

OMA Report – Emissions to Air – EPR

Summary sheet		
Permit Number: NP3037AF	Compliance Officer: Stuart Ross	
Operator: Uniper UK Limited	Auditor (if different): Stuart Ross, Andrew Collins	
Emission Point(s): A1-A4, A11, A12, A10A - A10E	Others Present: Andrew Black (Environment Manager), Mike Felgate (Plant Manager), Tom Houlgate – Uniper Environment Team	
OMA Sections		SCORE
OMA 1 – Management of monitoring		23/25 = 92%
OMA 2 – Periodic monitoring and test laboratories		39/40 = 98%
OMA 3 – Continuous monitoring		31/35 = 89%
OMA 4 – Quality assurance		29/30 = 97%
		123/130 = 95%
		OVERALL SCORE
OVERALL SITE ASSESSMENT COMMENTS		Letter
		Variation
		Enforcement
Since the last OMA audit there have been changes to the permitted emission limit values (IED permit variation December 2015) but the monitoring requirements and provisions have remained largely unchanged with the exception of the addition of 7 new emission points for the auxiliary boilers. The operator last received an OMA (Air) audit in December 2013 and since that time it has again been confirmed that effective monitoring provisions are in place. However, Uniper have made an error in not applying the 2015 QAL 2 function to CEMS A1 – A4 which has resulted in inaccurate NOx and CO data being reported to NRW. This error was identified by Uniper during their own internal audit immediately prior to the OMA and voluntarily brought to the attention of NRW. CEMs data for 2016 and Q1 2017 has been reviewed by Uniper by applying the correct calibration function, back calculating the data, and it was confirmed that emissions were compliant over the period. However mass emissions for NOx have been under reported to the TNP and EPRTTR. CO has been over reported. NRW required Uniper to resubmit routine monitoring, TNP and EPRTTR returns for the affected period. Procedures require improvement to ensure the correct calibration functions are applied promptly following future QAL2.		
Date of audit: 14/06/17 Signed:  Date: 28/07/17		

OMA 1: Management of monitoring		
OMA ELEMENTS	SCORE	COMMENTS
A. Documentation of management system procedures for monitoring	4	The site EMS is accredited to ISO14001. There are procedures for monitoring with Local Management Instruction (LMI) 2014 (most recently revised October 2016) covering the majority of requirements relating to monitoring including EN14181. Uniper failed to use the up to date QAL 2 calibration function for CEMS A1 – A4 leading to inaccurate reporting which reflects a deficiency in the management system. Steps must be taken to verify that the correct calibration function is in use.
B. Organisational structure for monitoring	5	Procedure LMI 2009 comprehensively details roles and responsibilities. Organogram in LMI 2014. Sufficient resources in place. Deputy in place.
C. Schedules and planning of monitoring, including contingencies	5	The basis of monitoring schedule/plan covered by LMI 2014. Scheduling of monitoring and CEMS maintenance is managed through SAP reflecting the requirements of the permit. QAL 2 and AST testing are completed as required. SSP's were available as provided by Uniper Technologies Group Ltd (UTG) prior to any site testing visit. Missed sampling cannot be closed down on SAP until complete. SAP tasks reviewed during daily meetings.
D. Monitoring records and use of monitoring data	4	Local Management Instruction (LMI) 3005 contains procedures used by the operator for tracking emissions trends. Control charts are used to track data trends for CEMs through Envirosoft CEM data acquisition software, but not for periodic monitoring (aux boilers). Control charts inspected. Data is reviewed at quarterly SHEQ meetings.
E. Understanding the requirements of the permit and monitoring methods	5	Staff have an excellent understanding of monitoring requirements and are suitably qualified and experienced in their roles. The site Environment Advisor has MCERTS level 1. Uniper have developed an air emissions monitoring training package that has been delivered to site shift teams, shift team leader and others.
OMA 1 – SCORE	23/25	92%
SUMMARY COMMENTS FOR OMA 1		

Overall, a high level of management control is in place for emissions monitoring. We have the following actions / recommendations;

- **ACTION** Implement/amend relevant procedures to ensure the correct QAL 2 calibration function is implemented in a timely manner. Where 3rd parties are permitted to update the calibration function, checks should be made to verify that this has been properly completed.
- Recommendation – Update LMI 2014 to include the monitoring requirements for the auxiliary boilers.
- Recommendation - Trend periodic monitoring data for auxiliary boilers.

OMA 2: Periodic monitoring and test laboratories		
OMA ELEMENTS	SCORE	COMMENTS
A. Sampling provisions <i>Critical Element</i>	4	Sampling facilities appear safe with guard rails and kickboards installed. Homogeneity tests show sample points are representative (A1 – A4) but platforms do not meet all of the requirements of TGN M1. The sample points have been labelled since the last audit. The boiler stacks have heated lines from stack to ground level - monitoring points have 'functional location labels', it is recommended that emission point labels include permit nomenclature.e.g. A10E.
B. Certification of equipment	5	UTG use MCERTS certified systems for their reference monitoring e.g. ABB Limas, ABB Uras and ABB Magnos analysers.
C. Measurement methods and standards <i>Critical element</i>	5	Periodic measurement methods and standards used by UTG all comply with standard reference methods of highest priority, as stipulated in TGN M2.
D. Calibration methods <i>Critical element</i>	5	Sampling and analytical equipment used by contractor (UTG) are all calibrated to MCERTS and UKAS standards where applicable.
E. Frequency of maintenance and calibration	5	All equipment involved in periodic testing has MCERTS/UKAS certification. UTG's in house calibrations/validations have been assessed/approved by UKAS, as part of their UKAS accreditation.
F. Reliability of equipment (data availability)	5	Periodic monitoring is completed as required by the permit.
G. Breakdown response	5	UTG provide for complete availability as required by MCERTS. If contractor equipment was subject to failure or breakdown, parts and spares can always be provided within 24 hours.
H. Traceability	5	Periodic monitoring is performed by MCERTS accredited contractor. Contractor laboratory holds UKAS accreditation for all relevant determinands being analysed for emissions to air. Reference materials used for calibrations purposes are traceable to EN ISO/IEC 17025.
OMA 2 – SCORE	39/40	98%

SUMMARY COMMENTS FOR OMA 2

Recommendation - Label boiler emission points with permit nomenclature.e.g. A10E.

Periodic monitoring is completed to a high standard.

OMA 3: Continuous monitoring		
OMA ELEMENTS	SCORE	COMMENTS
A. Provisions for monitoring and location of CEMs <i>Critical Element</i>	4	Sampling facilities appear safe with guard rails and kickboards installed. Homogeneity tests show sample points are representative (A1 – A4) but platforms do not meet the requirements of TGN M1. The sample points have been labelled since the last audit. GTP platforms appear compliant with TGN1.
B. Certification of CEMs	5	LAND FGA II flue gas analysers fitted to all units (A1-A4). Siemens Ultramat 23 and 6 fitted to A11. MCERTS compliant. Envirosoft data recording software is also MCERTS accredited, and updated with IED ELVs and MSUL& MSDL criteria.
C. Calibration methods <i>Critical element</i>	2	A1 – A4 QAL2 & AST, Uniper failed to enter the up to date calibration function leading to inaccurate reporting (please refer to the Compliance Assessment Report for further details). CEMs subject to QAL 3 every 2 weeks. Ultramats calibrated by Siemens.
D. Frequency of maintenance and calibration	5	A1-A4 CEMs maintained by LAND, Ultramats maintained by Siemens. QAL 2 AST & QAL 3 completed as required per BE EN 14181. QAL 3 results managed using control charts via Envirosoft.
E. Reliability of equipment (data availability)	5	CEMS are reliable, invalidation of CEMS within permit limits and reported as per permit requirements.
F. Breakdown response	5	Critical spares held on site. 24hr call out available from LAND and Siemens
G. Traceability	5	QAL 2 and AST tests demonstrate traceability to national standards. Traceable in date span gases used accredited to UKAS standards (EN ISO/IEC 17025 - sample of certificates viewed). QAL2/AST reports are all documented, and evidence of QAL3 records on Envirosoft were documented whilst on site.
OMA 3 – SCORE	31/35	89%

SUMMARY COMMENTS FOR OMA 3

Recommendation - It was noted during the site tour, that one of the span gas cylinders used for ongoing calibrations (QAL3) of FGA II CEMS for Carbon Monoxide (CO) had a certified concentration of 100ppm CO. In order to fulfil the requirements of BS EN 14181 (and Technical Guidance Note M20), the span gas used should be in line with $2 \times$ the daily ELV (or up to $1 \times$ short term ELV), which would be 60mg/m³ or 48 ppm. Therefore it is recommended that a span cylinder containing 50 ppm CO should be used for ongoing QAL3 calibration checks, as this concentration would be in line with the correct ELV's, and fulfil the requirements of the relevant standards/guidance. This has also been alluded to in UTG's AST Testing Report in February 2017

OMA 4: Quality assurance		
OMA ELEMENTS	SCORE	COMMENTS
A. External quality control schemes	5	All monitoring activities are MCERTS accredited. UTG (Test Contractor) are a UKAS accredited company to EN ISO/IEC 17025. UTG participate in the NPL stack simulator proficiency scheme.
B. Internal data quality control	5	CEMs data is reviewed using control charts and discussed at quarterly SHEQ meetings. No data capping, data backed up. Envirosoft data recording software is MCERTS accredited, incorporating optimised ranges of the CEMs. Procedures detailed in LMI 3005 are used for reviewing the data and its integrity.
C. Competence of monitoring personnel	5	UTG personnel have appropriate MCERTS certification to the correct level and technical endorsements.
D. Auditing of monitoring	5	Uniper has a monitoring audit procedure based on the EA template. Uniper complete periodic on site auditing of UTG. An audit was completed by Ian Jones February 2017, usually an annual requirement. Uniper conduct internal OMA ahead of regulator audit.
E. Audit compliance	5	'Action Base' IT system used to track audit findings and track corrective and preventative actions.
F. Reporting	4	Reporting is covered by procedure LMI 3005 for emission points A1- A4, A11 & A12, periodic monitoring of the auxiliary boilers needs to be included within the document. CEMS emission data reports for A1 – A4 generated by Envirosoft. NRW has not observed any significant issues with routine reporting in terms of data quality and timing.
OMA 4 – SCORE	29/30	97%
SUMMARY COMMENTS FOR OMA 4		
<u>Recommendation</u> - Amend LMI 3005 to include the auxiliary boilers.		

Acknowledgements

Content based on Environment Agency Operator Monitoring Assessment Version 4, January 2013 Reporting Template, Emissions to Air - used with permission.

Further Information

More Guidance regarding Operator Monitoring Assessment (V4) can be found at the following GOV.UK webpages (Environment Agency Guidance Notes):

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/301267/Preparation_for_an_OMA_audit.pdf

[https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/301257/Industrial_installations_regulated_under_the_EPR -
_emissions_to_air.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/301257/Industrial_installations_regulated_under_the_EPR_-_emissions_to_air.pdf)