South Shropshire District Council

Environment & Development Department
Environment & Community Services

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Your Ref:
Date: 19 June, 2001

Dr. F. P. Warner
Polymer Laboratories Ltd
Essex Road
Church Stretton
Shropshire
SY6 6SX

Dear Dr. Warner,

REMEDIATION AT POLYMER LABORATORIES LTD, NEW SITE

Thank you for the remediation statement regarding the above site which I have now received.

I am satisfied with the content of the statement and that the site has been remediated to a standard that will be suitable for the new use of the site.

Thank you for your co-operation regarding this matter.

Yours faithfully,

K. E. Rose.

Miss K. E. Rose,
TEAM LEADER HOUSING/POLLUTION

REPORT INTO THE 'CLEAN-UP' OF SUBSOIL ON NEW CONSTRUCTION SITE.

CONFIDENTIAL FOR POLYMER LABORATORIES LIMITED FILE ONLY.

BY: A.N. HALL. (Polymer Laboratories Ltd.)
DATE: NOVEMBER 2000.

1. *Previous use of the site.*

Polymer Laboratories purchased the area of land now being used for the construction of a new production and R & D facility in the early 1980's. The owner at the time was a haulage contractor Mr N Churton. The land consisted of mainly rough ground with a large stone building centrally located. The previous owner of the land was the then British Rail. They used the site for a number of uses over the years including a railway engineering works, storage yard and transfer station. It is this use as a primarily coal transfer station for the old Gas Works in Little Stretton that seems to be the main cause of the contamination as the result of the analysis of the black layer indicates possible coal tailings. The land has therefore been used as industrial land for the last sixty years, and possibly longer.

2. *Construction of the new facility.*

Polymer Laboratories Ltd (PLL). Have used the old building on the land for the last ten years as a storage building. However, it was decided that to cope with increased product demand the land would be developed and a new chemical store and a larger production and R & D facility would be constructed on the whole of the site. After a long development program the plans were approved by South Shropshire District Council Planning Department. Discussions with the council included the development of an environmental impact statement in conjunction with the environment agency. At the time that the planning consent was granted there was no other environmental legislation to be complied with.
The tender process for construction of the building was then started and the final construction company chosen was Frank Galliers Ltd of Shrewsbury. Trial pits had been dug under the supervision of the Structural Engineers employed by PLL, Carroll and Williams Ltd. A total of four trial pits were dug on the site, these were done in the usual manner at the extremities of the site and in the centre, close to the old building. SSDC Planning dept were invited to observe these trial pits.
The site appeared to be of a good quality with no major contamination visible to the structural engineers. The only problem to the building design was that the site itself is situated at the lowest point between two water run-offs and the water table is quite high, requiring that certain of the building foundations be tanked to prevent water damage. The ground itself however was very stable and no requirement for pilling of the ground was determined.
Construction of the new building was started at the end of August 2000. With the majority of the groundwork being completed by the end of October.

3. *Problem with contaminated layer of sub soil.*

In the end of October to early November the site was hit by very heavy flooding with run off water from the railway line flooding to a level of 500mm above the foundations. Construction of the site was delayed for a period of two weeks due to this. The water running off the railway line could be seen to have a hydrocarbon film on it whereas the water on the site prior to this (In pits and around foundations etc) has had no visible hydrocarbon film. After the floodwater had been removed by pumping into the main storm drains. A site visit was made by SSDC who then became slightly concerned as to a black layer in the subsoil running a varying depth, but typically 300mm below the surface and 150mm thick. The advice given at the time was that they were not overly concerned as to this layer but we should proceed with caution and reassess the situation if any material was found to be oily or had odour. The following week (8.11.00) Cathy Rose from SSDC visited the site to inspect this layer. Ms Rose is responsible for a new part of the Environmental Protection act, which deals with the issue of contaminated land, and in particular a register of brownfield sites deemed to be contaminated. She advised PLL to have the black layer tested to determine the type and amount of contamination in the black layer. PLL had the layer tested by Enviros Technos of Walford Manor, Nr Baschurch. (Formerly, Aspinwall & co). They took two samples of the black soil layer and sent them to Alcontrol Geochem of Chester for analysis. It was found that the black layer consisted of granite pieces approx 50mm nominal size with a black soil interspersed in the layer at approx 50:50 rock to soil. The consultants tested the soil layer as is standard to determine the contaminant and discovered that the layer contained Biodegraded diesel/Carboxylic acids/Lube Oil/Anthracenes. At a level of: 1290mg/kg. As this was only part of the sample and the other half was soild impermeable granite it was thought by the consultants that this level of contamination was not of concern for an industrial site.
The following week, after the results had been sent to SSDC and the Environment Agency (EA) at Shrewsbury. The Architects, Baart Harries Newall (BHN) were informed that SSDC and the EA were concerned at the level of contamination in the layer and that the advice of the EA was that we should consider removing this layer. As there was not sufficient time for a detailed site examination and discussions with the EA as to the best option. Ita was decided that PLL had no alternative than to remove this layer dispose of as special waste and back-fill with fresh stone. This was done and the whole of the area under the building cleared of the black layer. It was not possible to separate the layer from the soil above and hence the whole of this layer had to be removed. In all approximately 1000 tonnes of soil was removed and the same amount of stone put back in. Documentation for this was retained by PLL as proof of removal. Photographic evidence was also taken off site during this phase of the construction.

A further visit to the site was made by Cathy Rose as there were concerns from SSDC that the site could not be deemed as clean unless further samples were taken from below the black layer to prove that it had not contaminated this soil below. The layer was visually very clean and had no odour. However Enviros Technos were again employed to sample the sub soil and

provide independent test results. Cathy Rose witnessed the sampling process on 29.11.00. ***It is expected that the result of the analysis will show that the soil below the black layer is not contaminated. ***

SSDC require that PLL make a Remediation Statement available so that they can update their records. This is to include details of what has been removed, where from, where to, how much and what is has been replace by. It was thought that the most efficient, safe and environmentally best practicable option with regard to the black layer on the remainder of the site would be to leave as much where it is. It was the opinion of PLL that to remove the layer from the roadway and car parking area would have a detrimental effect on the environment. The overall level is not high and the use of the land does not warrant its removal. SSDC seemed happy with this, though a full survey of the whole site may be required to prove that the amount of contamination is not above the prescribed levels.

4. *Ongoing problems to be resolved.*

The main concern of PLL is that it is clear that this black layer extends in all direction from the construction site. It is clearly visible at the edges of the site and was also found when BT had to dig a trench outside the existing units 1 and 2. SSDC are obviously aware of this and are likely to put the whole of this area as contaminated. Whilst it is not likely that they would require the removal of the layer from the existing site. By deeming the site as contaminated the value of the site would be reduced, insurance costs may increase. It would also have a bad effect as far as local opinion, as the site would simply be 'contaminated', and it is likely that the general public would assume that the contamination was as a result of the activities of PLL and not the original owners of the site. It is very important to PLL that this is not the case and that surveys are carried out to prove that the land is not registered as contaminated or that it is in need of remediation.