

**Minutes of a Meeting of the Environmental Authority
Held on Tuesday, 28 September 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)
Mrs. Susan Armstrong, Member (by remote access)
Mr. Andrew Barnes, Member, (by remote access)
Mr. Willie Ferguson, Member (by remote access)
Mr. James Morrison, Member (by remote access)
Mr. Eugene Saunders, 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), Acting Chief Engineer, Public Works (by remote access)
Mr. Kirk Outerbridge, Chief Engineer, Public Works (by remote access)
Ms. Patricia Hollis, Environmental Officer, DENR, Recording Secretary

ABSENT: Mr. Paul McDonald, Acting Senior Planner, Dept. of Planning
Mr. Armell Thomas, Senior Environmental Health Officer
Mr. Tom Crossan, Chief Environmental Health Officer

IN ATTENDANCE: BELCO Representatives (by remote access)
Mr. Mark Pacheco, Director, OHSE & Business Continuity Director, BELCO
Mr. Andrew Rothwell, OHSE Coordinator, BELCO

1. Confirmation of Minutes

The Minutes of the meeting held on 31 August 2021 were reviewed and accepted. They are to be signed at the next in-person meeting.

2. Corporation of Hamilton - Upgrades to Sewer and Treatment Plant

There was nothing to report.

3. Elbow Beach Waste Water Treatment Plant - there was nothing to report.

4. BELCO Water Quality Monitoring –update

There was nothing to report.

5. Strategy for Future Request for Importation of Refrigerants

There was nothing to report.

6. Presentation by BELCO on their Annual Operating Licence Report

Mr. Andrew Rothwell and Mr. Mark Pacheco of Belco made a presentation on their annual operating licence report for 2020.

It was reported that:

- i) **Engines:** Belco operated 8 diesel engines (down from 16 in 2020), 4 gas turbines (no change) and 1 oily waste water treatment plant (no change). The maximum generation capacity reduced from 214.3 MW to 142 MW. 722,643 barrels of heavy fuel oil and 41,304 barrels of light fuel oil were consumed in 2020. Four shipments of HFO, max sulphur content of 1.75% (limit 2.0%) and one shipment of LFO, max sulphur content of 0.000969% (limit 0.5%), were received in 2020.
- ii) **Cables:** Belco uses 255 miles of underground transmission and distribution cable, 915 miles of overhead distribution and service lines. It maintains 32 substation, hundreds of vaults and about 2,500 pole and pad-mounted transformers. A project is underway to replace 40% of underground transmission cables and to provide increased capacity to support large-scale renewable energy projects.
- iii) **Opacity Monitoring:** 6 of the 8 engines are equipped with continuous in-stack monitors, and certified visual and camera-based observers are on site. Four exceedences of the opacity standard were recorded in 2020 outside of the 30-minute

- start-up/shut-down concession, most due to low loads in East Power Station during the commissioning of new engines in the North Power Station, or related to the longer duration start-up after the island-wide blackout.
- iv) **Ambient Air Monitoring Stations:** four stations measure pollutants and meteorological conditions. There were no exceedences measured in 2020. There have been some decreases in SO_x, NO_x due to the retirement of older engines that were connected to stacks with lower heights.
 - v) **Oily Waste Management Programme:** 99,615 US gallons of waste oil were recovered from plant operations in 2020. This was sent to and processed at licenced facilities in USA and Greece.
 - vi) **Oily Waste Recovery:** three waste oil recovery centres and 145 wells were utilized in the subsurface hydrocarbon recovery programme. In 2020, it was estimated that 29m³ of recoverable product remained in the ground. There was no change in the location of the zero-thickness boundary line around the site perimeter.
 - vii) **Complaints Management and Roof Painting Programme** was maintained in 2020. It was noted that there have been recent complaints of fuel odours near St. John's Road. Mr. Rothwell replied that activated carbon fuel filters have been ordered for the fuel tank vents and separators. These were due to be shipped and installed by the end of October 2021.
 - viii) **Ambient Noise and Vibration Monitoring:** Belco met all noise-related conditions pre and post North Power Station construction. Vibration measurements continue to be taken for the North Power Station. The retirement of E1-E4 engines has led to a reduction in vibrations.
 - ix) **Spill Prevention and Reporting:** Belco has adopted API standards for tank and pipeline inspections, maintenance and testing. All petroleum storage tanks are regularly inspected. There were 2 reportable spills in 2020, one being from a pole mount transformer, the other was a failure of equipment at the oily wastewater treatment plant.
 - x) **Major Environmental Pollution Plan and Exercises:** There was a significant delay of the desktop exercise due to Covid-19 restrictions. An alternative field exercise was carried out.
 - xi) **Compliance with Operating Licence:** BELCO is compliant with all but seven operating licence conditions. There were four exceedences of opacity standard; the ambient air quality monitoring quality assurance plan requires revision to incorporate new equipment and BDA 4; the audits of the ambient air quality monitoring programme were unable to be completed due to pandemic-related restrictions, two leak detection inspections were missed due to pandemic-related restrictions; one of two reportable spill incidents was not reported to the Department of Environment and Natural Resources in time due to an incorrect estimate of volume of oil spilled; not all public complaints regarding air/water quality following the 20 June 2020 soot fall-out event were reported to the Department of Environment and Natural Resources; and the audits of the ambient air quality monitoring programme were unable to be completed due to pandemic-related travel restrictions. Belco remains certified under ISO 14001.
 - xii) **Training:** Belco continues to undertake skill-specific training and standard operating procedure awareness training programmes for its staff and contractors.
 - xiii) **Stack Emissions and Air Dispersion Modelling:** these were not required to be undertaken in 2020.
 - xiv) **Site Waste Management:** BELCO segregates its wastes based on the type of waste, intended disposal facility, and the specific hazards associated with the waste. All waste disposal is logged and tracked.

The BELCO representatives were thanked for their presentation.

The Environmental Authority **DEFERRED:**

BELCO's operating licence application and requested recommended changes to the conditions be presented at their next meeting.

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

There were no new applications for construction permits or operating licences.

8. Applications for Operating Licences (Reissue)

8.1 The Authority **APPROVED:**

the reissue of operating licences on the four-page printout, subject to standard conditions, with the exception of:

- OL-114 BELCO engines which were deferred pending consideration of their annual report and presentation to the Authority.
- Ministry of Public Works Facilities that require annual reports (OL-168, OL-349, OL-387, OL-452) were deferred.

8.2 OL-004 Tynes Bay Waste To Energy Facility (TBWEF)

The Environmental Engineer reviewed the TBWEF annual report for 2020/21 during the meeting. Points highlighted were:

- i) Total waste incinerated in 2021 was 46,522 tonnes, which is less than the estimated 69,000 tonnes from the previous year. Domestic waste by proportion increased and trade waste volume percentage decreased; this may reflect the effects of “working from home” imposed by Covid-19.
- ii) 23,668 MWh of electricity was produced by TBWEF, with 14,706 MWh of electricity being exported to the BELCO grid. The remaining electricity was used inhouse and for the Government’s Sea Water Reverse Osmosis plant.
- iii) The steam turbine was available 355 days (97%), the wood shear only 246 days (67%). Stream 1 was available 274 days (75%), planned outages 1%, unplanned 24%. Stream 2 was available 189 days (52%), planned outages 37%, unplanned outages 11%. The low percentage of stream availability is indicative of the aging plant and the need for replacement of this 27 year old plant.
- iv) The list of trained staff was provided, as was the emergency response plan. It was noted that the contingency plan was submitted but this needs updating prior to the installation of the third stream.

The Authority **APPROVED:**

the reissuance of the TBWEF operating licence subject to the same conditions as previous.

8.3 OL-135 Tynes Bay Septage Facility, Devonshire

The Environmental Engineer reviewed the 2019/20 annual report for the Tynes Bay Septage Facility, Devonshire. Highlighted points were:

- i) The septage facility is available to septage hauliers (via FOB system) 24 hours per day.
- ii) The front end screen restricts particle size to 6 mm. The settlement tank is 36,000 US gallons capacity.
- iii) With the solids building up from the base, and fats, oils and greases building down from the top, the mid-depth liquid is pumped to Hamilton for discharge at the Seabright Outfall. The settlement tank is pumped out and cleaned every 6 months.
- iv) During 2019-20, 7,669 tonnes of sewage was received, and no spills were reported.
- v) The effluent from the Tynes Bay facility makes up about 15-20% of the total solids and about 2% of the total flow going to the Seabright Outfall. The contribution of fats, oils & greases has yet to be determined.

The Authority **APPROVED:**

the reissuance of the Tynes Bay Septage Facility operating licence subject to the same conditions as previous.

9. Applications for Import Permit

9.1 The Authority APPROVED:

the application for an import permit submitted by Air Pro for 30 x 30 lb cylinders of R-22 for One Communications air conditioning system, subject to standard conditions and providing a letter advising on the restrictions of use/import for R-22 is sent to the Applicant. It was noted that drop-in replacements for R-22 (R407c and M099) had been tried, but they caused problems with the air-cooled electronic expansion valves. The R-22 is required for the backup circuit. One Communications air conditioning system is due to be replaced in about 18 months’ time.

9.2 The Authority APPROVED:

the application for an import permit submitted by AirCare for 40 x 25 lb cylinders of R410 A, subject to standard conditions and the letter being sent to the importer advising of the R22 restrictions.

10. Applications for Water Rights (New)

The Authority **APPROVED**:

10.1 WR 5705 Irene Lima, 34 Mill Shares Road, Pembroke. Domestic water right for the disposal of treated sewage effluent, subject to standard conditions and providing the borehole is sealed at least 40 feet below sea level.

10.2 WR 5706 Richard Strachen, Lot 7, Riddells Bay Road, Warwick. Domestic water right for the disposal of treated sewage effluent, subject to standard conditions and providing the borehole is sealed at least 40 feet below sea level.

10.3 WR 5707 Catherine & Chris Silvester, Lot 2 Fairways Road, Warwick. Domestic water right for the disposal of treated sewage effluent, subject to standard conditions and providing the borehole is sealed at least 40 feet below sea level.

10.4 WR 5708 Scott Hunter, Glenduror, 6 Wellington Street, St. George's. Domestic water right for the disposal of treated sewage effluent, subject to standard conditions and providing the borehole is sealed at least 40 feet below sea level.

11. Applications for Water Rights (Reissue)

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

12. Applications for Well Digger's Licence

The Authority **APPROVED** the issuance of an annual well digger's licence to Aardvark Drilling, subject to standard conditions.

13. Regulatory Authority: Request for Environmental Authority to be Consulted on IRP

The Authority **TOOK NOTE**:

That the Regulatory Authority has responded to the Environmental Authority's request to be consulted on the IRP. It is expected that representatives from the Regulatory Authority will make a presentation at the next meeting of the Environmental Authority.

14. Establishment of a framework for a Water Authority: Request for Environmental Authority to be Consulted

There was nothing to report.

15. Major Oil Spill Exercise

The Authority **TOOK NOTE**:

That the planned oil spill exercise has been postponed due to a nearby hurricane and increased public health restrictions due to COVID-19.

16. Date of the Next Meeting

The date of the next meeting was set for 8:30 am, Tuesday, 26 October 2021.



CHAIRMAN

26/10/2021

DATE