

<b>Date</b>	Thursday 16 <sup>th</sup> April 2009	<b>Place</b>	K1/0/85, Culham Science Centre
<b>Time</b>	10.00		
<b>To</b>	Prof. Steve Cowley (Chairman) UKAEA Mr M Cox UKAEA Mrs J Hay UKAEA Mr M Hurp UKAEA Dr A Webster UKAEA Dr F Romanelli EFDA-JET Cllr D Turner – OCC	Dr K Littlewood – Environment Agency Cllr L Symons - VWHDC Mr C Dupond - Clifton Hampden PC Mr W Hanks - Sutton Courtenay PC Mr R Holcombe - European School Mr S Sharron – European School Mr D Deleyser – Crystalox	
<b>Apologies</b>	Mr T Crabbe – OCC Cllr A Purse – OCC Mr K Broughton – OCC Ms O Garfoot - Nuneham Courtenay PC Mr D Kingham – Innovation Centre Miss J Randle – SODC Mr T Williams - VWHDC	Mr G Bartley - Culham PC M Barents – NDA Mr S Edwards – CNC N Henderson – LGC Forensics	

## MINUTES

- 1. Welcome – Prof Steve Cowley**
- 2. Minutes of Last Meeting** - The minutes from the last CLLC meeting were accepted.
- 3. Matters arising – Prof Steve Cowley**

It was proposed and agreed that an agenda item for JSSG (JET Site Stakeholder Group) should be included in future CLLC meeting agendas. Prof Cowley thanked John Stimson for his work and dedication over the last few years. Following the last meeting David Turner wrote to Richard Griffen at the NDA regarding the continuation of the JSSG. He received a reply to say that he would continue to receive copies of minutes and agendas from future NDA meetings. David agreed to copy these onto Chris Carpenter. Steve Cowley also said it would be appreciated if David would continue his role for the JSSG.

Mr Simon Sharron informed the meeting that the European School had conducted a travel plan for the school. Following the review he would like a collective committee to discuss a move forward and discuss travel issues. Chris Dupond agreed that he would like this to progress too. Steve Cowley advised that a cycle to work scheme was due to start on Friday and that a cycle group on the site were lobbying cycle issues. One particular area was the causeway. David Turner suggested a meeting with Peter Ronald from the OCC Drayton depot. Mike Hurp agreed that he would be happy to arrange a meeting between interested parties and would follow this up. It was suggested that Peter Ronald should be invited to the next CLLC meeting.

David Turner asked for a message of thanks to be conveyed to all those who helped with the open evening for Parish Councillors. He commented on how well run it was and that the enthusiasm of the staff was notable.

## 4. General developments – Steve Cowley

- Culham is starting work for ITER through contracts and grants.
- MAST is thriving and upgrade is still under discussion.

- Support from the Government is good. The UK fusion budget is holding up and will be renegotiated one year from now.
- Need to redevelop facilities on site to allow research to continue for at least 20 more years. Culham is co-ordinating with Science Vale UK and local organisations to develop plans.
- There have been many visitors to site including Lord Dick Taverne and Lord Montgomery. Good support at Government level must continue.

## **5. EFDA JET Report – Dr Francesco Romanelli**

JET is running a successful campaign over the last year until October 2009. The machine performance is at levels not seen since 1996/97. JET's next shutdown will be from October 2009 until December 2010. The shutdown is aimed to change the internal configuration to mimic the same conditions which will be found in ITER. The shutdown will cost around €60M with about 25% of the work awarded to UK firms. The present timeframe under the 7<sup>th</sup> Framework programme foresees funding for JET up until the end of 2010 in time to complete the enhancements. There is much agreement in the fusion community to extend JET operations until at least 2014/2015 to allow full exploitation of the enhancements. Discussions are now underway with the European Communities and EU member states to discuss ways in which JET can continue operation over the period 2011 to 2015. The possible continuation of JET beyond 2015 is being looked at. This follows a positive review from an international review panel with non-fusion experts who have recommended the continuation of JET until the start of ITER operations which is foreseen as 2018. A way to fund this will be needed. The participation of non-EU members to the JET programme is now being explored.

There have been discussions about JET with ITER parties. Russia and China have both shown an interest in JET participation. In November a request was received from the Chinese Embassy for Madame Liu (Vice Prime Minister) to visit. She came on site and explicitly affirmed the relevance of the Chinese community participation in JET. There has also been a long-standing relationship with the US. Many US staff have been working on JET and have taken responsibility for one of the enhancements and will continue to do so if JET continues to 2018. During any campaign there are about 300 scientists on site, averaging 100 people per day who come onto site for a short period from one month to a few months. A way needs to be found to involve more JET participation.

Cllr Laurel Symons asked about the replacement wall inside the Torus. Francesco Romanelli replied that everything will be replaced. At the moment the tiles are made from carbon, the new tiles will be beryllium and tungsten in line with ITER plans. A copy of the JET Insight magazine, which explains the work, was circulated. Steve Cowley added that the work will be an incredible hive of activity, about 4000 assemblies will be taken out and about 3500 will be going in. The upgrade will be a great achievement once complete. Martin Cox also mentioned that about 100 extra local staff will be recruited during the shutdown period.

Cllr David Turner asked if beryllium storage had any issues. Martin Cox replied, yes, as a clean bulk material it was ok, but as a dust it could be hazardous. Culham has a full range of controls of materials, glove boxes, etc and extensive experience. Everything is monitored inside and outside the areas by Health Physics.

## **6. UKAEA Fusion Report**

Following commissioning of the upgraded heating system, MAST is now operational. The machine is producing very good science results. It is hoped to obtain approval for the upgrade in the next few months.

The site safety performance has remained extremely good. At the last meeting it was reported that there had been two significant injuries. One was a scald and the other was a cracked bone in the wrist. Since then there had been no more and Culham is getting close to reaching a full year without any injuries. In two months time, 2 million working hours without injury will be reached.

On UKAEA matters the RSRL which looks after the decommissioning of Harwell and Winfrith is fully functioning within the UKAEA group as a different company. The Government recently announced it

intends to organise a full or partial sale of UKAEA Ltd. The ISAT division are within a week of transferring to another company. It is not yet clear who will own Culham and its fusion research after the sale.

Steve Cowley added that the break-up of UKAEA had been long and drawn out. Culham's science money comes from EPSRC who provide us with £23M per year and the European Commission provide the funding for JET operations. We are owned by UKAEA, who are owned in Government by BERR (Business for Enterprise and Regulatory Reform) through the Shareholder Executive. This will continue until there is a new decision on our home. EPSRC only provide research funds and don't provide much for infrastructure. If there is any news it will be reported to this group.

## **7. UKAEA Site Report – Mike Hurrp**

An update on developments on property activities was given by Mike Hurrp.

Since the last meeting the main property focus on site has been with existing occupiers who are seeking additional space or renewing leases. In line with the downturn in the commercial property market, enquiries from potential new occupants regarding available space have declined. One new company, Aurox (a spin out from Oxford University) have taken a suite of labs in building F4.

On estate management there are several areas of ongoing site work with a programme of infrastructure improvements underway. The replacement of slab footpaths with tarmac will help make pedestrian routes safer and there are plans to improve signage and marking of some car parks. A project is also underway to replace the air-driven sump pumps with electric ones in the service duct network on site. There is also an intention to replace the main entrance signage on the A415.

There is a need for new power supplies near building D1 for MAST. The plans are being worked on at the moment and a planning application will be submitted in due course.

The site as a whole is being looked at with regeneration in mind to meet future needs. This work includes the planning for demolition of redundant buildings, particularly the ones on the North Culham estate, which are generally in a poor condition. The programme of demolitions has started with the F1 generator house. The demolition of this building took a long time to prepare due to the complicated network of cables that had to be traced back and disconnected. The demolition is now well underway after the contractors started in early March. Demolition should be completed by the summer. Demolition of 4 redundant buildings on the North Culham Estate (which has now been incorporated into the main fenced site following vacation by tenants) is being considered. There are no timescales for this work as yet. The demolition of the chimney attached to the redundant central boiler house and the removal of redundant transformers is almost complete.

The future site needs have been recognised in the SODC developing future statutory planning framework and LDF suite of documents. Culham was pleased to see the positive statements and support of future work on site in the SODC Core Strategy document, which is out for public consultation at present. The report mentions the value of the site to the local economy as a major employment site and source of high value jobs in science technology and education, and noted that JET operations are due to continue for a while yet. The document also recognised that planning for future development should be for the site as a whole including the JET site.

On transport and travel Culham is introducing a new cycle to work scheme. This is a Government backed scheme which offers employees who cycle to work a tax-relief discount on the purchase of new bikes. A Culham travel plan has been drafted which highlights measures taken to encourage other forms of travel to work. Recent improvements have been made to the cycle sheds and the showers on site.

Culham have been notified by the County Council of roadworks opposite Thame Lane which will necessitate traffic light control on the A415 between 0930 and 1530 hrs for about a 3 week period in May.

David De Leyser asked if the F1 area will be turned into a car park once the building was demolished. Mike Hurl replied that the F1 site would be grassed, but the parking spaces would be replaced around the perimeter of the site.

## **8. UK PR Update – Jennifer Hay**

Jennifer Hay attended the meeting following her return from ITER in January.

Culham has had no let up in PR activities at a time which is thought to be a crucial moment for fusion and UKAEA. As mentioned above, there have been visits by Lord Taverne and Viscount Montgomery. (Lord Taverne is the founder of an organisation 'Sense about Science' that aims to demystify scientific issues). A briefing about fusion was arranged at the House of Commons by John Howell. There were 80 media appearances last year, and Culham has introduced new media resources such as Twitter.

Public outreach has grown. The Horizon programme caused a huge increase in interest with more requests for the open evenings. The number of open evenings per year has been increased to accommodate these requests, with approximately 100 people attending each one. Another aspect of education outreach is 'hands on' events, such as the Abingdon Schools science fair, Wow! How? and the Oxford Science Festival event in Bonn Square, Oxford. During March Culham hosted a special Saturday event for families from Barton, Rose Hill and Blackbird Leys. The visitors had tours of the site during the morning and in the afternoon they participated in an energy game produced by the Northmoor Trust.

On the education front, there has been a huge demand in visit requests and it is not possible to take all the school and university groups that want to visit. Approximately 1,500 students have visited in the past year and 1000 students were reached by means of off-site talks. The Sundome is going from strength to strength with about 5000 students having experienced it. The possibility of the Sundome going out to ITER in France is being discussed. In general the events are very busy with no signs of abating.

Steve Cowley added that PR activities play an important role in educating the public in the future energy needs for the world. The concept of a visitor centre at Culham would be a good way forward as it could be accessible without visitors having to come onto site. It could include interactive displays about solar, wind, nuclear power and fusion issues. The development of such a centre would probably need to be achieved through private funding.

## **9. Update from Tenants**

Simon Sharron gave an update on the status of the European School. As background, and in line with JET, the original schedule was that the school would run down and be phased out. Approximately 15% of the children at the school are of EU employees and about 2/3 are children of teachers at the school. The EU took the decision to retain the school beyond 2017 in another form. The European School is working hard to find a way to keep the school going as an Academy. This would allow it to continue to offer an international curriculum delivered in at least 2 languages. The students become bilingual and many leave with three languages. There are very few state funded schools, for students through to 18, in this category. The historical links with JET provide a natural link between science and languages. The negotiations are, unfortunately, very complicated and depend on funding and political will. Uncertainties are increased during this recession and down-turn in the economy.

The progress so far is positive and Lord Jay of Ewelme, a local resident, has been successful in getting together a trust looking to raise initial sponsorship of £2M. With this the school can be taken to Academy status. The next stage is to take the proposal to the Minister in London for a decision. The cost of making the school fit for purpose would need to be examined and refurbishment costs would be quite high. If the project is successful, the school will attract Academy funding. The funding would be in the region of £6/7M per year.

A European intent is to close the school by 2017. The EU has made a committed to close the School year by year, starting in 2010. Thus in September 2010 there would be no admission of the youngest year group, and then no admission each continuing year. This sets the timescale for transition, sooner, rather than later. The intent is to fund the school as a State Academy rather than a European school.

The funding concept is quite simple, but has never been done before. Investment of EU money provided to close the school will be used in the establishment of the new school. This could benefit the whole community nationally and in the UK, creating a unique school specialising in delivering a curriculum in more than one language and specialising in science. The next stage of this process will be to request funding from the European Union.

Steve Cowley asked when a decision about EU funding would be known. Simon Sharron replied that the school will start to close down in 2010 and will close in 2017. The timeline is very ambitious with an expression of interest to the Government expected in June this year and the feasibility determined between June and January 2010. Ultimately the decision will be made between January 2010 and March 2010. There is also an intention for the school to provide extra facilities for the local community. Steve Cowley and Francesco Romanelli hoped that the proposal is successful.

Cllr Laurel Symons asked how much it would cost to close the School. Simon Sharron thought upwards of £20M.

David Deleyser reported, on behalf of Crystalox, that a new poly-silicon plant in Germany started production in May. Their Annual report was due out next week with profits up 21% to £81M. The company hadn't been too adversely affected by the credit crunch. A move into new premises had been postponed. The output last year was 235MW with 290MW expected next year. The company is very healthy and share prices have rallied recently. David Turner asked if there had been any more power issues. David Deleyser replied that a back-up system was being installed to kick in if there is a power cut on the Milton site. This will be tested at Milton before anything is changed at Culham.

## **10. Any other Business**

Cllr Bill Hanks raised concerns about the traffic situation, and also mentioned that an updated on the incinerator proposal will go to a committee in July.

Robin Holcombe mentioned that the European School was hosting a European Parliament debate with local MEPs on the evening of the 8th May.

Following no other business, Prof Cowley closed the meeting by thanking everyone for attending.

## **11. Date of next meeting**

Thursday 15<sup>th</sup> October 2009

**Prof Steve Cowley, Chairman**

**Date of issue: 09 October 2009**

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