

**Minutes of a Meeting of the Environmental Authority
Held on Tuesday, 21 December 2021
At the Department of Environment and Natural Resources, Botanical Gardens, Paget
and Remotely using WebEx Teleconference**

PRESENT: Ms. Davida Morris, Chair, (by remote access)
Mr. Eugene Saunders, Member
Mrs. Susan Armstrong, Member (by remote access)
Mr. Andrew Barnes, Member, (by remote access)
Mr. Willie Ferguson, Member (by remote access)
Mr. Jonathan Starling, Member, (by remote access)

ADVISORS: Dr. Geoff Smith, Environmental Engineer, DENR
Dr. Shaun Lavis, Hydrogeologist, DENR
Mr. Tarik Christopher, Principal Engineer (Water & Sewage), Public Works
(by remote access)

ABSENT: Mr. James Morrison, Member
Mr. Tom Crossan, Chief Environmental Health Officer
Mr. Armell Thomas, Senior Environmental Health Officer
Mr. Paul McDonald, Acting Senior Planner, Dept. of Planning
Mr. Kirk Outerbridge, Chief Engineer, Public Works
Ms. Patricia Hollis, Environmental Officer, DENR, Recording Secretary

1. Confirmation of Minutes

There were no comments on the minutes for the meetings held on 23rd (by e-mail) and 30th November 2021; the minutes were approved and will be signed by the Chair at the next opportunity.

2. BELCO Air Quality Complaints – Responses to EA Letters

The Members were reminded that two letters had been sent to BELCO about soot emissions and periodic poor air quality at Ocean Lane back in July 2021. The latest monthly progress report by BELCO for November 2021 was received by DENR on 13th Dec 2021. BELCO reported that they have applied “partial primary abatement” (PPA) to reduce sulphur concentrations in the air at Ocean Lane when the meteorological conditions cause downdrafting of the exhaust. On the 8th November BELCO reported that PPA was initiated using low-sulphur diesel, instead of the usual heavy fuel oil, in two of the six total baseload engines in operation. Data provided to DENR by BELCO from the Ocean Lane monitoring station, showed that shortly after 16:04 hrs, when PPA was applied, the SO₂ concentration measured at Ocean Lane fell below the 15-minute SO₂ ‘Target Value’ of the UK Air Quality Objectives (*i.e.* <266 µg/m³) and continued to decline despite the winds remaining SSW up until 20:30 hrs.

The BELCO update also reported a total of 55 exceedances of the UK AQ Objective ‘Target Values’ in 2021 so far (*i.e.* 55 times greater than 266 µg/m³ SO₂ 15-minute). The maximum number of exceedances of the Objective in the UK’s jurisdiction before some action is to be taken is 35. Work to introduce the Clean Air Act Amendment Bill, which will align some pollutant parameters to the UK AQ Objectives, is expected to complete later in 2022. There were no exceedances of any Bermuda or UK air quality ‘Limit Values’, where in the UK the ‘Limit Values’ are legally binding whereas the ‘Target Values’ are ‘to be attained where possible by taking all necessary measures not entailing disproportionate costs.’

There was one confirmed soot fallout event during November. All of the engines, except one of them, have been modified by changing the piston crowns (changing the piston crowns is expected to reduce or eliminate soot fallout events). The one remaining engine is expected to be modified during January 2022.

Addition of air filters to fuel storage and centrifuge tanks located along St John’s Road, in an effort to reduce/eliminate fuel odours, began on 6 December 2021. The expected date of completion of the works has not yet been provided to DENR.

Mr Saunders raised a question concerning complaints of bad air quality at Ferry Reach, near the fuel terminals. DENR confirmed that the complaints have been investigated and that there is no evidence to date to suggest the air is a health risk and is expected to remain a nuisance. The complaints received and investigated in September 2021 appear to be related to bad smells from a batch of heavy fuel oil that was unusually odorous. The more recent complaints in December 2021 reflects the next tanker ship delivery of heavy fuel oil to SOL Petroleum. These odours appear to be more typical of the 2-3 monthly deliveries by tanker ship. DENR understands that it would be very challenging to install air filters on the storage tanks to address the ~30 hours of high rate pumping from ship to shore. This is because filters could cause the pressure inside the tanks to build and could ultimately result in damage to the large storage tanks. Use of filters to address odours after the tanker ship has left as a result of the natural breathing of the tanks via the vents is being investigated by SOL Petroleum but the nuisance odours from this natural venting has yet to be fully investigated.

The Clean Air Act Amendment Bill, which is expected to be tabled in the House of Assembly in 2022, will align the Clean Air Standards with international standards and with the UK Air Quality Objectives. Legislation to address nuisance odours from controlled plants is also proposed to be incorporated into new regulations under the Clean Air Act 1991.

3. Elbow Beach Waste Water Treatment Plant

The permanent closure of the holiday cottages at Elbow Beach Hotel (EBH) means that wastewater is only being received at the treatment plant from a few apartments at Frithholme Gardens and from the one restaurant. Effluent quality reported over November demonstrated an improvement in BOD readings (11 mg/l) and non-compliant TSS readings (76 mg/l), suggesting that the sludge is not receiving sufficient organic matter to remain activated thereby preventing the normal settling characteristics within the settlement chamber.

4. Corporation of Hamilton – Upgrades to Sewer and Treatment Plant

A letter from the Environmental Authority to the Ministry of Public Works supporting the upgrade to the Corporation of Hamilton Front Street sewage treatment facility was mailed on 8 November 2021. DENR will follow-up the letter as no reply has yet been received.

5. Regulatory Authority IRP Presentation

The Environmental Authority **REQUESTED**: that a letter be sent to the Regulatory Authority thanking them for their recent update and to ask them to keep the EA updated as progress is made towards the RA's renewable energy production targets.

6. Tynes Bay Waste to Energy Facility

DENR confirmed that the requested letters from the EA to the Permanent Secretary of Public Works, and to the Finance Secretary, Ministry of Finance, had been sent and that no responses had been received to date. DENR provided the following updates concerning the temporary closure of the Tynes Bay Waste to Energy Facility (WTEF) during November 2021:

- Amount of garbage landfilled at Marsh Folly from 27th Nov to 4th Dec was 609 tons;
- The baling machine was repaired and produced 611 bales (917 tons) that were stored in the Contingency Yard;
- The amount of unconsolidated ash sent to the Airport Waste Management Facility (AWMF) was 112 Tonnes (to mid Nov);
- A design issue concerning repairs to the ash crane may require the ongoing disposal of unconsolidated ash at the AWMF until the issue is rectified;
- Stream #1 of the WTEF was back online on 1st December;
- Stream #2 of the WTEF was back online around the 17th December;
- The garbage in the storage pit has fallen to a level below the top of the pit; and
- Heat exchangers will require planned replacement during a 2-month maintenance period early next year. This is required to improve electricity generation capacity and efficiency, which have recently dropped significantly such that the facility may not currently be generating sufficient electricity to export.

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

7.1 The Authority: DEFERED

CP-700, OL-1104: Intelligent Excavating, Lukes Pond, Southampton, pending submission of further information concerning the rock crusher.

7.2 CP-738, OL-1163 Hope Healthcare (Update)

Subsequent assessment by DENR following approval of this application by the EA during Meeting #360, identified that the exhaust of the 150 kW generator would be directed upwards at or close to the boundary of the neighbouring residence. This could cause poor air quality if north easterly winds coincided with periods of mains electricity black-out. According to the applicant’s agent, it will be possible to move the generator further away from the neighbour to a location along the applicant’s northern site boundary.

The Authority **APPROVED:**

the application for a 150 kW diesel generator at 32 Point Finger Road, Paget, subject to standard conditions and providing that the generator will be installed along the applicants northern site boundary such that the risk of impacts to the neighbour’s air quality will be reduced.

7.3 CP-659, OL-1052 Mr Aeschliman, 34 Pitt’s Bay Rd, Pembroke. 14 kW LPG genset

Sound attenuation was required for this generator following a sound measurement survey undertaken by DENR. The applicant proposes to extend his wood-panel fence to form a structure for a sound barrier to be attached when required between the generator and the neighbours where exceedances of EA sound limits were measured.

The Authority **APPROVED:**

The application for a 14 kW LPG genset at 34 Pitt’s Bay Road, Pembroke subject to standard conditions and the extension of the wood-panel fence to provide a sound barrier as per the description in the application.

7.4 OL-973, Mr & Mrs DeCouto, 37 Grape Bay Drive, Paget, 30 kW LPG genset.

The Authority **DEFERRED:**

the issuance of OL-973 at 37 Grape Bay Drive, Paget pending further information about the required sound barrier.

8. Applications for Operating Licences (Reissue)

The Authority **APPROVED:**

the reissue of operating licences on the one-page printout, subject to standard conditions, with the exception of OL-142 (Corporation of Hamilton) and OL-901 (US Consulate General) pending submission of their annual reports.

9. Applications for Water Rights (New)

The Authority **APPROVED:**

- WR-5735 and WR-5736: BELCO, 27 Serpentine Rd, Pembroke for two reverse osmosis supply wells, abstracting up to 12,000 IGPD per well, subject to standard conditions;
- WR-5737: Mr Justin Paynter, 79 Harrington Sound Road, Smiths, rainwater disposal borehole, subject to standard conditions; and
- WR-5738: Mr Justin Paynter, 79 Harrington Sound Road, Smiths, sewage disposal borehole. Subject to standard conditions and the borehole being sealed to at least 40 ft below sea-level with at least 20 ft open hole afterwards.

10. Applications for Water Rights (Reissue)

The Authority **APPROVED:**

the reissuance of Water Rights on the one-page printout, subject to standard conditions.

11. Date of the Next Meeting

The date of the next meeting will be set once the EA has been reformed in the New Year.



CHAIRMAN

22 JANUARY 2022

DATE

