



All India Institute of Medical Sciences, Jodhpur
Standard Operating Procedure

Title: Disposal of electronic waste generated at AIIMS Jodhpur

SOP Number : SOP / Micro/EWM/01

Page: 1 of 8

Revision number: New SOP

Department: MICROBIOLOGY

Effective Date: 19/08/17

Replaces: Nil

AMENDMENT SHEET

S No.	Date	Page No	Revision No	Nature of Amendment Selection / details	Authorization

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Date	01-09-2017	13/09/2017	15/9/17

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1. PURPOSE:

The purpose of this SOP is to provide a frame work for management of electrical and electronic waste generated in the hospital as a Bulk consumer*¹, defined under E-waste (Management) rules 2016, Ministry of Environment, Forest & Climate Change, Government of India to contribute towards environmental sustainability for the conservation of the environment.

2. SCOPE:

2.1 Electrical and electronic waste refers to all the **Electrical and Electronic Equipment (EEE) or component waste** specified in Schedule-I* of E-waste (Management) rules 2016, Ministry of Environment, Forest & Climate Change, Government of India.

2.2 This SOP will be useful for the hospital staff as a guide for electrical and electronic waste management which includes collection, storage and return of E- waste generated in different areas of the hospital to the collection center, dismantler, recycler or producer of the electrical and electronic equipment or component.

3. MANAGEMENT RESPONSIBILITY:

3.1 The EEE or component waste management team is responsible for overall electrical and electronic waste management at Hospital.

3.2 It is the responsibility of E- waste management team to sensitize hospital employees for E- waste management related protocols.

4. ELECTRICAL AND ELECTRONIC EQUIPMENT (EEE) OR COMPONENT WASTE *:

4.1 The following categories of electrical and electronic equipment or components are covered under the Schedule-I of electronic waste management rules 2016.

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Sr. No.	Categories of Electrical and Electronic Equipment	EEE Code	Average Life (Yrs)
i.	Information technology and telecommunication equipment		
	Centralized data processing systems: mainframes, minicomputer	ITEW1	Main-10 Mini-05
	Personal Computing: Personal Computers (Central Processing Unit with input and output devices)	ITEW2	06
	Personal Computing: Laptop Computers (Central Processing Unit with input and output devices)	ITEW3	05
	Personal Computing: Notebook Computers	ITEW4	05
	Personal Computing: Notepad Computers	ITEW5	05
	Printers including cartridges	ITEW6	10
	Copying equipment	ITEW7	08
	Electrical and electronic typewriters	ITEW8	05
	User terminals and systems	ITEW9	06
	Facsimile	ITEW10	10
	Telex	ITEW11	05
	Telephones	ITEW12	09
	Pay telephones	ITEW13	09

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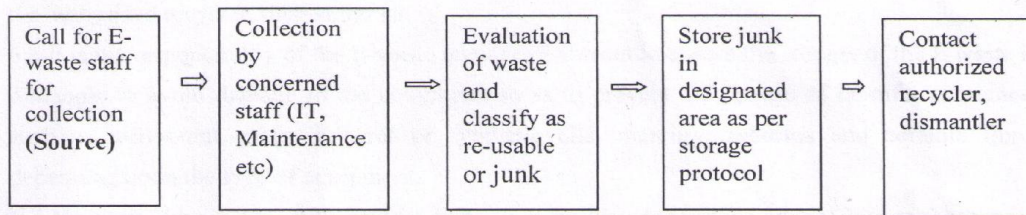


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	Cordless telephones	ITEW14	09
	Cellular telephones, Feature phones, Smart phones	ITEW15	Feature ph-07 Smart ph-05
	Answering systems	ITEW16	05
ii.	Consumer electrical and electronics		
	Television sets (including sets based on (Liquid Crystal Display and Light Emitting Diode technology)	CEEW1	09
	Refrigerator	CEEW2	10
	Washing Machine	CEEW3	09
	Air-conditioners excluding centralized air conditioning plants	CEEW4	10
	Fluorescent and other Mercury containing lamps	CEEW5	02

5. FLOW DIAGRAM OF THE E-WASTE MANAGEMENT:



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6. COLLECTION AND STORAGE:

6.1 All Central Government and State Government departments including hospitals are classified as bulk consumers under the E-waste (Management) rules 2016. A bulk consumer*1 means bulk user of electrical and electronic equipment or component.

6.2 Bulk Consumers of electrical and electronic equipment listed in Schedule-I are required to ensure that e-waste generated by them is channelized to authorised collection centre or registered dismantler or recycler or is returned to the pick-up or take back services provided by the producers.

6.3 It is to be ensured that such end of life electrical and electronic equipment do not contain radioactive material as covered under the provisions of the Atomic Energy Act 1962.

6.4 Upon detection of any non-working electrical and electronic equipment or its component, the hospital staff posted in that area shall inform the designated person assigned for handling the E-waste in hospital.

6.5 The E-waste so generated, if classified as junk or non-reparable, is the responsibility of the E-waste management team, for safe storage in the designated area as defined, until transportation to the authorized recycler, dismantler etc.

6.6 It is the responsibility of the E-waste management team to ensure the storage of the E waste in a manner to avoid damage to the equipment so as to prevent the release of harmful substances such as refrigerant gases, mineral or synthetic oils, mercury, asbestos and ceramic fibres depending upon the type of equipment.

6.7 No used lamp, CFL, bulb or tube light shall be discarded in municipal bin or the general waste bin of the hospital's biomedical waste management system.

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6.8 Such end of life bulbs, tube lights etc can be stored either in the boxes in which new bulbs, tube lights are brought or they can be stored in specialized boxes that ensure that they do not break while being stored or transported to the recycler, collection centre or dismantler etc.

6.9 These bulbs should be stored in an upright position until transportation to the E- waste recycling or dismantling facility.

7. SAFETY CONSIDERATIONS: It is the responsibility of the E-waste management team to ensure that -

7.1 The storage area must be a covered place.

7.2 There should be adequate firefighting arrangement and emergency escape route.

7.3 Dry sand, absorbent pads and brooms shall be available to manage spills etc. in case of damage to the equipment.

7.4 In case of equipment such as computers, laptops etc. equipped with hard drives and memory systems for data storage, the IT wing personnel shall be consulted for erasing such data in order to minimize or avoid the stored data getting into the hands of unauthorized persons at subsequent stages of recycling or dismantling.

8. TRANSPORT TO RECYCLER, DISMANTLER OR PRODUCER: It is the responsibility of the E-waste management team to ensure that -

8.1 E-waste collected shall be periodically transported to the authorized recycler, dismantler who has a tie up/contract with the hospital.

8.2 Transportation shall be arranged periodically once sufficient quantity of waste is collected or within a maximum interval of 6 months since the last transportation of the electronic waste.

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8.3 The transport of the electronic waste shall be accompanied with 3 copies of Form-6 i.e. E-waste manifest duly signed and stamped by the competent authority*².

8.4 The responsibility of safe transportation of E-waste is also the responsibility of the E- waste management team. It should also be ensured that all E-waste shall be carefully packed before transport to avoid damage during transport to the processing centre i.e. recycling or dismantling facility.

9. RECORD KEEPING: It is the responsibility of the E-waste management team to ensure that

9.1 Documentation of collection, storage and transportation of E- waste from the hospital is to be maintained.

9.2 Hospital staff handling the E-waste shall maintain records of e-waste generated by them in Form 2*³.

9.3 Such records shall be made available for scrutiny by the State Pollution Control Board or the Pollution Control Committee concerned.

10. REPORTING OF E-WASTE DATA:

It is the responsibility of the hospital administration to file annual returns in Form 3*⁴, to the concerned State Pollution Control Board or Pollution Control Committee on or before the **30th day of June** following the financial year to which that returns relates.

11. REFERENCES

11.1 E-waste (Management) rules 2016 by Ministry of Environment, Forest & Climate change, Government of India. 2016.

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11.2 Implementation Guidelines for E-waste (Management) Rules, 2016 by Central Pollution Control Board, Delhi. 2016.

12. ANNEXURES:

1. The Form-6 i.e. E-waste manifest duly signed and stamped by the competent authority*².
2. Hospital staff handling the E-waste shall maintain records of e-waste generated by them in Form 2*³.
3. The responsibility of the hospital administration to file annual returns in Form 3*⁴,

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