

HSE advice and statements put staff and pupils at risk

Caerphilly Council critical of HSL report and HSE conclusions

In April [Caerphilly Council published a report](#) which examines the options for Cwmcarn High School.¹ The report is highly critical of an HSL report and conclusions reached by HSE. On 17th April they decided to spend £1million on removing asbestos and making the school safe for reoccupation.

The Council closed the school on 12th October following a [report from Santia](#), a firm of asbestos consultants, who advised that the schools was unsafe as there is extensive asbestos contamination, damaged asbestos insulating board (AIB) panels and the heaters could potentially release asbestos fibres as they contain unsealed, damaged AIB, asbestos fibres and debris.²

In November an [HSL report](#) confirmed that the classroom heaters were emitting amosite fibres into the classrooms. The tests carried out in four classrooms showed that when disturbance was carried out amosite fibres were released from the heaters. The tests were analysed by an electronic microscope and two of the levels were above the Limit of Quantification at 0.0017f/ml and 0.0043 f/ml.³ That equates to between 1,700 and 4,300 amosite fibres in every cubic metre of air. A person inhales about twenty cubic metres of air a day and therefore any occupants of the classrooms would inhale up to 7,000 amosite fibres during the two hours of sampling.

However the HSL report is misleading as it is written in such a manner that the significance of the fibre release from the heaters are played down. In addition it unjustifiably minimises the potential for fibre release from the extensively contaminated ceiling void. Based on the misleading HSL report [the school authorities incorrectly informed](#) staff and pupils that *"All of the samples taken by HSL were below the "limit of quantification", in other words they were so small that they would be below the target sensitivity of 0.0001 fibres/ml. To place this in context such levels would be similar to that found in background levels in the atmosphere."* The statement is factually wrong as the heaters were emitting asbestos fibres, with two samples being above the Limit of Quantification. Also the generally accepted background asbestos fibre level in a rural environment is 0.000001f/ml.⁴ The levels emitted from the heaters were up to 4,300 times greater than that.

In March another asbestos consultancy firm, [Ensafe, published their report](#) following a comprehensive asbestos survey. They concluded that extensive asbestos remedial work is necessary before the school is safe to reopen.

Despite overwhelming evidence to the contrary [the HSE publicly stated that](#) the school is *"essentially uncontaminated."* At an Education Select Committee hearing on 13th March a senior HSE director gave evidence to the Committee that reinforced this unjustified conclusion. [Mr Ashton stated](#), *"it is perfectly safe to reopen that school"*(Q56).

The April report published by Caerphilly Council which lays out the options for the future of the school is not only critical of the HSL report, but it is also critical of the statements and conclusions reached by HSE. The Council concludes *"A return to the Cwmcarn High School site cannot be safe for pupils or staff without the abatement and remediation work being carried out..."* Their report states:

¹ Special council meeting of 17 Apr 2013. Report by Acting Chief Executive. Undated downloaded 13 Apr <http://212.48.68.101/~cwmcarnh/index.php/document-downloads?task=document.viewdoc&id=20>

² Santia <http://212.48.68.101/~cwmcarnh/index.php/document-downloads?task=document.viewdoc&id=15>

³ HSL <http://212.48.68.101/~cwmcarnh/index.php/document-downloads?task=document.viewdoc&id=18>

⁴ Medical Research Council Fibrous Materials in the Environment. Outdoor (ambient) exposure Para 4.2.1 p71

“Following the decision to temporarily close the school, the HSE commissioned the Health and Safety Laboratory (HSL) to undertake air sampling at the school in November 2012. Following this HSE issued statements essentially based on the report by HSL . Their statement that the site was 'uncontaminated' casts doubt on the scientific evidence presented by Santia Ltd which led to the original decision to temporarily close the school site.

Given this, the Council took the unprecedented step of employing an independent expert to analyse the scientific data and results of both `Santia' and the HSL... There is little difference between the two analyses of air samples taken by both HSL and Santia but the conclusions of these analyses are profoundly different. Consequently the Council has sought clarification on their position from the HSE, as it is our belief that the scientific analysis, as well as the visual evidence of extensive asbestos debris at the site does not support their conclusions that the site is 'essentially uncontaminated'.

Given all of the above officers have concluded that a return to the Cwmcarn High School site cannot be safe for pupils or staff without the abatement and remediation work being carried out as identified in the said Ensafe Management Survey report of March 2013...”

HSE will no longer be publishing a report on Cwmcarn School

The type of heaters at Cwmcarn School was one of the most popular forms of heating schools. In December, following the confirmation that the heaters at the school were releasing asbestos fibres into the classrooms, AiS and JUAC asked DfE to issue a warning to all schools about the potential dangers inherent in this type of heater. Schools Minister, David Laws MP, informed AiS at a meeting in January that he would consider the proposal following the publication of the HSE report on Cwmcarn High School. He confirmed this in a letter on 26th February which stated:

“The Health and Safety Executive (HSE) has investigated the asbestos related incident at Cwmcarn High School in Wales but has not yet reported on its investigation. I understand that the HSE expects to publish its report shortly and it is proper to wait until it does before deciding what action, if any, is appropriate for the Department to take.

..... The report by HSL has been given to the school governors and the local authority. This should not, however, be regarded as the HSE report of its investigation.”⁵

On 28th February Lord Dafydd Wigley [tabled a Lords written question](#). The answer also confirms that HSE intended reporting on their investigation: *“The investigation by the Health and Safety Executive (HSE) into the situation at Cwmcarn is still under way and it is appropriate to wait until they have concluded their investigation and reported before deciding what action, if any, DfE should take.”*

Contrary to the Minister’s statements, on 8th April DfE notified AiS that HSE had completed an investigation but they understood that they would not be publishing a report into Cwmcarn High School.⁶ It must be questioned why HSE have taken this decision.

The situation at Cwmcarn School is very serious. In addition it is highly controversial. The evidence and expert opinion is that the school is unsafe as it has extensive asbestos contamination and the heaters are releasing amosite fibres. And yet HSE have given unjustified assurance by publicly stating that it is essentially uncontaminated and a senior HSE director has informed a Parliamentary Committee that it is perfectly safe to reopen.

⁵ Letter Rt Hon David Laws MP. Asbestos in warm air heating systems 2013/0008963PODL 26 Feb 2013

⁶ E-mail DfE Beckett/ Lees 8 Apr 13

It is a reasonable assumption that the HSE are fully aware that if they published their report it would confirm that their conclusions and decisions are based on unsound data. It would also confirm the serious criticism already levelled at them, and leave them open to further criticism.

The HSL report has been challenged as it is scientifically flawed. It has been used as the basis for HSE statements and advice that are fundamentally wrong. If HSE advice was followed then staff and pupils would be put at risk as they would return to a school where there was the likelihood of being exposed to amosite fibres. In addition HSE's unjustified assurances have fuelled the confusion and concerns amongst the staff, parents and pupils at Cwmcarn. HSE have handled the whole issue of Cwmcarn School in a highly unprofessional manner. Their conduct is indefensible.

DfE will not be issuing a warning about warm air cabinet heaters

On 8th April DfE stated that they will not issue a warning about the dangers of asbestos fibre release from warm air cabinet heaters, some four months after AiS had asked them to. DfE stated:

*"The DfE has noted the outcome of the HSE investigation and the HSL testing at Cwmcarn and has decided that no further action is required at this stage in response to this specific case. Nor is it considered appropriate at this time to issue a general warning to all schools about the potential release of asbestos fibres from warm air heating cabinets."*⁷

The DfE decision is flawed. It is also based on HSE advice and the HSL report. DfE referred to the HSL report and stated, incorrectly, that: *"The results demonstrated that the average concentrations of Phase Contrast Microscope Equivalent (PCME) asbestos fibres in the occupied areas at the Cwmcarn school, including from the presence of the asbestos insulation board debris in the ceiling void, were very low and below the Limit of Quantification (LOQ)."*

Their statement is wrong. The HSL tests confirmed that when disturbance is carried out that amosite fibres are emitted from the heaters in four classrooms. Two of the levels are above the Limit of Quantification.

It has been known for more than thirty years that warm air cabinet heaters can release amosite fibres, and the heaters at Cwmcarn provided further proof. The [CLASP Asbestos handbook](#) gives details of AIB in the heaters and states: *"if damaged, fibres can be readily circulated..."*⁸

In 1981 it was discovered that asbestos fibres can be emitted from this type of heaters. Air sampling by a local authority identified that amosite fibres were being released at levels up to 60,000 fibres per cubic metre of air (0.06 f/ml).⁹ Later HSE tests sampled levels up to 50,000 fibres per cubic metre of air (0.05f/ml).¹⁰

In 1982 [a warning was issued by HSE](#) which gave advice how to prevent fibre release: *"Cleaning out the heater cabinets to remove accumulations of dust.... Replacement of asbestos-containing insulation by asbestos free substitutes (broken panels should be given priority) Sealing of any exposed surfaces of insulation panels with a suitable surface coating, if replacement is not reasonably practical. However replacement with non-asbestos board is very much to be preferred."*¹¹

⁷ E-mail DfE Beckett/ Lees 8 Apr 13. DfE Beckett/JUAC 19 Apr 13

⁸ Scape CLASP asbestos handbook Asbestos in CLASP standard details. P11 para 1.02

⁹ Letter HM Principal Inspector of Factories to Principal Architect CLASP ADP/SNC/03 23 Oct 1981

¹⁰ HSE Asbestos in warm air heating systems. (Revised) LAAIC/C 3/5 Health and Safety Commission Aug 1982.

¹¹ HSE Asbestos in warm air heating systems. (Revised) LAAIC/C 3/5 Health and Safety Commission Aug 1982.

It is not known how many schools followed the guidance, but clearly not all have. One local authority with a large number of CLASP buildings initially sealed the AIB but found that it remained prone to damage, they therefore adopted a policy of removing all the AIB from the heaters.¹²

Thirty years later Cwmcarn had not followed the HSE guidance as there was unsealed, damaged AIB, asbestos fibres and debris in the heaters. As warm air cabinet heaters were one of the most popular forms of heating schools, it is reasonable to assume that other schools could have heaters in a similarly unsafe condition. It is irresponsible of DfE not to warn schools of the potential danger of amosite fibre release from this type of heaters.

Michael Lees
19th April 2013

¹² Nottinghamshire CC/Lees 19 Feb 2013