

DUTCH INTERNATIONAL ASSISTANCE IN IMPROVING HEALTHCARE WASTE MANAGEMENT IN GEORGIA

Interview with Mr. Rik Kleinjans from AMECO Environmental Services and Mr. Harry Wernert from the University Hospital of Utrecht

WHAT IS THE PURPOSE OF THE DUTCH GOVERNMENT REGARDING THE HEALTHCARE WASTE MANAGEMENT PROJECT IN GEORGIA?

The project is funded through the so-called PSO Environment (PSO-M) programme. This is a programme of the Dutch government which aims at significant environmental improvements on a sustainable basis in amongst others Georgia. Projects within PSO-M support pilot investments in the environmental sector, which aimed to strengthen the local private sector and are sustainable both from an environmental and economic perspective. Projects involve a mix of, knowledge transfer, project management and hardware supply and installation. PSO-M is funded by the Netherlands Ministry of Housing, Spatial Planning and the Environment (VROM) and is implemented by NL EVD International. The basis for PSO-M aiming at Georgia is a Memorandum of Understanding (MoU) between the Dutch and the Georgian government, signed in May 2008.

COULD YOU PROVIDE US WITH MORE INFORMATION ABOUT THE PROJECT SETUP?

This infectious healthcare waste management project is a completely new initiative and it is the first project in Georgia that studies the whole chain of a relevant waste fraction and at the same time introduces practical measures to reduce the risks of that fraction. The aim of this initiative is to separate infectious waste streams – coming from hospitals and healthcare centres in Georgia – from other wastes and to neutralise this hazardous stream. This requires making an assessment of the generated waste streams, preparing a healthcare waste management plan in collaboration with a Georgian organisation, and the training of medical staff on safe and sound waste management. The ‘hardware component’ of the project will consist of placing a number of autoclaves at locations still to be selected (e.g. at hospitals and healthcare centres, sanitary landfills, private companies or elsewhere) in Georgia.

One of the underlying reasons for developing this initiative is the fact that many hazardous waste streams are mixed with the main solid waste streams and consequently often end-up on one of the numerous unprotected waste dumps in Georgia. This poses serious public health risks, as well as risks for soil and groundwater contamination. The project has a clear pilot character in terms of providing an example to Georgia on how one of the hazardous waste streams in the country can be properly managed.

WHAT IS THE INPUT OF AMECO IN THIS PROJECT AND WHICH OTHER PARTIES WILL BE INVOLVED?

Ameco Environmental Services (Ameco) is the leading partner in this Consortium and will be responsible for overall project management, reporting and financial control as well as expert input in the following areas: waste management, capacity building, training and awareness-raising, dissemination of information, collaboration with related parties and initiatives and the promotion of Dutch-Georgian cooperation.

“We are an independent team of experts, established in 1989 in Utrecht, The Netherlands. We initiate new approaches in stimulating the sustainable development of society and have experience in more than 30 countries worldwide”. Two other parties are involved as well in this project: the University Medical Centre Utrecht (UMCU) and Homad B.V. The UMCU is the main hospital of the city of Utrecht. It is one of the most highly-rated academic medical centres in The Netherlands and with almost 10,000 employees; it is one of the largest public healthcare institutions in The Netherlands too. It is the only Academic Hospital with an Environmental Certificate for their Environmental management system. The safe management of healthcare waste is an important aspect of this system.

Homad B.V. is a Dutch consulting company on environmental issues with a special focus on waste management. Specific projects both national and international have been carried out on a broad variety of (medical) waste management issues.

WHAT IS REASON FOR PARTICIPATION OF THE UNIVERSITY MEDICAL CENTRE UTRECHT IN THIS PROJECT AND WHAT KIND OF ASSISTANCE/EXPERIENCE CAN BE SHARED?

“One of the core values of the UMCU is ‘sharing knowledge’ and this project is an excellent opportunity to do so for our organisation”. “We will be responsible for delivering practical, expert knowledge on the management of infectious healthcare waste within hospitals in The Netherlands, which will be translated to the Georgian context”. “In addition, with an eye on the future, we envisage establishing a sustainable relation with a Georgian partner organisation”.

WHAT DO YOU THINK OF THE EMWC AND COULD YOU DESCRIBE YOUR INTERVENTION AT THE CONFERENCE?

“We believe that EMWC is a valuable initiative that can create a much needed link between the market sector, governmental organisations, NGOs and of course health institutes. Furthermore, their vast network enables them to quickly mobilise a variety of stakeholders within the medical waste sector”.

“Our involvement at the conference will mainly consist of presenting our Georgian initiative, which we consider being quite interesting for the participants. In addition, we will certainly try to expand our network within the target sector in order to identify new initiatives and/or partnerships

The average potentially infectious waste generated per patient in the United Kingdom is extremely higher than in Germany. Interview with Mr. Jan Kühling from ETlog Health in Germany and Mrs. Penny Walter from Independent Safety Services Ltd. from the United Kingdom.

WHAT IS THE MOST COMMON TREATMENT FOR MEDICAL WASTE IN THE COUNTRY?

GERMANY

Mainly industrial types, large-scaled hazardous waste incinerators (rotary kiln), but also two combined incinerators for household waste and healthcare waste, 3 central operated steam treatment plants and a lot of autoclaves for on-site treatment (especially in laboratories of risk class 3 and 4).

UNITED KINGDOM

Incineration still has a higher tonnage per year for medical waste than Alternative Treatment Technologies (ATT) but there is a steady increase in ATT plants in the UK – 1 to 2 per year. As with Germany on site autoclaves are used in laboratory areas particularly in labs with class 3 & 4 waste.

*** Are there many alternative treatment Technologies available at the moment?

GERMANY

Yes, but they are mainly on-site operated. Alternative treatment plants in Germany must be approved and listed by the “Robert Koch Institute” and must be build in accordance with the DIN 58949 (standards for waste decontamination)

UNITED KINGDOM

Yes. There are 21 Alternative Treatment Technologies (ATT) and a number of mobile /small plants. Most are larger IPPC sites. ATT's must meet the Level III criteria recommended by the State and Territorial Association on Alternative Treatment Technologies (STAATT). ATT's include rotoclaves, hydroclaves, microwave and chemical plants.

ARE THERE EDUCATIONAL PROGRAMS OFFERED TO HOSPITALS FOR WASTE MINIMIZATION AND SEGREGATION?

GERMANY

Yes. Since 1977 we have the Waste commissioner regulation (AbfBeauftrV). According to this regulation each hospital is requested to appoint a responsible waste commissioner (Health care waste officer). It is the task of the waste officer to organize and offer education programs for the hospital staff. Education was however mainly carried out in the 90's – less in 2000 due to already existing high standards and lower interest from the hospital side.

UNITED KINGDOM

Yes. Hospitals either have their own taining programmes or have out sourced training.

ARE THERE ANY NATIONAL WORKING GROUPS ON MEDICAL WASTE?

GERMANY

Yes and No. Mainly informal (e.g. regular meeting of the healthcare waste officer of hospitals in a country). Official

working groups are formed to update the German guideline on healthcare waste. Last time the country level working group came together in the beginning of 2000 to develop the “2. Guideline on the orderly disposal of health care waste (LAGA) on country level”.

UNITED KINGDOM

Yes. The two main ones are the National Patient Advisory Group (NPAG) and the London Environmental Network (LEN) Group. Both are networking groups formed for healthcare professionals looking after waste / environmental matters. NPAG meets nationally and LEN serves the National Health Service (NHS) organisations based in the London area. Both groups provide networking opportunities and a forum for guest speakers.

*** How much potentially infectious waste (180103*) is generated in average per inpatient treatment day (= occupied hospital bed per day)?

GERMANY

In Germany, in average much less than 0,1 kg of potentially infectious waste (180103*) is generated per inpatient treatment day. In the country Berlin, >0,05 kg of 180103* is produced per occupied hospital bed per day.

UNITED KINGDOM

A 3 year research programme showed for an 650 bedded acute hospital the average quantity of waste per inpatient treatment day was 2.8kg. Often the figure of 2.2 kg is quoted, but this would be an average for all types of inpatient care. This figure is higher in the UK as many healthcare organisations still apply the ‘universal precaution’ approach to patient waste i.e. it is considered potentially infectious so is assigned to 18 01 03*. This is being challenged and more waste is now being safely diverted to the 18 01 04 (offensive) waste stream so the % of 18 01 03* waste will reduce. The 2.8kg figure also includes all pharmaceutically contaminated items that are consigned as 18 01 08*/18 01 03* or 18 01 09/ 18 01 03*.

HOW DO YOU TRANSPORT POTENTIALLY INFECTIOUS WASTE (180103*)?

GERMANY

In Germany, like in the UK, the ADR has to be followed. Typically the waste is collected in 30 to 60 l one-way transport container, stored in a refrigerated storage room. The transport containers, normally made from plastic, are non-reusable, can not be opened once closed and are approved for the transportation of waste UN3291.

UNITED KINGDOM

In common with Germany, the requirements of ADR is applied to clinical waste assigned to 18 10 03* due to the presence of infectious substances and is given the United Nations number UN3291. The UK must meet the legal requirements for packaging, marking & labelling, documentation, vehicle equipment / placarding and driver training set for UN3291 waste. Most clinical waste is placed into yellow or orange clinical waste bags in ward/departments and the bags placed to ‘UN approved’ 770 litre re-usable rigid plastic waste carts for onward movement to the disposal site. Sharps bins and bins for pharmaceutical and anatomical wastes are mostly plastic, sealable units that are UN approved. It is common practice for waste from smaller community sites (healthcentres / GP Surgeries) to be collected in ‘bulk’ i.e bags are placed loose in backs of vehicles. There are additional requirements for the standard of clinical waste bag in this case and more stringent requirements for the waste carrier.