



Cayman Islands Government

Ministry of Health, Sports, Youth and Culture

**File Note of Ministry Trip to 22nd Annual North American Waste-to-Energy Conference (NAWTEC)
7th – 9th May, 2014
Reston, Virginia**

Attendees: Hon. Osbourne V. Bodden, JP, Minister of Health, Sports, Youth & Culture
Mr Roydell Carter, Director of Environmental Health
Mrs Sheila Alvarez, Administrative Officer II, Ministry of Health, Sports, Youth & Culture

The North American Waste-to-Energy Conference (NAWTEC) is recognised as the industry's premier conference and trade show focusing on municipal waste-to-energy operational issues and policy, the latest in legislative updates that impact companies, as well as technology and research initiatives. NAWTEC is co-sponsored by the Solid Waste Association of North America (SWANA) and the Energy Recovery Council (ERC), in partnership with the Waste-to-Energy Research and Technology Council (WTER) at Columbia University.

The Hon. Minister of Health, Osbourne Bodden, and his team arrived in Reston, VA on the evening of Tuesday, 6th May. The purpose of the trip was for the team to: 1) tour the Montgomery County Resource Recovery Facility and 2) to attend the Waste-to-Energy Conference to gain a better understanding of the process of converting waste into energy as it may prove to be a viable option for the Cayman Islands' proposed Integrated Solid Waste Management System (ISWMS).

Tour of the Montgomery County Resource Recovery Facility in Dickerson, Maryland

The team boarded the bus at 11:00 a.m. 7th May to take the 45 minute drive from Reston, Virginia to Dickerson, Maryland; where the Montgomery County Resource Recovery Facility (RRF) is located. The RRF was constructed in March 1993 at a cost of USD\$360 million. It began commercial operation in August 1995. The facility processes an average of 1,800 tonnes per day of solid waste, generating up to 52 megawatts of renewable energy, enough power for 37,000 homes. After removal and recycling of approximately 10,000 tonnes of ferrous (iron containing) metal annually, residue that remains from the process is loaded into sealed containers and shipped by rail to a landfill in Virginia.

Subsequent to a thorough presentation on the background and mechanics of the RRF, the group was escorted to the area where all of the incoming waste is stored and then recovered by a grabber which is then hauled into massive trucks to be combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit and is reduced to an inert ash residue that is approximately 10% of its original volume. The engineer further explained that solid waste is converted into approximately 60 megawatts of electricity. Moreover, the RRF is completely self-sufficient and operates using approximately 8 megawatts of electricity while the remainder is used to power up to 37,000 homes and businesses. It was further explained that as part of an integrated waste management system, the facility provides for the beneficial use of waste and provides flexibility to enable the community to maximise environmental protection and economic viability.

The group was then led throughout the remainder of the facility and engine room and given a chance to ask questions (see attached photos). The tour ended at 3:00 p.m. and the group boarded the bus to return to Reston, VA in time for the networking meet and greet scheduled that evening.

NAWTEC Conference & Presentations

The conference was held over a two day period beginning Thursday, 8th May and ending on Friday, 9th May. On Thursday morning, the conference began at 8:30 a.m. with an award presentation for the 2014 NAWTEC Greenfield Development Leadership Award which salutes those who have demonstrated the leadership to bring new Greenfield waste-to-energy capacity to the North American marketplace. The award ceremony was followed by a Waste-to-Energy Lightning Round where speakers were allowed a few minutes to provide a succinct presentation about their work, in the waste-to-energy industry.

During the remainder of the conference, various sessions were held on Waste-to-Energy (WtE) such as the use of natural gas, ash and other WtE products; policies to advance WtE; gasification and other conversion technologies; understanding and enhancing WtE operations; assessment of health effects of WtE plants; and communications strategies to promote WtE. The 22nd NAWTEC Tradeshow / Expo was also opened and the team was able to gather and collect useful information on Waste-to-Energy and other solid waste management practices.

Useful Tips on Solid Waste Management from NAWTEC Sessions

The following tips on WtE, waste collection and public education on recycling / waste reduction were noted as having the potential to improve the CIG's current solid waste management practices:-

- It is preferable for any solid waste management system to be publicly owned and privately operated;
- Waste-to-Energy facilities do not emit any methane. However, they do emit a small amount of carbon dioxide;
- Solid waste management facilities should focus on waste collection. If it is not done well, the waste will not be processed well either;
- Organic waste should be banned from landfills;
- Public education on the benefits of recycling and minimising the amount of waste that reaches landfill is important for waste reduction;
- Policy makers can introduce financial incentives for persons who recycle and/or compost their waste;
- Some of the benefits of WtE is that it supports renewable energy (wind, solar), reduces methane emissions and converts waste into fuel; and
- It is important for communication officers to share waste reduction/recycling tips via all social media outlets such as Twitter, Facebook, internet blogs, public service announcements and short videos. The information must be simple, interesting and direct. It is also important to update the outlets as new information is made available.

Conclusion

Whilst the Resource Recovery Facility tour and Waste-to-Energy conference was spread over a three day period, the information that the team acquired during the trip was very useful for the Ministry's proposed ISWMS project and preparation of any policies and legislation that will follow, once a proponent has been awarded a contract to deliver a National Solid Waste Management Strategy and Outline Business Case (OBC).

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REF: DEH/WTE/1

Date: 12th May, 2014

-Attachment







 <p>Unit 1: Introduction</p>	 <p>Unit 2: Fundamentals</p>	 <p>Unit 3: Performance</p>	 <p>Unit 4: Storage</p>
 <p>Unit 5: Storage</p>	 <p>Unit 6: Performance</p>	 <p>Unit 7: Fundamentals</p>	 <p>Unit 8: Introduction</p>
 <p>Unit 9: Introduction</p>	 <p>Unit 10: Fundamentals</p>	 <p>Unit 11: Performance</p>	 <p>Unit 12: Storage</p>
 <p>Unit 13: Storage</p>	 <p>Unit 14: Performance</p>	 <p>Unit 15: Fundamentals</p>	 <p>Unit 16: Introduction</p>





