# OMA Report – Discharges to Water – EPR

| Summary sheet | |
|---|---|
| Permit Number: NP3037AF | Compliance Officer: Stuart Ross |
| Operator: Uniper UK Ltd | Auditor (if different): Stuart Ross & Carter Shone |
| Discharge point(s): W1, W2 and W3 | Others Present: Uniper Environmental Advisor |

| OMA Sections | | SCORE |
|---|---|---|
| OMA 1 – Management of monitoring | | 100% |
| OMA 2 – Periodic monitoring and test laboratories | | N/A |
| OMA 3 – Continuous monitoring | | 80% |
| OMA 4 – Quality assurance | | 90% |
| | OVERALL SCORE | 90 % |
| OVERALL SITE ASSESSMENT COMMENTS | | Letter |
| | | Variation |
| | | Enforcement |

Very little has changed since the previous OMA Water Audit completed in 2018. Monitoring of emissions to surface water continues to be completed to a high standard. Staff continue to demonstrate an excellent understanding of the permit monitoring requirements with sufficient resources and established management systems in place.

Since the last audit the use of chlorine dioxide for cooling water treatment has permanently ceased and therefore all chlorine dioxide monitoring equipment has been removed from service.

If Uniper intend to maintain the current positioning the 'oil in water' analyser for W1 discharges then this must be addressed through the next permit variation application. If the application is not accepted and oil in water analysis of final effluent is to continue then the analyser must be moved to the final discharge line.

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| Date of audit: 23/07/24 |
| Signed: |
| Date: 23/10/24 |

| OMA 1: Management of monitoring | | |
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| **OMA ELEMENTS** | **SCORE** | **COMMENTS** |
| A. Documentation of management system procedures for monitoring | 5 | Effective monitoring procedures are in place. Procedures are controlled and form part of the site EMS. |
| B. Organisational structure for monitoring | 5 | Roles and responsibilities are well defined. Sufficient resources are available for monitoring. |
| C. Schedules and planning of monitoring, including contingencies | 5 | No periodic sampling is required by the permit. Continuous Water Monitoring equipment monitors each discharge. Calibration and maintenance of the CWMs is scheduled through SAP. |
| D. Monitoring records and use of monitoring data | 5 | Monitoring results are trended and reviewed monthly. Real time alarms are in place for all emission points to alert operators to emission limit exceedance and in such circumstances the discharge is ceased and the cause investigated. |
| E. Understanding the requirements of the permit and monitoring methods | 5 | Uniper personnel demonstrate an excellent understanding of the monitoring requirements as set out in the permit. |
| **OMA 1 – SCORE** | 25/25 | 100% |
| **SUMMARY COMMENTS FOR OMA 1** | | |

The EMS at Connah's Quay Power Station is accredited to ISO 14001

Summary of key Procedures;

LMI 2014 – A comprehensive and overarching procedure addressing monitoring requirements for all emissions to air and water.

LMI 3004 – A procedure addressing the reporting and quality assurance procedures for reporting routine water emissions quality data to NRW as required by the permit.

LMI 2009 `Environmental Roles & Responsibilities` provides additional detail regarding assigned specific responsibilities for MCERTS equipment.

In house laboratory methods (process monitoring) and CWMs are used to check effluent quality in purge ponds and the operator requires that effluent must meet the permit limits prior to discharge.

| OMA 2: Periodic monitoring and test laboratories | | |
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| **OMA ELEMENTS** | **SCORE** | **COMMENTS** |
| A. Sampling provisions<br><br>*Critical Element* | N/A | |
| B. Certification of equipment | N/A | |
| C. Measurement methods and standards<br><br>*Critical Element* | N/A | |
| D. Calibration methods<br><br>*Critical element* | N/A | |
| E. Frequency of maintenance and calibration | N/A | |
| F. Reliability of equipment (data availability) | N/A | |
| G. Breakdown response | N/A | |
| H. Traceability | N/A | |
| **OMA 2 – SCORE** | | |

| SUMMARY COMMENTS FOR OMA 2 |
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| No periodic monitoring of surface water emissions is required by the Environmental Permit. |

| OMA 3: Continuous monitoring | | |
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| **OMA ELEMENTS** | **SCORE** | **COMMENTS** |
| A. Provisions for monitoring and location of CWMs<br><br>*Critical element* | 3 | Except for the oil in water analyser, the CWMs for all parameters are located at the final discharge point. Sampling locations and facilities appear to be fit for purpose. |
| B. Certification of CWMs | 3 | The pH probe at W1 is MCERTs certified whereas probes installed at W2 and W3 are not. MCERTs is not available for salinity, TRO and oil in water CWMs. |
| C. Measurement methods and standards<br><br>*Critical element* | 5 | CWMs used for relevant determinands. |
| D. Calibration methods<br><br>*Critical element* | 5 | CWMs are suitably calibrated. Documented calibration procedures are in place. |
| E. Frequency of maintenance and calibration | 5 | As a minimum, calibration is completed in accordance with the equipment manufacturer's recommended frequency. ABB complete weekly calibration of pH, salinity and temperature instruments. The manufacturers of the oil in water analyser report that no calibration is required. |
| F. Reliability of equipment (data availability) | 5 | Routine emissions monitoring data is collated and reviewed. No notable gaps in data observed and routine monitoring data is reported to NRW without issue. |
| G. Breakdown response | 3 | Breakdown service provided by ABB although this provision not clearly documented within the monitoring procedures. |
| H. Traceability | 3 | pH calibration standards used. |
| **OMA 3 - SCORE** | 32/40 | 80% |

## SUMMARY COMMENTS FOR OMA 3

**W1 CWMs**

- Temperature is measured by thermocouple.
- Salinity, Hach-3700 Series analyser with a D3725E2T probe.
- pH, MCERTS ABB AX400.
- TRO, Swan Analyser
- Oil and Grease, PAC Advanced Sensors SA100P2.
- Flow, (MCERTs certified site-specific arrangements).

**W2 CWMs**

- pH, ABB 4600 : 4630/500 analyser.
- Oil and grease, Agar Technologies / GE Leakwise PS220 / ID-223/2000 oil in water analyser. - Residual chlorine dioxide, instruments manufactured by Reiss GmbH.

**W3 CWMs**

- pH, ABB 4600 : 4630/500 analyser.

Any replacement monitoring equipment shall meet MCERTs requirements where available.

**Oil and Grease Monitoring (W1)**

During the previous OMA (water) audit it was established that Uniper had installed an 'Advanced Sensors SA100P2 oil in water analyser' on the discharge line to the SDX pit.

This analyser replaced a previous instrument installed at this location and is in accordance with historical emissions monitoring arrangements from the SDX pit that date back to plant commissioning and the original permit application. SDX pit waters mix with the purge pond waters before discharging via emission point W1 and therefore the instrument upstream of the W1 monitoring kiosk for the combined discharge.

Subsequent to the previous audit and more recent correspondence, Uniper presented a risk assessment that concluded the risk of oil entering the purge ponds and discharging from the site undetected was low. In summary, Uniper deemed that the positioning of the oil in water analyser on the SDX pit was appropriate as this is the most likely water stream to contain oil and grease, with little else potentially introducing oil and grease to the purge ponds. Uniper proposed to continue using the oil in water analyser at its current position.

Uniper currently complete a visual inspection of presence of oil and grease on the purge ponds pre-discharge.

During this OMA it was agreed that if Uniper intend to maintain the current positioning of the analyser at the SDX pit and not relocate or install a new analyser for the mixed purge pond discharge (i.e. at the monitoring kiosk or similar), then this must be addressed through the next permit variation application to regularise the situation. If the application is not accepted by NRW then the analyser must be relocated.

| OMA 4: Quality assurance | | |
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| **OMA ELEMENTS** | **SCORE** | **COMMENTS** |
| A. External quality control schemes | N/A | Periodic sampling is not required by the permit. |
| B. Internal data quality control | N/A | Periodic sampling is not required by the permit. |
| C. Competence of monitoring personnel | 5 | Monitoring personnel are deemed competent, training matrices are in place. Key staff have completed MCERTs awareness training. |
| D. Auditing of monitoring | 3 | The operator has previously audited emissions monitoring, but an audit plan is not in place for the current year – to be developed. An internal OMA audit was completed June 2024. |
| E. Audit compliance | 5 | Corrective actions are logged on Synergy and tracked through to completion. |
| F. Reporting | 5 | Monitoring data is logged and controlled by limited site personnel. Reporting of data is to a high standard meeting the permit requirements. |
| **OMA 4 – SCORE** | 18/20 | 90% |

| SUMMARY COMMENTS FOR OMA 4 |
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