

**Minutes of a Meeting of the Environmental Authority
Held on Wednesday, 6 March 2019
At the Department of Environment and Natural Resources, Botanical Gardens, Paget**

PRESENT: Mrs. Winnifred Fostine-DeSilva, Chair
Mrs. Sarah Haycock Tafur, Deputy Chair
Dr. Nick Bates, Member
Ms. Lynesha Lightbourne, Member
Mr. Eugene Saunders, Member
Mr. Jonathan Starling, Member

ADVISORS: Dr. Geoff Smith, Environmental Engineer, DENR
Dr. Shaun Lavis, Hydrogeologist, DENR
Mr. Tarik Christopher, Principal Engineer (Water & Sewage), Public Works
Mr. Tom Crossan, Chief Environmental Health Officer
Mr. Kirk Outerbridge, Acting Chief Engineer, Public Works
Ms. Patricia Hollis, Environmental Officer, DENR, Recording Secretary

IN ATTENDANCE:

Ms. Zoey Roberts, Health, Safety & Environmental Officer, TBWEF, Public Works
Mr Chris Williamson, Sites Management Officer, Public Works

ABSENT: Mrs. Susan Armstrong, Member

1. New Member welcomed.

Ms. Lynesha Lightbourne, the nominee for the Ministry of Works, was welcomed to the Authority.

2. Tynes Bay WTE Facility Request for Reduction in In-Stack Testing Frequency

Citing a reduced operating budget for the Tynes Bay Waste to Energy Facility, Ms. Roberts asked if the Authority would consider amending Condition 4.1.2.b of OL-004 with respect to the requirement for in-stack emissions testing being extended from once a year to once every two years. It was noted that annual stack emissions testing has been undertaken for the last 23 years and the results are quite consistent. Additionally, real-time data is collected for hydrogen chloride, carbon monoxide, particulate matter, sulphur dioxide and nitrogen dioxide. Only dioxins and furans exceed the limit stated in the Operating Licence. The dioxin and furan concentration is a function of the temperature regime within the plant and is unrelated to composition of garbage incinerated. The temperature regime of the Tynes Bay plant has been optimised over the years to minimise their formation. Abatement of the exhaust using powdered activated carbon injection with downstream bag filtration would help to mitigate emissions of dioxins, furans, and mercury. Such an abatement system would be planned to be installed when the third stream is brought in. It was noted that the electrostatic precipitators were upgraded from two to 3-fields only five years ago.

Mr. Outerbridge explained that much of the Tynes Bay plant is aging and is nearing the end of its life cycle. About \$100 million is required within the next several years to update the plant. With budgets being so tight, it will be challenging to secure that level of funding.

It was reported that the recent budget cuts have left TBWEF with insufficient funds to satisfy their operational needs. The Authority was asked to consider reducing the need for stack testing to once every other year. This would result in a savings of approximately \$35,000 each year the testing was not done.

Mr Outerbridge commented that mercury can be controlled by reducing its import into Bermuda. Dr Geoff Smith noted that a Cabinet Memorandum has been drawn up to extend the UK's Minimata Convention on Mercury to Bermuda, which would require a mercury budget with appropriate importation and export controls introduced for mercury-containing equipment. MPW also stated that they could work with HM Customs to implement tariffs ensure that the importation of mercury is discouraged.

The Ministry of Public Works representatives left the meeting before the consideration of the application. There was discussion on the public perception should TBWEF be permitted to test stack emissions less frequently, knowing that the dioxin/furan limit was being exceeded.

The Authority **AGREED:**

to require the stack emissions testing be undertaken in 2019. The testing frequency may be reviewed in future years should MPW propose other methods, such as dioxin/furan testing in neighbouring water tank, soils, and vegetation.

3. Marsh Folly Compost Facility—Annual Report and Presentation.

Mr. Chris Williamson presented the Marsh Folly annual reports for the years 2016 to 2018. After giving an overview of the composting process using the open windrow technique, equipment, and staffing, Mr. Williamson described the volume of horticultural wastes and sewage sludge brought to the facility, and the character of the final compost. He said that the compost is given to the public and has been used on major projects such as Morgan's Point redevelopment. He said that it is challenging to eliminate the plastic waste in the compost because it comes into the facility commingled with the horticultural waste. Testing of the compost has not been undertaken since 2015 even though it is a requirement of the operating licence. He assured the Members that the compost will be analysed in 2019.

Mr. Williamson described the partial results of a neighbourhood survey that was undertaken in 2017, seeking nearby residents' opinions on odours and dust from the facility. He will compile all the results and resubmit in this year's report.

Mr. Williamson confirmed that the facility is compliant with the requirements of the Bermuda Fire Service. He added that they have brought in procedures to help prevent fires.

Mr. Williamson was thanked for his presentation.

The Authority **APPROVED:**

The annual licence for the Marsh Folly Compost Facility and advised the Ministry of Public Works to submit the reports when specified in the Operating Licence.

Due to a shortage of time and lack of computer network capability, the remainder of the business was conducted via email meetings on 7 March 2019:

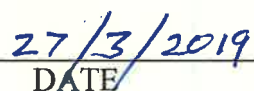
4. Date of the Next Meeting

The date of the next two meetings were set for:

8:30 am, Wednesday, 27 March 2019; and

8:30 am, Wednesday, 24 April 2019.


CHAIRMAN


DATE