

UK CONTROLLED ENVIRONMENT USERS' GROUP
MINUTES OF THE 2005 ANNUAL GENERAL MEETING

The annual general meeting of the Controlled Environment Users' was held on Monday the 5th of September at University of Plymouth, Plymouth

The UK CEUG Chairman, L.D Incoll opened the meeting at 20:10 hours.

Present: C. Abbott, J. Aldous, S. Andrews, B. Ashton, G. Bignell, D. Clark, I. Curtis, P. Curtis, R. Darby, J. Franklin, M. Fuller, P. Gill, M. Gimenez-Moolhuijzen, P. Hamer, G. Henderson, M. Hibbert, M. Holdsworth, G. Holroyd, M. Hughes, L. Incoll, B. Lockyer, B. Meredith, S. Millam, A. Morgan, R. Moulding, R. Natt, A. Padfield, I. Pearman, G. Pitkin, M. Pratt, B. Robertson, K. Sawford, A. Sim, D. Skelton, I. Southworth, K. Staples, M. Stenning, P. Stratton, G. Taylor, A. Thain, C. Tilley, B. Trotter, A. Fuller (Minutes Secretary).

Apologies: J. Toler, R. Parkinson, E. Fryars, C. Fryars, S. Robertson

1. The meeting agreed to appoint L. Incoll as chairman for the rest of the meeting.
2. **Minutes of the previous meeting at University of Leicester, Leicester on the 14th of September 2004.**

The minutes of the previous meeting, which had been distributed to members earlier in the year, were approved as a true record of the proceedings (proposed M. Stenning; Sussex University; seconded G. Pitkin, SCRI).

3. There were no matters arising that would not be dealt with in the rest of the Agenda.
4. **Chairman's Report (L.D Incoll, University of Leeds)**

I am pleased to report that the last twelve months have seen much activity. In modern 'speak' we have achieved a significant milestone with the adoption of a formal constitution and the approval of our application to register as a charity in England and Wales. The workshop on "Light and its measurement in CEs" was a new educational venture for us. Although of a longer duration than our usual meeting, it was a great success with a capacity attendance and with an excellent series of lectures and practical sessions well supported by manufacturers of light sources and light measuring equipment.

Charitable status

The 2004 AGM voted to adopt the constitution and voted to approve the Executive Committee's proposal that the Group apply to the Charity Commission of England and Wales to register as a charity in the form of an unincorporated association. The Charity Commission asked the committee to modify the wording of the Group's object to emphasize that the Group's primary objective was educational and that its beneficiaries were the public. This is in effect a call to the Group to ensure that its

activities are made available to the wider public. Although we are already ensuring that our activities are publicised to all via the Group's web site, we have to address this call which will be a new challenge for us. A Special Meeting of the Executive Committee approved the modification and the amended constitution and the Charity Commission approved our application in March 2005. We are Registered Charity Number 1108721.

Communications

1. 'UK-CEUG' JISCmail List

This list is still fulfilling its purpose. There has been a moderate amount of activity in the last year with informative messages from the Executive, questions from members with varying responses (while some appear to raise no response, it may be that members are replying directly to the enquirer), and one discussion generated by an enquiry. We have two members whose autoreplies get past the JISCmail filter. In my opinion the use of autoreplies is foolish as it identifies senders to spammers as real users.

2. Website

The Group's web site has been improved since the last AGM with the addition of new pages: (i) a new page for the constitution and (ii) two new pages for manufacturers - one for manufacturers of CE glasshouses (with three new members) and one for manufacturers of light measuring equipment. The "Members by organisation" page has been updated. As usual the proceedings and minutes of the annual meeting were added on their completion, though this year, because of the potential magnitude of the task of editing, the lectures from the workshop were not included in the proceedings.

Membership

Since September 2004

Category	Number
New members	18
Members resigned	5
Net change	+13
Current total	160
Email contact – <uk-ceug> JISCmail group	152
Attending the 2005 meeting	51
<i>Overseas recruitment:</i>	
Spain – joined	1

There has been a larger net increase in membership this year. We welcome one new European member from southern Spain. Our new recruitment pamphlet (*2-sided, one A4 folded to A5, in colour*) has been made available to the manufacturer members for them to distribute to their existing and potential customers and will be sent to ordinary members as well.

Publications

1. Minimum Guidelines for Measuring and Reporting Environmental Parameters for Experiments on Plants in Growth Rooms and Chambers

J. Franklin distributed copies of the International Committee on CE Guidelines leaflet on 'Minimum Guidelines for Measuring and Reporting Environmental Parameters for Experiments on Plants in Growth Rooms and Chambers' to all members. Manufacturer members agreed to distribute them to their customers. Representatives of each organisation in the membership of the Group was also sent a copy of the A3 poster for posting in CE facilities to advertise the existence of the minimum guidelines and an accompanying folded plastic box for holding free copies of the leaflet.

2. 'CE Guidelines for tissue culture facilities'

The international sub-committee on 'CE Guidelines for tissue culture facilities' chaired by G. Holroyd has made little progress to date.

Future Meetings

Next year we visit Imperial College at Silwood Park where D. Wildman will be host; at last we will have the opportunity to see the Ecotron, which we first heard about over 10 years ago. The topic of the scientific programme - "Quality Assurance - when the inspector calls" might not seem to be relevant to you. I think this would be a misguided reaction. Contractors to some funders already have to achieve quality standards as a condition of accepting funding for the work they carry out. Managers of facilities will have to ensure that their facilities deliver services to meet the standards, researchers and grant holders will be obliged to ensure also that the standards of experimentation, including analysis, meet the standards. We are holding the meeting to bring the future into the present for our members.

We do not have many firm offers to host future meetings. A workshop on "Water" is planned at Dundee in 2008. Please tell us if you would like to host a meeting.

Discussion: Aspects of the report were discussed. G. Holroyd (Lancaster University) reported that members of the International sub-committee on guidelines for tissue culture environments were busy with other commitments making response times slow. The chairman had suggested that rather than aim for minimum guidelines, full standards should be published first followed by minimum guidelines.

The chairman asked members to pass recruitment leaflets on to others who might be interested. He observed that there was an A0 poster on Minimum Guidelines for conventional CEs available for members to take conferences on behalf of the UK CEUG.

The report was approved unanimously (proposed G. Holroyd, Lancaster University; seconded P. Gill, SCRI).

5. Secretary's Report (J. Franklin, Rothamsted Research)

During the last year the executive committee has met twice at Rothamsted and twice 'online'. The latter meetings were held to resolve outstanding issues concerning charitable status. Much of the business of the committee is conducted via emails, however the executive committee aims to meet at least once a year to resolve the details of the annual meeting as well as to progress the business of the group. The group is grateful to Rothamsted Research for provision of its facilities for meetings.

As a consequence of becoming a registered charity the group continues to receive regular updates from the charity commission regarding issues for charities. These are available from the Secretary if you are interested. As part of our application for charitable status the Society for Experimental Biology (SEB) gave the group its support. The secretary is currently liaising with the Society's Education Group to see if there are any opportunities for the UK CEUG to support the SEB's educational activities thereby furthering the group's aims in a wider forum. The secretary recently attended a meeting of this group at Waddesdon Manor. If members become aware of, or would like to be involved in, any opportunities where the UK CEUG might be able to contribute to educational activities that relate to plants and how they are grown, especially in any sort of 'controlled environment', please contact the secretary.

The secretary during the year has posted to members the Leaflet on the 'Minimum Guidelines' and subsequently the accompanying poster and leaflet holder. There were a few hiccups in mailing and apologies to those who missed a mailing. Both leaflet and poster are still available to members at a nominal charge.

The secretary has been involved this year in assisting Mick Fuller organising this meeting and will continue to support meeting organisers.

The report was approved unanimously (proposed G Taylor, WEISS-Gallenkamp; seconded A. Morgan, HRI Warwick).

6. Treasurer's Report for the financial year 2004/2005 (P. Gill, SCRI)

The treasurer presented his report. Overall, income (£3,793.41) and expenditure (£3,746.35) for the year were very similar (see Annexe A).

The Light Workshop held at the University of Leicester has shown a surplus to date of £949.13 (see Annexe B). There is still an outstanding debt of £362.50 for a stand booked by Ocean Optics, which now appears to be moving towards a successful resolution. This would give us a final balance of £1,311.63 for the workshop.

The higher cost of the Executive meeting held in June is a reflection of higher summer travel costs, especially flights by the Treasurer & Assistant Treasurer from Scotland. The meeting costs do not include those of the Chairman which are billed directly by the University of Leeds and are not fully itemised.

Interest is paid by the Royal Bank of Scotland quarterly, i.e. ending 15th Sept., 16th Dec., 16th Mar. & 15th June. I have not split them to coincide with our financial year. That could be done if it is the wish of the membership.

The report was open to discussion and the chairman reported that his travel expenses for the Executive Committee meeting in January were £44.10 so that expenditure on that meeting increases, the Chairman's other expenditure decreases and total executive committee meeting expenses increase all by £44.10.

The report was approved unanimously (proposed I. Pearman, Rothamsted; seconded J. Franklin, Rothamsted).

7. Election of Executive Committee

The Executive Committee decided that to ensure that all committee members / trustees did not retire together, some committee members should volunteer for re-election after one year in post. A. Morgan, G. Holroyd and Treasurer, P. Gill, did so. One new nomination, M. Fuller had been received:

Position	Person	Proposed	Seconded
Treasurer	P. Gill (SCRI, Dundee)	I. Pearman	G. Pitkin
Members	M. Fuller (Plymouth University) G.H. Holroyd (Lancaster University) A. Morgan (Warwick HRI)	L. Incoll N. Paul S. Robertson	P. Gill J. Theobald J. Franklin

All candidates were elected unopposed.

8. Future meetings

a) 2006 Annual Meeting on "Quality Assurance" (D. Wildman)

The chairman reported on progress with the organisation of this meeting and remarked on the topicality of the subject. G. Taylor (WEISS-Gallenkamp) supported the notion of timeliness and said that the subject of Quality Assurance should be embraced by CE managers and support staff as this would hopefully emphasise to senior management staff the understanding and importance of quality control in controlled environments. Only when the 'powers that be' consider CE rooms as 'serious scientific tools', will funds be made available for their proper maintenance and management. Therefore, he felt that we should be positive about the adoption of Quality Assurance in CE and encourage its implementation.

L. Incoll (Leeds University) reported that J. Sager, A.J. Both, and T. Tibbitts, members of our fraternal North American group, NCR101, had presented a review paper on quality assurance in CEs to the July 2005 ASHS meeting and he recommended that members read it.

b) 2007 Annual Meeting on "Sustainable CEs (R. Darby and Executive Committee)

The chairman introduced the idea of holding a meeting on sustainable CEs; sustainable in their use of energy, labour and materials. J. Franklin (Rothamsted Research) observed that rising energy costs are resulting in greater consideration of

energy-efficient equipment and life-cycle costs. He felt that the 2007 meeting should consider, for example, whether we should use cheap CE that needs repair after a short time or more expensive CE that lasts, because in his experience more modern kit is not lasting as long and is prone to break down. Another issue for consideration was the true lifecycle costs and maintenance/consumable costs.

M. Stenning (Sussex University) felt that energy efficiency for CE should be the responsibility of the manufacturer and would be a factor when selecting a purchase. G. Taylor (WEISS-Gallenkamp) observed that the subject has been discussed many times before. The fact is that energy efficiency often adds cost to the manufacture of products, so that, unless accountants start to consider energy efficiency and the longer term pay-back, there will be no incentive to manufacturers to manufacture for higher energy efficiency. He regretted that, generally, very little consideration is given to running costs when equipment is purchased; the short-term, cheapest product often wins! We all want energy efficient products but we are not always prepared to pay for it.

G. Holroyd (Lancaster University) observed that with the requirement for full economic cost recovery, good QA practices in CE management will be essential for cost efficiency and longevity of facilities. A. Padfield (Unigro) suggested that running costs, including depreciation of differing CE systems and including those providing natural irradiance, should be looked at to determine how they could be utilised more efficiently as energy costs continue to increase.

c) 2008 Workshop on “Water and its measurement in CEs” (P. Gill & G. Pitkin)

P. Gill reported that he had booked for Sunday the 7th until Wednesday the 10th of September, split between SCRI and West Park, Dundee University. The workshop would concentrate on soil water and atmospheric water vapour pressure and should include water vapour generators in CE. There was a proposal that two postgraduate training bursaries be offered for competition. L. Incoll (Leeds University) will be asking manufacturers of instruments for measuring atmospheric water vapour to bring instruments that display atmospheric vapour pressure deficit as well as relative humidity, the variable of importance to plants.

c) Post-2008 meetings

The chairman presented the schedule of proposed future meetings noting that recently D. Rose (Sheffield University) and M. Stenning (Sussex University) have offered to host meetings.

Date	Venue	Comments
2006	Imperial College at Silwood Park	New site Theme: “Quality Assurance – when the inspector calls”
2007	University of Wales, Aberystwyth / IGER	(will be 13 years since last visit to IGER) Theme: “Sustainable CEs”

Date	Venue	Comments
2008	SCRI, Dundee	Workshop. Theme: "Water and its measurement in CEs" (will be 11 years since last visit)
2009	IACR Rothamsted	(will be 11 years since last visit)
2010	York University / CSL	(will be 11 years since last visit)
2011	University of Sheffield	New site
2012	John Innes Centre, Norwich	(will be 11 years since last visit)
2013	Syngenta, Jealott's Hill	(will be 11 years since last visit)
2015	University of Lancaster	(will be 11 years since last visit)
2016	University of Sussex	New site

d) Other Meetings:

1. International meeting at KSC, NASA, Florida in North America in March, 2007

The chairman has been in correspondence with NCR-101 over the next international CE meeting advocating that such meeting should not be held as close as 3 year intervals after the last one. This would not allow sufficient time for enough new developments on which to base a meeting. J. Franklin (Rothamsted Research) noted that the International meeting in Brisbane had been attended by 11 people from the UK CEUG, 10 of whom had been supported by travel bursaries from the group. L. Incoll (Leeds University) said that 3 years also put great pressure on fundraising the £3000- £5000 needed to sponsor 10 people while maintaining our usual activities.

2. International meeting on Greenhouse Cooling

M. Giménez (Almeria) reported on the meeting in April 2006 in Almería, Spain, where the subject was climate control in glasshouses, organised under the auspices of ISHS, represented by the Commission for Horticultural Engineering and the Working Group for Greenhouse Environment and Climate Control by Experimental Station of Cajamar, Las Palmerillas, University of Almería, IFAPA etc. English was the main language. Details from WWW:

<http://www.coolingsympalmeria06.com/>

The chairman reported that the Executive Committee had decided to sponsor G. Pitkin (SCRI) to attend and to present the poster on CE Guidelines and a new poster on membership encouraging people to join the UK CEUG. .

9. Light sensor calibration package (D.Wildman *in absentia*)

At the workshop in Leicester, it was suggested that UK-CEUG should provide (similarly to NCR-101) a suite of instruments to allow our members to check their own sensors' calibration. D. Wildman's following resume, which sketches out the

costs and charges for the proposed package, was circulated to members via JISCmail before this meeting.

Philosophy

The suite should comprise one meter, one red/far red sensor, and four quantum sensors. One quantum sensor will be designated the “master”, as it will be our reference standard, and will generally only travel between the keeper and the formal calibration. The three quantum sensors will be provided with a stiff mounting stand with levelling facilities. This will be packaged with the sensors and the meter and sent in a moulded foam in aluminium flight case to members on a nominal 2-week loan. An instruction manual will be provided.

Users will compare their sensor(s) with the battery of three sensors. They may use the quantum sensors and the red/far red sensor for measurements in their facilities. On return to base, the kit will be checked for damage and a comparison made between the quantum sensor readings and the “master” to ensure no degradation has occurred due to their travels. All will be sent for formal recalibration within the recommended period.

Package composition & purchase price (prices include VAT)

Skye Spectrosense2 (4-channel meter)	Qty 1	£703
Skye Quantum sensors	Qty 1	£1321
Skye Red /far red sensor	Qty 1	£656
Fabricated stand for four sensors	Qty 1	£150
Flight case (estimated maximum cost)	Qty 1	£120
Total initial purchase cost		£2950

Ongoing costs

Instrument recalibration: Qty 5 sensors @ £95 ea (plus VAT) £ 560 (per 2 yrs)

So, assuming 14 hire events per year, and over a 2-year period:

Recalibration		£560
Transport costs	29 journeys: (28 out to hire, one to recalibration) at £25 each.	£725
Sundries	Labels, batteries, duplication, cleaning materials etc.	£40
Total repetitive cost of maintenance and hire out per 2 year period		£1325

Therefore **cost to CEUG per hiring over 2 years** £48

Depreciation

Allowing for a complete suite replacement every 7 years:

£3000 / 7 = £428 per year, distributed across 14 hire events £31

Total estimated cost to CEUG per hiring £79

Cost to borrower:

Direct payment to CEUG:

£79

Borrower is responsible for shipping package back to CEUG, and insuring it in transit.

(Estimated overall cost to borrower is therefore about £100)

Notes

a) *Prices:* 2005 prices, rounded up to nearest pound.

b) *Shipping* Quoted price today is about £20.50 per journey, for next day delivery, including £2500 insurance: fee refunded if delivered after 1 pm. (Info. from Royal Mail regarding special delivery service for packages up to 10 kg, max dims 610 x 460 x 460 mm).

Discussion:

The chairman introduced the discussion of the proposal at the AGM, a discussion which had been requested by the Executive Committee. It would be followed by an email census of all members asking if they supported the proposal.

It was observed (A. Morgan, Warwick-HRI) that the management of the package was a large commitment for the CEUG. The chairman reported that D. Wildman had generously offered to manage the package. He would hold one calibrated sensor and would arrange for it to be calibrated against a standard source lamp owned by Skye Instruments and referenced to an NPL standard. B. Trotter (Skye Instruments) generously offered the Group a discount / sponsorship deal on the purchase of the package which she would discuss with D. Wildman.

The practicability of the loan system and its cost was discussed. J. Franklin (Rothamsted) felt that he might wish to recalibrate every year. With 75 member organisations the frequency of borrowing by one organisation might therefore be once in 5 years if all member organisations participated. M. Stenning (Sussex University) observed that among the membership university members might be the most interested in using the package. Regarding the cost of borrowing, B. Trotter (Skye Instruments) reported that their calibration is £95 + carriage + VAT per sensor until 31st Dec 2005. It was observed (G. Holroyd, Lancaster University) that the advantage of the package was that the borrower's instruments could be recalibrated on site; sending equipment away for calibration had the distinct disadvantage of leaving an organisation temporarily without a sensor. Furthermore organisations with more than one sensor could calibrate them all during one loan period. They could also use the set for multiple concurrent measurements.

It was proposed that, for quality assurance, a traceability certificate would be needed which gave a specification of the magnitude of error. B. Trotter (Skye Instruments) said that their calibration is directly traceable to NPL and fully traceable calibration certificates are supplied as standard. She observed that it was practical to have one "master" sensor formally calibrated and to calibrate the others against it.

The chairman remarked that the success of the proposed instrument package might lead to development of a similar package for calibrating humidity sensors post-2008 meeting and even for contemplating the purchase of a spectroradiometer for loan for

making light quality measurements. J. Franklin (Rothamsted) observed that the establishment of a borrowable instrument package would contribute actively towards supporting the charity's educational objective and to members adopting quality assurance practices.

Now that the consultation with members at this meeting was complete it was important for the Chairman to canvass the whole membership to gauge their support of the project.

10. Open discussion of the following CE topics

Maintenance, servicing, spares

M. Stenning (Sussex University) asked if members knew of a source of Somfi Phoenix vent opening motors.

Lighting

L. Incoll (Leeds University) asked about advancements in LEDs since last year. M. Pratt (Leicester University) said they are collaborating to develop arrays of “naked” LEDs which, having no lenses, produce greater output over a larger area with reduced heat output. Plants can be damaged by heat from LEDs, particularly blue ones, requiring a heat barrier if seedlings, for example, are close to the LEDs.

R. Darby (University of Wales, Aberystwyth) described the European-wide lighting industry standard for DALI, a Digitally Addressable Lighting Interface for centrally controlling all dimmable ballasts in an installation via a PC. He wondered if anyone had experience of using it or of writing software for it. He had to use a commercial source of software (Dynalite, Australia). A. Morgan (Warwick-HRI) and G. Holroyd (Lancaster University) said that they had purchased DALI compatible ballasts but had not used them in dimmable mode because of the cost of the control interfacing and software and the need to invest time in development.

Fabric, glazing, reflective materials

R. Natt (CSL) asked about the cleaning of the interior surfaces of glasshouses especially in the light of health and safety issues over access at height. All facility managers who responded used water, at either high or low pressure e.g. cold water with a long lance or commonly high pressure with a standard lance. Some use hot water at 80°C. Verritex™ chemical surface cleaner was mentioned as an effective remover of biofilm on glass and plastic. Disinfectants were commonly used e.g. Hortisept™ or Jet 5™. Various permutations were described e.g. one consisted of two washes with Hortisept™, followed by two with hot water, followed by a power wash. The danger of water near power installations e.g. sockets and lamps, was emphasised especially if power washing was used and different establishments followed different safety procedures; isolation of the power supply was obviously necessary and some managers reported cleaning only at low level, others polythene-bagged lamp units.

B. Robertson (JIC) described the JIC procedure. A request is sent to their Engineering Dept for the power to be switched off and all lamps and sockets to be taped and bagged. They then wash down with a water and Jet 5 solution which is left and rinsed off with plain water after a period of steeping. If using a petrol power washer, there are the exhaust fumes to consider in the risk assessment for the task. A follow-up

request is then sent to JIC Engineering to open up the glasshouse, de-bag, and check all power supplies are safe. The house is then ready for the coming season.

[Postscript: Unigro (A. Padfield) have used a nitric acid solution (low concentration) on polycarbonate in the past in areas of hard water in warm bright conditions. This has the obvious H&S implications but prevents the calcium leaving the solution and therefore leaves an excellent finish. Obviously it has limited capacity to deactivate pathogens.]

Plant growth problems, pests, diseases

I. Curtis (Leeds University) asked if red spider mite can be eradicated from CEs. R. Natt(CSL) has found that Oberon™ used in glasshouses has given good control but only if there is complete coverage of all foliage. The only drawback is it is limited to two sprays per year. I. Pearman (Rothamsted) said that resting areas in the glasshouse frame work and benches must be covered to ensure good control. A. Padfield (Unigro) and G. Henderson (Syngenta) suggested that Masai™ was effective against red spider mite. G. Henderson reported that Masai™ does not kill the eggs in winter when the mite is in diapause, however it will kill all stages (including eggs) during the summer months. I. Curtis (Leeds University) described problems with 'pet' plants in labs infested with red spider mite. Members advised banning potted plants in labs. [Postscript: The question of how long a red-spider-mite-infested plant should remain in quarantine prior to being referred to as 'safe' after chemical treatment was raised during the tour of the Eden Project's Watering Lane Nurseries by I Curtis (Leeds) but remained unanswered at the time.]

Management, staffing, running costs

On running costs, J. Franklin (Rothamsted) reported that when fans on new growth rooms were replaced at Rothamsted, they used 2/3 less energy. The savings meant that the capital cost was paid back in less than a year with the bonus that the fans were more reliable. A case could therefore be made for upgrading equipment that hadn't failed.

There was a discussion regarding full economic costing (FEC) of CE facilities, and charging the users for their use after B. Lockyer (Southampton University) asked how members had found the process of fully costing CE operations to enable full cost recovery. M. Stenning (Sussex University) replied that at Sussex University, FEC for the running costs of CE had already been achieved using a spreadsheet for every research cost of CE. He remarked that costs of new equipment, space charges, depreciation, maintenance, energy and labour of support staff should be included. The latter was hard to cost. He observed that they only recharge at 30% pro rata if the cost has not been budgeted into a grant proposal.

G Holroyd (Lancaster University) observed that although most facilities charge users, in universities, energy costs and space charges (per square meter) are usually dealt with centrally and recovered from departments by topslicing. Implementing FEC recovery may change this practice such that facility managers will be required to accurately access and recover space, energy and staffing costs as well as charges for central maintenance support which are often difficult to calculate.

G Holroyd also reported that some funding bodies will not accept recovery of depreciation if it is identified as such in charges. Depreciation and replacement cost may best be addressed by factoring them into maintenance costs. It was evident from the discussion that there was no standard blueprint for FEC between Institutes, Universities and other establishments that use CE.

G. Taylor (WEISS-Gallenkamp) reported that, under the WEEE directive planned to be implemented in 2006 (but which has repeatedly been put back), costs of disposal of large CE chambers in future might be the responsibility of the manufacturer and/or the distributor as the regulation is primarily aimed at the recycling of domestic electrical items. Effectively end-of-life equipment would be handed back to the manufacturer for disposal/recycling of its electronic/electrical component with obvious cost implications.

There being no other matters, the meeting closed at 10:20 pm.

Recorder: A. Fuller

Written: L. Incoll

15/11/05

Annexe A

**UK Controlled Environment Users' Group
Accounts for the financial year 1st August 2004 to 31st July 2005**

Royal Bank of Scotland account, Dundee (10081698)

Balance b/f at 1 st August 2004	£7,521.55	
INCOME		
2004 Light Workshop (Leicester University)	£2,707.50	
2005 Eden Conference (Plymouth University)	£250.00	
Mailing sponsorship	£700.00	
Guidelines leaflets	£45.00	
Bank interest (17 March-15 June 04)	£6.34	
Bank interest (16 June 04-15 June 05)	£84.57	
		£3,793.41
EXPENDITURE		
2004 Conference (Leicester University)	£1,758.37	
2005 Conference (Plymouth University)	£108.00	
2006 Conference (Royal Holloway)	£230.91	
Executive committee meeting expenses	£815.62	
Chairman's expenses (Leeds University)	£416.74	
Treasurer's expenses	£1.25	
Display holders	£224.59	
Pamphlet printing (Azimuth)	£190.87	
		£3,746.35
Balance c/f at 31st July 2005	£7,568.61	

P. Gill & G. Pitkin
30th August 2005

Annexe B

UK Controlled Environment Users' Group
Accounts for the financial year 1st August 2004 to 31st July 2005

Light Workshop: Leicester University 12th-15th September 2004

INCOME

Trade stands: 7 @ £362.50	£2,537.50	
Wine reception sponsorship	£140.00	
Proceedings	£30.00	
		£2,707.50

EXPENDITURE

Speakers' accommodation & subsistence	£949.85	
Speakers' travel	£671.02	
Wine reception	£137.50	
		£1,758.37

Cost of Executive Committee meetings

MEETING HELD AT ROTHAMSTED RESEARCH ON 11TH JANUARY 2005

Travel	£244.98	
Accommodation	£69.00	
		£313.98

MEETING HELD AT ROTHAMSTED RESEARCH ON 22ND JUNE 2005

Travel	£426.64	
Accommodation	£75.00	
		£501.64

P. Gill & G. Pitkin
 30th August 2005