

Consideration about the Radioactive Waste Occurrence in IMEF

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1. Introduction

This paper discussed the collection, arrangement, storage, transfer, and pollution elimination method for a waste which was accumulated in atomic energy institution (IMEF) for three years.

In particular we described the decontamination method for a floor surface pollution.

This kind of waste is presented in table 1 for the IMEF.

Table 1 A kind of waste

	Solid Waste	Liquid waste
Hot cell	High level solid waste	
Inside	The combustibility, uncombustibility	Low, Very low level liquid waste



Fig.1 Intervention area

Fig.2 Hot cell

2. The main discourse

A process from the occurrence to a disposal of a waste which is occurred in a party institution

2.1 The reason for a waste occurrence

- Occurrence during an examination
- Pollution elimination work for an institution
- Old aged equipment exchange
- Safe operation of an institution

2.2 A collection of a waste.

An uncombustible and a combustible waste occurred in each district of the institution. It is put into small vinyl bag(60 x 80 cm), and it is gathered in a special storehouse. A waste has to be classified clearly for its combustibility and uncombustibility when it is sorted.

2.3 An arrangement of a waste

The combustibility and uncombustibility, as well as the measured radiation dose for each gathered waste is determined, and it is attached with a history table.

For a further processing, It is inserted in to a drum step by step and compressed with weight before the drum cover is sealed .

2.4 A storage of a waste

A drum is held at an appointment place, and it is transferred to a disposal site later.

2.5 Transfer of a waste

As for the sealed drum, the surface must be wiped well, and it must be attached with a drum card.

A related doc. is presented to site and then the waste is transferred to a storing place.

2.6 Decontamination method

If the floor of a intervention area is polluted, This pollution has to be removed .

First, the floor is wiped using electrical floor washing machine and then moisture is removed by scraper. Another person in a cleaned area wipes the moisture for the floor with a decontamination paper.

Through this process the decontamination completed.

Usually the surface pollution level of a floor is managed within 1/10 level of a permitted surface pollution level.

The volume of the waste is the same as in table 2 in IMEF.

Table 2 Volume of waste

Con. Year	Kind	Vol. (Drum)	Contents
2005	Combust,	14	Tie.B,Boot.C,Decon.p, Vinyl
	E,d	7	Steel, Elect.W
	Used,F	64ea	
2006	Combust,	18	Tie.B,Boot.C,Decon.p, Vinyl
	E,d	1	Steel, Elect.W
	H,LR	1.7	
2007	Combust,	17	Tie.B,Boot.C,Decon.p, Vinyl
	E,d	4	Steel, Elect.W

3. Conclusion

The combustibility and uncombustibility of a waste looked by similar occurrence if we saw volume of the waste which was happened in a party institution for three years, and Also, We has known that used filter and a waste of high level radioactivity had being happened by one time in several years..

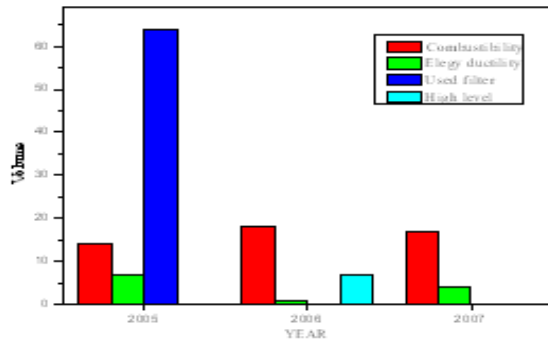


Fig. 3 Volume of waste according to a fiscal year

Consequently to reduce volume of a waste a thing carried into an institution has to be minimized.