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## PROBLEMS WITH RADIOACTIVITY SCRAP IN THE IRON AND STEEL INDUSTRY

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Summary

During the recent restructuring process, the Czech steel industry has undergone a drastic reduction in the steel production by around 40%. Under such situation, previously exported volumes have been diverted into domestic markets. For the export, the Czech steel industry had to make its efforts in enhancing the quality of products and in improving the technologies in accordance with ISO standards (ISO 9000 and also ISO 14000). Among the various new quality demands in the export market, the radioactive contamination of steel products has received a very high attention.

The Czech Iron and Steel Federation has organized a working team specialized in solving the problems arising from radioactive contaminated metallurgical scrap and steel products. The working team is made up of specialists from steel producers and scrap handling firms of the Czech and the Slovak Republic, of experts from the State Office for Nuclear Safety, the Ministry of Industry and Trade and the Meteorological Institute. Members of the Inspectorate for Ionizing Radiation and General Directory for Customs are also included. This working team takes part in the elaboration of the legislative norms in that area. This paper deals with all the detailed functions of the working team.

At present all the major Czech steel producers have installed stationary radiation monitoring systems for detecting possible radioactivity in all materials entering into factories. Under an agreement arranged between the producers of the Czech Iron and Steel Federation, the tolerable range of radionuclide contents in steel scrap and steel products has been set at the maximum of 100 Bq/Kg in scrap and steel products. In this respect, the large firms collecting and treating scrap have also installed stationary radiation monitoring systems. In this monitoring systems, the detector will measure and check the values of radioactivity above 10 - 15% higher than the natural background level. In the case that radioactivity higher than 10-15% is detected, the source of radiation will be retrieved and isolated

Reality shows that there does not exist any international standards and norms in the field of radioactive contamination. Each country has its own standards and limits regarding imports and exports of scrap and of steel products. Moreover, when standards have been agreed upon, their applications and measurements vary depending on countries. We strongly support the adoption of the so called international **'business limits'** which would decide on the regulations for international trade of scrap and steel products.