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**ECONOMIC COMMISSION FOR EUROPE**

Group of Experts on Monitoring of Radioactively Contaminated Scrap Metal

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Item 6 of the provisional agenda

**OTHER RELEVANT ISSUES AND NEXT STEPS**

Note by the secretariat

**A. INTRODUCTION**

1. The proposed voluntary Protocol contains a number of recommendations to support governments and the metal industry in minimising the risks from radioactive material in scrap metal. Effectively preventing incidents and dealing with them should they happen is a matter of growing urgency as each incident could potentially have serious health, environmental and financial consequences. In addition, the global scrap metal market continues to grow, thus increasing the potential risk of the occurrence of incidents.

2. It is expected that the initiative of the Group of Experts to develop a voluntary Protocol will help in reducing, detecting and responding to incidents involving radioactive material in scrap metal. At its first meeting the Group of Experts had already identified a number of issues complementary to the Protocol that could provide additional support to those concerned with this problem (TRANS/AC.10/2004/4). These included better information exchange and training and capacity building. In addition, further research may be necessary in specific areas to better address the issue.

## **B. INFORMATION EXCHANGE**

3. While countries are currently developing their own approaches to dealing with the problem of radioactive materials in scrap metal, the Group of Experts had felt that a permanent international exchange of information would be of great benefit. This would allow countries to find, at one location, information on: what is currently available to support them in dealing with the issue (e.g. existing resources, both legal and technical), what other countries are doing, and what international organisations can offer.

4. A web portal could provide this sort of information. The UNECE has already developed a framework for such a web portal, which contains a certain amount of information, notably on national best practices as well as a selection of technical and legislative tools (<http://www.unece.org/trans/radiation/radiation.html>). For such a web-based tool to be useful, however, it will need to be updated regularly, and information will need to be actively provided by different parties. The UNECE secretariat has considerable 'know-how' in developing and operating web-based information exchange centres and clearing houses with dedicated search engines, that could be made available to the project, if necessary (for an example, in the field of transport, environment and health, see [www.thepep.org/Chwebsite](http://www.thepep.org/Chwebsite)).

5. Such a web portal or information clearing house could ultimately be managed by either the metal recycling industry or relevant international organisations.

## **C. TRAINING AND CAPACITY BUILDING**

6. Responses to questionnaires sent out by the UNECE Secretariat have shown that countries have varying degrees of preparedness on issues pertaining to radioactive materials in scrap metal. Some countries have detailed legislation in place with relevant information and expertise for dealing with radiation monitoring and responding to alarms at scrap yards, border crossings or other locations. In other cases, countries are still not sufficiently well equipped or prepared.

7. On the basis of a review of existing national and international training programmes, specific training modules could be designed and offered. Alternatively, countries with specific expertise could offer *in situ* training for target personnel from other countries. The above-mentioned information exchange centre or clearing house could be used to help in the dissemination of information on such opportunities.

8. There are various ways to organise such training. One way may be to set up a 'small grants training scheme' that would allow individuals from countries with less expertise on the topic, to go for short *in situ* training in countries with more extensive expertise. Such a training programme would enable the trainee to obtain 'hands-on' training in the organising country. The audience for this training would be personnel likely to encounter contaminated scrap metal, such as customs' officials, managers and senior operators from major scrap yards, relevant staff from regulatory authorities, etc. Countries offering the training would need to ensure that, for the duration of the training programme, they could show the trainees the main issues, such as: basic radiation protection, response to an alarm, identifying a false alarm from a real one, basic

procedures in detecting radioactive materials and handling them safely, equipment to have on site to deal with any potential cases of radioactive materials in scrap metal, minimal procedures to have in place to ensure safe containment of radioactive scrap metal (before passing it over to the relevant authorities) etc. Such training could be organised on a bilateral basis whereby donors and recipients agree on the conditions and practical arrangements.

9. Another approach could be for a central body to act as an intermediary between the organisers of the training and the recipients of “training grants”. The key components of such a training programme would be:
  - (a) One or more countries or companies with relevant expertise would receive trainees for a given period of time (4-5 days), to show them their facilities and explain national arrangements (legislation, processes in place, forms available, equipment available etc.). An informal ‘training programme’ could be set up that would basically consist in visits to different offices to promote understanding of the radiation issues at different points in the scrap metal stream.
  - (b) A central fund and coordinating facility would assist trainees financially and organizationally. Potential trainees would need to apply to this central fund to obtain the financial support and help with the logistics to attend the ‘training programme’. This central facility would then also expect to receive a report from the trainee and/or his/her institution on the experience and on proposed steps to be undertaken as a result of the training.
10. Good experiences exist in various fields with both schemes and these experiences could be used to design appropriate training programmes.

#### **D. RESEARCH**

11. The work undertaken so far by the Group of Experts has shown that current knowledge on the sources of radioactive scrap metal, the extent of the problem internationally, the key actors and the amounts of potentially radioactively contaminated scrap metal on the global market, is sketchy. Possible creative solutions to this global concern also remain to be explored.
12. A number of specific research needs may be identified. For example:
  - (a) Globally what is the precise picture of the radioactive scrap metal problem? What is the proportional distribution of radioactive scrap metal by source of origin? (including different industries, but also NORM). What are the main trading channels for scrap metal? Obtaining a more accurate picture of the situation could allow the deployment of more focused efforts related to prevention, detection and response on the issue.
  - (b) Is it possible to design an international certification scheme for scrap metal? Such a scheme would contain broad principles with a series of locally-specific criteria. Registered certifiers could be responsible for undertaking the certification of different scrap yards and/or metal shipments. It could be modelled on the schemes existing in the forestry sector (such as the FSC scheme). A shipment would have to be certified

according to internationally acceptable standards (these standards could be developed and monitored by a certification body).

- (c) What would be the features of an international funding and/or insurance scheme to help support the management of internationally-traded contaminated scrap metal when the original 'polluters' cannot be traced? It may be worth researching different options for an international funding and/or insurance scheme that would support the 'polluter pays' principle but would provide support to the recipient of the contaminated scrap to pay for its decontamination when polluters cannot be found.
- (d) Research to determine acceptable and alternative uses of scrap metal showing low levels of radioactivity. While even low levels of radioactivity are not acceptable to the scrap metal industry, other uses may be made with such metals (eg: back into specific equipment, rather than into the supply chain for household goods). Suitable research to clearly define these end uses and their lack of risk to the public and the environment, could lead to better public acceptance of such re-use of scrap metal with low levels of radioactive contamination. It could also lead to a more specialised industry with relevant capacity to deal with such scrap metal. With a well-defined end use, it is also assumed that there will be better monitoring of the scrap metal as it exits its point of origin.

## **E. FIRST STEPS IN IMPLEMENTING THE PROTOCOL**

13. Monitoring of use and implementation is an integral part of the Protocol itself. At the next Expert Group meetings countries and the industry will be asked to report on their experiences with the Protocol.

14. As a first phase towards implementing the Protocol, it may be useful to design a number of standards or models that could be made available for international use via the web portal. These would include:

- (a) Standard/model reporting forms for regulatory authorities when an alarm is triggered,
- (b) standard/model procedures to follow when an alarm is triggered,
- (c) standard/model certificates that show that scrap metal has been monitored and is free of radioactivity.

15. These forms and procedures would be based on available experience, and would facilitate the implementation of the Protocol both at national and international levels.

**F. PUBLIC INFORMATION**

16. The Voluntary Protocol could represent an excellent opportunity to engage the public on this topic. Countries demonstrating significant steps towards implementing the Protocol can facilitate understanding by the public of the issues while presenting and promoting what the Government and the international community are doing about it. Better public understanding will also ultimately lead to better monitoring. A number of countries, including Canada and the United States of America, are already developing user-friendly brochures and websites to explain the issues and how they are tackling it.

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