

# DEVELOPMENT OF TENDER DOCUMENTATION FOR THE OUTSOURCING OF HEALTH CARE RISK WASTE MANAGEMENT SERVICES TO PROVINCIAL HOSPITALS AND CLINICS IN GAUTENG PROVINCE

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In January 1999 *Kobus Otto & Associates Waste Management Consultants* was founded which was subsequently appointed for a number of local as well as international waste management projects, varying from waste management strategies for remote rural communities like that of Ovambo, to the joint development of a Sustainable Health Care Waste Management System for Gauteng.

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## **ABSTRACT**

Outsourcing of specialised public services in South Africa is not only considered to be a cost effective and sustainable way of service delivery, but it is also forming part of national governments policy on delivery of services. Although outsourcing of Health Care Waste (HCW) management services to the 28 provincial hospitals and 140 provincial clinics in Gauteng was practised for quite some time, serious shortcomings were identified and need to be addressed in the next tender. Since the development of tender specifications formed part of the Project on "Sustainable Health Care Waste Management in Gauteng", it created the opportunity to rectify operational, legal and commercial problems that may have been experienced in the past, whilst also allowing for the introduction of the proposed new Health Care Risk Waste (HCRW) Management Systems and equipment tested during the pilot projects. In parallel the Gauteng Department of Agriculture, Conservation and Land Affairs is developing new HCW Management Regulations that will be setting significantly stricter requirements for the containerisation, transportation and particular treatment of HCRW in the Province and this alone would require a new and more comprehensive approach to the coming HCW Management tender.

The process of developing tender documents started off by conducting a comprehensive needs analysis, not only amongst the Health Care Facilities (HCF's) receiving the services, but also amongst the HCRW industry that previously tendered for the rendering of the HCRW management services. Inappropriate tender documentation, poor definition of tender requirements and poor performance monitoring during service delivery were considered to be the core of many of the problems identified.

The evaluation of the pilot projects for improved HCWM systems tested at Leratong Hospital (Krugersdorp) and Itireleng Clinic (Soweto) was the key informant for setting of technical and service delivery specifications for the Tender. It also provided a realistic verification of the findings of the HCWM Feasibility Study that was conducted as a desktop study before the pilot projects were designed in detail.

Having identified the key role-players in the Gauteng Department of Health (GDoH) that were to participate

in the tender development process, the focus moved to the identification and evaluation of a number of alternative tender scenarios. Such scenarios amongst others included the possible breakdown of tenders according to specialist service delivery, according to provincial regions as well as varying contract terms. The feasibility of the different scenarios was then evaluated against the available resources and constraints within the GDoH to ensure effective contract management subsequent to the awarding of contracts.

In Gauteng a new central procurement department has been established who, on behalf of the Department of Health, will be responsible for the practicalities of the tender letting as a service provider to the department and in an effort to streamline provincial procurement. In line with the new provincial procurement policy the Gauteng Shared Service Centre (GSSC) will develop the Conditions of Tender and the Conditions of Contract whereas the actual Tender Specifications are developed by the consultants in a consultative process with the HCF's and the service industry. Amongst the key concerns is the establishment of a new billing system that would be based on a combination of volume / mass measurement, considered to be a more appropriate system than the volume system used in the past.

## **INTRODUCTION**

Although rendering of HCW management services at facilities like hospitals and clinics was historically considered to be part of health care service delivery, there was during the last decade a strong move towards outsourcing of specialised services, thus allowing HCF's to focus on its core business, i.e. rendering of health care services. Even though larger hospitals were in the past all equipped with incinerators of varying sizes and varying levels of efficiency, the situation dramatically changed with the setting of new environmental standards for treatment of HCRW in Gauteng. The standards set for onsite treatment is making the supply and operation of small-scale treatment facilities uneconomical, thus resulting in the phasing out of onsite treatment facilities.

With outsourcing of public services forming part of national government's policy on delivery of services in South Africa, there are not only economical and technical reasons for HCRW management services from provincial hospitals and clinics to be outsourced, but there is also a political drive behind the process. Having said that, it is to be recognised that even though outsourcing of various services can be done quite effectively, the necessary mechanisms are to be put in place to execute strict financial control whilst also monitoring the contractor's performance throughout the contract period. Although outsourcing of HCRW management services to the 28 provincial hospitals and some 140 provincial clinics in Gauteng was practised for some time already, serious shortcomings in the previous systems were identified that had to be addressed before any further tenders could be floated.

With the development of tender specifications forming part of the project on "Sustainable Health Care Waste Management in Gauteng", it not only created the opportunity to incorporate the proposed new HCRW management system and equipment to be used, but it also provided the opportunity to rectify operational, legal and commercial problems experienced in the past. In ensuring that the new HCRW management system would be sustainable and appropriate for the particular application, two Pilot Studies were undertaken for the full-scale testing of the proposed new systems, and the results from these studies were ultimately used in developing the Tender Specification.

To provide an end product that would not only meet the requirements of the Gauteng Department of Health's (GDoH) procurement section, but also that of the HCF's where the services are to be rendered, a comprehensive consultation process was embarked upon. By including the HCW management industry in the consultation process where appropriate, it ensured that the Tender Specifications would be achievable in a cost effective and sustainable manner.

## **CURRENT HCRW MANAGEMENT SERVICE DELIVERY IN GAUTENG**

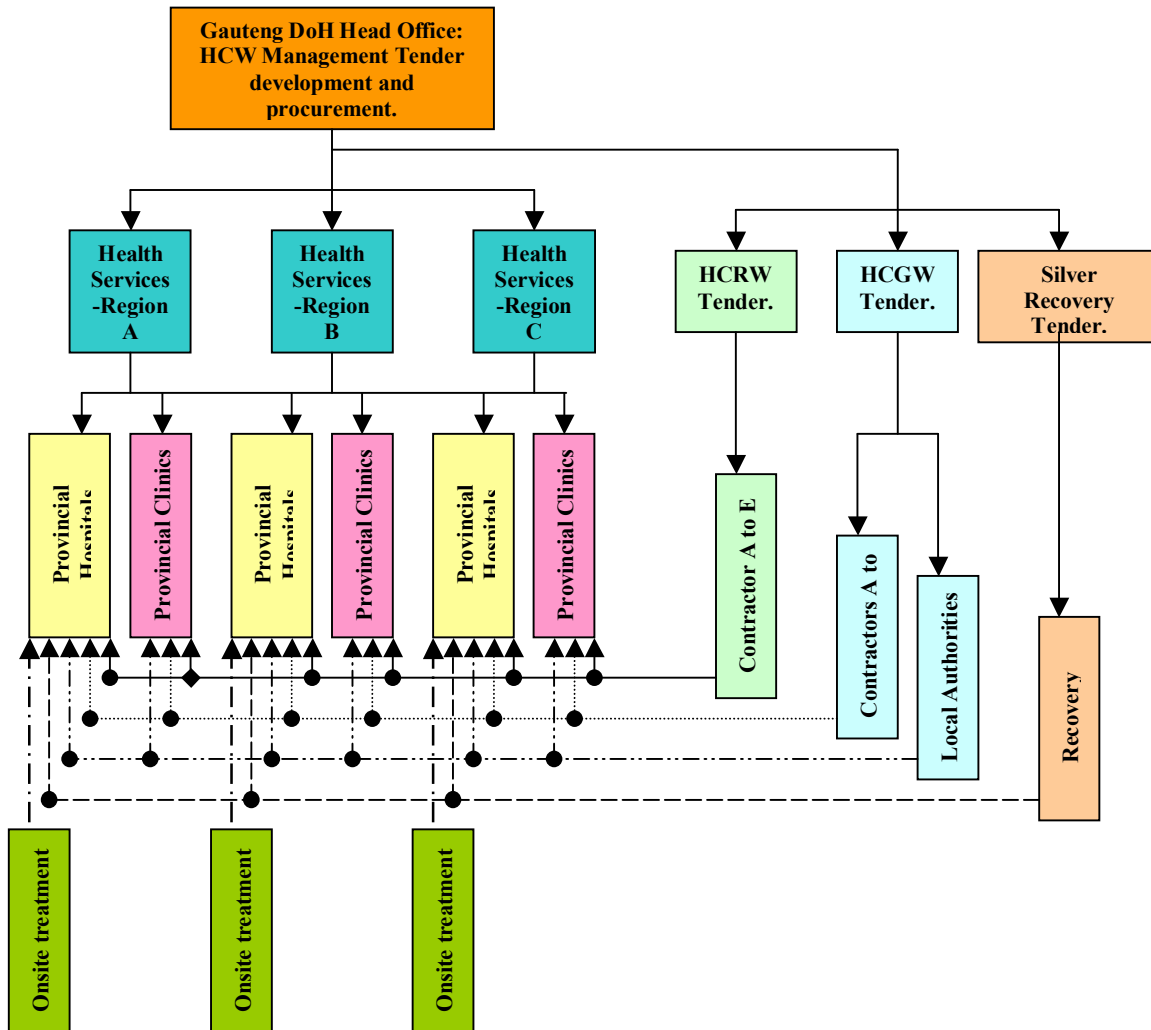
Even though there were a number of HCF's with onsite HCRW treatment facilities at the time of the Status Quo Study undertaken in the year 2000, the bulk of the HCRW was treated under contract at private regional treatment facilities. The GDoH Head Office was responsible for the development of tender documentation and tender letting, whilst the Gauteng Tender Board was responsible for the award of contracts. Once the tenders were awarded, the appointed contractors were to deal directly with the respective HCF's, with limited input from GDoH Head Office. The latter party only become involved where gross misconduct by the contractor was reported by any of the HCF's to Head Office.

Previous tenders subdivided Gauteng according to the 5 administrative Health Regions, with all provincial HCF's in each of the respective Regions forming independent service areas. Although the Gauteng Tender

Board initially awarded contracts for the 5 Regions to 4 independent contractors, the allocation was subsequently changed as a result of strategic changes in the industry. One contractor is therefore now responsible to service four of the five Regions, with the fifth Region being serviced by a second contractor. The scope of work for the previous tenders included the supply of disposable plastic and cardboard HCRW containers, collection and transport thereof as well as HCRW treatment and disposal of residues. All costs associated with the services were paid for upfront by including it in the price of the disposable containers.

The supply of disposable containers as well as the provision of treatment facilities was in all instances subcontracted by the main contractors, who were mainly responsible for the distribution of disposable containers and the collection and transport of HCRW. Only limited specifications were provided in the previous tenders and no treatment efficiency or emission standards were set. In accordance with the contracts that followed on from those tenders, the GDoH only had limited influence over the design and functionality of the disposable containers being supplied, the treatment technology being used or the treatment standards required.

In all previous tenders, HCRW management services were outsourced separate from Health Care General Waste (HCGW) management services. Since many local authorities claim sole right to the rendering of general waste collection services in its respective areas of jurisdiction, it was impossible to award HCGW management contracts on a regional basis and contracts were therefore placed for individual HCF's, irrespective of whether HCGW services are to be rendered by local authorities or by private contractors. The HCGW management service contracts sometimes also included limited elements of material recovery for recycling, whereas silver recovery from X-rays was awarded to one single Specialist Silver Recovery Contractor for the whole of Gauteng.



**Figure 1 :** Schematic illustration of the interaction between the Gauteng DoH head office, the Gauteng DoH regional offices, the health care facilities and the waste management service providers.

After the awarding of contracts, hospitals became responsible for the management of their respective HCRW management contracts, whereas the Regional offices managed the contracts on behalf of the clinics jointly. Some clinics were however, for the purpose of service delivery, linked to closely situated hospitals. Hospital and clinic staff was further also responsible to undertake the performance monitoring of contractors, even though in many instances there were limited capacity both in terms of expertise as well as in resources to undertake such performance monitoring.

All disposable containers, including plastic liners, were ordered directly from the respective contractors. Special services not allowed for in the awarded contracts, for instance the supply of long sharps containers, were sometimes negotiated on an ad hoc basis between the HCF and the contractor. In addition to this, some HCF's chose to independently appoint third parties to render parts of the HCW Services, despite the province wide tender that was issued and awarded to particular companies for the different Health Regions.

With the previous HCW management contracts expiring on 31 March 2003, the need was identified for the contracts to be extended, thereby ensuring uninterrupted service delivery whilst the outcome of the Pilot Studies was awaited.

## **NEEDS ANALYSIS**

The process for development of Tender Specifications started off by undertaking a comprehensive needs analysis, not only amongst the HCF's where the services were rendered, but also amongst the HCRW management industry previously tendering for outsourcing of the required services. By using the previous tender document as a starting point, a wide range of problems was identified. Problems varied from the supply of inappropriate containers to HCF's to the use of both onsite and offsite HCRW treatment facilities that were not environmentally sound.

By consulting with the GDoH (client) as well as contractors (service providers) involved in the previous tenders, a balanced overview was obtained of problems experienced in practice, not only in terms of the procurement process, but also in terms of effective contract management and perceived service delivery. It became apparent that in the past, tender documents were to a large extent developed around the capabilities of the service providers, rather than around the needs of the respective HCF's.

Although quite detailed, the list of shortcomings presented below were identified during the needs analysis and was subsequently used as a reference in developing the new tender specifications:

### **• Consultation and communication**

- Even though HCF's, for example in the form of infection control nurses from hospitals with vast practical experience that may have been valuable, HCF's were not consulted for any input during the previous tender development process;
- For any changes to the tender specifications proposed by members of the HCF's, motivation reports from the HCF's were to be submitted to the GDoH Head Office for approval;
- There was no formal system for lodging complaints and complaints raised by HCF's were not managed effectively, amongst others, as the time that lapse between the lodging of a complaint and the time when remedial action was taken by the contractor, was too long;
- There seemed to be a general lack of communication on HCW management matters between the GDoH Head Office, Regional offices and the HCF's. Information communicated between the HCF's and Head Office was not copied to the Regional offices, resulting in them not being aware of problems experienced at HCF's;
- It was unclear to HCF's as to what the roles and responsibilities of Regional offices and Head Office was regarding HCW management issues and in general who was responsible at individual HCF's, Regional offices and Head Office for HCW Management.

### **• Procurement**

- There was no penalty system or arbitration process, leaving contract cancellation as the only option in the event of poor performance by a contractor. Premature cancellation of tenders does however have significant financial and logistical implications for HCF's;
- Even though there was a desire by HCF's to have their needs collectively incorporated in the tender specification, individual HCF's could not have specifications developed to suite its own particular needs. However, in most cases the HCF's did not have capacity or the encouragement to submit

comments or requirements or in general to express its needs in terms of HCW Management.

- **Technical requirements**

HCF's were not consulted or given the opportunity to make individual or collective inputs towards the development of the technical specifications, with particular reference on the following matters:

- The types and sizes of HCRW containers supplied did not meet the individual needs of the clinics or hospitals. No long sharps containers were allowed for and there was a need for a greater variety of sizes of sharps' containers to suite the respective HCF's. Some ad hoc arrangements were made between HCF's and contractors to supply containers not allowed for in the contracts. Such contract modifications were introduced without any addenda or formal changes to contracts;
- The quality assurance for the supply of containers as well as HCRW management service delivery was ineffective. Specifications provided in the previous tenders were initially not adhered to by suppliers, which resulted in the need to withdraw sharps containers from HCF's. No container prototypes, drawings or product details were required during the tender process;
- The Head Office complaints system was not always effective in addressing complaints by infection control nurses. Complaints often took excessive time to be addressed;
- No sharps container brackets were allowed for in the tender, resulting in sharps containers often being placed on the floor, hanging from strings, being affixed using plaster, hanging from nails in the walls etc. New containers did not fit previously installed brackets;
- A particular and consistent problem was experienced by the new type of sharps' containers due the fact that the lids were very difficult to close leading to numerous cases of spillage of the contents. This was in some instances addressed by the issuing of rubber hammers to assist staff in closing the lids securely before use. The same problem was experienced with specican containers used for pathological waste.

- **Operations**

- A change in service providers required training on the new HCRW containers that were introduced. Since training was not allowed for in the tenders, no or very limited training was provided by the contractors;
- No allowance was made for the collection, transport, treatment and disposal of containers that remained from the previous contract. Since payment for collection, transport, treatment and disposal was already included in the price of such containers, new contractors could not be remunerated for removal of HCRW containers not collected by previous contractors subsequent to its contract expiry. There are still full sharps containers remaining at HCF's from the time when the previous contract expired in March 2000;
- HCRW removal was to be done daily in all instances where pathological waste was generated. This, however, was not always done due to the modest amounts generated, which resulted in odour problems at certain clinics in particular;
- The HCF's expressed a need for a HCRW tracking / verification system, that would enable the HCRW generators to verify that their HCRW is dealt with in a responsible manner. Such a system was in particular requested to control the transport and proper treatment / disposal of pathological waste to avoid it from being used by, for example, traditional healers. Pharmaceutical waste in the form of expired medicines is another specific waste stream to be tracked, as it sometimes end up being sold from informal shops;
- A manifest system was used to confirm that the contractor took responsibility for the HCRW collected from the HCF, with such information then used at the end of the month to verify the contractor's accounts;
- The impact of the planned transfer of clinics from the provincial government to local government was uncertain;
- The impact of metro/municipal bylaws on the GDoH's ability to achieve competitive tendering for HCRW management services was uncertain;
- HCGW services were in some instances provided by local authorities, whilst in other instances by private contractors. This created some confusion amongst HCF's in terms of who to deal with regarding HCGW matters.

- **Performance monitoring**

- HCF's were not clear on the performance monitoring procedures and complaints lodging systems

introduced by GDoH Head Office. Clarification on the HCRW management performance monitoring procedures were required;

- It was proposed that formal evaluation by HCF's of the existing contractor's performance be done before future tenders were awarded, based on written complaints lodged throughout the contract period;
- HCF's were informed of its responsibility to exercise duty-of-care in terms of HCRW management, i.e. they were to ensure that the contractor is dealing with their HCRW in a responsible and environmentally sound manner. HCF's indicated a need for performance monitoring guidelines for inspection of facilities;
- HCF's agreed that performance monitoring was to be done at HCF level, with reporting to Head Office and copied to the respective Regional offices;
- Duties and responsibilities on the side of the HCF's were also to be fulfilled, with contractors being given a line of communication for the lodging of complaints in the event of non-conformance by HCF's;
- The need for training and awareness was once again emphasized.

## • **Billing system**

Advantages and disadvantages of a *volume* versus *mass* billing system against the background of a need for a billing system that would be fair to both the HCF's and the HCRW management contractor are as follows:

### Volume Billing:

Advantages:

- Easy to verify the amount of waste collected by counting the number of containers in each category;
- Volume billing allows for the simplified prepaid system to be used;
- It ensures cost effective transport for the contractor, as the loading bay volume is paid for by the HCF's, irrespective of whether any effective payload is achieved;

Disadvantages:

- Volume billing is to the advantage of the contractors, as they get paid per volume, irrespective of the amount of waste inside the containers;
- For HCF's to maximise the benefit of volume billing, as much HCRW as possible is to be placed inside containers, which could result in injuries or infection when force is used to add HCRW to already full containers;
- Volume billing does not create an incentive for contractors to improve on the effectiveness with which container space is utilised;
- Volume billing does not provide accurate data on HCRW generation for any particular HCF.

### Mass Billing:

Advantages:

- HCF's will have better control over the actual HCRW generation rates and can monitor trends or effects of training and awareness programmes implemented in the respective HCF's;
- HCF's only pay for transport, treatment and disposal of the actual mass of HCRW being generated;
- Mass billing provides a control mechanism on the HCRW collected from the HCF, which, when compared to the HCRW mass delivered to the treatment plant (as required by the HCW Information System), can serve as a tracking system for HCRW generated at any particular HCF.

Disadvantages:

- Mass billing is more difficult to verify, as it will be required for all HCRW to be weighed at the HCF where it is to be verified by staff from the HCF;
- Mass billing cannot accommodate the prepaid system, as it is unknown at the time of delivery of containers what the mass of the container will be when collected;
- Mass billing may result in staff from HCF's not filling containers effectively, as the only financial loss would be the cost of the container. This could result in semi-full containers with inefficient payloads being transported.

### Combination of rate per container with an extra-over rate per kg of HCRW:

#### Advantages:

- This could provide a payment system that is fair to both parties since it will create an incentive for both the HCF as well as the contractor to make optimum use of the storage space inside HCRW containers, without having the incentive being so strong that it will justify unsafe practices during filling of containers.

#### Disadvantages:

- This would not overcome the need for scales to be provided to HCF's where mass recording is to be done with HCF staff required to verify the mass.

### General Billing Considerations:

- The prepaid system previously used was not considered to be viable as it was *inter alia* in contravention of the procurement regulations according to which no payment is to be made for undelivered services;
- Recording of container masses at the HCF's was considered to be problematic not only because of staff shortages, but also because of unavailability of scales. The likelihood of scale theft was also a concern;
- Implementing a billing system for the individual clinics was considered to be difficult, as the HCRW management services were administered by the Regional Offices;
- The opinion was expressed that South Africa should take pride in their work by being prepared to take on new challenges that could improve existing systems, rather than to continuously retreat because things are not considered to be viable for implementation in South Africa;
- The opinion was expressed that mass recording of waste would highlight HCRW management problems;
- It was suggested that during the Pilot Study HCF's be equipped with scales for the feasibility of mass recording at source and any proposed new billing system to be tested during the Pilot Studies;
- A proposal was put forward that a fixed rate per institution be requested for management of HCRW as well as HCGW, thus putting the responsibility on the contractor to train and motivate HCF staff to segregate waste more effectively to reduce the HCRW stream to be treated. Practical problems related to this were however identified;
- Possible changes to the bylaws of some local authorities could result in provincial HCF's being forced to make use of local authority HCRW management services in its area of jurisdiction. Combining HCGW and HCRW contracts may result in the HCGW part of the contract being affected by the bylaws, thus also impacting on the HCRW management.

## **HCRW CATEGORIES AND ESTIMATED GENERATION RATES**

For the purpose of defining the broader outlines of the HCRW management tender specification, information generated during the Status Quo Study as well as during subsequent investigations and consultations were used. The HCRW categories allowed for in the tender specification are as follows:

- Infectious waste: All kinds of waste that is likely to contain pathogenic micro-organisms;
- Pathological waste: Includes parts that are sectioned from a body;
- Sharps: Includes sharp and pricking objects that may cause injury as well as infection;
- Chemical waste: Includes all kinds of discarded chemicals, including pharmaceuticals that pose a special risk to human health or the environment;
- Special items: This category *inter alia* allows for items like contaminated mattresses to be disposed of, mercury from damaged thermometers and fluorescent tubes.

Since the Status Quo Study was only intended to record the number of each HCRW container type generated as well as the total mass thereof, without any detailed investigation of the waste categories contained within each of the respective container types, the waste generation rates could be subdivided according to the HCRW container types, i.e. cardboard boxes, specicans and sharps containers. Based on this information, as well as the fact that HCRW with distinct characteristics are generally contained in each type of container, the waste generation rates for (i) dry waste (infectious waste and dry chemical waste), (ii) wet waste (pathological waste and wet chemical waste) and (iii) sharps could be determined. A breakdown

of the HCRW generation rates for hospitals, clinics and minor HCW generators like general practitioners, dentists and veterinary surgeons in Gauteng are presented in Table 1 below:

Service	Ownership	Monthly HCRW mass (tons/month)	Assumed masses of dry, wet and sharps HCRW per month (tons/month)		
			Dry	Wet	Sharps
Hospitals	Public	430			
	Private, mining & military	460			
	Total (hospitals)	890	787 88,5%	66 7,5%	35 4,0%
Clinics	Public	150			
	Private	11			
	Total (clinics)	161	144 89,5%	0,8 0,5%	16 10,0%
Minor HCRW sources	Private	130	116 89,5%	0,7 0,5%	12 10,0%
			<b>Grand totals</b>	<b>1 181</b>	<b>1 048</b>

**Table 1 :** HCRW generation rates for various source categories, broken down into three primary HCRW groups, based on the type of containers used (November 2000).

In addition to information generated during the Status Quo Study, the evaluation of the Pilot Studies for improved HCW management systems tested at Leratong Hospital (Krugersdorp) and Itireleng Clinic (Soweto), was another valuable source of information for the setting of Technical Specifications and service delivery standards. It further provided a realistic verification of the findings of the HCW Management Feasibility Study that was conducted as a desktop study before the detailed design of the pilot projects was done. A comprehensive pilot project-monitoring programme was then used to feed the results from the Pilot Studies into the technical specification development process.

All of the aforesaid information was ultimately used to determine the quantities presented in the Schedule of Rates and Quantities, from which the estimated contract value could in turn be determined.

#### POSSIBLE INFLUENCES ON THE TENDER FORMAT

The following were some of the most prominent influences that were likely to have an impact on the format of the Tenders for outsourcing of HCRW management services:

- Revised Metropolitan Council bylaws: The legal standing of bylaws that could be aimed at preventing the outsourcing of HCW management services to private contractors in any particular local authority's area of jurisdiction was to be taken into consideration;
- Transfer of clinics to local authorities: The impact that this could have on the proposed new Tenders in terms of the current size of the contracts as well as the contractual implications resulting from future reductions in contract sizes;
- Extended contract periods: How effective would extended contract periods (say 5 years or longer) be and what would the impact be on HCRW management costs;
- Breakdown in Tenders: The way in which Tenders are to be split to ensure the highest possible standard of service delivery at an affordable price, whilst at the same time providing the mechanisms to manage a number of interfacing contracts.

#### SERVICES INCLUDED IN HCRW TENDER

After the affected HCRW streams were all defined, the next step was to reach an agreement on the types of services to be included in the HCRW management tender. Although the GDoH central stores already distributed a number of disposable items like plastic liners, concerns were raised during the needs analysis regarding the reliability of such supplies and the impact of unreliable supplies on the rendering of HCRW management services. The list of services required for inclusion in the tender were therefore as follows:



- Supply of reusable HCRW containers:

Even though only disposable HCRW containers were previously used in Gauteng, investigations undertaken during the Sustainable HCW Management project for Gauteng indicated that the use of reusable HCRW containers for certain categories of the HCRW stream is not only more cost effective, but is from an environmental as well as an occupational health and safety point of view the preferred option. Puncture resistant and leak resistant reusable containers were therefore to be introduced for the collection and transport of general infectious waste as well as pharmaceutical waste. Servicing and maintenance, as well as cleansing, disinfection and distribution of reusable containers were all included in the scope of work.

- Supply of disposable HCRW containers:

The sharps and speciman containers required for infected sharps and pathological waste, as well as the liners used for general infectious waste would all remain as disposable items. The risk of needle prick injuries and infection during the emptying, cleansing and disinfection of such containers to be reused is too big to be justifiable when compared to the potential saving. Allowance was also made for special containers like long sharps containers and large specicans to be used for amputated body parts. The large specicans were also to be used for waste generated in isolation wards.

- Optional supply of certain HCGW liners:

Although HCGW management would not form part of the HCRW management contract, the need was identified for HCGW liners to be supplied by the private contractor, as this was considered to be a reliable method of ensuring uninterrupted supply of such liners. By not having both HCRW as well as HCGW containers available in HCF's, it can be expected that HCW segregation would not be undertaken effectively, resulting in either HCRW or HCGW ending up in the wrong containers;

- Supply and installation of durables in the form of brackets, baskets and freestanding racks:

Supply and installation of compatible brackets to contain some of the rigid disposable sharps and speciman containers as well as baskets and freestanding racks for both HCRW and HCGW liners were also included in the tender. The contractor was also made responsible for maintenance thereof during the proposed contract term;

- Collection and transport of HCRW:

Collection and transport of HCRW from the HCF central storage areas to the approved HCRW treatment facilities forms a major part of the scope of work. Mass recording of waste during collection as well as compliance by the appointed contractors with the HCW Information System was also required. The contractors were further required to provide appropriate HCRW tracking systems;

- Treatment of HCRW:

Treatment of HCRW was specified to be at an appropriately permitted facility complying with the Gauteng DACEL HCRW Management Regulations. Both thermal as well as non-thermal treatment processes were allowed, provided that it met the required treatment efficiency and emission standards;

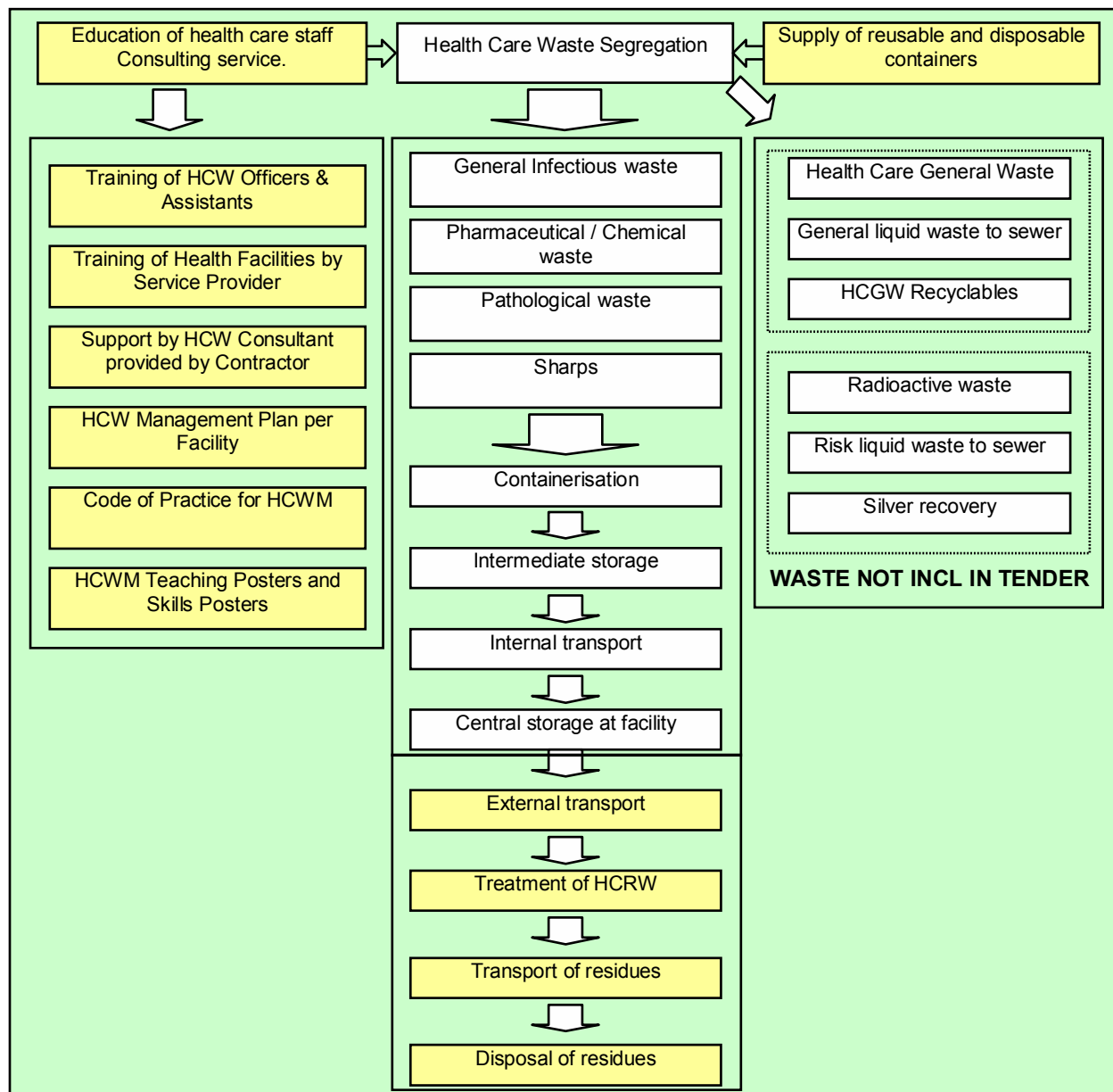
- Disposal of residues:

Residues from the treatment plants were to be transported to an appropriately permitted, developed and operated waste disposal site, all in accordance with the residue classification;

- Training and Consultancy Support:

The contractor was in its interface with HCF's required to provide a training programme and consultancy support service, with the purpose of enhancing safe and effective HCW management. This was *inter alia* aimed at effective HCW segregation and containerisation at source.

The scope of work is diagrammatically presented in figure 1 below, with activities indicated according the HCRW stream flow.



**Figure 2 : Services included in HCRW Tender**

### FORMAT AND STRUCTURE OF THE TENDER DOCUMENT

Having completed the needs analysis and having obtained clarity on the scope of work required by the tender document, a tender format and structure was to be developed in a way that could address the identified needs against the background of various institutional constraints and limitations. Even though the industry was asked to give input and provide comments during the needs analysis phase, its recommendations were only incorporated where it was considered to be reasonable and fair to both parties. It was ultimately to be ensured that the tender process is user driven and not supplier driven.

The focus therefore moved to the identification and evaluation of a number of alternative tender scenarios. Such scenarios *inter alia* included the possible breakdown of tenders according to specialist service areas, according to provincial regions as well as according to varying contract periods. The feasibility of the different scenarios was then evaluated against the resources available within GDoH to ensure effective contract management of the different contracts subsequent to its award.

The alternative scenarios investigated were as follows:

▪ **Geographical Split**

The following issues were considered in terms of the geographical split:

- Approximately 140 clinics and 28 hospitals allows for the award of one or more parallel contracts for the rendering of HCRW management services in Gauteng;
- A decision on the geographical split was to take cognisance of the number of service providers available in the market as well as their capacities and capabilities;
- An increased number of contracts would increase the GDoH's workload, as the project management responsibilities increased accordingly;
- One of the benefits of a geographical split was that it would facilitate competition in the market and allow for benchmarking of the various contractors during the contract period;
- A geographical split created the opportunity for more contractors to participate during rendering of HCRW management services.

<b>Geographical Split</b>		
<b>Type of Split</b>	<b>Advantages</b>	<b>Disadvantages</b>
One contract to service all of Gauteng.	<ul style="list-style-type: none"> <li>• Ease of single contract administration;</li> <li>• Potential for lower tender prices due to economies of scale;</li> <li>• Uniformity in standards and systems throughout Gauteng.</li> </ul>	<ul style="list-style-type: none"> <li>• No opportunity to compare or benchmark contractors;</li> <li>• Higher risk for GDoH if contractor fails to deliver;</li> <li>• High concentration in monopolized market;</li> <li>• Contract will be too big for potential newcomers.</li> </ul>
Separate contracts to service individual parts or regions of Gauteng (e.g. 3 Regions).	<ul style="list-style-type: none"> <li>• Contractors can be compared;</li> <li>• Competition in the market is sustained;</li> <li>• Opportunity for newcomers to enter the market.</li> </ul>	<ul style="list-style-type: none"> <li>• Administration workload is increased;</li> <li>• Prices could be higher due to a smaller volume of work.</li> </ul>
Individual contracts for each of the respective HCF's.	<ul style="list-style-type: none"> <li>• Customised service contracts to meet each HCF's particular needs;</li> <li>• Better control by creating the opportunity to alter / cancel individual contracts.</li> </ul>	<ul style="list-style-type: none"> <li>• Difficulties during tender letting;</li> <li>• Excessive prices due to small volumes of work with potential overlap and duplication;</li> <li>• Administration very complex.</li> </ul>

▪ **Process Split**

The following issues were considered in the evaluation of the process split:

- The need for direct control over the different processes in the HCRW flow;
- The GDoH's capacity to manage several individual contracts with various interfaces;
- The contract price for tenders broken down into specialist services components as compared to tenders allowing for the rendering of an integrated HCRW management system.

The various components considered in terms of process split were as follows:

- Supply of disposable containers (e.g. sharps containers, specicans, plastic liners, etc.);
- Collection and transport of HCRW (including distribution of disposable containers, plastic liners, etc.);
- HCRW treatment and disposal of residues;
- Training and consultancy support;
- Contract management (by Gauteng Shared Services Centre (GSSC) or the private sector).

<b>Process Split</b>		
<b>Type of Split</b>	<b>Advantages</b>	<b>Disadvantages</b>
One contract allowing for rendering the full spectrum of services from "Cradle-to-Grave"	<ul style="list-style-type: none"> <li>• Ease of administration due to single contract;</li> <li>• Most of the interfacing lies within one contract;</li> <li>• Price consequence unclear:               <ul style="list-style-type: none"> <li>- Larger contractors with all processes in-house could possibly offer lower tender prices due to larger contracts and reduced risks of interfacing.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• No direct control over subcontractors, which could lead to a lower service standards;</li> <li>• Price consequence uncertain:               <ul style="list-style-type: none"> <li>- Smaller contractors likely to make use of subcontractors, which could lead to higher prices due to handling fees;</li> </ul> </li> <li>• Larger contracts might limit the number of eligible tenders and thereby limit competition;</li> <li>• Contractor with expertise in one field may not necessarily be the best choice to manage all</li> </ul>

		components of the waste flow; • Limited chance of newcomers entering the market with such large contracts.
Separate contracts for: i) Supply of consumables, ii) Collection and transport of HCRW and iii) Treatment and disposal of HCRW.	• Better quality of services due to direct control over processes, provided that this control is exercised internally by GDoH or alternatively outsourced to GSSC; • Design of containers (e.g. for sharps) can be chosen freely; • A balance between price and quality of containers can be struck; • Capacity at treatment plants is secured through direct contracts; • Opportunities for smaller companies to enter the market due to smaller contracts.	• Increased administration workload; • Increased interfacing that could lead to disruption in service; • Possible negative impact on economies of scale, although unclear.

▪ **Waste Fractions**

The following issues were considered in terms of the waste fractions to be included in the tender:

- Inclusion of HCRW only in tender;
- Inclusion of HCRW and HCGW in tender;
- Inclusion of HCRW, HCGW and silver recovery in tender.

Waste Fractions		
Type of Split	Advantages	Disadvantages
HCRW management services in separate contract.	<ul style="list-style-type: none"> <li>• Contractor will be specialised in HCRW;</li> <li>• Tendering process will be clearer and better defined.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased administration workload for various waste fraction contracts;</li> <li>• Multiple contractors interfacing with each HCF.</li> </ul>
All HCRW and HCGW management services in one contract.	<ul style="list-style-type: none"> <li>• Ease of administration;</li> <li>• HCF's have one point of reference for all waste fractions;</li> <li>• Potential saving in supervision costs by contractor.</li> </ul>	<ul style="list-style-type: none"> <li>• Risk of mixing waste fractions, i.e. HCRW mixed with HCGW;</li> <li>• Risk of interference with municipal bylaws;</li> <li>• HCGW recycling require specialized skills;</li> <li>• Contract too large for small contractors;</li> <li>• HCGW needs for different HCF's too diverse to prescribe a uniform system.</li> </ul>
All HCRW and HCGW management services, together with silver recovery in one contract.	<ul style="list-style-type: none"> <li>• Ease of administration;</li> <li>• HCF's have one point of reference for all waste fractions;</li> <li>• Potential saving in supervision costs by contractor.</li> </ul>	<ul style="list-style-type: none"> <li>• Silver recovery and HCGW recycling require specialised skills;</li> <li>• Silver recovery is an income generation activity, with HCW management services being an expense.</li> </ul>

▪ **Contract Period**

The following issues were considered in terms of the contract period:

- Shorter contract periods allow for easier replacement of contractors if the GDoH is not satisfied with the services rendered, but also requires more frequent tender letting and repeated learning curves by service providers;
- Shorter contract periods require capital write off over shorter terms, thus resulting in higher unit rates, whilst contract periods in excess of 5 years do not provide any further tax incentives for contractors;
- Longer contract periods allow for more stability to the contractors and more reliable financial planning, but also require long-term vision by the GDoH in terms of their service needs.

Contract Periods		
Contract Term	Advantages	Disadvantages
Less than approximately 5 years.	<ul style="list-style-type: none"> <li>• Easy to replace contractor in the event of poor performance;</li> <li>• Limited risk to both the contractor and the GDoH in the event of changing operational</li> </ul>	<ul style="list-style-type: none"> <li>• More frequent tender letting required with associated costs and disruptions;</li> <li>• More frequent change in contractors that has to go through a learning curve;</li> </ul>

	circumstances.	<ul style="list-style-type: none"> <li>• More frequent need by HCF's to establish a new and sound working relationship;</li> <li>• Too short term for tax benefits on capital investments;</li> <li>• Capital recovery over short term, resulting in increased unit rates for all plant and equipment.</li> </ul>
Approximately 5 years.	<ul style="list-style-type: none"> <li>• Optimum term for tax benefits on capital investments;</li> <li>• Less frequent tender letting required, thus reducing the disruptions;</li> <li>• Less frequent change in contractors that are required to go through a learning curve;</li> <li>• Less frequent need by HCF's to establish a new and sound working relationship;</li> <li>• Capital recovery term suitable for recovery of vehicle cost, resulting in optimum unit rates for HCRW collection.</li> </ul>	<ul style="list-style-type: none"> <li>• More difficult to replace contractor in the event of poor performance, creating an increased need for penalty system;</li> <li>• Increased risk to both the contractor and the GDoH in the event of changing operational circumstances;</li> <li>• Capital recovery term too short for recovery of treatment plant cost, resulting in increased unit rates for treatment.</li> </ul>
More than approximately 5 years.	<ul style="list-style-type: none"> <li>• Only occasional tender letting required;</li> <li>• Few changes in contractors that are required to go through a learning curve;</li> <li>• Seldom a need for HCF's to establish a new and sound working relationship;</li> <li>• Capital recovery term more suitable for recovery of vehicle collection cost as well as treatment plant cost, resulting in more appropriate unit rates for both collection and treatment.</li> </ul>	<ul style="list-style-type: none"> <li>• Very difficult to replace contractor in the event of poor performance, putting a lot of emphasis on the penalty system;</li> <li>• No increased tax benefits;</li> <li>• Significant risk to both the contractor and the GDoH in the event of changing operational circumstances.</li> </ul>

## AGREED TENDER FORMAT AND STRUCTURE

After extensive investigations and consultation with a wide range of stakeholders, the following tender format and structure was considered to be the most appropriate and advisable for outsourcing of HCRW management services at the GDoH's HCF's. Although tenderers were given the opportunity to submit alternative tenders, such alternative tenders were only considered when accompanied by a tender that complied with all of the required specifications and conditions.

### ▪ Geographical Split

Three separate tenders were floated for the 3 Regions in Gauteng, allowing for the more contractors to share in the service delivery. As the technical specifications were the same for the 3 Regions, a single document with 3 separate Schedules of Rates & Quantities for the respective Regions was used.

Tenderers were allowed to tender for more than one Region, but no contractor was to be awarded more than 2 out of the 3 Regions. This was further conditional that the award of more than one Region to any one contractor should have resulted in a justifiable saving for the GDoH.

### ▪ Process Split

Due to the vast number of individual contracts with associated interfaces that would have resulted from a detailed process split, the decision was taken to include all of the services required for an integrated HCRW management system in one tender. Where any of the tenderers were not in a position to provide the full HCRW management service, tenderers were encouraged to make use of subcontractors or alternatively to form joint ventures or consortiums.

The tenders therefore required from contractors to tender for the supply and delivery of both reusable as well as disposable containers (with the associated durable items), the collection, transport and treatment of HCRW, the disposal of residues as well as the provision of training and consultancy services.

- **Waste Fractions**

Only HCRW was to be handled under this contract, with the exclusion of radioactive waste. The supply of black plastic liners was the only part of the HCGW management system to be included under the HCRW tender.

- **Contract Period**

Based on the investigations undertaken, it was decided that the optimum contract period was to be 5 years, as this would have provided the most financial benefits to the GDoH with the smallest risks to both the GDoH and the contractors.

## **APPROVAL OF THE DRAFT TENDER DOCUMENT**

After agreement was reached on the format and structure of the Tender Documents, the consultants prepared the detailed text for the Tender Specifications. Once ready for broader consultation, the Tender Specification was circulated to stakeholders both within as well as outside of the GDoH for comments.

The process allowed for ongoing participation by and consultation with relevant specialists, after which proposals on fundamental changes were presented to GDoH's senior management for approval. Based on the comments received, the Final Draft of the Tender Document was completed and submitted to GDoH for approval by their Departmental Acquisition Committee (DAC).

## **CONCLUSIONS**

The increasing drive towards outsourcing of services in South Africa is in accordance with the National Government's policy. Service providers are however often not meeting the client's expectations, which not only results in a financial loss to the client, but also result in the principle of outsourcing being considered to be unsuccessful.

As with any other financial agreement, the level of success with which outsourcing is undertaken is to quite a big extent dependent on the thoroughness of the agreement. As this aspect is quite often overlooked at the time when a service provider is appointed, it easily leads to disputes regarding the extent of the service to be rendered as well as the remuneration for which the service provider is illegible. A clear and detailed tender document is therefore required not only to ensure that tenderers are fully aware of the need to develop and supply reusable and disposable containers that meets the required standards whilst also improving on the level of HCRW management services rendered to the GDoH, but it is also to serve as the tool to be used for sound execution and monitoring of the contract.

It is not only important for the service provider at the time of tender to have a clear understanding of what is expected of him/her and what he/she should use as a basis to determine the tendered rates, but it is also important to understand what penalties will be enforced should the required standards not be met. Cancellation of a contract should be the last resort and since this option is most likely to have financial and operational implications for both the client and the service provider, there needs to be certain interim measures in the form of penalties that can be taken long before cancellation of the contract is considered.

The time and costs associated with the development of appropriate and comprehensive tender documents are quite often the reason why outdated documents are used or alternatively why documents developed for other similar applications are used without having the necessary adjustments made. The "saving" achieved by using inappropriate tender material quite often results in the rendering of an incomplete or poor service that cannot be addressed with a contract that may be binding on both parties for several years and that may require the client to spend significantly more money in rectifying short-comings than what was saved at the time of tender.

The use of comprehensive and well-structured tender documents is further not only in the interest of the client as a tool to compare proposals and service levels on an equal basis, but it is also in the interest of dedicated service providers who want to render an appreciated and professional service. A well-defined Scope of Work and technical specifications combined with detailed commercial and legal terms will ensure uniform standards at the time of tender that will eliminate opportunities for substandard service providers to render a poor service by identifying possible shortcomings in the tender specifications. It is therefore to be expected that a general improvement in the standard of tender documentation will ultimately lead to a general improvement in the standard of service delivery throughout South Africa.