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08 MAY 2013

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7th May 2013

Dear Ian

**Re : EPR Permit MP3337SH/V005 PO2 - Additional
Submission**

I write to enclose a response in regard to Paul Wright's letter (dated 3rd April 2013).

I must apologise for the delay in responding, which has been due to absence from work and a subsequent ISO14001 audit.

Please feel free to contact myself should you have any queries.

Yours sincerely

Andy Black
Environmental Advisor.



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E.ON UK LTD : CONNAHS QUAY POWER STATION

EPRM3337SH/V005 : Pre Operational Condition 2 (PO2)

Additional questions :

1.6 the method of measurement and calibration standards for the Steptech instruments oil in water monitoring system

The Steptech oil in water analyser is based upon a light diffracting technique. The analyser is calibrated against a site laboratory prepared oil standard of 50ppb. The sensor within the machine uses an air curtain to prevent any mist aerosols adhering to the sides of the analyser sensor.

To calibrate the analyser, an AMCO site technician passes demineralised water through the analyser until a zero reading is achieved. The machine is then calibrated via the passing of a 50ppb oil in water solution to set a span reading for the analyser.

This analyser is now approaching the end of its working life due to limited future availability of spare parts, and therefore consultation has begun to source a replacement machine.

2.1 details of the salinity, free chlorine, turbidity and oil and grease back-up methods

For every purge water discharge from the installation, site operatives physically take a 1000ml sample from each purge pond for analysis within the on site laboratory. Both The following parameters are measured using the following techniques :

Salinity :

The on site laboratory is equipped with a WTW LF597 Conductivity Meter, with a salinity function, allowing analysis of samples.

Free chlorine :

The laboratory utilises Thermofisher Scientific DPD Total Chlorine Sachets. A sachet is added to each sample to analyse for presence of Chlorine. Colour change will indicate Chlorine concentration.

Turbidity :

The laboratory is equipped with a HACH DR/400V Spectrophotometer to analyse water samples for solid levels.

Oil / Grease

A visual inspection is completed on all purge water samples identify

potential existence of oil. Evidence of rainbow oil contamination / significant oil globulation will be regarded as existence of oil in water and result in the requirement for further investigation prior to discharge.

3.2 clarity on what the limit of detection for oil and grease 0 or 1 means? We believe this instrument works by detecting a surface of film of oil, so does this mean in terms of quantity?

The Agar Technologies / Atech PS-220 analyses all passing waters for the presence of oil within passing waters. The analyser does not work to a set concentration, instead using light reflection to analyse for presence of oil rainbow sheen. Should presence of oil sheen be detected, then the analyser will alarm and activate resulting in subsequent instant closure of the W2 penstock. This penstock will trap all waters in the emission outfall, and an alarm will sound within the control room. The analyser has been tested on a laboratory bench and calibrated to activate in the presence of tiny ppb doses of oil into a water bath during a laboratory test.

Additionally the drain is subjected to a daily visual inspection by site staff to look for the presence of oil / rainbow sheen on outfall discharges. This inspection routine is covered by operational procedure : CQ-OP201 . Documented records of all historic daily discharge inspections are maintained by E.ON site staff.

The audit methodology employed to assess the competence of the variety of external companies which carry out the monitoring.

Emissions to Air :

The only external contractor used for the monitoring of emissions to air on site is E.ON New Build & Technology. Their stack sampling team hold full UKAS accreditation for Stack Emissions Testing. Additionally each team member hold EA / SIRA / MCERTS Certificates of Personal, Competence for manual stack emission monitoring, covering categories TE1, TE2, TE3 & TE4.

Additionally E.ON Connahs Quay site staff have completed Environment Agency / STA MCERTS Level 1 Technician training course to enable them to a comprehensive understanding of MCERTS controls with regard to emissions to air monitoring.

Emissions to Water :

No external (non site based) contractors are used for any direct monitoring of emissions to water from Connahs Quay. AMCO (onsite permanent E,C&I maintenance contractors) are employed as the current preferred contractor for the maintenance and calibration of analysers for emissions to water. Both AMCO technicians & E.O site staff have all attended Environment Agency approved Operator



Monitoring Assessment (OMA) Awareness Workshops (both Practical and Theory) for Emissions to Air, Land and Water alongside SIRA MCERTS for Self Monitoring of Effluent Flow.

Any additional monitoring contractors employed on site would be expected to be able to demonstrate full awareness of MCERTS requirements.

