdowns, improve overall flue gas treatment efficiency and maintain system reliability.</p>

		<p>The guidelines should allow flexibility in adopting FF to supplement/replace ESP in facilities with dry systems to achieve high flue gas treatment performance and cost effectiveness.</p>
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