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HEALTH AND SAFETY EXECUTIVE

The HSE Board

HR Modernisation – A New Model for the Recruitment and Development of Some Specialist Inspectors

A Paper by Kevin Allars

Advisor(s): Brian Fullam

Cleared by Paul Davies on 1 December 2005

Issue

1. A new model for recruiting, developing and deploying discipline specialist inspectors[1].

Timing

2. Urgent if the proposed pilot is to start early in the new planning year.

Recommendation

3. That the Board agrees:
   i. that more detailed proposals and a business case be prepared for a pilot of the new recruitment model and
   ii. provides a steer as to who should lead the next phase of the work.

Background

4. Annex 1 sets out how scientific and engineering specialists are currently recruited and operate in HSE. This paper is concerned with a new model for recruiting, developing and deploying discipline specialist inspectors. It stems from work done by a group led by Kevin Allars (See Annex 2 for details of membership and terms of reference). This group was established by the SCS Conference in March 2005 "to look at, amongst other things, new ways of dealing with the long standing and growing problem of failure to attract good recruits to HSE in some technical disciplines, (especially engineers, psychologists/ergonomists and medics)".

[1] Scientists or engineers with a broadly based knowledge of their discipline or topic which they apply to solve a range of different problems in a specific industry sector or in the case of FOD across a range of sectors

Argument

5. The SCS Conference also asked that urgent attention should be given to improve the filling of priority specialist posts. Annex 2 reports progress on this issue to date. These short-term initiatives confirmed the working group's conclusions that tinkering with the existing arrangements would be unlikely to provide the long-term solution required. The approach the working group identified would best meet HSE's needs is an extension of the 'grow-your-own' model that has been used on a limited basis in the past. This model involves taking relatively inexperienced staff, with an appropriate academic background, and providing them with the competencies needed to undertake their duties.

6. This model is similar to the one applied to in-house transfers. Examples include occupational hygienists moving from HSL into specialist groups in FOD and training to become discipline specialist inspectors and two more recent exercises: one in HID to convert regulatory Band 3 inspectors with engineering degrees into specialist inspectors, and the second to train nine regulatory inspectors to become Human Factors specialists in the HF CTG. The HF exercise involves a development programme that includes academic training at Cranfield University leading to an MSc. The end point of both exercises is competent inspectors with chartered status, or the equivalent in the Human Factors discipline - membership of the Ergonomics Society. These existing 'training and development' models are being funded by the parent Directorates, but are not considered able to provide for the longer-term specialist resource required by HSE.

7. External recruitment will involve taking staff at Incorporated Engineer level (graduates with 2 or 3 years experience, equivalent to Band 4 in HSE) and providing them with a range of training and development (some academic) and possibly some experience gained through an external placement, to give them the required competence. It is anticipated that some might stay as Band 4s, but the majority would re-band as Band 3s at some point during their specialist development programme. In a separate exercise 'grow your own' arrangements are being developed for Occupational Physicians. Discussions are in progress with Manchester University on providing training closely focused on HSE's priority health areas and to make an attractive package to recruits (Paul Oldershaw is leading).

8. A possible variant of the internal/external grow-your-own model might involve the transfer and development of suitable HSL staff. HSL was not included in the original working group (Annex 2), as David Buchanan preferred to retain HSL's present recruitment and training arrangements. However, Eddie Morland has since indicated that he is keen for HSL to be involved as this work develops.

9. To operate effectively over a sustained period, the grow-your-own model must have the following:

Requirement	Action to get there in HSE
A Competence Framework and management system (this is also required if we are to satisfy the requirements of the Professional Skills for Government Programme)	Devise a competence framework in consultation with PD. (A framework approach to delivering the workforce strategy will be discussed at the Board on 7 December) Put in place a competence management system. Develop a competency map for specialist roles. (See Annex 3 for information on progress)
Agreement by the Professional Institutions to training and development process.	Work with Institutions to obtain accredited training status. (Preliminary discussions with the Engineering Institutions have been held and all are keen to work with us to develop arrangements to meet their accreditation requirements.)
A professional focus for the disciplines involved able to lead and oversee the recruitment and professional development of the recruits.	Identify functions and develop role. (A study is underway, led by CSKU in collaboration with the S&T Community, to identify the Head of Discipline functions and establishing the costs and benefits.) Appoint individuals.
Lead in HSE to oversee piloting and introduction	Steer from the Board as to where the lead should lie.
Cadre of professional/technical mentors	Establish and train mentors
New recruitment package	Work with PD and a recruitment specialist to develop package.

10. The main advantages and disadvantages of the model are:

Advantages

- Improved chance of recruiting younger good quality staff
- Common recruitment process for specialist inspectors
- Recruitment process has an HSE rather than a directorate focus
- Longer term able to deploy staff into different directorates according to need
- Better mapping and control of career paths
- Better control over the development of specialists and quality control over the process.

Disadvantages

- Cost of setting up
- Increased management costs.
- Lost opportunity costs from demands on experienced staff to provide training and mentoring.
- Longer period of training and development
- Staff turnover likely to be higher (but this could be an advantage if turnover rate not too high).

11. There are considerable uncertainties in our estimates of the costs (Paragraph 15 and Annex 4) and benefits associated with the new mode. The most effective way of reducing these uncertainties and developing a business case would be to run a pilot with sufficient numbers to provide a realistic test. We recommend that such a pilot is run and with sufficient trainees to provide confidence in the findings. The pilot should encompass at least two and preferably more of the main engineering disciplines: electrical and control systems, mechanical, construction and process safety, with 5-10 recruits per discipline. The proposal for recruiting Medical Inspectors could also be included.

12. FOD and HID Chemical Industries Division are seen as best able to provide a suitable environment for the trainees in their early years. However, in the later stages of the pilot it would be possible to test the feasibility of staff recruited via this model moving into other divisions in HID or NSD. Such career moves should prove a good selling point to potential applicants. In the longer term, we need a sustainable model of balancing external recruitment with 'growing our own'. Interestingly, the Institution of Mechanical Engineers expects a 'future model organisation' to have a 20/80 split of CEng/IEng (Chartered/Incorporated) qualified staff. They spoke of the former being the thinkers and the latter the doers. In HSE, in IMechE terms, we therefore presently have mainly thinkers, and the view of this project is that we need to move to a blend of age and experience at Specialist Inspector level, resulting in a more flexible and hopefully motivated specialist workforce, and also breaking the mindset of recruiting for life. However, a key issue still to resolve in that blend would be pay scales and rewards.

Consultation

13. To date all consultation has been through members of the working group and PEFD. There have been no discussions with the Trade Unions about the details of the proposals.

Presentation

14. Prospect is aware of this work and has expressed initial opposition to these proposals on the basis that they would "dumb-down" the role of specialists, but have done so without sight of any of the detailed proposals. Any further work will require a strong communications element to explain to staff what is proposed and why, so as to allay the fears of dumbing down.

Costs and Benefits

15. The difference in costs of recruiting 10 members of staff between the "grow your own" model and the current Band 3 Model, is £400k in favour of the "grow your own" model, and we will end the period with an established development scheme for use by others in the future. The estimates are of the total costs taken over the 5-year period we estimate it will take to enable an Incorporated Engineer to gain chartered status (see Annex 4 for further details). However, over that period we estimate staff recruited using the new model will deliver only about 75% of the useful work delivered by the equivalent directly recruited Band 3 recruits, so there will be downsides to the new scheme on short-term business delivery (and cost recovery).

16. These costs are at best indicative. More work is needed on the detailed requirements of the Institutions before a business case with properly costed options can be prepared. Also, without experience of operating the scheme it is not possible to determine accurately the contribution this new type of trainee can make. However, it is feasible that a significant proportion of the day to day work of specialists can be delivered by incorporated engineers supervised by more experienced chartered engineers.

17. In reality, the Annex 4 costs can be broken down to indicate that it would cost NEW money to the value of £76k to develop the new Band 4 training/development scheme, together with a proportion of the salary/training costs depending on how many new

recruits were taken on over and above existing cadre levels (in order to run an effective pilot). There would, however, be some savings in that Band 4s are not as expensive in the early years as Band 3s, but also some lost opportunity costs as the Band 4s will not be as effective as the Band 3s would be.

Financial/Resource Implications for HSE

18. The numbers suggested for the pilot may exceed the normal annual rates of recruitment and would require a decision from the Board to fund the additional costs on an invest-to-save basis. It will be difficult for individual Directorates (probably HID and FoD in this case) to fund fully this pressure from their present funding, and as the longer-term benefits will likely be for the whole of HSE, the business case will need to look at the funding issues as an HSE one.

Environmental Implications

19. None

Action

20. That the Board considers the proposals in the paper and:
    i. agrees that detailed proposals and business case for recruiting incorporated engineers should be worked up and a paper with costed options be prepared for consideration by OMT;
    ii. agrees that, subject to the views of OMT and PEFD on value for money, the proposals should be piloted;
    iii. provides a steer on who should lead on the further development of the proposals and who should lead the pilot.

Annex 1

Discipline Specialists in HSE

1. The requirements and banding of externally recruited specialists varies between directorate, discipline and role. Regulatory scientists, usually recruited as Band 4s, are experienced scientists often with higher degrees. Only rarely are scientists recruited at Band 3 or above. Discipline Specialist inspectors are recruited externally at Band 3, with a small number recruited through internal transfer from HSL or non-specialist roles elsewhere in HSE. Discipline Specialist inspector recruits are presently expected to have a good first degree and a professional standing equivalent to chartered status and to have relevant employment experience, 3-5 years in an appropriate industry sector for FOD and HID and up to 10 years for NSD.

2. Most technical specialist advice to front-line staff and programmes is provided by in-house discipline specialists, i.e. scientists or engineers with a broadly based knowledge of their discipline or topic which they apply to solve a range of different problems in a specific industry sector or in the case of FOD across a range of sectors. Additional support is provided by staff from HSL often but not exclusively mediated by in-house discipline specialists who use the technical advice to make a regulatory judgment. Where HSL does not have the necessary skills or resource, support is available from a number of external consultancies through the framework agreement or one-off contracts. Research support is also available through HSL and external providers.

3. Deep topic specialists provide advice of a deeper more technical nature. These are experts in a fairly narrow technical field usually working within a single industry sector. HSE has need of a limited number of in-house deep topic specialists, particularly in subjects where the demand for that level of knowledge is high or where the demand within the industry for the specialism is high and it is necessary to exclude the possibilities of conflicts of interest that using external resource could bring. Decisions on the balance between maintaining in-house capacity and using external resource are left to the individual directorates. The use of external resource in front-line activity is the subject of a separate project. Deep topic specialists, e.g. working in diving, wells, mines and marine operations, are recruited because of the depth of knowledge they bring to HSE, knowledge which we could not develop in-house. They should not be included in ‘grow your own’ considerations.

4. Some specialists, such as statisticians, lawyers, accountants, economists, are covered by specific civil-service-wide conditions and it would not be appropriate to change their recruitment and development arrangements.

Annex 2

The Recruitment, Development and Retention of Specialists Project

1. The members of the project working group are:
   Kevin Allars Chair
   Paul Davies
   Brian Fullam
   Paul Oldershaw
   John Brazendale
   Andrew Cottam
   Julie McDougall
   Alun Williams
   Mike Cross

2. The Groups terms of reference are:
   a. To identify the broad range and level of S&T competencies needed to deliver HSE's priorities;
   b. To look at how to improve the success at recruiting specialists;
   c. To identify specialists that it both would and would not be practicable for HSE to 'grow' within HSE;
   d. To identify a means of 'growing' our own specialists, where appropriate; and
   e. To look at means of improving the retention of specialists within HSE.

Progress on filling of priority specialist posts

3. The first product (identifying competencies) forms part of a wider piece of work ongoing in COSAS (Brian Fullam and Mike Cross leading) and within the Workforce Strategy (Julie MacDougall leading). Other work is also ongoing on CID–specific Inspector-based competency needs and training requirements, led by Moira Wilson (HID CID), which will also feed into the above work. In all of this work it is important to keep alignment with the Professional Skills in Government agenda.

4. It is clear from recent specialist recruitment campaigns that there is a need to ensure that candidates who don't meet all the criteria for NSD or HID jobs, but might be suitable for, say, FOD jobs, are identified systematically and the information passed on to the relevant contacts in that Directorate. This has been actioned via PD.

5. By speaking to those successful in these recruitment exercises it was also clear that we need to repackage and re-focus our job profile information to highlight the key advantages of working in HSE, e.g. flexibility with a measure of stability, diversity of jobs, demography, hours, pension, etc. The recent HID C&I external recruitment was, unexpectedly, very successful, whilst that only 10 months ago was not: this is being

investigated by PD (John Roberts is addressing with John Brazendale (HID)). The new HR Business Partners will assist by being able to understand better the 'specific Directorate business', and to target the right marketplace. Most recently a consultant from Capita has been employed by PD to assist in the current Discipline Specialist Inspector recruitment campaign for FOD: the advert and prospectus has been written with their assistance to improve the attractiveness of the "job package". In the longer term the consultant can assist ODs to understand the labour market better and target recruitment accordingly.

6. However, without radical change we will continue to be vulnerable to fluctuations in the job market and the ability of private industry to pay more to attract the experienced staff we are also seeking. In the longer term, we need a sustainable model of external recruitment that enables us to attract good quality candidates in a tightening labour market. A proposed model is discussed in the paper above.

Annex 3

A Competence management system for Science and Technology Specialists in HSE

Background

1. The HSE Board agreed to adopt a competence based approach to the recruitment and development of regulatory inspectors in 2003 [Board paper HSE/03/063; '*Specification of HSE's Front Line Regulators'*] and recorded in the minutes [HSE/03/M20] '*There should be a statement of what competencies staff interacting with the public require, what competencies inspectors require, what competencies those involved in wider contact work require*.' Process and procedures were established, based on the NVQ for Regulators, to manage the development of competent staff.

2. Parallel systems were not developed for S&T specialists but agreement was reached between FOD and HID, detailed in OC 15/18, on a common approach to the training and development of discipline specialist inspectors first year in post. It also provided guidance for continuing professional development (CPD) as established inspectors. In comparison to the training and development system of B4 trainee regulatory inspectors, system lacked critical elements of an effective competence management system. Furthermore, its implementation was not uniform and there was no audit of the effectiveness of the system.

3. In 2002 HSE has published guidance for duty holders on managing staff competence.(HSG 197 Developing and maintaining staff competence – Railway Safety Principles and Guidance – Part3 Section A). The Electrical and Control Systems CTG is working with the Institution of Electrical Engineers to extend the principles in HSG 197 to people working with safety critical control systems. The principles (Diagram1) are equally applicable to HSE.

Argument

4. A competent individual should be able to carry out their assigned duties at the level of responsibility assigned to them. To do this an in-house specialist needs a range of individual competences, which fall into three broad categories (diagram 2)
    a. Corporate competences e.g. project management, team working, good communication skills;
    b. Technical competence, which is made up of two subcategories core relating to the application of discipline based academic knowledge and sector specific, where specific knowledge of the technical and engineering practices peculiar industry sector are required;
    c. Regulatory competence, again made up of two sub-categories core (e.g. knowledge of HSWA, SFAIRP, appropriate regulations, and sector specific e.g. the application of COMAH in HID CI, the offshore regulatory regime in HID OSD and the licensing regime in NSD.

5. It is for HSE to identify the range of corporate competences it requires staff to demonstrate and the standards to be applied. Those with management responsibility for specialists identify the competences needed to undertake specific roles and the order and timeframe in which they should be obtained.

6. At present each directorate decides which regulatory competences are required, with most of the training in core competences being provided by FOD in the first 6-12 months of a recruits training.

7. Various systems, usually discipline and directorate based, have been developed to describe the technical competences required by specialists. The core academic competence is bought in with a new recruit by specifying type of degree and the professional status. Some directorates also buy-in sector specific competence, usually at a premium e.g. NSD and OSD. Sector specific competence is usually identified by the number of years a potential recruit has worked in the industry and the type of work undertaken. Additional in-house technical training focussing on specific H&S issues is provided to top-up the pre-existing technical competences of recruits. None of the existing arrangements for managing competence are sufficiently well developed or comprehensive enough to comply with the principles in HSG 197.

8. Better arrangements to manage the competence of specialists are needed if we are to use those staff more flexibly. If we are to use staff more flexibly across a number of industry sectors it is essential that we identify the competences required for the roles to be undertaken, the standards to be applied in measuring the competences and put in place the means for individuals to gain those competences. Such arrangements would provide an essential underpinning of the new recruitment arrangements discussed in Board Paper (B/05/68).

9. Introduction of a competence management system would also strongly support HSE's implementation of the Government's PSG agenda and HSE's own workforce strategy. HSE has developed strategies and policies in its regulatory functions. Recently, the Operations Group wide procedures have been published to demonstrate a similar approach for all parts of the organisation carrying out HSE's core business processes. It is another logical development to ensure our staffs are competent to carry out those procedures.

Progress to Date

10. The Human Factors CTG and the Psychology Pool are developing a competency map and management arrangements, based on the CMS principles, for the 10 internal recruits being trained to become Human Factors specialists. CSKU is assisting and will use the lessons learnt to inform the preparation of a generic competency management system.

Consultation

The Heads of Pools, Heads of CTGs, Heads of FOD's SGs and PD are all familiar with the work to date.

Annex 4

Comparative Costs of the Band 4 "Grow your own" Model and the Band 3 Model

	Scheme Set-up costs (fixed)	**Band 4 Model**	**Band 3 Model**
A.1.1	Development of Institutions Training Scheme 4 x Instutions	£26k	-
A.1.2	Setting up training manual 4 x disciplines	£13k	-
A.1.3	Training of Mentors 4 x disciplines	£10k	-
A.1.4	Placement register 4 x disciplines	£9k	-
A.1.5	Scheme guidance - generic	£3k	-
A.1.6	Institution Fees – across professions	£15k	-
	Sub-Total	**£76k**	**-**
	Recruitment Campaign (fixed)		
A.2.1	Advertising/ marketing Scheme (av. per annum)	£10k	£10k
A.2.2	Sifting applicants 4 x disciplines	£6k	£9k
A.2.3	Interviewing applicants 4 x disciplines	£12k	£12k
A.2.4	Miscellaneous costs	£4k	£4k
	Sub-Total	**£32k**	**£35k**
	Training Costs per employee		
A.3.2	Regulatory training (1st 6 months)	£5k	£5k
A.3.3	Mentoring and supervision (5years)	£22.5k	£19k
A.3.4	Extra T&S (due to training requirement)	£6k	£6k
	Sub-Total	**£33.5k**	**£30k**
A.3.1	Salary costs per employee, 1st 5 years	**£275k**	**£325k**
	Ten employee costs over five years	**£3.19m**	**£3.6m**