EXECUTIVE SUMMARY

11.1. INTRODUCTION

Instromedix Waste Management Pvt. Ltd proposes a Common Bio-Medical Waste Treatment Facility (CBWTF) established at Khasra No. 400, Village Rampuraoonti, Tehsil Sanganer Jaipur, Rajasthan. The project covers an area of approximately 16188 sq. m (1.6188 Ha).

The project involves development of Common Bio Medical Waste Treatment Facility which is categorized under Item7 (d) (a) of the Schedule-Gazette Notification dated 17.04.2015.

The project site has been owned Instromedix Waste Management Pvt. Ltd for establishing a Common Bio Medical Waste Treatment Facility (CBWTF) in Jaipur Rajasthan. This is a plain land area. The site is well connected by road network, power supply and other necessary facilities required for CBWTF.

11.2. PROJECT DESCRIPTION

11.2.1. Project Details

S. No.	Particulars	Details
1.	Project	Proposed Common Bio-medical Waste Treatment Facility (CBWTF), Jaipur Rural
2.	Site Address	Khasra No. 400, Rampuraoonti Village, Tehsil Sanganer Jaipur
3.	Promoter	Instromedix Waste Management Pvt. Ltd
4.	Plot area (sq. m.)	16188 sq. m (1.6188 Ha)
5.	Greenbelt & Plantation Area	5827.68 sq. m (36 %)
6.	Geographical Coordinates	1.26°46' 38.79"N 75°30'49.69"E 2.26°46'46.28"N 75°30'50.57"E 3.26°46'46.03"N 75°30'53.00"E 4.26°46'38.26"N 75°30'52.10"E

<table>
<tr><th>S. No.</th><th>Particulars</th><th>Details</th></tr>
<tr><td>7.</td><td>Project capacity</td><td>As under:-
<table>
<tr><th>Particular</th><th>Capacity</th><th>Nos.</th></tr>
<tr><td>Incinerator</td><td>300 kg/hr</td><td>1</td></tr>
<tr><td>Autoclave</td><td>100 Kg/Hour</td><td>1</td></tr>
<tr><td>Shredder</td><td>100Kg/Hour</td><td>1</td></tr>
<tr><td>Ash Pit</td><td>-</td><td>1</td></tr>
<tr><td>Sharp Pit</td><td>-</td><td>1</td></tr>
<tr><td>Effluent Treatment Plant</td><td>10 KLD</td><td>1</td></tr>
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<tr><td>8.</td><td>Areas catered</td><td>Health care facilities located in Jaipur (rural) & Dausa Districts of Rajasthan.</td></tr>
<tr><td>9.</td><td>Healthcare units</td><td>Health care units, Jaipur (Rural) : 661 nos.
Health care units, Dausa : 379 nos.</td></tr>
<tr><td>10.</td><td>No of beds</td><td>8392 nos.</td></tr>
<tr><td>11.</td><td>Estimated Biomedical waste</td><td>3200 Kg/day Approx</td></tr>
<tr><td>14.</td><td>Project cost</td><td>Rs. 3.50 Crore</td></tr>
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11.2.2. Waste Water Generation

Approximately 5.2 KLD water effluents will be generated from all sources such as Venturi Scrubber, Floor Washing, Vehicle/ Container Washing etc. and the same is treated in ETP and after treatment the treated water is recycled and reused in the Quencher as well in Air Pollution Control Device (Venturi Scrubber).

11.2.3. Air Emission & Air Pollution Control Measures Details

The sources of air pollution from the proposed project are particulate matter, nitrogen oxides, sulphur dioxide, Carbon monoxide, etc. The facility is provided with appropriate air pollution control device (Venturi Scrubber) for reducing the pollutants and also a stack height is provided for proper dispersion of the air pollutants. Adequate stack height will be provided to each D.G. set (3.5 m) and Incinerator (30 m).

11.2.4. Solid Waste Generation & Disposal

Solid waste generated during the biomedical waste treatment process and wastewater treatment process is mainly ash and sludge which is generated depending upon the hydraulic load. Municipal solid wastes generated from the proposed project are estimated to be 4 kg/day. Sludge will be disposed in secured landfill. The disinfected plastic waste will be sent for recycling to registered recycler.

11.3. DESCRIPTION OF THE ENVIRONMENT

11.3.1. Introduction

The baseline environmental quality of Air, water, soil, noise, socioeconomic status and ecology has been assessed in the period of December 2021 to February 2022 in the study area of 10 km radial distance from the project site.

11.3.2. Environmental Setting

Particulars	Details
Nearest Village	❑ Rampura : 1.7 Km towards SSE
Nearest Town/City	❑ Bagru : 4.2 Km towards NE
Nearest Railway Station	❑ Bobas Junction :13.9 km towards NNW ❑ Jaipur Junction : 31.3 km towards ENE
Nearest Highway	❑ NH 48 : 4.2 Km towards NNW ❑ Bagru - Jhag Road : 1.1 Km towards SE
Nearest Airport	❑ Jaipur International Airport : 29.0 Km towards ENE
River	❑ Sardiya Nadi : 2.3 Km towards NNE ❑ Hingoniya Sagar : 4.9 km towards WSW ❑ Bandi Nadi : 6.7 Km towards SSW
RF/ PF/ Wildlife Sanctuary, national Park, Elephant Corridor, Tiger Reserve etc	None Within the 15 kms radius of the project site.

11.3.3. Base Line Data

Baseline study was carried out during December 2021 to February 2022.

- **Ambient Air Quality**
  - **Respirable Particulate Matter (PM_{10})**

    A maximum value of 79.82 µg/m³was observed at project site and minimum value of 53.4 µg/m³ was observed at the Sherpura .The average values were observed to be in the range of 57.17µg/m³to 70.01µg/m³. All the values were well within the prescribed limit of CPCB.

  - **Particulate Matter ($PM_{2.5}$):**

    A maximum value of 45 µg/m³ was observed at Syosinghpur and minimum value of 19.21µg/m³ was observed at Nayabas . The average values were observed to be in the range of 34.09 µg/m^{3}to 43.23 µg/m^3. All the values were well within the prescribed limit of CPCB.

  - **Sulphur Dioxide (SO_2)**

    Maximum concentration of SO2 is observed to be 18.5 µg/m3 at nariya & minimum value of 5.84 µg/m3 observed at Bagru. The average values were observed to be in the range of 7.70µg/m3to 13.87 µg/m3. All the values are well within the prescribed limit of CPCB.

  - **Nitrogen Dioxide (NO_2)**

    Maximum concentration of NO_2 is observed to be 20.31 µg/m^3 at the Nariya & minimum value of 9.45µg/m³ were observed at Bagru. The average values were observed to be in the range of 17.41 µg/m³to 25.86 µg/m³. All the values were well within the prescribed limit of CPCB.

➢ **Water Quality Monitoring**

- During the study period, pH values observed were in the range of 7.36 to 7.71
- Total dissolved solids in the range of 1411.1 mg/l to 2715 mg/l
- Calcium values observed were in the range of 120.95 mg/l to 128.50 mg/l.

11.3.4. Surface Water

- During the study period, pH values observed were in the range of 7.35 to 7.68 with total dissolved solids in the range of 242 mg/l to 270 mg/l and the hardness values observed were in the range of 164 mg/l to 210 mg/l. The dissolved oxygen values are in between 6.2 mg/l to 7.8 mg/l, while the BOD levels are in the range of 8.8 to 10.2 mg/l and the COD values were in range 21mg/l to 36mg/l.

➢ **Background Noise Level**

Ambient noise levels were measured at 8 locations around the proposed project site. Minimum and maximum noise levels recorded during the day time were from 58.4 dB and 50.5dB respectively and Minimum and maximum level of noise during night time was 36.5 dB and 41.2 dB respectively.

➢ **Soil Quality**

- Texture of the soil samples is generally sandy.
- Water holding capacity of soil samples were in range of 32.85 % to 38.75 %.
- pH of the soil samples ranged from 7.7 to 7.81.

➢ **Socio Economic Study**

In the study area, there are 14774 households of which 3.43 % household's falls in 0 to 2 km, 49.93% household's in 2 to 5 km , 11.62% household's in 5 to 7 km and 35.01% household's in 7 to 10 km respectively. The total population falling in the project area is 91980 of which 3.56 % resides within 0 to 2 km, 48.74% are in 2 to 5 km , 11.70% are in 5 to 7 km and 36.00 % in 7 to 10 km. The total male population

consists of 51.62 % and female population accounts to be 48.38 % of the total population. The sex ratio of the 10.0 km study area is 937 females over thousand males. There are approx 4 to 6 members in a family. The 0-6 population comprises of 14.49% of the total population of the study area. The sex ratio of 0-6 population is 870 females over thousand males.

- **Biological Environment**

Within the study area of 10 km radius of the project site, there is no any reserve forest and protected forest from project site.

- **Floral Diversity of the Study Area**

The tree species commonly occurring in the study area were Desi babul, Khejari, Neem and Shisham, etc. Among the tree, approx 27 species of trees were seen and no rare or endangered flora was observed.

- **Faunal Biodiversity of the Study Area**

For the documentation of the faunal biodiversity of the study area with respect to birds, reptiles, amphibians, and butterfly species, a detailed survey had been conducted. Schedule-I fauna was observed in the Buffer zone of the study area.

11.4. Anticipated Environmental Impacts & Mitigation Measures

Due to this facility, there is minor increment in the air pollution due to the air emissions like PM, SO_2, NOx from the stack attached to incinerator facility. Entire liquid waste water generated from the facility is treated through ETP and treated water is used in the development of internal green belt to follow zero discharge concept. Biomedical waste, generated from a number of healthcare units, is imparted necessary treatment to reduce adverse effects that this waste may pose. The treated waste may finally be sent for disposal in a landfill or for recycling purposes.

The solid waste at the CBWTF would be ash from incinerator, sludge from ETP and mercury waste from bio medical waste. All these waste would be sent to the nearest TSDF.

11.5. Environmental Monitoring Programme

Regular monitoring of environmental parameters like air, water, noise and soil as well as performance of pollution control devices and safety measures in the facility proper environmental management is carried out periodically as recommended for proper environmental management.

11.6. Additional Studies

Risk Assessment

The management is very much aware of their obligation to protect all persons at work and others in the neighborhood that may be affected by an unfortunate and unforeseen incidence occurring at the CBWTF. Any hazard either to employees or others arising from activities at the facility shall, as far as possible, be handled by the management of the company and prevented from spreading any further.

11.7. ENVIRONMENTAL MANAGEMENT PLAN

The management team is very much concerned about environmental issues. All the environmental components are looked out. Mitigation of environmental impacts has to be implemented according to the suggestions and is monitored regularly to prevent any lapse.

11.8. CONCLUSION

Company is committed to implement all the pollution control measures to protect the surrounding Environment. Projects like this certainly improve the living standard of local people. The implementation of this project definitely improves the physical and social infrastructure of the surrounding area.

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