CZ0028972

NATIONS UNIES | ОБЪЕДИНЕННЫЕ НАЦИИ | UNITED NATIONS

COMMISSION ECONOMIQUE POUR L'EUROPE | ЕВРОПЕЙСКАЯ ЭКОНОМИЧЕСКАЯ КОМИССИЯ | ECONOMIC COMMISSION FOR EUROPE

SEMINAIRE | СЕМИНАР | SEMINAR

COMMITTEE FOR TRADE, INDUSTRY AND ENTERPRISE DEVELOPMENT

AD HOC GROUP OF EXPERTS ON STEEL

Workshop on Radioactive Contaminated Metallurgical Scrap

Prague, Czech Republic, 26-28 May 1999

Distr.
GENERAL

TRADE/STEEL/SEM.2/34(Summary)
4 March 1999

Original: ENGLISH

INTERNATIONAL MEASURES NEEDED TO PROTECTED METAL RECYCLING FACILITIES FROM RADIOACTIVE MATERIALS

(Prepared by M. Mattia and R. Wiener,
Institute of Scrap Recycling Industries, Inc., United States of America)

Summary

In almost every major city and region of every country, there is a recycling facility that is designed to process or consume scrap metal. These same countries will probably have widespread applications of radioactive materials and radiation generating equipment. This material and equipment will have metal as a primary component of its housing or instrumentation. It is this metal that will cause these sources of radioactivity, when lost, stolen or mishandled, to be taken to a metal recycling facility to be sold for the value of the metal. This is the problem that has faced scrap recycling facilities for many years. The recycling industry has spent millions of dollars for installation of radiation monitors and training in identification of radioactive material. It has expended millions more for the disposal of radioactive material that has mistakenly entered these facilities. Action must be taken to prevent this material from entering the conventional recycling process.

There are more than 2,300 known incidents of radioactive material found in recycled metal scrap. Worldwide, more than 50 smeltings of radioactive sources have been confirmed. Seven fatal accidents involving uncontrolled radioactive material have also been documented. Hazardous exposures to radioactive material have plagued not just the workers at metal recycling facilities. The families of these workers, including their children, have been exposed to potentially harmful levels of radioactivity. The threat from this material does not stop there. Radioactive material that is not caught at recycling facilities can be melted and the radioactivity has been found in construction materials used to build homes, as well as shovels, fencing material, and furniture offered for sale to the general public.

The time has come for the international community to address the issue of the uncontrolled sources of radioactive material. The following are the key points that must be addressed. Identification of Sources. The government of every country that licences the use of radioactive material should institute a program to determine both the location of every known source and the effectiveness of current controls over that source. Control of Orphaned Material. Each government should institute a program for the safe removal and control of orphaned radioactive sources and material without penalty to the individual that has unintentionally received it. Transportation Rules. International agreements should be developed that allow discovered radioactive material to be easily yet safely transported to either its point of origin or to a facility for its safe disposal. Registry of Events. An international mechanism should be developed for the documentation and reporting of radiation related incidents and the discovery of potentially orphaned radioactive sources and material. Universal Measurements. There are several highly technical ways to describe radioactivity. None of these can be easily understood by the individuals who may encounter this material. The international community should agree on how radioactivity will be measured and qualified in a manner that is easily understood by all individuals. Technology Sharing. As new, user-friendly technology is being advanced, the international community should keep track of such advances, share this information, as well as fund the development of technology that will accurately and consistently identify radioactive material that could be found in all forms of metal or containers.