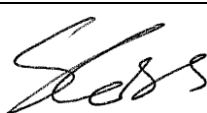


OMA Report – Discharges to Water – EPR

Summary sheet		
Permit Number: BL1096IB	Compliance Officer: Stuart Ross	
Operator: Castle Cement Ltd	Auditor (if different):	
Discharge point(s): W1	Others Present: Robert Keough, Iain Walpole	
OMA Sections	SCORE	
OMA 1 – Management of monitoring	76%	
OMA 2 – Periodic monitoring and test laboratories	80%	
OMA 3 – Continuous monitoring	95%	
OMA 4 – Quality assurance	43%	
	OVERALL SCORE	74%
OVERALL SITE ASSESSMENT COMMENTS		Letter
		Variation
		Enforcement
<p>Broadly speaking, managerial and technical provisions are in place to ensure monitoring is completed in line with the permit requirements but further improvements are required to ensure monitoring data is accurate and reliable particularly with regard to in house sample analysis.</p> <p>The operator has opted to use an in house method for the analysis of suspended solids instead of standard method BS EN 872 as specified in the permit, this is without agreement with Natural Resources Wales. The operator must seek agreement from NRW to use an in house method. The existing method is not accepted in its current form.</p> <p>The operator should take steps to complete periodic auditing of monitoring and ensure all relevant staff are trained and training records maintained. Completing the actions detailed in this audit will substantially improve the quality of monitoring data.</p>		
		Date of audit: 24/07/17
		Signed: 
		Date: 15/09/17

OMA 1: Management of monitoring

OMA ELEMENTS	SCORE	COMMENTS
A. Documentation of management system procedures for monitoring	4	Procedure PEnv 18 covers the lagoon water quality sampling and discharge requirements. In house pH and suspended solids methods are documented. Maintenance and calibration of continuous monitor managed via SAP.
B. Organisational structure for monitoring	4	Monitoring responsibilities are briefly summarised in PEnv18 but could be expanded to include all staff involved in monitoring, for example those involved in maintenance and calibration.
C. Schedules and planning of monitoring, including contingencies	4	The discharge from the lagoon is intermittent and rainfall dependant. The lagoon level is monitored at the control room and water quality sampled before and during discharge. The contracted test house may also collect samples if they are present on site during discharge but the results are not used for compliance purposes.
D. Monitoring records and use of monitoring data	3	Results from continuous water monitoring equipment (pH & temperature) are not currently trended due to discharges being infrequent / intermittent. pH and temperature alarm levels are set in the control room and data is reviewed during the discharge and compilation of monitoring returns.
E. Understanding the requirements of the permit and monitoring methods	4	Staff responsible for implementing monitoring have an acceptable level of understanding of the surface water monitoring requirements.
OMA 1 – SCORE	19/25	76%

SUMMARY COMMENTS FOR OMA 1

Please complete the following actions by 06/10/17;

Action – Update the SCADA alarm levels for pH to reflect the revised limits set in the current.

Action – Within PEnv 18 include the requirement to collect a sample on a weekly basis upon initiation of the lagoon level alarm / intention to discharge.

Action – Compliance reporting for pH should be based on continuous measurement. Section 3.2.5 and 3.2.6 of PEnv18 suggest that laboratory determined pH may be used for compliance reporting – please clarify.

Action – Within PEnv18 expand section 3.2.6 to detail how continuous emissions monitoring data (pH & temp) is recorded and collated for reporting purposes.

OMA 2: Periodic monitoring and test laboratories		
OMA ELEMENTS	SCORE	COMMENTS
A. Sampling provisions <i>Critical Element</i>	4	The sample point is adequate but requires permanent labelling (W1). It is recommended that a regular maintenance check is completed to ensure the sample point is free from debris (e.g. leaf litter and vegetation).
B. Certification of equipment	N	Not applicable – portable monitors and auto samplers are not used.
C. Measurement methods and standards <i>Critical Element</i>	2	Suspended solids monitoring standard BS EN 872 is not followed. Instead an in house method (ref. PL-014) is used that has not been agreed in writing with NRW.
D. Calibration methods <i>Critical element</i>	4	Calibrated balance in use. Digital thermometer used for drying oven temperature control and monitoring.
E. Frequency of maintenance and calibration	4	Balances are calibrated twice per year but no intermediate checks are completed using calibrated weights.
F. Reliability of equipment (data availability)	5	Equipment is reliable, sample analysis completed as required.
G. Breakdown response	5	Other calibrated balances are available. Backup oven available.
H. Traceability	4	Balance (mass) subject to calibration twice per year using certified weights traceable to national standards.
OMA 2 – SCORE	28/35	80%
SUMMARY COMMENTS FOR OMA 2		
<p>Castle Cement Ltd now complete suspended solids analysis in-house. Standard BS EN 872 as specified in the permit is not followed. Instead an in house method (ref. PL-014) is used that has not been agreed in writing with NRW in accordance with permit condition 3.5.1.</p> <p>NRW does not accept the method in its current form as it lacks sufficient detailed instruction and has some significant deviations from standard methods such as for sample preparation, filter paper washing, filtrate drying temperature and time as well as the absence of any quality control e.g. AQC samples such as kaolin at 50mg/l.</p> <p>Action – Analyse samples in accordance with BS EN 872 or submit a revised method to NRW seeking formal agreement to use an alternative method. Any deviations from BS EN 872 shall be fully justified. Please do so by 20/10/17.</p>		

Action – permanently label emission point W1 – please do so by **06/10/17**.

Recommendation – complete intermediate (e.g. weekly) checks on balances using certified weights.

OMA 3: Continuous monitoring		
OMA ELEMENTS	SCORE	COMMENTS
A. Provisions for monitoring and location of CWMs <i>Critical element</i>	5	Instrument positioning suitable to provide representative analysis.
B. Certification of CWMs	5	MCERTS certified Endress & Hauser Orbisint CPS11D pH and temperature probe in use.
C. Measurement methods and standards <i>Critical element</i>	5	The correct parameters are being measured as required by the permit.
D. Calibration methods <i>Critical element</i>	5	Work instruction in place for the calibration of the instrument.
E. Frequency of maintenance and calibration	5	Monthly cleaning and calibration of the pH/temperature probe is formally scheduled via SAP. Calibration frequency of pH/temp probe reported to be as per manufacturer's guidelines.
F. Reliability of equipment (data availability)	5	pH / temperature probe is reliable.
G. Breakdown response	3	No spare parts held on site for CWME and with no emergency response contract in place. Discharge is intermittent and can be suspended to allow time for repair / replacement. Site electrical / instrument technicians could install replacement equipment if available.
H. Traceability	5	pH / temperature probe calibration standard solutions purchased from Scichem.
OMA 3 – SCORE	38/40	95%
SUMMARY COMMENTS FOR OMA 3		
MCERTS certificate http://www.csagroupuk.org/wp-content/uploads/2015/05/MC14024601.pdf		

OMA 4: Quality assurance		
OMA ELEMENTS	SCORE	COMMENTS
A. External quality control schemes	1	With regards to suspended solids analysis, the site laboratory is not UKAS accredited and does not take part in any inter laboratory proficiency testing schemes or carry out other external quality control activities.
B. Internal data quality control	1	No AQC procedure in place for suspended solids analysis, e.g. no use of control samples or statistical control charts.
C. Competence of monitoring personnel	2	It was reported that shift managers have received monitoring procedure training upon starting the role and lab personnel have received training with regards to testing methods. No training records maintained.
D. Auditing of monitoring	1	No audits have taken place since the last OMA audit. No audit programme in place.
E. Audit compliance	3	If audits had been completed actions are logged and tracked via 'entropy'.
F. Reporting	5	The content of monitoring reports meets the permit requirements.
OMA 4 – SCORE	13/30	43%
SUMMARY COMMENTS FOR OMA 4		
<p>Action – if the in house analysis of suspended solids is agreed with NRW, some form of external quality control must be implemented, given the single determinand and the small number of samples collected annually this may potentially include comparison samples sent to a UKAS accredited laboratory.</p> <p>Action – as part of any agreement with NRW to use an in house method for the analysis of suspended solids, internal quality control systems must be put in place including the use of control samples and control charts.</p> <p>Action – Provide all staff with monitoring responsibilities with the necessary training and ensure records are maintained to demonstrate this has been completed. Ensure staff receive regular refresher training. Please do so by 06/10/17.</p> <p>Action – Implement a programme for, and complete periodic audits of monitoring (both managerial and technical aspects) to ensure personnel are carrying out monitoring in accordance with the sites own documented procedures (includes maintenance). Complete and document the first audit by 30/11/17.</p>		