

Control of hazardous waste in the laboratory for metal testing – current problems

Kontrolisanje opasnog otpada u laboratoriji za ispitivanje metala – aktuelni problemi

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This paper presents a controlled process of collecting, identification, classification and labeling of waste and hazardous materials in laboratory for testing materials of the Institute of testing materials (Institute IMS). Waste management and hazardous materials are carried out by applying appropriate protective measures, in order not to endanger the lives and health of people and does not pollute the environment. This paper highlights the problems related to the disposal, storage and retrieval of small quantities of hazardous waste, as is the case in the laboratory for material testing. It should not be ignored, because small amounts of generated hardly degradable waste, if left without any care, can harm the environment and impact on quality of life.

U radu je iznet postupak kontrolisanog sakupljanja, identifikovanja, klasifikovanja i označavanja otpada i opasnih materijala u laboratoriji za ispitivanje metala Instituta za ispitivanje materijala (Institut IMS). Postupanje sa otpadom i opasnim materijama obavlja se primenom odgovarajućih mera zaštite, odnosno na način da se ne dovede u opasnost život i zdravlje ljudi i ne zagađuje životna sredina. U radu je ukazano na probleme vezane za odlaganje, čuvanje i preuzimanje manjih količina opasnog otpada, što je slučaj u laboratorijama za ispitivanje materijala. To se ne sme zanemariti, zato što male količine generisanog teško razgradivog otpada, ukoliko se o njima ne vodi računa, mogu da naruše životnu sredinu i utiču na kvalitet života.

INTRODUCTION

Reduction, reuse, recycling and regeneration of waste is one of the foundations of sustainable management of natural resources and protection of the environment, or a form of prevention. Waste means any material or object in the list of waste categories (Q list) which the holder discards or intends or is required to discard. All materials generated in the production process, the items excluded from use as well as waste material generated in the consumption and that from aspect of producers and consumers are not for further - are considered waste and must be discarded [1,2]. According to the source, waste can be divided into: municipal, industrial, packaging, construction, electrical and electronic, waste vehicles and waste tires, and according to the properties, it can be: hazardous, non-hazardous and inert. Hazardous waste is any waste that is or after a certain time is a risk to humans and the environment in general. Basic characteristics of hazardous waste are: it contains one or more substance from 39 that are known as carcinogenic, mutagenic or teratogenic compounds in unauthorized quantities, flammable (gasoline, lacquers, paints, solvents ...), reactive or unstable enough to be able to explode or release toxic fumes, prone to corrosion [1,2]. Inadequate waste and hazardous substances management is one of the major environmental problems of Serbia. This conclusion arose from numerous analyzes of the environment, which are taken in the past few years [3 to 7].

The mean mass of generated waste is evaluated and adopted in a 0.8 kg per capita per day, which is

- [31] Direktiva Saveta 259/93/EEZ o nadzoru i kontroli otpremanja otpada u i iz EU;
- [32] Direktiva Saveta 91/692/EEZ od 23. decembra 1991. kojom se standardizuju i racionalizuju izveštaji o sprovođenju određenih direktiva koje se odnose na životnu sredinu;
- [33] Odluka Komisije 2000/532/EZ od 3. maja 2000 koja menja Direktivu Saveta 94/3/EZ o listama otpada u skladu sa članom 1 Direktive Saveta 75/442/EEZ o otpadu i Odluci Saveta 94/904/EZ o listi opasnog otpada u skladu sa članom 1 Direktive Saveta 91/689/EEZ o opasnom otpadu.
- [34] Zakon o zaštiti životne sredine („Službeni glasnik RS”, broj 135/04)
- [35] Zakon o izmenama i dopunama Zakona o zaštiti životne sredine („Službeni glasnik RS”, broj 36/09)
- [36] Zakon o upravljanju otpadom („Službeni glasnik RS”, broj 36/09 i 88/10)
- [37] Zakon o ambalaži i ambalažnom otpadu („Službeni glasnik RS”, broj 36/09)
- [38] Zakon o zvaničnoj statistici („Službeni glasnik RS”, broj 104/09)

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