Our Ref: BL1096IB/0246694/R

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Dear Stuart

Re CAR: BL1096IB/0246694

In response to the Actions raised in the noted CAR please see below and attached evidence/Appendices.

***3.1.1 Tank Integrity:***

**Action:** Non-destructive testing of the Cemfuel tanks is one year overdue according to the sites own testing schedule. Testing of the Cemfuel, diesel and ammonia tanks shall be completed and the findings reported to NRW by 31/12/15. The future testing frequency should be based on the test results and scheduled via SAP.

**Response:** – NDT testing completed on Cemfuel Tanks. The report shows there has been no change in tank thickness since the last survey. Ammonia and Diesel tanks are fiberglass as these materials do not contain significant amounts of solids in suspension and there is no stirring of the liquids there is very unlikely to be a risk of tank wear through abrasion or erosion therefore tank thickness checks are not required.

The NDT of tanks is based on the findings between reports, it is currently every 5 years but if significant thickness loss was picked up then the schedule would be changed to suit. The final reports will be sent under separate cover when received by the contractor.

***3.1.2 Pipeline Integrity***

**Action:** Non-destructive testing of pipelines from the Cemfuel, diesel and ammonia tanks from the respective tank to the point of use shall be completed (including within the underground service channel) to assess line integrity. This shall be completed by and the findings reported to NRW by 31/12/15. The future testing frequency should be based on the test results and scheduled via SAP.
**Action:** Please clarify the trigger points for component (tank and pipeline) replacement due to loss of wall thickness by 30/10/15.

**Response:** NDT Completed. See Annex 1. The current schedule for pipeline tests is every 2 years, and from the reports you can see that there has been minimal if any pipe thickness losses. There are 3 pipes that have lost 10% of their thickness over the 2 year period, but there is still 10mm of wall thickness left so this would not be deemed sufficient enough to change the frequency of testing. The frequency of testing would be changed when a significant loss in pipe thickness is detected the trigger for this is set at 50% of the original pipe thickness.

When the pipe reaches 40% of the original thickness the pipeline will be replaced.

***3.1.3 Cemfuel / Diesel Pumps & Pipework Bund***

**Action:** Review all procedures for the tanker offloading, storage and handling of Cemfuel and diesel to ensure the risk of fire and spillage of materials is minimised as far as practicable. This shall include a review

of the risk assessment used by contractor(s). Staff and contractors shall receive training as appropriate. Provide NRW with a summary of the review and actions taken.

**Response:**

Procedures are PCL29 Cleaning Strainer and PG50 – Delivery of Cemfuel Guidance. These have been uploaded to site intranet and also distributed to Tradebe for inclusion in Driver packs/training. Annex 2

All Tradebe drivers have been re-inducted via new induction tracker, (Annex 3) The process of signing them off against the re-issued procedures is being done as they arrive at Padeswood and will be ongoing as their Shift Pattern completes.

The Tradebe risk assessment requires review and will be done with their assistance and is expected to be completed during November.

Ammonia deliveries are carried out by GrowHow, the ammonia delivery process was reviewed with GrowHow in 2014 when they took over the supply contract, the procedure PCL32 did not require changing as part of this review and but has been reviewed this year and no changes are required. These drivers will go through a routine induction refresher training in 2016.

Diesel delivery drivers will go through the site induction process in the same way as the Cemfuel and ammonia drivers. The procedure and risk assessment used by the supplier is attached in Annex 3 following review by Hanson Cement.

**Action:** Repair equipment to prevent leaks and remove potentially flammable materials from high risk areas. Ensure ongoing maintenance to prevent and minimise the spillage of flammable liquids.

**Action:** Remove spilt liquids and accumulated residues from surfaces, plant and equipment. Ensure ongoing maintenance to achieve a high standard of housekeeping.

**Response:** The area has been thoroughly cleaned and ongoing maintenance and housekeeping has been raised with relevant staff. See Annex 4: Photographs. Tools available in area are stainless steel and therefor non spark.

The spillage in the Cemfuel bund around the Cemfuel pump observed during the audit is as a result of the positive displacement pump protection system. To prevent damage to the pump due to over pressure (eg as a result of a blocked delivery line from the pump) the pump trips and automatically empties the pump body. To minimise the contamination of the bund from these events a drip tray will be installed around the PD pump at the next available shutdown and the drip tray included in the routine Cemfuel tank farm inspections. The contents of the drip tray will be pumped into the waste water return tank to minimise the need for offsite disposal of Cemfuel waste and absorbent granules.

**Action:** Review signage and labelling and ensure that it meets all relevant standards (The Health and Safety (safety signs and signals) Regulations 1996 as amended by CLP Regulations 2015 – L64 3rd Edition Guidance, 1st June 2015.

**Response:** Signage meeting the relevant specifications has been ordered, and will be fitted as soon as possible.

### ***3.1.4 Bund Integrity and Design***

**Action:** Clean the tank bunds to remove vegetation and sediment and ensure measures are put in place to ensure the bund remain free of rain water (as practicable). This will allow for the visual inspection of bund floor integrity and maximise bund capacity. Review procedures/maintenance provisions accordingly.

**Action:** Clean roof gutters, remove vegetation that poses a risk to tanks and bund integrity. Ensure that this issue is reviewed regularly as part of the planned maintenance system.

**Response:** See photos in Annex 4. This area is also covered by Hanson UKCP04 Oil Liquid Fuel and Chemical Storage and will be checked under routes and inspections. For Gas Oil deliveries the bunds are also assessed before off-loading commences as per PG 18. A designated responsible person will also make additional monthly inspections.

**Action:** The original design was such that contaminated bund water from the Cemfuel bund would be collected in a separate waste water storage tank and regularly 'bled' at a low flow rate to the burner station. During the audit the Operations Manager stated that this system is no longer used. Provide NRW with the procedure for the disposal of Cemfuel contaminated bund water in order to prevent pollution.

**Response:** A new sump pump is being installed and tested. Contaminated water will be returned to the waste water storage tank, for bleeding into Cemfuel during normal operations**.**

**Action:** Provide NRW with the procedure for the testing arrangements in place for rainwater contained in the Cemfuel, diesel and ammonia bunds and the criteria for disposal to surface water/offsite

**Response:** PG19 Cemfuel bund management has been reviewed and reissued and is appended in annex 2. This covers testing of the water and disposal via the water bleed system or if not available off-site.

**3.1.5 Overfilling Filling Prevention, 3.1.6 Tanker Offloading Procedure, 3.1.7 Fire Suppression System**

**Action:** Confirm if the Cemfuel fire suppression system can be automatically or remotely operated in the event of a fire. If the system can only be manually activated by means of a break glass switch (local to the tank farm), complete an assessment of the options available to activate the system automatically / remotely.

**Response:** The fire suppression system can be fired remotely from the control room.

**Action:** Confirm whether or not you hold an inventory of PFOS (perfluorooctanesulfonic acid) based firefighting foam. European Directive 2006/122/EC banned the use of this type of foam from 27/06/11.

**Response:** The foam used at Padeswood is from Delta Fire "AFFF ARC", which does not contain any PFOS. The MSDS for this is included in the evidence Pack. (Annex 2)

***3.2 Other Tanks (Petroleum Products & Adblue)***

**Action:** Assess the integrity of the bund serving Tank 1 and take steps (where necessary) to ensure the bund is structurally sound and impermeable. Refer recommendation below

**Response:** The bunds have been filled with water to check integrity and passed. As a measure of good practice both will be coated in the near future with sealant paint to assist with leak protection.

**Action:** Investigate the cause of the oil leak on tank 21A, B, C and take remedial action as necessary to prevent further leaks and report findings to NRW

**Response:** These tanks are being steam cleaned to determine if the staining observed is a result of leaks from the tank or from external spillages.

**Action:** Confirm the tank designs and pollution prevention measures in place to prevent spillage to surface water (Adblue). Please do so by 30/10/15.

**Response:** Contact has been made with the tank suppliers to confirm the design of the tank. Their response will be forwarded as soon as it is available.

**Action:** Confirm tanks T23 and T24 (located adjacent to vehicle wash) are no longer in use. Please do so by 30/10/15.

**Response:** Tank 23: is a water feed tank for steam cleaner used in the distribution workshop.
Tank 24: no longer in use.

***3.6 Kiln Bed 2***

**Action:** Remove oil contaminated ground and dispose of at a suitably permitted site. Review the options available to prevent future spills and contamination and implement accordingly. Maintain records of the remediation work. Inform NRW of the action taken by 30/10/15.

**Response:** The support pillar has been steam cleaned to remove the oil residues and the contaminated ground will be removed and made good in the next two weeks. (see Annex 4 Photos)

***Permit Non-compliance***

**Action:** Confirm the site surface water discharges (other than W1) and complete a pollution risk assessment to establish the pollution risk from these sources and whether adequate pollution prevention control measures are in place (e.g. oil/water interceptors, emergency shut off valve etc.). Report your findings to NRW.

**Action:** Inform NRW of the as built design and purpose of the 'klargesters' as installed at the lagoon inlet.

**Action:** Review the accuracy of the site drainage plan and redraw to include the surface water lagoon and any pollution prevention equipment (the permit application refers to proposed installation of 1x Class 1 Bypass Oil/Petrol Separator or similar and 2 x particle interceptors (1 for new kiln 4 drainage and 1 for existing works).

**Action:** Add discharges to site emergency plan along with the required emergency response measures and train staff accordingly.

**Action:** The drainage plan indicates (in writing) areas of 'cross contamination' suggesting the materials other than surface water are entering the drainage system. Inform NRW of the nature of this cross contamination and whether action has been taken to address it.

**Response:** The klargesters were installed as oil/petrol separators as per permit application to minimise pollution run-off during flood events.
As per meeting on 12th October with representatives of NRW and Hanson it was agreed that these actions could not be completed by this date and would be reviewed at the next agrees site meeting.

Yours Faithfully



Victoria Smith
Quality and Environment Manager

Annex 1

Ultra Scan Reports for Pipeline integrity.

18147-1 Hanson Cement Padeswood - Cemfuel leak
18722-02 Hanson Cement - Cemfuel, diesel lines and tanks Sep 2015
18722-03 Hanson Cement - Ammonia Lines Sep 2015

Annex 2

Procedures:

PCL 29
PCL 32
PG 18
PG 19
PG 50
Watson 1412 RA Deliveries
Watson Delivery Method Statement

Annex 3

Contractor Inductions and Training

Annex 4

Photographs