OMA Report – Emissions to Air – EPR

Summary sheet	
Permit Number: BL5644IK	Compliance Officer: Doug Cowie & Nick Jenkins (NRW)
Operator: Sensient Flavors Ltd, Felinfach, Lampeter, Ceredigion, SA48 8AG	Auditor (if different): Andy Collins (NRW) Air Quality Technical Specialist
Emission Point(s): A1 – A7 inclusive, A11 & A12.	Others Present: Tim Pink (Sensient EHS Manager)

OMA Sections		SCORE
OMA 1 – Management of monitoring		70%
OMA 2 – Periodic monitoring and test laboratories		90%
OMA 3 – Continuous monitoring		N/A
OMA 4 – Quality assurance		64%
	OVERALL SCORE	78%
OVERALL SITE ASSESSMENT COMMENTS		Letter
		Variation
		Enforcement

This OMA focused on the periodic monitoring of emissions to air) from all permitted emissions points to air at Sensient Flavours Ltd, Felinfach.

Sensient has shown that management of monitoring is to a good standard, providing reliable monitoring data. Competency of periodic monitoring is very high, whilst quality assurance is generally good. All the critical elements (located in Section 2) also passed the satisfactory score line.

General improvements could be made to certain elements of the Management of Monitoring and Quality Assurance, particularly auditing of the monitoring.

Overall, the OMA report gained a good score of **78%.** In addition to the above comments, there are additional observations noted in this audit, along with several recommendations, which Sensient should review and act upon where necessary.

Date of audit: 24/08/2017

Signed: A Collins

Date: 01/09/2017

OMA 1: Management of monitoring		
OMA ELEMENTS	**SCORE**	**COMMENTS**
A. Documentation of management system procedures for monitoring	4	The operator has documented and up to date monitoring procedures in place. Documents EHS-MS-002 (Environmental Management System Responsibilities), EHS-INS-506 (Emissions monitoring procedure) and EHS-FRM-501 (Environmental audit & Risk Assessment) cover the operator's procedures for managing monitoring. All documents provided during the audit, with the exception of EHS-MS-002 and EHS-FRM-501, have recently been created but all are stored on a shared EHS drive. The Site-Specific Protocol (SSP) for periodic testing from monitoring contractor Northumbrian Water Group plc (NWG) is sent to the relevant site personnel prior to any periodic monitoring being carried out.
B. Organisational structure for monitoring	4	Evidence of company organogram covering corporate structure and the Felinfach facility management was documented. Document EHS-MS-002 (Environmental Management System Responsibilities) covers roles and responsibilities for Sensient staff involved in monitoring. Sufficient resources (e.g. a deputy to EHS Manager) are always in place for monitoring provisions, which covers business continuity.
C. Schedules and planning of monitoring, including contingencies	3	Monitoring schedules follow permit monitoring requirements, and are covered in operator document EHS-INS-505 (Emissions Monitoring Schedule). The most recent Site Specific Protocols (SSP) for all emissions points within the OMA scope were witnessed. It was noted that despite the operator's schedules and planning, there was a missing sample from quarterly periodic monitoring earlier in 2017.
D. Monitoring records and use of monitoring data	*N/A*	*Evidence that operator reviews periodic monitoring results (on document form EHS-FRM-504), and uses data to investigate when there is any breach in ELV from an emission point. However, as the qualification*

		for OMA scoring within this element relates primarily to Continuous Monitoring, it is not possible to give a valid score – thus this element is classed as Not Applicable.
E. Understanding the requirements of the permit and monitoring methods	3	Sensient's EHS manager demonstrated a good understanding of the requirements of the permit and monitoring methods. However, there is no evidence to demonstrate attendance at relevant training courses related to monitoring.
OMA 1 – SCORE	14/20 = 70%	

SUMMARY COMMENTS FOR OMA 1

Overall, a good standard for management of monitoring.

Recommendations and Observations:

It is **recommended** that the duration of sampling for each determinand is added to operator document EHS-INS-505, to add completeness for scheduling and planning of periodic monitoring (OMA 1C).

It was noted that monitoring is not a standing item at EHS meetings, unless there has been an ELV breach on one of the release points (OMA 1C).

It is **recommended** that the operator undertakes formalised monitoring training for EHS staff involved with monitoring (OMA 1E). The Source Testing Association (STA; technical monitoring trade body associated with the Environment Agency and NRW) holds relevant one day training courses for operators including:

- Regulatory Monitoring Requirements for Process Operators
- On Site Auditing

Further details of these courses can be found at the following website location:

(http://www.s-t-a.org/training/)

OMA 2: Periodic monitoring and test laboratories		
OMA ELEMENTS	**SCORE**	**COMMENTS**
A. Sampling provisions *Critical Element*	3	Most of the emissions points to air under the scope of this OMA fulfil the requirements of Technical Guidance Note M1. This is with the exception of emissions points A4, A5 & A6; on these release points, there is either insufficient platform space or physical obstructions to being able to sample from both available ports, or reach all available sampling points along the sampling plane. However, for all emissions points, the locations are technically the best available and demonstrably safe, and allow representative sampling with an acceptable degree of uncertainty. Ports are all suitably labelled.
B. Certification of equipment	5	Instrumentation used during periodic monitoring is MCERTS accredited (FID analyser for VOC monitoring), which utilises the appropriate operating range for the determinands required. Monitoring Contractor (NWG) holds UKAS schedule of accreditation for monitoring (and analysing where applicable) all the parameters specified in the Operator's permit.
C. Measurement methods and standards *Critical element*	3	Periodic measurement methods and standards used (during periodic testing) all comply with standard reference methods of the highest priority, as stipulated in TGN M2. All measurement methods are MCERTS accredited however, there are some minor deviations from the relevant methods on emissions points A4, A5 & A6 for particulate sampling (due to not being able to reach all the sampling points/ports due to platform constraints). The test contractor is also using an outdated standard for monitoring flow in its paperwork. The operator adopts an informal review process regarding compliance with measurement methods and standards.
D. Calibration methods *Critical element*	5	Sampling and analytical equipment used by monitoring contractor (NWG) are all calibrated to MCERTS and UKAS standards where applicable. Gases are UKAS accredited to EN ISO/IEC 17025, and tailored to emissions limit values.
E. Frequency of maintenance and calibration	5	All equipment involved in periodic testing has MCERTS/UKAS certification. FID analysers which are used in periodic monitoring have routine calibrations and maintenance done internally.

		Evidence of NWG's calibration and maintenance schedules has been documented.
F. Reliability of equipment (data availability)	5	Contractor's equipment has shown high reliability (i.e. above 95%) – repeat sampling and rescheduling extremely rare.
G. Breakdown response	5	If contractor equipment is subject to failure or breakdown, parts and spares can always be provided within 24 hours, with contractor base being only 2-and-a-half-hour drive from site.
H. Traceability	5	Periodic monitoring is performed by MCERTS accredited contractor, using appropriate standards. Reference materials used for calibration purposes are UKAS accredited and traceable to EN ISO/IEC 17025. Laboratory used for analysing samples (e.g. particulates and ammonia) is UKAS accredited.
OMA 2 – SCORE	36/40 = 90%	

SUMMARY COMMENTS FOR OMA 2

Many aspects of Periodic Monitoring have shown to be at a very high level by NWG and the operator**.**

Recommendations and Observations:

Periodic sampling from all emissions points under scope in this OMA audit have been shown to be representative for the pollutants stated on the permit. Release points A4, A5 & A6 don't fully conform to TGN M1 (where only one port is available for sampling) however, it is possible and **recommended** that the operator installs an additional port on release point A6. By installing an additional port, it will be possible to monitor across the whole sampling plane– thus fulfilling compliance to TGN M1 on this particular emission point (OMA2A).

(Platform restrictions on A4 and A5 mean it is not possible to sample across the whole sampling plane on these emissions points however, sampling from these locations has still been shown to be demonstrably safe and representative for the determinands required).

It is **recommended** that the monitoring contractor's team add the standard BS EN 16911-1 (flow determination) to the list of standards/methods in their ongoing quality assurance paperwork (SSP) and monitoring reports (OMA2C).

OMA 3: Continuous monitoring		
OMA ELEMENTS	**SCORE**	**COMMENTS**
A. Provisions for monitoring and location of CEMs *Critical Element*	N/A	N/A
B. Certification of CEMs	N/A	N/A
C. Calibration methods *Critical element*	N/A	N/A
D. Frequency of maintenance and calibration	N/A	N/A
E. Reliability of equipment (data availability)	N/A	N/A
F. Breakdown response	N/A	N/A
G. Traceability	N/A	N/A
OMA 3 – SCORE	N/A	N/A
SUMMARY COMMENTS FOR OMA 3		
Sensient does not have any CEMs installed on its site, thus no assessment of Continuous Monitoring is required, and this section of the OMA report is not applicable.		

OMA 4: Quality assurance		
OMA ELEMENTS	**SCORE**	**COMMENTS**
A. External quality control schemes	5	All monitoring activities are MCERTS accredited. NWG (Contractor) is a UKAS accredited company to EN ISO/IEC 17025, which participates in inter-laboratory proficiency testing schemes, including gas measurement and gas cylinder proficiency testing schemes at the National Physics Laboratory.
B. Internal data quality control	*N/A*	*This element refers primarily to data review/validation techniques which the operator would apply to continuous monitoring data. As the site does not have any CEMs installed, internal data QC by the operator is not necessary, with the test contractor (NWG) doing all necessary QC checks on periodic instrumental data (VOC's) and manual sampling train data (particulates and ammonia monitoring). Thus, this element is not applicable under the scope of this OMA.*
C. Competence of monitoring personnel	5	Contractors carrying out monitoring are all MCERTS certified (on the personnel competency scheme) to appropriate level (with relevant technical endorsements held).
D. Auditing of monitoring	1	No internal or external audits of monitoring have been carried out.
E. Audit compliance	1	No audit records of monitoring were available.
F. Reporting	4	We have scored the operator on the failure to produce reports within the designated timeframe and it has also failed to submit a sample analysis for emission point A6 in Q2 2016 in line with permit conditions (due to scheduling issues).
OMA 4 – SCORE	16/25 = 64%	

SUMMARY COMMENTS FOR OMA 4
Overall, a good level of Quality Assurance is shown by the operator and contractor NWG for several of the elements within this section. However, there are significant gaps in elements 4D and 4E relating to auditing of monitoring/compliance. Previously Sensient has been warned over the reporting of emission data but this has improved and will continue to do so with the development of appropriate documentation (4F).

Recommendations and Observations:

It is **recommended** that the operator implement documented procedures for monitoring. Operator should then ensure that it carries out documented auditing of monitoring (on-site and paperwork including procedures/reports) at a specified time interval, whilst noting any corrective actions from the audit. This will ensure correct practice is being followed in the process, help identify any gaps, and ensure better self-regulation and confidence in the monitoring process and results.

A useful audit tool for auditing stack emissions monitoring (and the associated paperwork) is the Environment Agency's "audit form for stack emissions monitoring". This can be downloaded from the Source Testing Association (technical air emissions monitoring trade association) at the following website location: http://www.s-t-a.org/?page=regulation

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