

**Minutes of a Meeting of the Environmental Authority
Held on Wednesday, 26 June 2024
At the Department of Environment and Natural Resources, Botanical Gardens, Paget
and Remotely using Teams Teleconference**

PRESENT: Ms. Davida Morris, Chair (by remote access)
Mr. Eugene Saunders, Deputy Chair
Mr. Willie Ferguson, Member (by remote access)
Mr. Harry Matthie, Member
Mr. James Morrison, Member (present)
Mr. Jonathan Starling, Member (by remote access)

ADVISORS: Dr. Geoff Smith, Environmental Engineer, DENR
Dr. Shaun Lavis, Hydrogeologist, DENR
Ms. Patricia Hollis, Environmental Officer, DENR
Ms. Crystal Baxter, Environmental Health Officer
Mr. Armell Thomas, Acting Chief Environmental Health Officer
Mr. Tarik Christopher, Chief Engineer, Ministry of Public Works
Mr. Paul McDonald, Senior Planning Officer, Dept. of Planning

IN ATTENDANCE:

Mr. Mark Husdan, Solid Waste Manager, MPW Waste Management
Ms. Vanese Gordon, Waste Educations & Enforcement Officer, MPW
Mr. Chris Williamson, Sites Management Officer, MPW

ABSENT: Mr. Andrew Barnes, Member
Mr. Tarik Christopher, Acting Chief Engineer, Public Works
Mr. Armell Thomas, Acting Chief Environmental Health Officer

1. Confirmation of Minutes

Minutes of the meeting No. 394 held on 29 May 2024 were approved and signed by the Deputy Chair.

2. BELCO Operating Licence OL-114 Application for Reissue

The Members reminded that BELCO had been given the opportunity to comment on the proposed changes to their Operating Licence.

The Authority **DISCUSSED** and **AGREED** to the conditions attached to BELCO's Operating Licence.

3. BELCO Complaints—April and May 2024

The Authority **TOOK NOTE:**

that periodic complaints of soot and hot oil odour complaints were still being received by BELCO. In April, there were 2 complaints of soot, and 1 of hot oil odour. In May, there were 9 complaints of soot, and 4 of hot oil odour.

The Authority **REQUESTED:**

that a letter be sent to BELCO asking for their plans to address the ongoing complaints. BELCO is to be asked to submit details on the actions taken to date and their plans going forward to address the soot fallout and hot oil odours.

**4. Tynes Bay Waste Facility April and May 2024 Update
April 2024**

- **Stream #1:** was available for 30-days and ran for 18-days. It was down for 12-days (unplanned) due to ESP failure and maintenance.
- **Stream #2:** was available 30-days and ran for 23-days. It was down for 6 days (unplanned) due to ESP failure and maintenance
- **Turbine (T2):** was available for 30-days and ran for 22-days at 52% efficiency. Was offline during ESP failure and maintenance.

- **Total waste** (less metal): 4664 tonnes. Cooking oil – 47 tonnes, Horticultural Waste 178 tonnes.
- **Total electricity** sent to BELCO: 1402 MWh
Total electricity produced for April: 1925 MWh.
- **Ash Processing Plant:** 82 loads of ash-cement to the Airport Waste Management Facility
- **Unconsolidated Ash:** 21 loads = 176 tonnes were disposed of at the Airport Waste Management Facility

May 2024

- **Stream #1:** was available for 31-days and ran for 27-days. It was down for 4-days (unplanned) due to grab failure and blockage.
Stream #2: was available 31-days and ran for 27-days. It was down for 4 days (unplanned) due to grab failure and blockage.
- **Turbine (T2):** was available for 31-days and ran for 27-days at 50% efficiency. Was offline during grab failure and blockage.
- **Total waste** (less metal): 4191 tonnes. Cooking oil – 45.45 tonnes, Horticultural Waste 0 tonnes.
- **Total electricity** sent to BELCO: TBC MWh
Total electricity produced for May: 2472 MWh.
- **Ash Processing Plant:** 132 loads of ash-cement to the Airport Waste Management Facility
- **Unconsolidated Ash:** 10 loads = 70.3 tonnes were disposed of at the Airport Waste Management Facility

The Authority **REQUESTED:**

Tynes Bay data be presented on a longer-term graph so trends would be more visible.

5. Tynes Bay Operating Licence Application for Reissue

The Authority **APPROVED:**

the application for reissue of the TBWEF Operating Licence, subject to the same conditions.

6. Sallyport Special Waste Facility Operating Licence Application for Reissue

The Authority **APPROVED:**

the application for reissue of the Sallyport Special Waste Facility Operating Licence, subject to the same conditions.

7. Presentation by Ministry of Public Works on Marsh Folly Compost Facility (OL-349)

Ms. Flood Gordon and Mr. Williamson gave a presentation on the operation of the Marsh Folly Compost Facility for the years 2015 to present.

The Marsh Folly Facility accepts horticultural waste from residential, commercial and highways; food wastes, animal carcasses, and sewage wastes. On receipt, the wastes are screened for impurities such as rocks, metals, that could damage the processing equipment, then stockpiled. Some of the wood chippings are used as is, some are composted in windrows, some is incinerated at Tynes Bay Waste to Energy Facility to improve the burn when the level of garbage approaches the level of standing water.

Generally, there is little food waste disposed of at Marsh Folly unless loads of spoiled foods are delivered from restaurants or wholesalers. Food waste from cruise ships is not accepted due to the risk of transmission of pathogens and other pest diseases. It was noted that the compost would be better if more food waste was composted with the horticultural waste.

Public Works will endeavour to undertake regular analysis of compost as required in the operating licence conditions.

The challenges facing the facility are that the composting process is labour intensive and time consuming. Metal wastes can cause severe damage to the chippers; and large amounts of wastes, such as after a hurricane, present logistical issues. Space management is a

challenge; however, some large projects use considerable volumes of compost, freeing up space on site.

Fire risk must be managed by employing designated areas for wastes, having sufficient space between piles, and compacting the wastes to prevent voids.

The presence of a storage area for bales of garbage should the TBWEF be out of commission, was discussed. Mr. Williamson said that there is a level area of ground on the south east side of Marsh Folly that has been created for this purpose and, despite it storing other materials on a periodic basis, can readily be re-purposed for storage of bailed garbage.

MPW Waste Management Team is updating its solid waste management plan and is researching plans from other island nations (especially Hawaii). Copies will be forwarded to DENR when available.

The Ministry of Public Works personnel were thanked for their presentation.

8. Mediawaste Clinical Waste

The Members were reminded that a disposal plan for Mediawaste Clinical Waste Ash has yet to be approved. Three options considered were:

- a) Incinerate ash residue at Tynes Bay with the garbage;
- b) Disposal of ash and/or ash-cement at the Airport Waste Management Facility (AWMF)
- c) Disposal/storage of ash in thick plastic bags within a buried shipping container at AWMF that will also be covered in ash-cement.

Before a decision was made, analysis of the Mediawaste ash and its leachate composition was required. The analyses were carried out on fly ash; bottom ash; mixed fly and bottom ash; and ash-cement.

The results showed that the Mediawaste fly-ash contains dioxins and furans up to 2 orders of magnitude greater than that of Tynes Bay ash. This result may have been partly expected as a result of the lime-addition and filtration system of the exhaust gases in the Mediawaste process to less than five (5) micro-metres (*i.e.* one-tenth the thickness of a human hair). The same level of filtration is not provided for the TBWEF. This suggested that incineration of the Mediawaste ash at TBWEF was not recommended.

Leachate analysis showed that the unconsolidated Mediawaste ash and unconsolidated Tynes Bay ash samples exceeded the Universal Treatment Standard (UTS) regulatory limits for disposal of waste in landfills in the US (*i.e.* Subtitle C Hazardous Waste Landfills).

Specifically, Mediawaste fly-ash and Tynes Bay Bottom ash exceeded the limit for Zinc of 2.61 mg/L and Tynes Bay Bottom Ash for Lead at 0.69mg/L. Octo-Chloro Diphenyl Dioxin (OCDD) and Octo-Chloro Diphenyl Furan (OCDF) exceeded the UTS limits in a range of bottom ashes and mixed ashes of both Mediawaste and Tynes Bay. It is noted that the consolidated ash-cements of both Mediawaste and Tynes Bay were compliant to the UTS landfill standard of the US. This data highlighted the benefits of combining any ash residues with cement to form ash-concrete.

Similar results to the US UTS regulatory limits were also found for the US Hazardous Waste Classification (US CFR 40 Part 261 Subpart A) which refers leachate analysis, for both dioxins and furans. Additionally, Mediawaste exceeded the Antimony standard of 0.1 mg/L for all ash samples and ash-cement while Tynes Bay exceeded limits for Chromium (*i.e.* >0.33 mg/L) and Lead (*i.e.* >0.15 mg/L) in certain unconsolidated ash samples.

9. Applications for Construction Permits and Operating Licences (New)

9.1 CP-828, OL-1273 Department of Parks, 4 Marsh Folly, Pembroke Generator

The Authority **APPROVED**:

the construction permit and operating licence applications for a 250 kW diesel generator at 4 Marsh Folly, Pembroke, subject to standard conditions.

9.2 CP-827, OL-1272 The Thomas Trust, 12 Glebe Hill, Hamilton Parish

The Authority **APPROVED:**

the construction permit and operating licence applications for a 30 kW propane generator at 12 Glebe Hill, Hamilton Parish, subject to standard conditions.

9.3 CP-826, OL-120 David Smith, 7 Trimmingham Hill, Paget

It was noted that all reasonable efforts were taken to minimise genset noise.

The Authority **APPROVED:**

the construction permit and operating licence applications for a 26 kW propane generator at 7 Trimmingham Hill, Paget, subject to standard conditions.

10. Applications for Construction Permits and Operating Licences (Reissues)

10.1 The Authority **APPROVED:**

the applications for reissue of operating licences listed on the two-page printout, subject to standard conditions, with the exception of four facilities (OL-1074 Bda Skyport WWTP, OL-1183 BLCD WWTP, OL-1114 Crosswinds Rental WWTP, OL-813 F & C Scrap Metal) which were deferred pending submission of annual reports or lack of time. OL-358 Belmont Hills, OL-434 Loughlands, OL-801 BHB Acute Care were approved for reissue.

10.2 OL-352 Elbow Beach WWTP, 60 South Road, Paget

The Authority **APPROVED:**

the application for reissue of the operating licence with a change in conditions. Recognizing the WWTP is not receiving much wastewater (*i.e.* two restaurants), and that the main property is in foreclosure, the Authority relaxed the need for monthly analyses to quarterly.

11. Applications for Water Rights (New)

11.1 The Authority **APPROVED:**

WR 5825 Leigh Chiappa & Caitlin Bean domestic water right for household supply at 5 Savannah Road, Hamilton Parish, subject to standard conditions.

12. Applications for Water Rights (Reissues)

12.1 The Authority **APPROVED:**

the reissuance of Water Rights on the two-page printout, subject to standard conditions with the exception of one indicated as withdrawn.

13. Water Resources Amendment Bill and Clean Air Act Amendment Bill

13.1 The Authority **TOOK NOTE:**

that proposed changes to the Water Resources Act and Clean Air Act are being circulated to the public for consultation.

14. Date of the Next Meeting

The next meeting was scheduled for 8:30 am, Wednesday, 24th July 2024 in the DENR Boardroom, Botanical Gardens, Paget



CHAIRMAN

24 July 2024

DATE