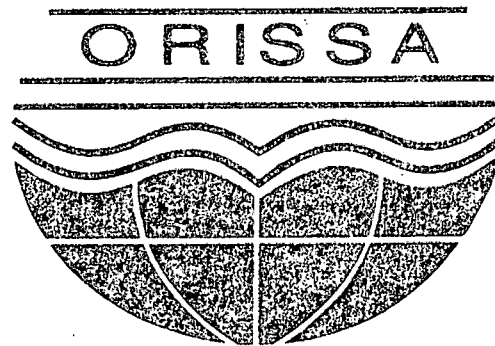


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REPORT ON BIO-MEDICAL WASTE MANAGEMENT OF  
SCB MEDICAL COLLEGE AND HOSPITAL AND S.V.PATEL  
P.G INSTITUTE OF PEDIATRICS (SISHU BHAWAN)  
CUTTACK



REGIONAL OFFICE  
STATE POLLUTION CONTROL BOARD  
ORISSA  
CUTTACK

**INSPECTION REPORT ON BIOMEDICAL WASTE MANAGEMENT MADE BY S.C.B. MEDICAL COLLEGE & HOSPITAL, & S.V. PATEL P.G. INSTITUTE OF PEDIATRICS(SISHU BHAWAN), CUTTACK.**

**BACKGROUND:** This report is in continuation with the earlier report submitted in connection with the W.P.(C) .No.4369/2003 – Maitree Sansad – Vs – State of Orissa & Others regarding Biomedical Waste ( M& H) matter. Honble High Court has passed the following order on dated 21.01.11.

“ The earlier direction to the Regional Officer, State Pollution Control Board to visit the S.C.B. Medical College and Hospital as well as Sishu Bhawan without notice may continue once in a fortnight till the next date and the result of visit between today and till next date be also submitted by way of a report.”

The next date to put up the matter is fixed on 4<sup>th</sup> March, 2011.

S.C.B Medical College & Hospital and Sishu Bhawan was inspected by this Office thrice on 4.02.11, 14.2.11 & 23.2.11 keeping the spirit of the order of the Honble High Court in the mind. It is pertinent here to mentioned that Honble Court has passed an order previously to visit these units and take photographs of the Bio-Medical Waste that is being dumped at places within the campus and submit the report.

**1. GENERAL FEATURES:**

**A. SCB MEDICAL COLLEGE & HOSPITAL**

SCB Medical college is one of the major Health Care Unit of Orissa situated at the heart of Cuttack city is engaged for health care service of the citizens of Orissa and other peoples. The salient features with respect to Bio Medical Waste Management of the Health Care Units is given below.

Total No of Beds	:	1225
No of patient treated per day	:	More than 1000
Total no of Department	:	14
Water Supply	:	6MLD through 5 no tubewells
Waste Water generation	:	4.5MLD(at the rate of 80% water supply)
	:	2.5MLD Sullage
	:	2MLD Sewage

**B. S.V.PATEL POST GRADUATE INSTITUTE OF PEDIATRICS:**

This unit commonly known as Sishu Bhawan is situated at Cuttack city is engaged for health care service of the Children of Orissa and other places. The salient features of the Health Care Units is given below.

Total No of Beds	:	250
Total Area	:	22Acres
Total no of Departments	:	09
Water Supply	:	From Municipal Supply (80 KLD)
Waste Water generation	:	64KLD

**2. BIO MEDICAL WASTE TREATMENT**

Management of Biomedical Waste comprises of the following major steps..

- a. Collection
- b. Segregation.
- c. Treatment
- d. Disposal

In the said Rule, procedure to be followed to carry out the above activities has been defined clearly. The said units are supposed to follow the above procedures.

**Facilities available :** These units carryout the first two steps i.e collection and segregation by their own staffs and the last two activities are being carried out by an outside agency such as M/s Mediad Marketing Service (P) Ltd.

Both the Hospitals generate following category of wastes as per the following table which were found to be collected, segregated and handed over to the private agency for necessary treatment and disposal.

Sl.No	Waste Category	Coloured bin	Treatment	Disposal
1	1 ( Anatomical Waste)	Yellow	Incineration	Ash disposed of in pit.
2	3 (Microbiology & Biotechnology Waste)	Yellow/ Red	Incineration/ Micro waving	After microwaving disposed of to outside party /to Municipality for necessary disposal
3	4 (Waste sharps)	Blue White translucent	Disinfection/ Microwaving & Mutilation/shredding	Sharp is mutilated and after chemical disinfection disposed of in sharp pit.

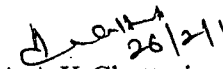
4	6 ( Soiled Waste)	Yellow/Red	Incineration/Microwaving	After microwaving disposed of to outside party /to Municipality for necessary disposal
5	7 ( Solid Waste)	Red/ Blue white translucent	Microwaving/shredding/Chemical treatment	After microwaving disposed of to outside party /to Municipality for necessary disposal
6	8 ( Liquid waste)		Disinfected by phenyl/bleaching powder .	Discharge to drain.
7	9 ( Incineration Ash	Black	Disposal in Municipal Land fill	Now stored in a pit in S.C.B Medical College & Hospital

### 3. OBSERVATION

A. **S.C.B.MEDICAL COLLEGE.:** Observation made during the inspection of the unit on different occasion is Annexed in Annexure I.

B. **S.V.PATEL INSTITUTE OF PEDIATRICS :** Observation made during the inspection of the unit on different occasion is Annexed in Annexure II.

4. **CONCLUSION:** Biomedical Waste Management practice with respect to collection, segregation and treatment practice adopted by both the hospitals were found to be generally satisfactory. Management of liquid waste i.e waste category no. 8 is still found to be not done properly. Except the designated places, no biomedical waste was noticed in other areas inside the premeises. Some of the photographs taken on management aspect of biomedical wastes for both the hospitals is enclosed.

  
26/2/11  
Dr. A.A.K.Chatterjee  
Regional Officer,  
State Pollution Control Board,  
Orissa, Cuttack.

HOSPITAL  
INSPECTION REPORT OF S.C.B.MEDICAL COLLEGE WITH REFERENCE TO  
THE ORDER OF HONBLE HIGH COURT.

Date of inspection: 04.02.11

The health care unit was inspected without notice as per the order of Hon'ble High Court on the above date. During my inspection the Superintendent was present. Biomedical waste being generated by the hospital in different points are given below.

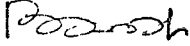
Sl.No	Department/ Ward	No.of points	Category of waste generated
1	Obstetric & Gynecology	14	1, 4, 6, 7 & 8
2	Medicine	16	1, 4, 6, 7 & 8
3	Surgery	18	1, 4, 6, 7 & 8
4	Orthopedics	5	1, 4, 6, 7 & 8
5	Regional Diagnostic Center	3	1, 3,4, 6, 7 & 8
6	Emergency	4	1, 4, 6, 7 & 8
7	Skin ( V.D, ) (STD)	1	1, 3,4, 6, 7 & 8
8	Chloera & Titanus	2	1, 4, 6, 7 & 8
9	T.B Ward	3	1, 4, 6, 7 & 8
10	Chest	1	1, 4, 6, 7 & 8
11	Eye ward ( OPD + OT)	3	1, 4, 6, 7 & 8
12	Pathology	5	1, 3,4, 6, 7 & 8
13	OPD of all out doors	7	4, 6, 7
14	Mediad Marketing Service	1	9

The undersigned had inspected the following wards .

1. Obstetric & Gynecology
2. Medicine
3. Surgery
4. Biomedical Waste Treatment Plant.

The collection and segregation of the wastes in the above wards were found to be made as per the Rules. A coloured container as per the colour code has been provided. The wastes are collected and kept in the bins and finally taken by the staffs of M/S Mediad Marketing Services, for necessary treatment and disposal. Biomedical wastes were found to be segregated from the general waste category. The overall practice followed for collection and segregation of wastes in different wards were found to be satisfactory except the liquid effluent.

The Biomedical waste collected from the hospital was found to be stored in the premises of Biomedical Treatment plant operated by M/S Mediad Marketing Services. The unit has incinerator, microwave, shredder for the treatment of the waste. Record on the quantity of wastes collected from the hospital is being maintained on daily basis. Overall management aspect made by the unit is found to be satisfactory.

  
Dr. B. B. Dash  
Asst. Env. Scientist

**INSPECTION REPORT OF S.C.B.MEDICAL COLLEGE WITH REFERENCE TO THE ORDER OF HONBLE HIGH COURT.**

**Date of inspection: 14.02.11**

The health care unit was inspected without notice as per the order of Honble High Court on the above date. During my inspection the Superintendent and other doctors dealing with the subject were not present. Mr. Harishchandra Senapati, Asst. Steward of hospital was present. Biomedical waste being generated by the hospital in different points are given below.

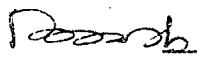
Sl.No	Department/ Ward	No.of points	Category of waste generated
1	Obstetric & Gynecology	14	1, 4, 6, 7 & 8
2	Medicine	16	1, 4, 6, 7 & 8
3	Surgery	18	1, 4, 6, 7 & 8
4	Orthopedics	5	1, 4, 6, 7 & 8
5	Regional Diagnostic Center	3	1, 3, 4, 6, 7 & 8
6	Emergency	4	1, 4, 6, 7 & 8
7	Skin ( V.D. ) (STD)	1	1, 3, 4, 6, 7 & 8
8	Chloera & Titanus	2	1, 4, 6, 7 & 8
9	T.B Ward	3	1, 4, 6, 7 & 8
10	Chest	1	1, 4, 6, 7 & 8
11	Eye ward ( OPD + OT)	3	1, 4, 6, 7 & 8
12	Pathology	5	1, 3, 4, 6, 7 & 8
13	OPD of all out doors	7	4, 6, 7
14	Mediad Marketing Service (BMW Plant).	1	9

The undersigned had inspected the following wards.

1. Obstetric & Gynecology
2. Medicine
3. Surgery
4. Biomedical Waste Treatment Plant.

Collection and segregation of the biomedical wastes in the above wards were found to be made as per the Rules. A coloured container as per the colour code has been provided. The wastes are collected and kept in the bins and finally taken by the staffs of M/S Mediad Marketing Services for necessary treatment and disposal. Biomedical wastes were found to be segregated from the general waste category. The overall practice followed for collection and segregation of wastes in different wards were found to be satisfactory except the liquid effluent.

The Biomedical Wastes collected from the hospital was found to be stored in the premises of Biomedical Treatment plant operated by M/S Mediad Marketing Services. The unit has incinerator, microwave, shredder for the treatment of the waste. Record on the quantity of wastes collected from the hospital is being maintained on daily basis. The overall management aspect made by the unit is found to be satisfactory.

  
Dr. B. B. Dash  
Asst. Env. Scientist



**INSPECTION REPORT OF S.C.B.MEDICAL COLLEGE WITH REFERENCE TO THE ORDER OF HONBLE HIGH COURT.**

**Date of inspection: 23.02.11**

The health care unit was inspected without notice as per the order of Honble High Court on the above date. During my inspection the Superintendent and other doctors dealing with the subject were not present. Mr.Kailash Biswal from Mediad Marketing Services was present. Biomedical waste being generated by the hospital in different points are given below.

Sl.No	Department/ Ward	No.of points	Category of waste generated
1	Obstetric & Gynecology	14	1, 4, 6, 7 & 8
2	Medicine	16	1, 4, 6, 7 & 8
3	Surgery	18	1, 4, 6, 7 & 8
4	Orthopedics	5	1, 4, 6, 7 & 8
5	Regional Diagnostic Center	3	1, 3,4, 6, 7 & 8
6	Emergency	4	1, 4, 6, 7 & 8
7	Skin ( V.D, ) (STD)	1	1, 3,4, 6, 7 & 8
8	Chloera & Titanus	2	1, 4, 6, 7 & 8
9	T.B Ward	3	1, 4, 6, 7 & 8
10	Chest	1	1, 4, 6, 7 & 8
11	Eye ward ( OPD + OT)	3	1, 4, 6, 7 & 8
12	Pathology	5	1, 3,4, 6, 7 & 8
13	OPD of all out doors	7	4, 6, 7
14	Mediad Marketing Service	1	9

The undersigned had inspected the following wards.

1. Obstetric & Gynecology
2. Medicine
3. Pathology
4. Orthopedics
5. Mediad Marketing Services

Collection and segregation of the wastes in the above wards were found to be made as per the Rules. Coloured containers as per the the colour code has been provided. The wastes are collected and kept in the bins and finally taken by the staffs of M/S Mediad Marketing Services Ltd for necessary treatment and disposal. Biomedical wastes were found to be segregated from the general waste category. Overall practice followed for collection and segregation of wastes in different wards were found to be satisfactory except the liquid effluent.

Wastes collected from the hospital was found to be stored in the premeises of Biomedical Treatment plant operated by M/S Mediad Marketing Services . The unit has incinerator, microwave, shredder for the treatment of the waste. Record on the quantity of wastes

collected from the hospital is being maintained on daily basis. Overall management aspect made by the unit is found to be satisfactory.

*Dr. A.A.K. Chatterjee*  
23/02/11  
Dr. A.A.K. Chatterjee  
Regional Officer

**PHOTOGRPHS ON MANAGEMENT OF BIOMEDICAL WASTE IN SCB MEDICAL COLLEGE,  
CUTTACK**



**Non BMW Disposed in the Premises of SCB**



**Collection Practice Of Non BMW**



**Storage of General Waste for Municipality Disposal**



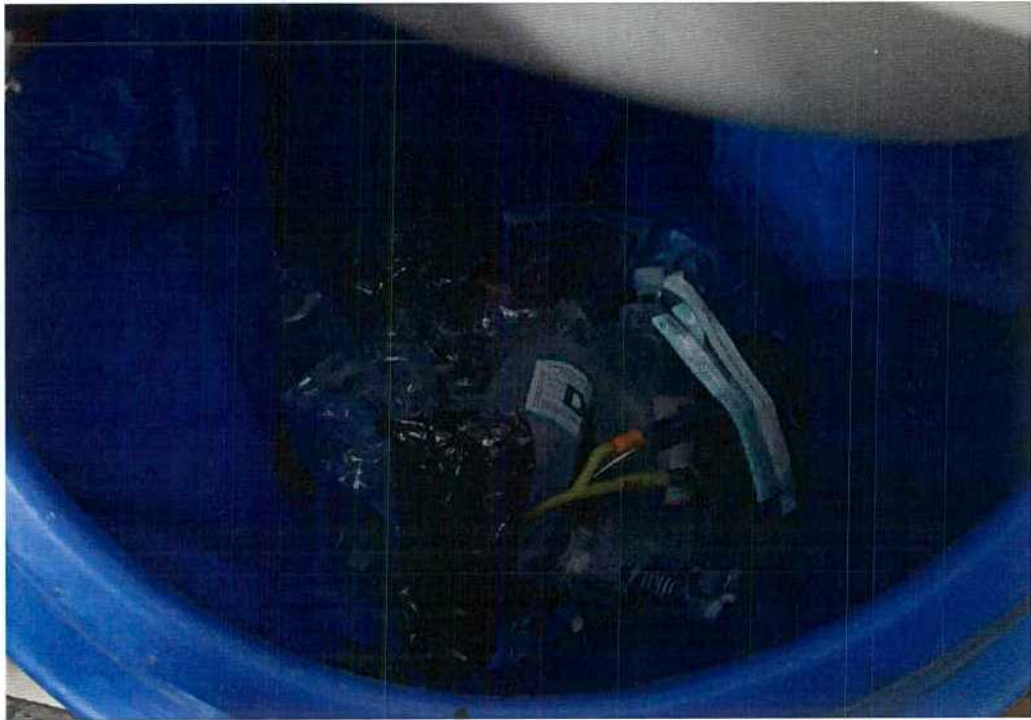
**Collection of Storage of BMW for Treatment in the Designated Place**



**Collection of Storage of BMW for Treatment in the Designated Place**



**Segregation of BMW Inside the Ward**



**BMW In Coloured Bin**



**BMW In Coloured Bin**

**Annexure-II**

**INSPECTION REPORT OF SV.PATEL POST GRADUATE INSTITUTE OF PEDIATRICS WITH REFERENCE TO THE ORDER OF HONBLE HIGH COURT.**

**Date of inspection: 04.02.11**

The health care unit was inspected without notice as per the order of Honble High Court on the above date. During my inspection Dr. B. K. Behera, Deputy Superintendent was present. Biomedical waste being generated by the hospital in different points are given below.

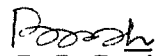
Sl.No	Department/ Ward	No.of points	Category of waste generated
1	Old Medical Ward	1	1,4,6,7,8
2	Ward no-2	1	1,4,6,7,8
3	Old surgery and OT	1	1,4,6,7,8
4	New surgery and OT	1	4,6,7,8
5	PICU & NICU	1	1,4,6,7,8
6	Pay bed	1	1,4,6,7,8
7	New born	1	1,4,6,7,8
8	Micro Biology / pathology/ Bio chemistry	1	1,3,4,6,7,8
9	Minor OT & OPD	1	1,4,6,7,8

The undersigned had inspected the following wards.

1. Old Medical & New Medical Ward
2. Surgery Ward.
3. Biomedical Treatment Plant
4. Major & Minor Operation Theatre.
5. Pediatrics ICU & New Nodal ICU.
6. New born

Collection and segregation of the wastes in the above wards were found to be made as per the Rules. A coloured container as per the colour code has been provided. The wastes are collected and kept in the bins and finally taken by the staffs of M/S Mediad Marketing Services for necessary treatment and disposal. Biomedical wastes were found to be segregated from the general waste category. Overall practice followed for collection and segregation of wastes in different wards were found to be satisfactory except the liquid effluent.

The Biomedical wastes collected from the hospital was found to be treated by M/S Mediad Marketing Services in the premises of Biomedical Treatment plant operated by them. The incinerable waste is taken for incineration in the premises of S.C.B. Medical College & hospital. Record on the quantity of wastes collected from the hospital is being maintained on daily basis. Overall management aspect made by the unit is found to be satisfactory.

  
Dr. B. B. Dash  
Asst. Env. Scientist

**INSPECTION REPORT OF SV.PATEL POST GRADUATE INSTITUTE OF PEDIATRICS WITH REFERENCE TO THE ORDER OF HONBLE HIGH COURT.**

**Date of inspection: 14.02.11**

The health care unit was inspected without notice as per the order of Hon'ble High Court on the above date. During my inspection Dr. H. K. Mohanty, Superintendent of Hospital was present. Biomedical waste being generated by the hospital in different points are given below.


Sl.No	Department/ Ward	No.of points	Category of waste generated
1	Old Medical Ward	1	1,4,6,7,8
2	Ward no-2	1	1,4,6,7,8
3	Old surgery and OT	1	1,4,6,7,8
4	New surgery and OT	1	4,6,7,8
5	PICU & NICU	1	1,4,6,7,8
6	Pay bed	1	1,4,6,7,8
7	New born	1	1,4,6,7,8
8	Micro Biology / pathology/ Bio chemistry	1	1,3,4,6,7,8
9	Minor OT & OPD	1	1,4,6,7,8

The undersigned had inspected the following wards .

1. Medical Ward (Old & New).
2. New born
3. Biomedical Treatment Plant
4. New Surgical Ward.
5. Pediatric ICU & Neo Nodal ICU.

The collection and segregation of the wastes in the above wards were found to be made as per the Rules. Coloured containers as per the colour code has been provided. The wastes are collected and kept in the bins and finally taken by the staffs of M/S Mediad Marketing Services for necessary treatment and disposal. The Biomedical wastes were found to be segregated from the general waste category. Overall practice followed for collection and segregation of wastes in different wards were found to be satisfactory except the liquid effluent.

The Biomedical Wastes collected from the hospital was found to be treated by M/S Mediad Marketing Services in the premises of Biomedical Treatment plant operated by them. The incinerable waste is taken for incineration in the premises of S.C.B.Medical College & hospital. Record on the quantity of wastes collected from the hospital is being maintained on daily basis. Overall management aspect made by the unit is found to be satisfactory.

  
Dr. B. B. Dash  
Asst. Env. Scientist



**INSPECTION REPORT OF SV.PATEL POST GRADUATE INSTITUTE OF PEDIATRICS WITH REFERENCE TO THE ORDER OF HONBLE HIGH COURT.**

**Date of inspection: 23.02.11**

The health care unit was inspected without notice as per the order of Honble High Court on the above date. During my inspection Mrs Rukmini Panda, Sister of the unit and Sri Kalandi Behera from Midiad Marketing Services were present. Biomedical waste being generated by the hospital in different points are given below.

Sl.No	Department/ Ward	No.of points	Category of waste generated
1	Old Medical Ward	1	1,4,6,7,8
2	Ward no-2	1	1,4,6,7,8
3	Old surgery and OT	1	1,4,6,7,8
4	New surgery and OT	1	4,6,7,8
5	PICU & NICU	1	1,4,6,7,8
6	Pay bed	1	1,4,6,7,8
7	New born	1	1,4,6,7,8
8	Micro Biology / pathology/ Bio chemistry	1	1,3,4,6,7,8
9	Minor OT & OPD	1	1,4,6,7,8

The undersigned had inspected the following wards .

1. Old surgery Ward
2. New born
3. Biomedical Treatment Plant

Collection and segregation of the wastes in the above wards were found to be made as per the Rules. Coloured containers as per the the colour code has been provided. The wastes are collected and kept in the bins and finally taken by the staffs of M/S Mediad Marketing Services Ltd for necessary treatment and disposal. Biomedical wastes were found to be segregated from the general waste category. Overall practice followed for collection and segregation of wastes in different wards were found to be satisfactory except the liquid effluent.

Wastes collected from the hospital was found to be treated by M/S Mediad Marketing Services in the premises of Biomedical Treatment plant operated by them. The incinerable waste is taken for incineration in the premeises of S.C.B.Medical College & hospital. Record on the quantity of wastes collected from the hospital is being maintained on daily basis. Overall management aspect made by the unit is found to be satisfactory.

*Dr. A.A.K. Chatterjee*  
23/02/11  
Dr.A.A.K. Chatterjee  
Regional Officer  
Cuttack

**PHOTOGRPHS ON MANAGEMENT OF BIOMEDICAL WASTE IN SISHU BHAWAN,, CUTTACK**



**Seggregation of Waste Category No-7**



**Microwave for Treatment of BMW**



**Dismantle of General Waste Collection Point Used Earlier**



**Segregation Practice of BMW Followed**



**Needle Cutter and Segregation Practice**



**BMW in Coloured Bin**