APPENDIX 9.7

From Andrew Williams
To Joanne Davidson
Date 30/11/2009 12 23 14
Subject CONIN 09/0591 Glan Usk

Proposal Discharge of Condition 7 (Certification Report) of planning permission 00/0768 for the erection of a replacement primary school All weather pitch soft and hard play area and residential development

Site Ysgol Glan Usk School Development Site Bank Street Newport

Application Type Discharge of Conditions

Contaminated Land

Hi Jo

I ve been through the validation report and have the following comments

The remediation strategy consisted of several key elements they were

The removal of PCB containing drums and PCB impacted soils
Contamination capping consisting of hardcover or imported clean capping material to a minimum thickness of 600mm in all soft landscaped areas
Gas protection measures for all site buildings
Reen realignment and lining (to be completed at a future phase)

PCB Removal

A total of 778 drums containing PCB type material was removed during remediation and disposed of off site In addition over 2000 tonnes of impacted soil type materials were also removed Each excavation was also chemically validated on each pit face and base to ascertain if all PCB impacted soil material had been removed The entire PCB identified area was then subject to another Geophysical survey which aimed to identify if any undiscovered drums remained The results of the survey showed a large decrease in the presence of metallic objects with remaining objects being previous identified as other metallic waste objects such as rebar redundant cables corrugated sheets etc It therefore appears that the PCB removal has been conducted successfully

Site Capping

In order to reduce risk from the remaining contaminants identified within the buried waste the site was remediated by capping of hardcover layer (roads structures etc) or imported clean inert material in all soft landscaped areas This capping layer was required to reach a minimum thickness to 600mm and was separated from the underlying waste by a geotextile membrane which provides a visual indicator of the waste /cap interface

Following the identification (during validation) of naturally mineral enriched limestone material being imported to site which contained elevated levels of heavy metals (Lead Arsenic Cadmium) this material was not used as capping material It was used instead to prepare ground levels for roads and buildings and therefore placed under hardcover Gravel material and topsoil were imported from a second source and tested prior to import to site and largely found to contain levels below remediation targets and therefore considered fit for purpose

Once the imported gravel material and topsoil layer had been placed a number of trial pits dug across all landscaped areas to record the capping material depth All locations recorded the capping layer to have a minimum 600mm thickness with the majority of the locations demonstrating a depth significantly more than the 600mm required

Gas Protection Measures

The original ground gas assessment suggested that a two phase gas mitigation method would be sufficient to reduce the risk of ground gas and vapour ingress to buildings located on the site This would have included a impermeable gas membrane above a vented void cavity below the concrete slab to allow the dispersal of any gases that may accumulate However it was decided that active rather than passive gas protection measures were required and therefore a Clean Air Blanket Gas Protection System was installed This system pumps clean air through a layer of gravel material below the concrete slab at a positive pressure which reduces the upward movement of ground gases and removes any gases that do accumulate below the slab laterally around the edges of the building The system contains a probe which can be used to periodically test its effectiveness It has been tested and certified as working correctly

Lining and realignment of Lotery s Reen

The controlled waters risk assessment in relation to the presence of the reen was based on the assumption that the reen would be lined with an impermeable layer preventing leachate moving from the landfill waste into the reen and then into the River Usk These works have not been undertaken yet but I understand that a phased approach to these works has been agree with development control and therefore these works will be completed when the remainder of the site is developed?

Ongoing Site Management Considerations

The validation report also outlines several ongoing management considerations for the site This is largely based around maintaining the integrity of the capping layer during any future works or activities at the school in addition to the site operators being aware of the potential risks from the landfill material below the capping layer It is important that the information gathered concerning ground conditions at the site is not over looked or forgotten about during future activities or maintenance at the site which may expose landfill waste Any excavations should not proceed below the visual geotextile membrane and the capping layer should be suitably reinstated with clean fill to the required thickness (600mm)

From the information submitted it appears that the remediation strategy has been followed and the requirements within it have been met Therefore I would recommend that the condition is discharged However I note that the proposals includes the residential area for which I would not recommend the discharge of condition as remediation and validation works are yet to be undertaken for this part of the site

Regards
Andy

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