Introduction

Some time in the mid 1980s there was a Government White Paper published which showed that one of the reasons why British ‘industry’ was less competitive was that it was lagging behind the rest of Europe in respect of the skills in the work force. An obvious recommendation was to increase those skills. Of itself this was not new, the same message had been said many times in the past and had been responded to in a variety of ways. The White Paper, however, suggested that what was necessary was not simply a more skilled, i.e. a more competent work force, but that the competencies must be assessed in some way or other. To put it another way, merely to show that you had the knowledge to carry out a task was insufficient, equally so to say that you could carry out the task was insufficient, what was required was proof that the task had been carried out at an acceptable level. A competency based qualification as opposed to a knowledge or experience based qualification. The recommendations were accepted by the Government and a number of bodies were set up to devise the necessary competencies across a range of occupations. In Health and Safety the body was known as the Health and Safety Lead Body and it included representatives of HSE and of IOSH. In May 1995 this body published NVQ3 and NVQ4 competencies. Since that time there has been an estimated 250 people who have obtained one or other of these qualifications.

Two points need to be made about competencies in health and safety. The NVQs were not the first statements of competencies in health and safety and it was not the first time that two levels of competency had been identified. As far as can be discovered the very first examinations for safety officers were held by the forerunner of IOSH, the Institution of Industrial Safety Officers (IISO), in 1958. This syllabus was used by RoSPA and many colleges as the basis for local teaching and examination. In 1968 IISO published a new syllabus ‘The Training of Safety Officers’ which contained a list of the ‘Duties of a Safety Officer’; in a sense this was the first statement of the competencies required of a safety officer. In 1977 IOSH published a new syllabus ‘Outline Syllabus in Objective Form’. Although this did not contain a role description the very fact that the syllabus was expressed in objective terms means that the syllabus itself was a statement of competencies. This syllabus was radical in other ways. It was expressed at two levels, ordinary and higher. It had five modules:

- Law
- Techniques of Safety Management
- Behavioural Science
- Occupational Health and Hygiene
- General Science

In each module there was a clear progression from the ordinary to the higher. NEBOSH was set up in the late 1970s and the first examination to the new syllabus was held in June 1980.
A considerable amount of research was done during the 1980s on the role of the safety adviser and this seemed to indicate that there were actually two levels of operation and that there was not necessarily a progression from one to the other. This lead to the creation of the NEBOSH General Certificate and Diploma each with its own syllabus and with no clear progression between the two. The Diploma syllabus has four taught modules:

- Risk Management
- Health and Safety Law
- Occupational Health and Hygiene
- Safety Technology

Each of these was examined in the traditional manner and there is a case study done under examination conditions. The General certificate has two taught parts:

- Identifying and controlling hazards
- Management of safety and health

They are examined traditionally and there is a practical examination which is essentially a workplace risk assessment.

When the Health and Safety Lead body was set up, the IOSH contribution was the NEBOSH syllabus, the underpinning research and a vast body of practical experience. The influence of IOSH/NEBOSH can be clearly seen in the NVQ3 and 4 competencies. In a sense the response by NEBOSH was to recast the Diploma syllabus into the format of the underpinning knowledge of the two NVQs and to make Part 1 equivalent to NVQ3 and Part 2 to NVQ4. The response of IOSH was to line up its admission requirements with both the two part Diploma and the two NVQs. One must not forget that now there are a large number of university post graduate qualifications in health and safety which utilise the NEBOSH Diploma syllabus as the basis of their syllabi and their independent awards. Some of these are likely to change their syllabi towards the new 2 part syllabus but they are under no obligation to do this as they have the authority, being universities, to issue their own qualifications.

**Employment NTO**

In 1996 a decision was taken by government to replace the large number of lead bodies and other standard-setting bodies with a network of National Training Organisations (NTOs). The NTOs will be the representative bodies for vocational training and education matters and will have the main responsibility for developing national occupational standards and working with awarding and accrediting bodies to develop and implement National and Scottish Vocational Qualifications.

NTOs will be employer-led, and will represent employer and occupational groups. Unlike the majority of NTOs which represent sectors of employment, all-sector NTOs represent occupational groups which are found throughout the different sectors of industry.

The Employment NTO was formed by a merger in September 1997 of the Employment Occupational Standards Council and the Occupational Health and Safety Lead Body. It was in the first group of National Training Organisations to be recognised, and was the first all-sector NTO.

The Employment NTO is governed by a Council and three Work Groups. Members are drawn from a wide range of occupations and industries, and represent employers, trade unions and local and national government.

The main occupational areas covered by the Employment NTO are Training and Development, Trade Unions, Health and Safety and Personnel.
The occupational groups in the Employment area are those which deal with people in the workplace. The Employment NTO is responsible for the following qualifications:

<table>
<thead>
<tr>
<th>Level 5</th>
<th>Training and Development Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Personnel Strategy</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 4</th>
<th>Occupational Health and Safety Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Occupational Health and Safety Regulation</td>
</tr>
<tr>
<td></td>
<td>Human Resource Development</td>
</tr>
<tr>
<td></td>
<td>Learning Development</td>
</tr>
<tr>
<td></td>
<td>Personnel Management</td>
</tr>
<tr>
<td></td>
<td>Developing Union Organisation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 3</th>
<th>Occupational Health and Safety Practice</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Training and Development</td>
</tr>
<tr>
<td></td>
<td>Personnel Support</td>
</tr>
<tr>
<td></td>
<td>Support Workplace Organisation and Representation</td>
</tr>
</tbody>
</table>

| Level 2 | Occupational Health and Safety: Radiation Protection Support |

The purpose of the Employment NTO is the enhancement and the improvement of the performance of people involved in the development, management, health and safety and representation of people in the workplace.

The Employment NTO sees its objectives as:

- representing the employment area;
- developing national, sectoral and local partnerships on wider education and training issues;
- promoting employer Investment in People as central to competitive business performance;
- helping to assess and respond to the education, training and development needs of the employment area; and
- placing a greater emphasis on the take-up and implementation of the Employment NTO's Vocational Standards and Qualifications.

Included in the immediate programme of work are:

- development of Standards and Qualifications in recruitment consultancy;
- development of generic health and safety units for non-specialists;
- development of health and safety units for trade union representatives;
- mapping Key and Core Skills against all Employment NTO Standards;
- development of a modern apprenticeship in training and development;
- development of a model of the framework of employment relationships;
- mapping of the occupations and functions of the employment area; and
- developing support materials for the full range of Standards and Qualifications.
**Current work**

In February 1998, the Employment NTO commissioned a collaborative team from The HOST Consultancy and Cranfield School of Management to do an in-depth mapping study of all employment occupations. This team reports to a steering committee on which IOSH is represented. The objectives of this work are:

1. Develop a model of the activities that are in place in the workplace concerned with employment relationships. This will define inter-relationships and unifying features between activities, and distinguish between those with roles wholly, partially or tangentially involved in supporting the employment relationship.

2. Establish a robust occupational map of the employment arena, with qualification or estimates of population.

3. Review key trends in the development of these activities, the main influences and agents for change, and their likely impact at occupational, organisational and individual levels in the short and medium term.

4. Develop and test a functional map of the employment arena drawing on the analysis.

Objectives 2 and 3 were achieved by members of the team carrying out structured interviews, using identical questionnaires, with representatives bodies of each of the four strands of the Employment NTO. In addition to this each had to produce a survey of the training initiatives and modelling activities that had taken place in each of the areas. For health and safety the representative bodies which were finally chosen were IOSH, RoSPA, HSE and CIEH. At an interim stage in June a forum for practitioners was held to help the team sort out some of the ideas that were being developed. A report was made to the Employment NTO steering group in July. A second forum was held in September to which the original participants were invited. Further forum meetings are planned before the full report is finalised.

**Mapping occupations**

This type of mapping is an activity which has been carried out from time to time by training and development people and by personnel, is not something with which health and safety practitioners are familiar. Roughly speaking, mapping involves generating statements about an activity or function which encapsulates what happens and at the same time can be arranged in a hierarchical order. Both training and development and personnel had developed maps of their activities but not health and safety and trades unions.

An initial model was developed, Appendix 1, in which are identified three types of activities designated as distinctive, shared (some bilateral and some trilateral) and a common activity. Out of this developed the idea of Key Occupational Activities (KOAs). Twelve were identified and it was these which were used as the basis for the forum in June, for details see Appendix 2.

<table>
<thead>
<tr>
<th>KOA</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>KOA1</td>
<td>Strategic Relationships</td>
</tr>
<tr>
<td>KOA2</td>
<td>Systems and Procedures</td>
</tr>
<tr>
<td>KOA3</td>
<td>Monitoring Control and Compliance</td>
</tr>
<tr>
<td>KOA4</td>
<td>Evaluation and Review</td>
</tr>
<tr>
<td>KOA5</td>
<td>Knowledge Base and Subject Expertise</td>
</tr>
<tr>
<td>KOA6</td>
<td>Operational Management Relationships</td>
</tr>
<tr>
<td>KOA7</td>
<td>Employee Relationships</td>
</tr>
</tbody>
</table>
The detail of the above were modified by the June forum and the modified KOAs were used as the source for the next stage of the work, the development of a Functional Map.

**Functional Map**

The initial functional map was drawn up for the practitioners meeting in September and was modified after that meeting. The second draft was further modified by the consultancy team and was seen by the steering group in October. At least one further modification will be carried out as a result of further practitioner and team meetings before it is finalised at the end of the year.

The opening statements of the functional map are show on the next page. There are many of these pages some developing the functions generically and others specifically. The hierarchical nature of the presentation can be easily seen and this is emphasised by the allocation of hierarchical numbering.

**Health, Safety and Environmental Protection Functional Map**

The following page shows the section dealing with health, safety and environmental protection (HSEP). It is useful to note that environmental protection has been included from the start. This section needs further development to take into account a number of aspects of the activity which are almost excluded by the very nature of the Employment NTO.

With the concept as it stands, the particular specialisms in health and safety, such as occupational hygiene, fire safety, radiation protection, fit beneath statement A2.4.2.1.1 because these specialisms deal with particular hazards and risks.

**Residual problems**

The grouping of HSEP with the other three strand of the Employment NTO was based on the assumption that HSEP was solely concerned with the prevention of accidents and ill-health to employees but this is not the case. For safety there is an element which is concerned with damage to plant and equipment whether or not there is injury or potential injury to employees, and this aspect does not have a natural home in the current functional map. Moving further afield, there is an aspect of health and safety which is concerned with people other than employees. This by definition does not appear on the functional map although there is an element in one of the other maps which intimate of aspects beyond the work environment. Finally, environmental protection is totally associated with the effects of work on the environment outside the work place and with people other than employees. Clearly some part of the map will have to signify that there are elements of the HSEP work which are not to do with employees and not to do with the environment within the workplace.

Another aspect which the current development of the map does not give due emphasis is that HSEP is completely underpinned by statutory requirements. Maintaining contact with external bodies, which appears in another region of the map, is not the same as maintaining contact with the regulatory authorities for HSEP. A further aspect of the underpinning statutory requirements is that the duty to comply lies with the employer in most cases. Legally speaking the role of the health and safety practitioner is to assist the employer to comply with the statutory requirements and so to ensure compliance with HSEP legislation.
(A2.4.1.3) cannot mean that this is personal to the health and safety practitioner, although ensure HSEP in work activities (A2.4) can be considered as personal.

Opportunities

Although there is a special section of the map devoted to health and safety practitioners, it must be remembered that the whole of the map above, so to speak, the four specific strands applies to everyone working in the Employment area. In addition this map is designed to guide the Employment NTO in their development of generic competencies for the whole of the employment area as well as specific competencies within each strand. Thus what will be made available to health and safety practitioners will be competencies in such things as strategic development. With these competencies the health and safety practitioner will be more able to enter into the heart of the organisation and simple be kept on the fringe putting things right after they have gone wrong.
To develop, promote, deliver and maintain individual and organisational achievement in employment

Contribute to the development of organisational strategy
A

- Develop employment strategies A1
- Develop functional systems and procedures A2
- Secure resources for your organisational plans A3

Promote the framework of relationships in employment
B

- Develop and respond to the requirements of ethical standards, value systems and professionalism within employment relationships B1
- Facilitate relationships in employment B2
- Develop and maintain employee relations in employment B3

Define structures, processes and accountabilities A2.1

Meet employee resourcing requirements A2.2

Identify, measure and develop individual competence for improved performance A2.3

Ensure health, safety and environmental protection in work activities A2.4
Health, Safety and Environmental Protection Functional Map

Ensure HSEP in work activities A2.4

Plan HSEP activities at work A2.4.1
- Develop & maintain the HSEP policy A2.4.1.1
- Develop organisational procedures to meet HSEP requirements A2.4.1.2
- Ensure compliance with HSEP legislation A2.4.1.3
- Contribute to & keep pace with improvements in HSEP A2.4.1.4

Organise & control HSEP at work A2.4.2
- Promote a positive culture for HSEP A2.4.1.5
- Develop, maintain & improve HSEP systems A2.4.2.1
- Develop, maintain & improve the emergency response for HSEP A2.4.2.2
- Advise & consult on ways of ensuring HSEP A2.4.2.3

Monitor & review HSEP systems at work A2.4.3
- Identify hazards, assess risks & determine requirements for control of HSEP A2.4.2.1.1
- Assist in and/or implement control of HSEP risks A2.4.2.1.2
- Monitor & review control of HSEP A2.4.3.1
- Develop & implement suitable HSEP audit systems A2.4.3.2