

PREFACE

1. This Report has been prepared for submission to the Governor under Article 151 of the Constitution of India.
2. Chapter-I of this Report indicates audited entity profile, authority for audit, planning and conduct of audit, organisational structure of the office of the Accountant General (General and Social Sector Audit) and responses of the departments to the performance audits and compliance audit paragraphs. Highlights of audit observations included in this report have also been brought out in this Chapter. Chapter-II contains the findings of performance audits on Inner Layer Security of the coast of Gujarat State, Management of Bio-Medical Waste in Government-sector hospitals and implementation of Integrated Child Development Services. Chapter-III deals with the findings of compliance audit in Health and Family Welfare Department, Home Department and Social Justice and Empowerment Department.
3. The Report covers significant matters arising out of the performance audits and compliance audit of General and Social Sector departments. The Reports containing points arising from audit of financial transactions relating to Economic Sector departments, Local Bodies, Revenue Receipts, Statutory Corporations and Government Companies are being presented separately.
4. The cases mentioned in this Report are among those which came to notice in the course of test audit of accounts during 2011-12 as well as those which had come to notice in earlier years but could not be dealt with in previous Reports. Matters relating to the period subsequent to 2011-12 have also been included, wherever necessary.

**HEALTH & FAMILY WELFARE DEPARTMENT, FOREST &
ENVIRONMENT DEPARTMENT AND URBAN HOUSING &
URBAN DEVELOPMENT DEPARTMENT**

**2.2 Management of Bio-Medical Waste in Government-sector
Hospitals**

Executive Summary

Bio-Medical Waste (BM waste) is generated during diagnosis, treatment or immunization of human beings or animals or research activities thereto. The Government of India (GOI) framed Bio-Medical Waste (Management and Handling) Rules, 1998 (BMW Rules) to streamline the procedure for collection, handling, transportation and disposal of the BM waste. The performance audit of Management of Bio-Medical Waste in Government-sector hospitals has revealed following deficiencies.

There was no accurate data on BM waste from non-Government Health Care Establishments (HCEs). The implementation of BMW Rules was deficient as only 19 out of 80 Government HCEs test-checked had authorisation under BMW Rules. Further, in 56 Government HCEs, segregation of BM waste in colour coded containers had not been done and BM waste was mixed-up with Municipal Waste. The Common BM waste treatment facilities were not created as per norms and were not functioning properly. Feeding of BM waste in incinerators and autoclaving was found to be done manually. In some cases, BM waste was disposed off by burning/dumping. Deep burial of BM waste as per the Rules was not ensured. Studies on Task Force recommendations had not been taken up.

2.2.1 Introduction

Bio-Medical waste (BM waste) is generated during diagnosis, treatment and immunization on human/animal/research. The BM waste and by-products are poisonous and pollutants and can cause injuries and therefore, its management is an integral part of health care.

In order to streamline the procedure for collection, handling, transportation and disposal of the BM Waste, the Government of India (GOI) framed Bio-Medical Waste (Management and Handling) Rules, 1998 (BMW Rules) under the provisions of Environment (Protection) Act, 1986. The BMW Rules apply to all occupiers¹² handling the BM Waste in any form.

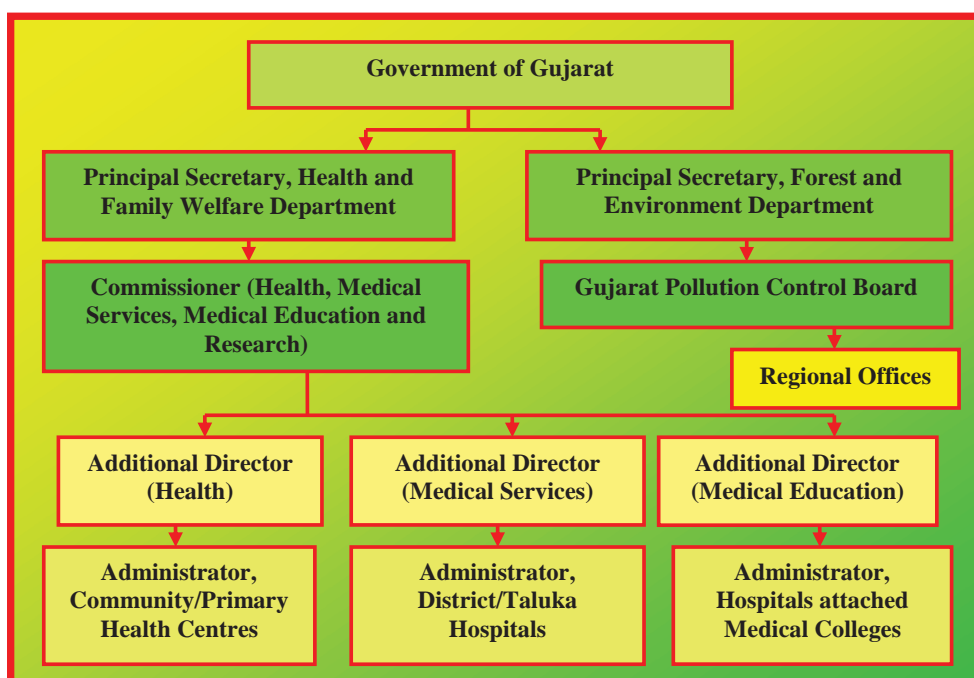
Health and Family Welfare Department provides health and medical services to the public through Civil Hospitals attached to six Medical Colleges, 62 District/ Taluka Hospitals, 318 Community Health Centres (CHCs) and 1,158 Primary Health Centres (PHCs). Medical services/education is also rendered by certain Urban Local Bodies. There were 13 Common Bio-Medical Waste Treatment Facilities (CBWTF) that facilitated treatment of the BM Waste of all Sectors (March 2012).

¹² Occupeer in relation to any institution generating the BM Waste includes a hospital, nursing home, clinic, dispensary, veterinary institution, animal house, pathological laboratories, blood banks by whatever name called and means a person who has control over that institution/premises

2.2.2 Organisational set up

The Principal Secretary, Forest and Environment Department is in overall charge of implementation of the BMW Rules. The Gujarat Pollution Control Board (GPCB), being the nodal agency, coordinates/monitors the activities and enforces the BMW Rules through its 21 Regional Offices.

Organisational Chart



The Principal Secretary, Health and Family Welfare Department is to ensure that BM Waste is handled without any adverse effect to human health and environment. He is assisted by the Commissioner and Additional Directors of Medical Education, Medical Services, Health and Family Welfare.

2.2.3 Audit coverage and methodology

The performance audit was conducted (January-July 2012) by test check of records (2007-12) of Principal Secretary, Forest and Environment Department, Commissioner/Additional Directors of Health Services, six Civil Hospitals attached to the Medical Colleges, 100 per cent District Hospitals, 50 per cent Taluka Hospitals, 25 per cent CHCs, 10 per cent PHCs – all of districts in which the selected Medical College Hospitals were located (selected districts), three Hospitals and 10 per cent Urban Health Centres of Ahmedabad Municipal Corporation (AMC), six Regional Offices of GPCB and 50 per cent Common Bio-Medical Waste Treatment Facilities (CBWTF) of the selected districts. Sampling of units was made by ‘Simple Random Sampling without Replacement’ methodology.

An Entry Conference was held (June 2012) with Additional Director of Medical Services along with representatives of other line departments/authorities to discuss the audit objectives and methodology. An Exit Conference was held (October 2012) with Deputy Secretary, Health and Family Welfare Department

to explain the audit findings and solicit departmental explanations. The views expressed during Exit Conference were duly taken into consideration.

2.2.4 Audit objectives

The objectives of the performance audit were to ascertain whether –

- assessment of quantum of waste being generated was made;
- implementation of BMW Rules was effective; and
- effective monitoring was done to measure operational standards as specified in the Rules.

2.2.5 Audit criteria

In order to achieve the audit objectives, following were the sources for audit criteria –

- Bio-Medical Waste (Management and Handling) Rules 1998;
- Central Pollution Control Board (CPCB) guidelines on bio-medical waste handling and disposal; and
- Monitoring standards prescribed by CPCB.

Audit findings

2.2.6 Lack of information regarding quantum of BM Waste

The BMW Rules provide that every occupier of an institution generating, collecting, receiving, storing, transporting, treating, disposing and/or handling BM waste in any manner was required to obtain authorisation from GPCB and occupier/operator to maintain records in respect of BM waste handled during the year and has to submit an annual report to the prescribed authority.

In order to take stock of the quantum of BM waste generated in the State, Health Care Establishments (HCEs) were to be listed. However, Health Department was registering only Government HCEs and no authority was designated with the task to take stock regarding the non-Government HCEs. Hence, the information regarding non-Government HCEs was not available with the Department.

Similarly, Forest and Environment Department was also not having any foolproof mechanism to enlist the HCEs. In the absence of which, the quantum of BM waste being generated in the State could not be precisely assessed.

The Health Department stated (June 2012) that since the Clinical Establishments (Registration and Regulation) Act, 2010 was not adopted in the State, non-Government HCEs were not being registered with the Department. The reply of the Health Department is not acceptable as the BMW Rules are applicable to all persons, who generate, collect, receive, store, transport, treat, dispose or handle BM Waste in any form. The BMW Rules have been made under Environment (Protection) Act, 1986, which extends to the whole of India.

2.2.7 Disposal of untreated BM waste

The details of BM Waste generated and treated during 2007-12 are as detailed in Table 1 below –

Table 1: Details showing BM waste generated and treated/untreated

Sr. No.	Year	Number of HCEs	Approximate BM Waste generated	BM Waste treated	BM waste disposed off untreated	Percentage of untreated waste
			In kilogram/day			
1	2007-08	25093	22747	10000	12747	56
2	2008-09	25714	25765	15000	10765	42
3	2009-10	25684	16565	16565	0	0
4	2010-11	26286	20090	20090	0	0
5	2011-12	30257	28570	28570	0	0

(Source: GPCB's Annual Reports)

Untreated Bio-Medical Waste disposed off by HCEs

The GPCB stated (July 2012) that for disposal of untreated BM waste, Board issued 2864 notices (2007-12). During Exit Conference, officers from GPCB assured that proper disposal of BM Waste would be given utmost importance.

Implementation of Bio-Medical Waste Rules

2.2.8 Health Care Facilities running without authorisation

According to Rule 8(1) of the BMW Rules, every occupier of an institution generating (handling not less than 1,000 patients *per* month), collecting, receiving, storing, transporting, treating, disposing and/or handling BM Waste in any manner was required to obtain authorisation from GPCB. Scrutiny of the Annual Reports submitted by GPCB to CPCB revealed that a large number of HCEs were running without authorisation.

Out of 80 Health Care Establishments test checked, 61 were operating without authorisation from GPCB

Out of the test checked 80 HCEs, only 19 had authorisation as required under the Rules. In rest of the HCEs either the information regarding authorisation was not available or the HCEs were operating without obtaining the same from GPCB.

2.2.9 Non-segregation of BM Waste

The BM waste is classified in 10 categories (**Appendix-X**) under the BMW Rules. Segregation is the first step in the entire process of BM waste management and its improper segregation results in mixing of other wastes with BM waste rendering the other wastes also toxic and hazardous. As about 15 *per cent* of hospital waste is hazardous, proper segregation could considerably reduce the quantity of waste as well as cost of treatment and disposal. Rule 6(2) of BMW Rules provide that the waste shall be segregated at the point of generation and collected into appropriate colour coded bags at the point of generation indicated in **Table-2** as follows –

Table-2: Statement showing the colour coded bags and their treatment

Colour Code	Type of waste	Type of treatment
Yellow	Potentially infectious non-plastic waste	Incineration/ Deep burial
Red	Potentially infectious plastic waste	Autoclave/Microwave/Chemical treatment
Blue/white	Waste sharps	Autoclave/Microwave/Chemical treatment/ Shredding
Black	Discarded medicines, chemical waste, incineration ash	Disposal in secured landfill

Out of 80 HCEs test checked, segregation of BMW was not done in 56 HCEs

Test check of the records in the 80 Health Care Establishments (HCEs) revealed that in 56 HCEs segregation was not done as per requirement. This resulted in improper segregation and consequential improper treatment posing health hazards.

2.2.10 Mixing up of BM Waste with Municipal solid waste

In 58 HCEs out of 80 test checked, BMW was being mixed up with Municipal solid waste

Rule 6 (1) of the BMW Rules provides that BM waste was to be kept separate from other wastes and the Urban Local Bodies (ULBs) were to pick up the segregated non-BM solid waste as well as treated BM waste for disposal at the Municipal dumpsite. However, out of 80 HCEs test checked, BM waste was found mixed up with Municipal solid waste (MSW) in 58 HCEs (73 per cent).



This waste was disposed off in open landfill site, which was in contravention to the BMW Rules. In addition, the waste could cause infectious diseases to those human/animal/birds arriving at the landfill sites, including the employees of ULBs, rag pickers, etc.

While accepting audit observations, GPCB issued notices (July 2012) to HCEs for violating BMW Rules. The Government stated (October 2012) during Exit Conference that shortage of skilled manpower was one of the reasons for non-adherence to the provisions of the Rules. The reply of the Government was not justified as the subject matter relates to disposal of hazardous BM waste.

2.2.11 Delayed collection of the BM waste

Rule 6(5) of the BMW Rules provides that no untreated BM waste shall be kept stored beyond a period of 48 hours. When it becomes necessary to store the waste beyond 48 hours, prior permission of the prescribed authority was necessary.

Joint visit at the hospitals with GPCB officials revealed non-collection of the BM waste (for two or more days) by the Common Bio-Medical Treatment Facilities (CBMWTF) operators beyond 48 hours. The concerned hospitals stated (March-July 2012) that they would henceforth inform the GPCB when delays happened beyond prescribed time limit in lifting the BM waste.

While accepting audit observations, GPCB issued notices (July 2012) to HCEs for violating BMW Rules.

2.2.12 Non-repairing of inoperative incinerators

The Health and Family Welfare Department installed (between 1999 and 2009) 41 incinerators for treatment of BM Waste in different Taluka hospitals and District hospitals across the State at a cost of ₹1.99 crore. These incinerators remained inoperative for a period ranging from four to 10 years due to repeated breakdowns and operational problems. The incinerators were not got repaired, instead, the Hospitals obtained membership of CBWTFs operating in their areas for treatment of the BM Waste generated.

In addition to the above, six Civil Hospitals attached with Medical Colleges were also having their own incinerators for treatment of the BM waste, but they were not more (three in 2006; Ahmedabad 2009; Civil Hospital Vadodara January 2012; Civil Hospital, Surat April 2012) being utilised.

2.2.13 Operation of individual incinerators by HCEs

Out of 80 HCEs test checked, 59 HCEs were members of CBWTFs, 18 were adopting deep burial method disposal and remaining three HCEs (Motibanugar, Navi Pardi and Sarbhon) were neither member of CBWTF nor having deep burial facility. Out of 80 test checked HCEs, only three HCEs (Ahmedabad, Surat and Vadodara) had their own incinerators, which were procured (1981-1999) at a total cost of ₹31.80 lakh.

The records of these hospitals having incinerators revealed as under –

2.2.13.1 Civil Hospital, Surat

According to Schedule-V(A) and (B) of the BMW Rules, while operating incinerators, the temperature of the primary chamber was to be maintained at $800\pm 50^{\circ}\text{C}$ and the secondary chambers residence time was to be kept at $1050\pm 50^{\circ}\text{C}$ for at least one second.

- (i) Temperature of primary chamber ranged between $490-430^{\circ}\text{C}$ and temperature meter of secondary chamber was not in operation;
- (ii) Water used for cleaning site of incinerator was discharged into the drain of Surat Municipal Corporation (SMC) without any treatment;
- (iii) The incinerator did not have any mechanical device (such as belt conveyer etc.) for conveyance and the waste was being fed manually;
- (iv) As the port hole size was inadequate, the GPCB could not measure the stake emission; and
- (v) The incinerator had only a dust collector as air pollution control device (APCD) and was not equipped with any other APCD, such as high pressure venture scrubber for more effective control over pollution.

When improper functioning of incinerators was brought to notice, hospital authorities outsourced (April 2012) the disposal of BM Waste.

The Government stated (October 2012) during Exit Conference that due to operational problems and frequent break downs and in absence of any alternate arrangements outsourcing was resorted to. However, the fact remained that infrastructure remained unutilised and expenditure incurred thereon remained unfruitful.

2.2.13.2 Sir Sayyajirao Hospital (Civil Hospital), Vadodara

- (i) The Hospital had incinerators for treatment of BM waste of yellow category, which was being utilised till January 2012. However, the hospital has not obtained Consolidated Consent and Authorisation (CCA) from GPCB under the provisions of Hazardous Waste (Management and Handling) Rules, 1989 to operate the same and were being utilised without GPCB's authorisation;
- (ii) There was no recordings of the temperatures of the chambers, in absence of which maintenance of operational parameters could not be ascertained;
- (iii) There was no graphic or computer recording devices to automatically and continuously monitor and record dates, time of day, load identification number and operating parameters throughout the entire length of the incineration cycle;
- (iv) A diesel incinerator was lying idle in inoperative condition (September 2009);

- (v) The electrical incinerator broke-down during 17 November to 30 November 2011 on account of burning of the furnace during which period 1404 kg BM waste was reported to have been treated. However, details of its disposal were not available. In such circumstance BM waste was disposed off without treatment;
- (vi) The temperature of the chambers of the incinerator was not maintained at the required range. Incinerating the BM waste at lower temperatures was fraught with the risk of emission of fatal substances such as dioxins, furans, etc. which were carcinogenic in nature.

The hospital authorities while accepting failure in providing service by annual maintenance contract (AMC) providers, stated (July 2012) that the AMC was terminated and disposal of BM waste was outsourced from February 2012.

2.2.14 Common BM Waste treatment facilities

A Common Bio-medical Waste Treatment Facility (CBWTF) is set up and operated by private players with the consent of GPCB, where BM waste generated from a number of HCEs is treated. The CBWTF are submitting quarterly and annual reports to the GPCB.

In all, 13 CBWTFs were operating across the State. From the joint visit of five CBWTFs with GPCB officials, following were noticed –

2.2.14.1 Incinerators

- (i) As per Central Pollution Control Board guidelines only one CBWTF was allowed to cater the need of up to 10,000 beds in a radius of 150 km. Scrutiny of the quarterly statements furnished by the operators of the CBWTF to the Regional Offices (Surat and Vadodara) revealed that two CBWTF had exceeded the limit of 10,000 beds and were covering more beds in the absence of facility in the area. Similarly, CBWTF at Rajkot was covering approximately 250 km as no other facility was available in the area. GPCB stated (July 2012) that they have received total five new proposals and consent to establish CBWTF at Anand, Amreli, Valsad, Bhuj (Kachchh) and Palanpur. During Exit Conference, GPCB agreed to the audit observation and stated that new CBWTFs were under consideration and on their being established, the prescribed norms would be complied with. However the fact remained that in violation of the CPCB guidelines two CBWTFs covered more beds/area.
- (ii) During scrutiny of the records of two CBWTF, it was found that some of the hospitals were sending waste in blue bags or in yellow bags only, which reflected improper segregation of the BM Waste. None of the hospitals sent potentially infectious plastic waste in red bags, which led to improper handling of waste. Mixed-up waste was being disposed by the CBWTF according to the colour of the container bag.

- (iii) According to the operating standards in respect of the incinerators the Combustion Efficiency shall be at least 99.00 *per cent*, however, GPCB had not carried out the test till date as the facility for the same was not available with them.
- (iv) Out of these five incinerators, two were having mechanical devices for waste feeding, however, at other three sites of CBWTF, waste feeding was being done manually. CBWTF, Quantum had hydraulic device for waste feeding, however at the time of visit, the same was not functional and the waste was being fed manually.



Similarly, in Distromed CBWTF the operator had two incinerators (one having capacity of 100 Kg/hour and the other having a capacity of 200 Kg/hour). The bigger incinerator was equipped with mechanical device for waste feeding, however, the smaller one, which was operational at the time of visit, was not having any such device and the waste was fed manually.

- (v) Out of 43, 12 hospitals/clinics were not giving their BM waste to the CBWTF for disposal though they have obtained the membership; however, the reasons for the same were not available on record.

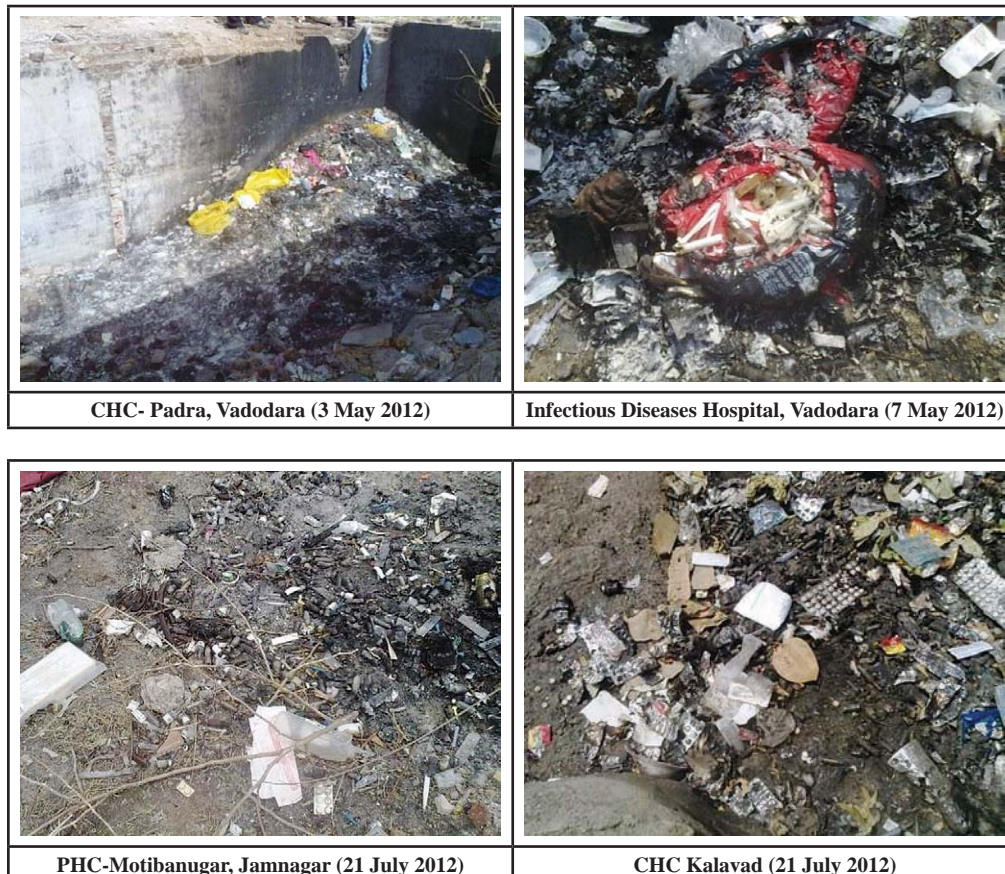
While accepting audit observations, GPCB issued notices (July 2012) to HCEs for violating BMW Rules. The Government also admitted the audit observations and stated (October 2012) during Exit Conference that the CBWTFs were directed to install mechanical devices.

2.2.14.2 Autoclaving

Autoclaving (steam sterilization) is prescribed for disinfecting and treating micro-biology and bio-technology waste, sharp waste and soiled waste. As per BMW Rules, each autoclave should have graphic or computer recording devices which will automatically and continuously monitor and record dates, time, load identification number and operating parameters throughout the autoclave cycle. Graphic/Computer recording devices were available with three CBWTFs. However, in respect of Samvedana and Care CBWTFs the same was being done manually.

2.2.15 Burning of BM Waste in the HCEs

The treatment/disposal of BM Waste by incineration/deep burial, autoclaving shredding etc. depends on the type of the waste. Burning of BM waste is nowhere prescribed as a mode of treatment in the Rules. However, joint inspection of 80 HCEs revealed that in 48 HCEs the BM Waste was being disposed by burning.



While accepting audit observations, the GPCB issued notices (July 2012) to HCEs for violating BMW Rules.



2.2.16 Deep burial

The BMW Rules provide for deep burial of Category-1 and Category-2 of BM waste in towns having a population of less than five lakh and in rural areas. The location of the site of the deep burial was to be identified in consultation with the GPCB.



In the test checked HCEs, 18 PHCs resorted to deep burial method for waste treatment without adding any layer of lime and soil. In addition to this, following deviations from BMW Rules were also observed –

- (a) In PHC Samlaya (Vadodara), the site of deep burial was not being utilised for the last two years. On opening the pit during joint visit, it was found that the same was one metre in depth and did not have any trace of BM waste having been buried there. Instead, the BM waste was being disposed of by burning and mixing with solid waste handled by civil body. In PHC Sandhasal (Vadodara), the deep burial site was found uncovered.

- (b) The PHC, Motibanugar (Jamnagar) was neither a member of Common Treatment Facility nor it had any deep burial system for disposal of the BM Waste. Only one sharp pit was available in the PHC which was not in use for a long time. Hence, all the waste generated was being disposed unscientifically in an open *kutcha* pit, flouting all Rules.

PHC, Motibanugar, Jamnagar	
	
Sharp pit not being utilised (21 July 2012)	BMW burnt and thrown recklessly (21 July 2012)

- (c) PHC- Chanod (Vadodara) used deep burial method for disposal of BM Waste generated by it. However, the said pit was destroyed and was not being utilised for last two-three years. Since then the hospital was throwing all its waste in an open well (adjacent to the tank through which water was supplied in the village) which was located in the middle of the village. However, no steps were taken by hospital authorities or the Health Department or by GPCB in the matter.

Open well used for dumping BMW near the water Tank; PHC-Chanod; Vadodara (3 July 2012)	
	

- (d) PHC Bhatia (Jamnagar) used an open site for dumping the BM Waste. The location of the site was adjacent to the Staff quarters constructed for the hospitals staff which was one kilometre away from Hospital.

Open site used for dumping BMW near the Staff Quarters; PHC-Bhatia; Jamnagar (20 July 2012)



(e) Despite being a member of CBWTF, CHC Savli (Vadodara) was dumping its BM Waste in a pond and in an open well.

Dumping of BMW near the pond , CHC- Savli Vadodara (3 July 2012)



Hence, the practice of deep burial adopted by these HCEs was without any safeguards.

During Exit Conference, the Government (Health Department) accepted the audit observation and stated that deep burial would be gradually stopped and discontinued from places where CBWTF was available. It was also assured that deep burial would be closely monitored.

2.2.17 Non maintenance of blood and mercury spillage management kits

Mercury is utilised in variety of medical devices. As it is a powerful neurotoxin, great care is required to protect people from its spills. Similarly, blood spillage also requires greater care for disposal in order to avoid any undesired incidents. However, out of the test checked 80 HCEs only five HCEs¹³ had mercury and blood spillage management kits.

While accepting audit observations, the GPCB issued notices (July 2012) to HCEs in the matter.

13 Ahmedabad- Civil Hospital, Sola Hospital, PHC- Jetalpur; Surat- Civil Hospital; Vadodara- Jamanabai Hospital

Monitoring

2.2.18 Non implementation of Task Force recommendations

According to Rule 9 of the BMW Rules, the State Government was required to constitute an Advisory Committee to advise the State Government and GPCB on matters relating to the implementation of BMW Rules. Forest and Environment Department constituted the Committee in December 1998. The Committee, however, met only once (April 2004) since its inception. In addition to this, a Task Force (Advisory Group) was also constituted (March 2005) by GPCB for effective implementation of the Rules with Member Secretary, GPCB as its Chairman and 14 other members. The first meeting of the Task Force was held in March 2005. In the first meeting of the Task Force, Action Plan for BM Waste Management was prepared. Following activities were identified for better implementation of the BMW Rules in the State –

- (i) GPCB would explore the possibility of grading/categorisation of health care as ‘Green Hospital’ based on their compliance of BMW Rules. However, no progress has been made in this matter. The GPCB stated that grading of the Hospitals based on their compliance to BMW Rules was not easy so there was no progress.
- (ii) It was decided to set up at least one pilot plant on ‘Deep burial’ per region for study/demonstration to create awareness. However, the same did not materialise.
- (iii) It was also decided to carry out a study for ‘Normative assessment of waste generation in different specialty of Health Care Units in Gujarat’.

However, the GPCB has not conducted any such study. In reply, the GPCB stated that standard thumb rule for calculation of generation of BMW is adopted.

During Exit Conference, GPCB stated that grading of hospitals, based on their compliance to BMW Rules required manpower and that due to staff crunch, no progress had been made. GPCB also stated that deep burial was not much encouraged and hence the recommendation of Task Force could not be implemented. GPCB agreed to carry out ‘Normative Study of Waste Generation’ in the coming years.

2.2.19 Non imposition of Penalty

As per the Environment (Protection) Act, 1986, failure to comply with or contravention of any of the provisions of the Act, would entail imprisonment and/or fine. However it was observed that though the GPCB issued 2,864 notices for violation of BMW Rules (2007-12), but no penalty was imposed as there was no follow up action after issue of notices. Year-wise details of these show cause notices are as given in **Table 3** as follows –

Table 3: Statement showing year-wise details of the show cause notices

Sr. No.	Year	No. of notices issued by GPCB
1	2007-08	47
2	2008-09	117
3	2009-10	68
4	2010-11	509
5	2011-12	2,123
Total		2,864

The GPCB replied (July 2012) that according to the provisions of the Environment (Protection) Act for violation/non-compliance of the Rules, cases under Section 15 of Environment (Protection) Act are required to be filed before Court of Law and that no court has till date imposed any fine and/or penalty to any HCE. Records revealed that as no court case has been filed by GPCB (till 2011-12) for such violation, no further penal action could be taken against the erring HCEs, which reflected laxity on the part of the GPCB in enforcement of the Rules.

2.2.20 Record Keeping

According to Section 11 of BMW Rules, every authorised person shall maintain records of generation, collection, reception, storage, transportation, treatment, disposal and/or any form of handling of BM waste. However, out of 80 HCEs test checked, only 12 HCEs were keeping proper records and 45 HCEs were maintaining the record on the basis of the collection cards supplied by the CBWTF operator and 23 HCEs were not maintaining any record in respect of the waste generated in the Hospital.

Funding

2.2.21 Non-availment of Central Sector Scheme

The Ministry of Environment and Forests (Government of India) was implementing (August 2010) the Central Sector Scheme (CSS) for setting up of Common Bio-medical Waste Treatment and Disposal Facilities on Public Private Partnership (PPP) basis for environmentally sound disposal of BM Waste. Under the scheme, GOI provided 25 per cent of the total project cost as Central subsidy limited to a maximum of one crore rupees, subject to matching grant of 25 per cent by the State concerned. Accordingly, the Ministry of Environment and Forests invited proposals (August 2010) along with Detailed Project Report (DPR) for providing subsidy for setting up of Common BM Waste Treatment Facilities (CBWTFs).

Central Pollution Control Board directed (July 2011) GPCB to review and examine the necessity for setting up of additional CBWTFs and to submit project proposals to the Ministry of Environment and Forests within a period of six weeks for sanction of Central Government assistance during 2011-12.

The GPCB replied (July 2012) that they have not received any proposal for obtaining assistance for setting up of CBWTFs on PPP mode by any agency during 'Vibrant Gujarat' Summit in 2011. In all, five MOUs were signed (2011) by project proponents for setting up of CBWTF in different part of the Gujarat and project proponents were made aware about this particular scheme.

However, the fact remained that no such project proposal was submitted to the Ministry of Environment and Forests which resulted in loss of GOI assistance.

2.2.22 Conclusion

The assessment of generation of BM Waste was deficient as the State Government had no accurate data on BM waste generated by non-Government HCEs on the plea that they need not be registered. As the BMW Rules, 1988 are applicable to all persons who generate and handle BM Waste in any form, it was incumbent upon them to obtain authorisation from the GPCB. Health Care Establishments of Government violated the BM Waste (Management and Handling) Rules regarding segregation, mixing, collection, treatment, etc. Common BM Treatment Facilities were not created as per norms and were not functioning properly. Mechanical handling and deep burial of BM Waste as per the Rules were not ensured. Recommendations of Task Force were also not implemented.

2.2.23 Recommendations

- Data base on non-Government Health Care Establishments may be prepared;
- Bio-Medical Waste may be got segregated and collected in colour coded containers within the prescribed time limit and treated in accordance with the BMW (Management and Handling) Rules;
- Norms regarding mechanical handling, deep burial, etc. of BM Waste may be followed; and
- Recommendations of the Task Force may be got implemented.

The matter was reported to Government (August 2012); their reply has not been received (December 2012).