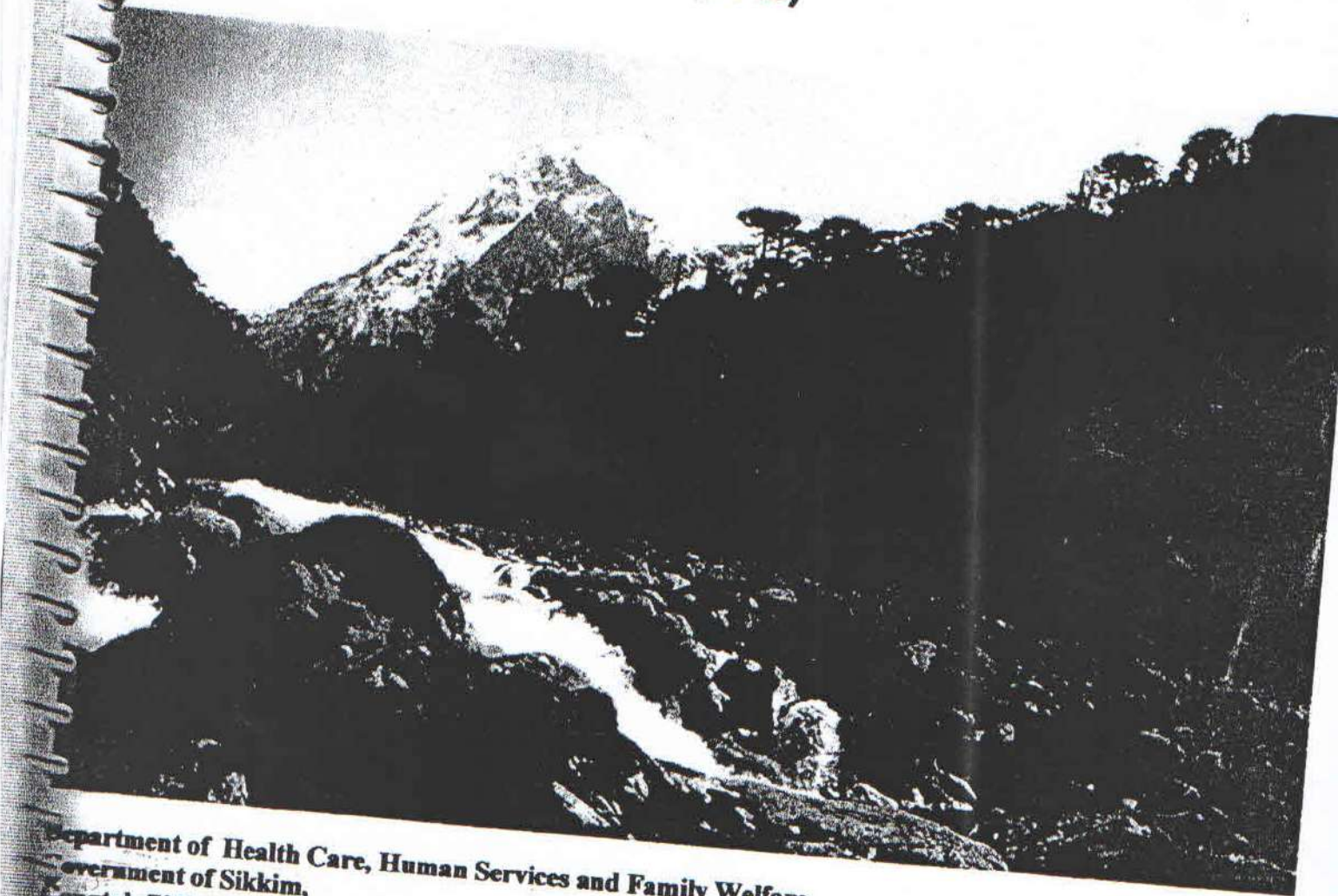




ACTION PLAN
ON
BIO-MEDICAL WASTE MANAGEMENT
FOR
THE STATE OF SIKKIM
(2019)



Department of Health Care, Human Services and Family Welfare,
Government of Sikkim,
Gangtok-737101

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Executive Summary

Protection of human health by ensuring protection of our environment from pollution from various sources is accorded priority by the Department of Health & Family Welfare. In this regard, the biomedical waste management Rules 2016 has been adopted by the Department of Health Care, Human Services & Family Welfare, Government of Sikkim to establish sound measures for management of biomedical wastes generated from our health facilities. This action plan is the first of its kind for the department. As implementation of the rules has hitherto been incomplete, we endeavor to ensure comprehensive enforcement of the rules in our health care facilities. We aim to build the capacity of our health professionals as they all handle biomedical wastes of one kind or the other. The general public has to be educated about the dangers of biomedical waste and how to handle them. This calls for information, education & communication at all levels. We will build all necessary structures as appropriate for the location of the facilities. Barring Multispecialty Hospital at Gangtok and District Hospitals & Urban, PHCs all our bedded health institutions are in rural, remote areas. We will provide all necessary logistics to our health care facilities in order to complying with the environmental statute.

The budget for the essentials for compliance are as below:

Sl no.	Components	Budget (Rs.)
1	Capacity building for health personnel	33,10,750/-
2	Information, Education & Communication (IEC)	10,00,000/-
3	Annual Check - Up/ Immunization of all health personnel (Per Year)	25,00,000/-
4	Infrastructure buildup and setting up of other facility & mechanism for treatment of BMW (one time)	16,00,22,000/-
5	Civil Works (one time)	44,39,00,000/-
6	Procurement of other equipments/consumable items (recurring)	1,28,73,400/-
7	Recording keeping & Reporting Activities (per year)	1,42,400/-
8	Monitoring & Reviewing Activities (per year)	60,000/-
9	Consolidated Cost Estimate for management of BMW	63,40,67,100/-

Joint Director cum Nodal Officer
HC, HS & FW Department
Government of Sikkim
Gangtok

28/1/19
Director General Health Services
HC, HS & FW Department
Government of Sikkim

DIRECTOR GENERAL
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1. Introduction

The state of Sikkim is one of the smallest states in India with a total geographical area of 7096 sq.km. The population as per the 2011 census is 6,10,000. About 70 percent of the total population resides in rural areas. The whole state is divided into four districts and sixteen sub-divisions in which Gangtok is the Capital of the state. Health Care, Health Services & Family Welfare Department, Government of Sikkim is the nodal government institution catering basic health care services to the general public.

A. The various health facilities under the administration of HC, HS & FW Department, Govt. of Sikkim are as follows:

Sl no.	Government Health Care Facility	No. of Beds	No. of Doctors	No. of Nursing staffs	No. of Health Care worker handling BMW
1	New STNM Multi-Specialty Hospital	1000	113	292	235
2	District Hospital singtam	100	30	61	50
3	District Hospital Namchi	100	48	60	86
4	District Hospital Mangan	100	31	45	31
5	District Hospital Gyalshing	100	23	36	40
6	CHC Jorethang	30	2	5	10
7	CHC Rhenock	30	2	5	10
8	24 PHCs	24	48	120	192
9	147 PHSCs	147	nil	147	294
Total	178 HCFs	1631	297	771	948

B. Private Hospitals / Clinics & Lab.

Sl no	Private Health Care Facility	No. of Beds	No. of Doctors	No. of Nursing Staffs	No. of Health Workers handling BMW
1.	Central Referral Hospital ManipalGangtok, East Sikkim	550	169	306	185
2	NHPC Hospital, SingtamBalutar, East Sikkim	25	04	04	05
3	NHPC Hospital Rangit,	09	02	02	06

	South Sikkim				
4	Private Clinics & Lab. East/ West/ South/ North	nil	163	nil	nil
Total		584	338	312	196

There is one Multispecialty Hospital and four district hospitals, 2 Community Health Centre (CHC), 24 Primary Health Centre (PHCs) and 147 Primary Health Sub- Centre (PHSCs) under HC, HS & FW Department, Govt. of Sikkim. At present there are 3 private Hospitals namely one Central Referral Hospital, Manipal at Gangtok, two NHPC hospitals and 163 private clinics & Lab. established and registered under Clinical Establishment Cell, HC, HS & FW Department, Govt. of Sikkim. At present there is no nursing home in the state.

All the health facilities are registered under the Clinical Establishment Act 2010. All major hospitals (05 government hospitals and 03 private hospitals CRH Manipal) have blood banks. Similarly all bedded govt. hospitals excluding PHSCs have pathological lab.

It is mandatory for the all the health facilities to comply with the various provision of Bio Medical Waste Management Amendments Rules 2016, notified by Ministry of Forest Environment and Climatic Change, GOI.

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2. Status of Biomedical Waste Management in the State

2.1 Bio-medical waste generated by Health Care Facilities

State do not possess common bio medical waste treatment facility (CBWTF) till date and all biomedical waste generated from health care facility are being treated and disposed of through in-house/ captive treatment facilities.

All major hospitals both government and private are equipped with treatment facilities which includes incinerator, autoclave, shredder etc. No wastes are dumped outside the health care facility premises. CHCs, PHCs and PHSCs which are predominantly located in rural areas and they are not equipped with incineration facility instead the biomedical waste are being managed using deep burial pits in their premises. At present 85% of non-infectious waste generated from health facilities are handled/ managed with simple segregation technique and scientific treatment and disposal. Only 15% of the waste which are infectious in nature goes for incineration and deep burial pits.

Private Clinics & Labs. are adopting simple techniques of segregation, chemical treatment and disposal. The department of HC, HS & FW and all the private hospitals are regularly obtaining authorization and consent from State Pollution Control Board for operating all the facilities available in the hospitals. It is obvious that there are challenges in regard to implementation of entire provisions of BMW 2016 in the private health care facilities in the state. As per the direction of the Hon'ble NGT, Principal Bench, New Delhi the state government through Commerce and Industries Department is in the process of setting up a Common Hazardous Waste Treatment Facility in the state. In this context Health Care, Human Services and Family Welfare Department is coordinating with Commerce and Industries Department to set up a combined treatment facility for both hazardous waste and biomedical waste.

In compliance with the provision of the Biomedical Waste Management Rules 2016, the state government has constituted advisory committee members vide notification no. 48/HC, HS & FW, dated: 26/9/2016 and constituted district level monitoring committee in the districts to monitor and to verify compliance with the provision of this rule in the health care facilities vide notification no. 101/HC, HS & FW, dated: 25/09/2018. The notifications to this effect are enclosed at **Annexure I and II**.

Status of existing treatment facilities in government & private bedded hospitals are as follows:

Sl no	Health Care Facility	Govt. /Private	Districts	BMW treatment equipment			
				Incinerator / deep burial	Autoclave / microwave	shredder	ETP/ STP
1	New Multispecialty STNM Hospital, Gangtok	Govt.	East	Incinerator- 50 kg/hr	Autoclave- 50kg/hr	Shredder - 20kg/hr	Both ETP & STP
2	District Hospital Singtam	-do-	East	Incinerator -15-20 kg/hr	Microwave - 50kg/hr	Shredder	nil
3	District Hospital Namchi	-do-	South	Incinerator 15-20kg/hr	Microwave - 50kg/hr	Shredder	nil
4	District Hospital Mangan	-do-	North	Incinerator 15-20kg/hr	Microwave - 50kg/hr	Shredder	nil
5	District Hospital Gyalshing	-do-	West	Incinerator 15-20kg/hr	Microwave - 50kg/hr	Shredder	nil
6	CHC Jorethang	-do-	South	Deep burial	nil	Shredder	nil
7	CHC Rhenock	-do-	East	Deep burial	nil	Shredder	nil
8	24 PHCs	-do-	All districts	Deep burial	nil		nil
9	147 PHSCs	-do-	All districts	Deep burial	nil		nil
10	Central Referral Hospital ManipalGangtok	private	East	Incinerator- 50kg/hr	Autoclave-	Shredder	nil
11	NHPC Hospital, SingtamBatala	-do-	East	Incinerator- 10kg/hr	Autoclave- 5kg/hr	-	-
12	NHPC Hospital Rangit	-do-	South	Incinerator- 5kg/hr	Autoclave- 6kg/hr	-	-

In addition to above mentioned treatment facilities all government health care facilities are equipped with needle destroyers, sharp pits, colour coded bins for segregation. Only New Multispecialty STNM Hospital is equipped with Effluent Treatment Plant (ETP) and Sewage Treatment Plant (STP) in the state for treatment of liquid waste.

Incinerators being operated in all districts hospitals are very old resulting into frequent breakdown and requires immediate retrofitting/ up-gradation. In addition the BMW Rules 2016 has let down more stringent emission standard for incinerator and in order to meet the standard all incinerators need to undergo retrofitting work or installation of entirely new incinerator unit. The rule provides for disposal of incineration ash in sanitary landfill however due to various factors the department is unable to establish such landfills for incineration ash.

2.2 Bio-medical waste generated from Veterinary institutions.

Bio-medical waste generated from veterinary hospitals and related institutions are managed by Department of Animal Husbandry, Livestock, Fisheries and Veterinary Services, Govt. of Sikkim. One veterinary hospital is located at Tadong, Gangtok. Department has established veterinary institutions in all districts and villages. The bio-medical wastes generated from such facility are being managed by the concerned department. Such wastes are not handed over to HCFs under Health Care, HS & FW Department for treatment and disposal till date.

tion plan

Obtaining of Authorization / Consent

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Clinical Establishment Cell, HC, HS & FW Department, Govt. of Sikkim is the concern agency for registration of health care facilities under Clinical Establishment Act 2010 of the state. No health facilities are allowed to operate without registering themselves with the department under the said Act.

In addition health care facilities requires to obtain Authorization under rule 10 of the Biomedical Wastes Management Rules, 2016 and Consent under the provisions of the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981. The prescribed Authority for granting of Authorization and Consent is State Pollution Control Board-Sikkim, Department of Forests, Environment and Wildlife Management, Govt. of Sikkim.

Accordingly all health care facilities (total nos. 178) under the Health Department had applied for Authorization and Consent and obtained these permissions from the prescribed authority. The granting of Consent in respect of the 178 HCF was delayed due to delay in allocating fund towards Consent fees.

The rule also stipulates that authorization requires for organizing any health care activities which are liable to generate biomedical waste irrespective of any quantity which includes vaccination/ immunization camps, blood donation camps and health check-up programmes.

Action Plan

- i. Budget provision to the tune of Rs. 1.10 lakh per annum to be kept aside for timely processing of application for Authorization and Consent.
- ii. Prior authorization to be obtained before organizing any vaccination, blood donation and health camps duly ensuring biomedical waste from such events are collected and disposed of in accordance with the rule.

3.2 Committee for BMW Management

As per the rule all HCF requires to constitute an in-house committee for effective monitoring and management of biomedical waste. Accordingly the department has constituted such committee in all HCF. The committee at district hospitals are headed by CMOs and MOs in respective CHCs/PHCs.

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Action Plan- reviewing and monitoring of all activities related to BMW Management every six months and submitting of the report by the committee to the department and prescribed Authority.

3.3 Capacity building of Health Care Personnel

Capacity building of Health Personnel on Bio Medical waste Management Rules has to be conducted on regular basis. It is envisaged that all occupiers/authorized persons will be trained at state Level as trainer for their respective health institutions and non- bedded clinics within their jurisdiction.

As per the rule it is mandatory to provide training to all health care workers (which includes all personnel i.e. head of the institution, officials, staffs and safai karmachari) at the time of induction and there after atleast once every year. In this regard detail information has to be reported in the Annual Report. The guidelines for management of Health Care Waste as per Bio Medical Waste Management Rules 2016 should be used as resource materials for trainings.

- i. Training should be composed of the following parameters
- ii. Theoretical knowledge
- iii. Demonstrations of methods of handling of Bio Medical waste
- iv. Practical implementation.

The cost of capacity building for plan for one year is as follows:

i. **Training for Medical Officers**

Resource person for the training programme will be expert from the State pollution control Board. Training duration will be for 1 Day.

Sl. No	Component	Unit Cost (in Rs.)	No(s)	Total Cost (in Rs.)
1	Medical Officers(TA/DA)	1000	145	1,45,000/-
2	Refreshment@300 per Day	300	145	43,500/-
3	Stationery items	150	145	21,750/-
4	Contingency including printing, banner, hall hiring etc.	500	145	72,500/-
Total				2,82,750/-

(Two lakh eighty two thousand seven hundred fifty only)

ii. Training for Healthcare Facility Staff

All Districts Hospital, Community Health Centres (CHCs) and Primary Health Centres (PHCs) have satellite sub - centres in their jurisdiction. They should conduct training annually for all the staff in their facilities and also for health workers and Group D workers posted in sub- centers. The training should be for 2 days and should cover all theoretical and practical aspects of BMWM Rules. There are:

Sl. No	Component	Unit Cost (in Rs.)	No(s)	Total Cost (in Rs.)
1	Banner	1000	178	1,78,000/-
2	Refreshment @ Rs. 300 per day	300	3000	9,00,000/-
3	Stationary items	150	3000	4,50,000/-
4	Contingency	500	3000	15,00,000/-
Total				30,28,000/-

(Thirty lakh twenty eight thousands only)

Detailed training report should be submitted to SPCB on or before 30th of every year as per prescribed format.

3.4 Awareness Generation (information, Education, & Communication, IEC)

Generating awareness among the general public about the various ways in which BMWM Rules are compiled with is critical. Patients and their relatives should be well aware of the rules so that they may follow them. In this regard, various print and audio-visual media may be generated which may be displayed in the facilities and aired for the general public.

Sl. No	Component	Unit Cost (in Rs.)	No(s)	Total Cost (in Rs.)
1	Printing of Posters	50/-	10,000	5,00,000/-
2	Pamphlets	100/-	5000	5,00,000/-
Total				10,00,000/-

(Ten lakh only)

3.5 Annual Check - Up/ Immunization of all health personnel

All health personnel have to be immunized against communicable diseases especially Hepatitis B and Tetanus at the time of induction and thereafter on regular basis as per the rule. All health personnel have to undergo annual check-up to evaluable their health status.

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The hospitals will maintain immunization record of all staff with dates of immunization and due date of first dose, second dose & booster dose.

The estimated cost of immunization & annual check-up is as follows:

Sl. No	Component	Unit Cost (in Rs.)	No(s)	Total Cost (in Rs.)
1	Immunization against Hepatitis- B/ Tetanus/ Typhoid	1000/-	2500	25,00,000/-
Total				25,00,000/-

(Twenty five lakh only)

3.6 Infrastructure buildup and setting up of other facility & mechanism for treatment of BMW

3.6.1 Incinerator-

All incinerators in the district hospitals have become old and almost beyond repair. There is an urgent need to carry out retrofitting work or dismantling and installation of new incinerator in its place to meet the revised emission standard under the Rule. However retrofitting work/ new installation of incinerator attracts the provision of the Environment Impact Assessment notification 2006 which makes it mandatory for obtaining prior environmental clearance for undertaking such activities vide notification no. S.O.1142(E), dated: 17/04/2015 notified by the Ministry of Environment & Forests, Govt. of India.

In order to obtain environmental clearance for retrofitting/ installation of incinerator, a site specific Environmental Impact Assessment (EIA) has to be conducted and Environmental Management Plan (EMP) has to be prepared by engaging accredited EIA consultants. The process of preparing such reports/ plan incurs huge expenditure.

A. Estimate cost of retrofitting/ installation of incinerator in all district hospitals

Sl no	No. of incinerator	Retrofitting/Installation	Total Cost (Lump sum)
1.	04	Retrofitting work	Rs. 25,00,000/-
		New Installation	Rs. 50,00,000/-
2.	04	Civil work	Rs. 5,00,000/-
3.	05	O & M Cost pollution Monitoring/ per year	Rs. 50,000/-
4.	05	Fuel	Rs. 20,00,000/-
Total			1,00,50,000/-

(One crore fifty thousand only)

B. Estimate for EIA/ EMP study for Environmental Clearance-

Tentative estimate amounting to Rs.15 lakh per location (lump sum).
Total amount for four district amounts to Rs. 60 lakh.

Action Plan- Ear marking of fund in the annual budget.

3.6.2 Incineration Ash Management

As per the statutory requirement, incineration ash need to be tested for presence of toxicants or hazardous constituents viz. mercury/lead etc. by engaging any accredited environmental labs. In case of presence of toxic or hazardous constituents, incineration ash has to be disposed of in accordance with the Hazardous & Other Waste (Management and Trans boundary Movement) Rules, 2016 in any Common Hazardous Treatment and disposal facility (CHWTSDF).

Such disposal facility is not located in Sikkim and nearest facility is located in Haldia, West Bengal and accordingly arrangement has to be made for disposal at such facility located outside Sikkim. In case of non-presence of toxic or hazardous constituents in the ash, it has to be disposed of in any sanitary landfill designed as per the norms of the Pollution Control Boards. For establishing such sanitary landfill statutory clearances are required from various authorities.

The Sanitary Landfill constructed by the HC,HS& FW Department can be extended to private hospitals and veterinary institutions under Animal Husbandry, LV & VS Department under cost sharing basis. The tentative cost estimate for setting up and operating sanitary landfill is as follows:

Sl. No	Particulars	Unit Cost (in Rs.)	No(s)	Total Cost (in Rs.)
1	Land acquisition for sanitary landfills for incineration ash	1,05,00,000 /-	04 district s	4,20,00,000/-
2	Construction of sanitary landfill having adequate capacity for at least 25yr lifespan with liner system, final capping etc.	1,00,00,000/-	04	4,00,00,000/-
3.	Purchasing of vehicles for transportation of ash from the HCF premises to the landfill site	10,00,000/-	05	50,00,000/-

4.	Purchasing of JVC or tractor for managing ash in the landfill site	20,00,000/-	01	20,00,000/-
5.	O&M cost including transportation cost, manpower, Electricity charge	10,00,000/-	01	10,00,000/-
Total				9,00,00,000/-

(Nine Crore) only

3.6.3 Discarded Medicine disposal

As per the rule all discarded medicines have to be handed over to supplier or sent back to manufacturer for disposal through incineration at very high temperature of greater than 1200°C.

Hence, all discarded medicines have to be collected from CHCs, PHCs/PHSCs and stored at District hospitals for sending it back to supplier/manufacturer for final disposal. In this regard, agreement has to be made with the supplier/manufacturer for taking back discarded medicines.

3.6.4 Cyto-toxic drugs disposal

Handling of Cyto-toxic drugs by health care workers/ waste handlers/safai karmachari requires proper awareness & training for safe handling of such wastes. All contaminated items have to be stored in a leak proof container in a store room securely with proper labeling and record keeping.

It has to be handed over to supplier or manufacturer for disposal by incineration above 1200°C. In this regard, all employees (staff, waste handlers) need training, protective gear, storing facility and agreement has to be made with supplier/ manufacturer for disposal of such wastes.

3.6.5 Plastic Waste Management

According to Biomedical Waste Management Rule 2016 all the treated plastic items falling under Red category is to be sent for recycling through scrap collecting agencies outside the state which is mandatory as per the rule or concerned department may be consulted for handling over same plastic item for road construction activities as stipulated in the BMW Rule 2016.

3.6.6 Mercury Spillage Management

In order to prevent incidents of mercury spillage from mercury bearing instruments viz. sphygmomanometer, thermometer etc. all HCFs must be provided with mercury spillage kit. Central Pollution Control Board, Govt. of India has issued guidelines for handling and

management of mercury spillage. Such wastes are very toxic to living beings and environment and management of mercury and contaminated wastes by health care workers/ waste handlers/safai karmachari requires proper awareness & training for safe handling of such wastes. All contaminated items have to be stored in an air tight container in a store room securely with proper labeling and record keeping.

Such mercury contaminated wastes has to be disposed of in accordance with the Hazardous & Other Waste (Management and Transboundary Movement) Rules, 2016 in any Common Hazardous Treatment and disposal facility (CHWTSDF).

Arrangement has to be made for disposal in such treatment facility with entering in prior agreements with such facility. Membership fees, transportation cost and treatment/disposal charges have to be considered.

Sl. No	Particulars	Unit Cost (in Rs.)	No(s)	Total Cost (in Rs.)
1	Mercury spillage kit and container/ protective gear	2500/-	178	4,45,000/-
2	Hands on training for mercury spillage containment and handling of waste to all health care staff and worker	10,000/-	31	3,10,000/-
Total				7,55,000/-

(Seven lakh fifty five thousand only)

3.6.7 Autoclave/Microwave

All HCFs requires to have dedicated autoclave/microwave for treatment of biomedical waste before shredding and disposal. The rules provides that while operating autoclave/microwave, the operational performance of equipments has be verified using methodology prescribed in the schedule to the rule which includes recording of operational parameters, validation test using indicator strips once in 03months, routine test using indicator strips for each batch, spore testing using biological indicator once in week. Hence, in addition to treatment equipments, various consumable items are required.

Sl. No	Particulars	Unit Cost (in Rs.)	No(s)	Total Cost (in Rs.)
1	Autoclave (capacity based on individual HCFs)	4,00,000/- (180 ltr)	District Hospitals=4 nos	16,00,000/-
		3,00,000/- (60 ltr)	CHCs/PHCs=26 nos	78,00,000/-
		1,50,000/- (25 ltr)	PHSCs=147	2,20,50,000/-
		Total		3,14,50,000/-
2	Consumable items like indicator strip, biological indicator etc.)	1500 (6 Clinical Incinerator)	178	2,67,000/-
5.	O&M cost including Electricity charge	10,00,000/-	5	50,00,000/-
Total				3,67,17,000/-

Remarks: automated autoclave having graphic or computer recording devices for automatically recording dates, time, generating parameter etc.

(Three crore sixty seven lakh seventeen thousand only)

3.6.8 Shredder

In order to prevent malpractice of reusing discarded waste items the rule stipulates that biomedical waste has to be mutilated or shredded post treatment. Hence, all HCFs must be equipped with shredder having adequate treatment capacity. Shredding of waste will also result in reduction of volume and easy handling and storage within the HCF premises.

Sl. No	Particulars	Unit Cost (in Rs.)	No(s)	Total Cost (in Rs.)
1	Shredder (capacity based on individual HCFs)	4,00,000/- (50 kg)	District Hospitals=4 nos	16,00,000/-
		2,00,000/- (25 kg)	CHCs/PHCs 26 nos	52,00,000/-
		1,00,000/- (10kg)	PHSCs= 147 nos	1,47,00,000/-
		Total		2,15,00,000/-
2.	Annual Maintenance Contract for Shredder	5,00,000/- Per year Lump sum	-	5,00,000/-
3.	O&M cost including Electricity charge	5,00,000/- Per year Lump sum	-	5,00,000/-
Total				2,25,00,000/-

(Two crore twenty five lakh only)

3.6.9 Civil Works

The following Civil Works will be required in all facilities to ensure compliance to BMW Rules:

Sl. No	Component	Unit Cost (in Rs.)	No(s)	Total Cost (in Rs.)
1	Deep Burial pits (*fencing/shed /excavation/ lime)	Rs.1,50,000/-	173	Rs. 2,59,50,000/-
2	Sharp pit/ concrete	Rs.1,00,000/-	177	Rs. 1,77,00,000/-
3.	Room/ Shed for housing autoclave/microwave & shredder.	1,00,000/-	177	Rs.1,77,00,000/-
4.	Treated waste storage yard/room	1,50,000/-	177	2,65,50,000/-
5.	Effluent Treatment Plant [Lumpsum]	12,00,000/-	178	21,36,00,000/-
6.	Annual maintenance Contract and O&M cost including electricity charges [Lumpsum]	3,00,000/-	178	5,34,00,000/-
6.	Testing and monitoring of treated effluent quality by accredited environmental labs to comply with the prescribed effluent standard [lumpsum]	5,00,000/-	178	8,90,00,000/-
Total				44,39,00,000/-

Remarks: Metal items including sharps & glass items shall be segregated/ treated and after consultation with SPCB possibilities of sending it to foundaries and recycling facility shall be explore.

(Forty four crore thirty nine lakh only)

3.6.10 Procurement of other equipments/consumable items

The following items may be procured for all health facilities (bedded & non-bedded) for compliance to BMWM Rules:

Sl. No	Item/Component	Unit Cost (in Rs.)	No(s)	Total Cost (in Rs.)
1	3 colour coded bins @ Rs. 400 for each-Casualty, OTs, Wards, OPD clinics, Laboratory, requiring 1 set of each	1000/-	1.For New STNM=300 nos	3,00,000/-
			2.Four District Hospitals= 200 nos	2,00,000/-
			3. CHCs=50 nos. PHCs=360nos. PHSCs=882 nos.	12,92,000/-
			TOTAL	17,92,000/-
2	3 Colour coded plastic bags (non-chlorinated) @ 300 per kg	300/ kg	1.For New STNM=3000 kg	9,00,000/-
			2.Four District Hospitals= 4800kg	14,40,000/-
			3. CHCs/ PHCs/ PHSCs } 2000 kg	6,00,000/-
			TOTAL	29,40,000/-
3	Clear plastic puncture proof containers	700	1.For New STNM=200 nos.	1,40,000/-
			2.Four District Hospitals=400 nos.	2,80,000/-
			3. CHCs/ PHCs/ PHSCs= } 277 nos.	1,93,900/-
			TOTAL	6,13,900/-
4	Trolleys/ Wheel Barrow with cover	25000/-	1.For New STNM=10 nos	2,50,000/-
			2.Four District Hospitals= 20 nos	5,00,000/-
			3. CHCs/ PHCs/ PHSCs= } 173 nos.	43,25,000/-
			TOTAL	50,75,000/-

5	Needle/ Cutters	Hub	3000/-	1.For New STNM=200 nos.	6,00,000/-
				2.Four District Hospitals=100 nos.	3,00,000/-
				3. CHCs/ PHCs/ PHSCs= } 300 nos	9,00,000/-
				TOTAL	18,00,000/-
7	Pre- treatment & others: Chemicals- Sodium hypochloride/ bleach/ sodium thiosulfate etc.	85/ltr Pér year		1.For New STNM=500 ltr	42,500/-
				2.Four District Hospitals= 400 ltr	34,000/-
				3. CHCs/ PHCs/ PHSCs= } 1200 ltr	1,02,000/-
				TOTAL	1,79,500/-
8.	Personal protective gear viz. rubber or abrasive proof gloves, masks, boots, apron, eye glass, helmet for incinerator operator etc.	500/-pair		1.For New STNM=235 nos	1,70,500/-
				2.Four District Hospitals=207 nos	1,03,500/-
				3. CHCs/ PHCs/ PHSCs= } 506 nos	2,53,000/-
				TOTAL	9,48,000/-
9.	Weighing balance/ spring balance for quantification of BMW generation	2000/-	178		3,56,000/-
Grand Total					1,28,73,400/-

(One crore twenty eight lakh seventy three thousand four hundred only)

3.6.11 Recording keeping & Reporting Activities

Recording & reporting of all activities related to BMWM Rules as highlighted in the rules is critical. Annual reports, accident reports, biomedical waste register/record, and other registers as seen fit by the occupier must be well maintained. Every authorized HCF to maintain records related to generation, collection reception, storage, transportation, treatment, disposal or any other form of handling Biomedical Waste, for a period of 5(five) years. All records shall be subject to inspection and verification.

Accident Reporting as per Form 1 to be followed strictly and records maintained, the authorized person in charge shall intimate

immediately to the prescribed authority and forward a report within 24 hours in writing regarding remedial steps taken.

All prerequisite registers and reporting forms must be available at the health facility. Annual reports will be uploaded at Health & Family Welfare Department website. The cost for upkeep of records and reporting is as follows:

Sl. No	Component	Unit Cost (in Rs.)	No(s)	Total Cost (in Rs.)
1	Registers- 5 for bedded & 2 for non- bedded facilities	200	178	35,600/-
2	Reporting formats	100	178	17,800/-
3	Contingency	500	178	89,000/-
Total				1,42,400/-

(One lakh forty two thousand four hundred only)

3.6.12 Monitoring & Reviewing Activities

Monitoring at state, district and facility level as per the Rules is mandatory. Order will be issued for constitution of committees at the various levels. As per the guidelines, these committees must meet at least once in six months or whenever an accident occurs. The cost of these meetings is as follows:

Sl. No	Component	Unit Cost (in Rs.)	No(s)	Total Cost (in Rs.)
1	State level committee meeting	10,000/-	3	30,000/-
2	District Level monitoring Committee meeting	10,000/-	3	30,000/-
Total				60,000/-

(sixty thousand only)

All health Care Facilities to form a committee shall meet once in every 6 (six) months and the record of the minutes of the meetings of this Committee to be submitted along with the annual report to the prescribed authority.

4. Consolidated Cost Estimate for management of BMW

Total cost estimate for proper management of bio-medical waste in 178 HCFs under the Department of Health Care, Human Services and Family Welfare, Govt. of Sikkim in compliance with the provision of the Bio-medical Waste Management Rules, 2016 are as follows:

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Sl.No.	Particulars	Total Cost (Rs in lakh)
1.	Consent Renewal Fees	1,00,000/-
2.	Capacity Building/Training	15,54,300/-
3.	Awareness programme	1,00,000/-
4.	Immunization/Health Check-up of health care officials/staff/workers	21,87,500/-
5.	Infrastructure buildup- Incinerator	10,00,000/-
	A. Estimate cost of retrofitting/ installation of incinerator in all district hospitals	2,25,00,000/-
	B. Estimate for EIA/ EMP study for Environmental Clearance-	60,00,000/-
	C. Incineration Ash Management	10,00,000/-
6.	Mercury Spillage Kit & waste management	89,000/-
7.	Autoclave/Microwave & related consumables	56,53,00,000/-
8.	Shredder & related O&M costs	1,85,00,000/-
9.	Civil works	25,00,000/-
10.	Procurement of other equipments/consumables	1,25,36,300/-
11.	Expenses towards recording/ reporting	1,00,000/-
12.	Expenses towards Monitoring & reviewing	6, 00,000/-
	TOTAL	63,40,67,100/-

(Sixty three crore forty lakh sixty seven thousand one hundred only)

ANNEXURE II

(82)

SIKKIM



GOVERNMENT

GAZETTE

EXTRAORDINARY
PUBLISHED BY AUTHORITY

Gangtok

Wednesday 5th October, 2016

No. 381

GOVERNMENT OF SIKKIM
HEALTH CARE, HUMAN SERVICES & FAMILY WELFARE DEPARTMENT
GANGTOK-737101

No: 49/HC, HS&FW

Dated: 26/09/2016

NOTIFICATION

In exercise of the powers conferred by rule 11 of the Bio-Medical Waste (Management and Handling) Rules 2016 and in supersession of notification number 5/H & FW dated 17/7/2000 the State Government hereby re-constitutes an Advisory Committee consisting of the following members namely:-

- | | |
|--------------------------------------------------------------------------------|------------------|
| 1. DG cum Secretary, Health Care, Human Service and Family Welfare Department. | Chairman |
| 2. Principal Director Health Services | Member Secretary |
| 3. Special Secretary, Urban Development and Housing Department | Member |
| 4. Director, Animal Husbandry and Veterinary Services | Member |
| 5. Chief Engineer, Public Health Engineering Department | Member |
| 6. Member Secretary, State Pollution Control Board | Member |
| 7. Chief Municipal Commissioner | Member |
| 8. Representative - Sikkim Medical Association | Member |
| 9. Representative - Voluntary Health Association of Sikkim | Member |

DR. K. BHANDARI, DM
DIRECTOR GENERAL CUM SECRETARY TO THE GOVERNMENT OF SIKKIM
HEALTH CARE, HUMAN SERVICES & FAMILY WELFARE DEPARTMENT

GOVERNMENT

SIKKIM



GAZETTE

EXTRAORDINARY
PUBLISHED BY AUTHORITY

Gangtok

Wednesday 26th September, 2018

No. 514

GOVERNMENT OF SIKKIM
HEALTH CARE, HUMAN SERVICES & FAMILY WELFARE DEPARTMENT

No. 101/HC,HS&FW

Dated: 25.09.2018

NOTIFICATION

In exercise of the powers conferred by sub-rule (4) and (6) of rule 12 of the Bio-Medical Waste Management Rules 2016, the State Government hereby constitutes the District Level Monitoring Committee in the Districts to monitor the compliance of the provision of these rules in the health care facilities generating Bio-Medical waste and in the common bio-medical waste treatment and disposal facilities where the Bio-medical waste is treated and disposed of, consisting of the following members namely:-

- | | |
|-------------------------------------------------------------------------|--------------------|
| 1. District Collector (East/West/South/North) | - Chairman |
| 2. Divisional Engineer Water Security & PHED (East/West/South/North) | - Member |
| 3. Municipal Councillor (East/West/South/North) | - Member |
| 4. Representative State Medical Association (East/West/South/North) | - Member |
| 5. Representative NGO (East/West/South/North) | - Member |
| 6. Representative State Pollution Control Board (East/West/South/North) | - Member |
| 7. District Medical Superintendent (East/West/South/North) | - Member Secretary |

VISHAL CHAUHAN, IAS
COMMISSIONER CUM SECRETARY TO THE GOVERNMENT OF SIKKIM
HEALTH CARE HUMAN SERVICES & FAMILY WELFARE

S.G.P.G. - 514/ Com. 6/Gazette /100 Nos./ Dt:- 26.09.2018.