

Management of obsolete pesticide stocks sustainability through training

Nick Morgan

Shanks, Pontyfelin Industrial Estate, New Road
Panteg, Pontypool Gwent NP4 5 DQ, United Kingdom
Phone: +44 1495 756231, Fax: +44 1495 757019, Email: Nick.Morgan@shanks.co.uk

Introduction

The development of an environmentally sound and economically viable solution to the removal of obsolete pesticide stocks remains the key objectives when tackling a 'clean-up' project. Shanks experience has taught us that there are many issues that must be considered if these objectives are to be met and linked to a programme of sustainable improvement. One such issue is the utilisation and training of local counterpart staff to provide practical assistance during site operations.

Shanks have long valued the involvement of local partners in tackling obsolete pesticide 'clean-ups' and in 1997 Shanks (then known as Rechem Environmental Services) were selected by the Food & Agriculture Organisation of the United Nations to undertake the collection, repackaging, shipment and disposal of over 300 tonnes of obsolete stocks from several sites in Zambia.

The initial stage of the work in Zambia was the training and instruction of local counterpart staff employed by the Environmental Council of Zambia. This paper sets out the principals behind such a training programme and how training can contribute to the success of the project and provide a sustainable programme of improvement when the initial 'clean-up' is complete.

Aims

- Maximise the benefits from use of local counterpart staff during obsolete pesticide 'Clean-Ups' projects.
- Provide legacy of knowledge and practical skills to reduce the likelihood of repeating the problem.

A structured training programme can provide a grounding in the following key areas:

- Environmental awareness
- Health & safety awareness
- International standards in practice
- Practical skills for handling hazardous chemicals

Training standards

It is essential that all training be carried out to internationally accepted standards as follows:

- UN Food & Agriculture Organisation - guidance on labelling, packaging and storage of pesticides including obsolete stocks.
- UN Committee of Experts Guidance on the Transport of Dangerous Goods
- International Maritime Organisation - International Dangerous Goods Code
- International Red Cross - workplace first aid
- US Occupational Safety and Health Administration (OSHA) - Health and safety training course for hazardous waste activities.

In addition Shanks will undertake operational training in line with the standards established in Shanks management procedures, which are accredited with ISO 9002 Quality Management and ISO 14001 Environmental Management. This will include the following modules:

- Hazard awareness
- Risk assessment
- Establishing a safe working area
- Correct use and maintenance of basic PPE

- Safe systems of work
- Safe handling of dangerous materials
- Dealing with an emergency on site

Training strategy

It is essential that the training is tailored and directed at the correct individuals. Managers and supervisors require a greater understanding of the legislative framework and basis of good practice whilst operational workers will often require a 'learning through doing' approach to training.

It is also important to establish the roles and expectations of individuals before commencing training. Management staff may not feel 'hands on' involvement in the 'clean-up' operation is commensurate with their position within their organisation. They are of greater benefit to the project if they can contribute in the logistical and administrative duties or even to assist in the training of operational staff. These issues must be reflected in the content of training material, both in the topics covered and the nature of the learning experience.

- Management/supervisory staff - e.g. agricultural or environmental inspectors and managers.
- Operational staff - e.g. pesticide store workers, drivers, and labourers.

Immediate aims of training programme are:

- Ensure personal and environmental protection (PPE) during 'clean-up' operations.
- Use of counterpart staff to control and undertake hands on the 'clean-up' operation will reduce project costs and increase involvement of local stakeholders creating a sense of 'Project Ownership'.
- Obtain maximum benefit from overseas expertise to manage and co-ordinate the project.

Long-term aims of the training programme are:

- Enable local managers to develop 'best practice' approach to obsolete stocks storage and transportation by providing knowledge of relevant standards combined with practical experience.
- Raise environmental and health & safety awareness amongst local operational staff to ensure a 'Safety First' approach to daily operations.
- Avoid future accidents and incidents associated with handling obsolete pesticide stocks and other hazardous materials.
- Reduce reliance on outside help for waste stock management.

Project based approach

Training will be undertaken as an integrated part of the 'Obsolete Pesticide Recovery and Disposal Project'. The benefits to this approach are as follows:

- The training is funded through the project by the savings made from better utilisation of local resources.
- International expertise is already 'on site'.
- Theory can be seen in practice.
- Operational skills can be developed and coached in a live situation.
- Maximise the safe and effective use of local resources during 'clean-up' operation.

Issues arising

The development of a partnership strategy for undertaking 'clean-up' operations involving hazardous pesticide wastes raises some important issues relating to responsibility and liability as follows:

- Identifying and understanding the requirements of the local counterpart staff to ensure maximum benefit to the success of the project and to the development of individual knowledge and skill.
- On-going management of safety and environmental systems and their practical implementation.
- Availability and maintenance of safety equipment and personal protective equipment (PPE).
- Provision of adequate refresher training and training of new staff.

International expertise provided by Shanks will help instigate 'best practice' approach to the management of obsolete stocks. The responsibility for developing and monitoring a successful long-term strategy lies with local stakeholders.