

Health Care Risk Waste Treatment Figures for 2014

What is health care risk waste?

Health care risk waste (HCRW) is defined as waste which is produced in the diagnosis, treatment or immunization of human beings or animals, or waste that has been in contact with blood, body fluids or tissues from humans or animals from veterinary practices. It normally emanates from households, public and private health care (HC) institutions and institutions offering hygiene services. HCRW includes infectious materials, sharps, pharmaceutical wastes, pathological waste, laboratory waste, chemical waste and genotoxic waste.

What are the potential impacts of HCRW?

Due to its infectious and hazardous properties this waste poses a threat to human health and the environment and must be managed appropriately. Exposure could be caused through a variety of routes such as punctures, abrasions or cuts in the skin, inhalation through mucous membranes and ingestion. All individuals exposed to HCRW are potentially at risk, including those within health care institutions, waste contractors who collect, transport and manage this waste and those who are exposed to it as a consequence of careless management and illegal disposal. HCRW is required to be treated prior to final disposal at a landfill.

What is the treatment capacity available and how much HCRW was treated in 2014?

In order to provide reliable statistics on treatment capacity for planning purposes, DEA keeps a database of licensed treatment facilities that are in operation and their treatment capacities which have been provided in their waste management licence (WML) applications. The database is updated with new facilities as they are licenced and become operational. In order to determine the actual volume of HCRW treated, in terms of the conditions of the WML, facilities are required to provide monthly reports that are signed off by the Chief Executive Officer. In 2014 there were 12 licenced HCRW treatment facilities operating in South Africa. These facilities had a combined treatment capacity of approximately 5 840 tonnes per month assuming all facilities were operating at 80 per cent capacity, providing an annual treatment capacity of approximately 70 080 tons per annum.

Table 1: Volume of HCRW treated at Licensed HCRW Treatment Facilities

| NUMBER OF LICENSED HCRW TREATMENT FACILITIES | |
|--|--------------------------------------|
| Number of incinerators in operation | 6 |
| Number of non-burn technologies in operation | 6 |
| Combined design treatment capacity (if operating at 80% of design capacity) ¹ | 70 080 tons/annum 5840 tons/month |
| VOLUME TREATED IN 2014 | |
| Volume of HCRW treated by incineration | 13 066 tons |
| Volume of HCRW treated by non-burn technologies | 31 073 tons |
| Total volume treated | 44 139 tons |
| Average monthly volume treated | 3678 tons/month |

¹ An assumption is made that the each treatment technology does not exceed 80% of its design capacity given the heterogeneous nature of HCRW.

Based on the HCRW generation rate estimated in a 2008 study undertaken by the DEA (Survey of Generation Rates, Treatment Capacities and Minimal Costs of Health Care Waste in the 9 Provinces of RSA) and applying an annual increase of 1.5% (based on the actual annual population growth rate of 1.06 per cent) approximately 46 800 tonnes of HCRW was anticipated to be generated in 2014. According to the records of the volume of HCRW treated in 2014 of 44 139 tons and the available treatment capacity of 70 080 tons there was 25 941 tons (37%) spare treatment capacity available.

Table 2: Contact details of licensed HCRW treatment facilities currently in operation

| NAME | ADDRESS | TECHNOLOGY | CONTACT DETAILS |
|---------------------------|--------------------------------|--------------|---|
| A-Thermal | Olifantsfontein Gauteng | Incineration | Mr Nicolas Eleftheriades Managing Director 011 – 316 1800 083 417 3655 Nicolas@athermal.co.za |
| BCL | Brentwood Park Western Cape | Incineration | Ms Karin Mathews Managing Director 021 – 955 2447 082 772 7709 |
| Biomed | Benoni Gauteng | Incineration | Mr Motlatso Mabeba Environmental Manager 011 – 845 2521 083 356 1464 mbmabeba@yahoo.com |
| Cecor Allied Technologies | Olifantsfontein Gauteng | Non-burn | Mr Sherwin Naicker Managing Director 011 – 316 1800 083 286 7920 sherwin@cecor.co.za |
| ClinX | Wadeville Gauteng | Incineration | Mr Ernest Botha National Sales Manager 011 – 902 9700 081 040 0030 ernest@clinx.co.za |

| NAME | ADDRESS | TECHNOLOGY | CONTACT DETAILS |
|--------------------------------------|---------------------------|--------------|--|
| Compass Waste Services | Berlin Eastern Cape | Non-burn | Mr Geoff Heath Regional Manager 043 – 685 2242 082 882 4026 geoff@compass.za.net |
| Compass Waste Services | Westmead Kwazulu Natal | Non-burn | Mr Graham du Randt KZN Regional Manager 031 – 700 5655 082 802 8643 graham@compass.za.net |
| Eastern Cape Incineration Services (| Roodepoort Gauteng | Incineration | Mrs Makgabo van Niekerk Public Relations Manager 011 – 7481657 082 469 2063 makgabovn@enviroserv.co.za |
| Ecocycle Solutions | Mkondeni Kwazulu Natal | Non-burn | Mr Jason Bell Chief Operations Officer 033 – 346 2774 082 454 2774 Jason@ecocyclewaste.co.za |
| Optimum Waste | George Western Cape | Incineration | Mr Jan Engelbrecht Occupational Health and Safety Officer 087 350 7017 info@optimumwaste.co.za |
| Solid Waste Technologies | City Deep Gauteng | Non-burn | Mr Marco Stemmet Plant Manager 011 – 613 2091 071 895 8700 marco@swtsa.co.za |

| | | | |
|--------------------------|-----------------------------------|--------------|--|
| Solid Waste Technologies | Killarney Gardens Western Cape | Non-burn | Mr Marco Stemmet Plant Manager 021 - 556 9167 071 895 8700 marco@swtsa.co.za |
| Wasteman | Klerksdorp North West | Incineration | Mr Jaco Kruger Branch Manager 018 – 462 0841 082 771 1676 jkruger@wasteman.co.za |

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