



planning, monitoring & evaluation

Department:
Planning, Monitoring and Evaluation
REPUBLIC OF SOUTH AFRICA

**SOCIO-ECONOMIC IMPACT ASSESSMENT SYSTEM (SEIAS)
FINAL IMPACT ASSESSMENT TEMPLATE (PHASE 2)**

January 2018

**National Health Care Risk Waste Management Regulations and Associated Norms and
Standards for Non-Combustion Treatment Technologies**

The Final Impact Assessment: National Health Care Risk Waste Management Regulations and Associated Norms and Standards for Non-Combustion Treatment Technologies

The Final Impact Assessment provides a more detailed assessment of the ultimately policy/legislative/ regulations/ other proposal. In addition, it identifies **(a)** mechanisms for monitoring, evaluation and modification as required; and **(b)** a system for managing appeals that could emerge around the implementation process.

1 The problem Statement/ Theory of Change

1.1 Give summary of the proposal, identifying the problem to be addressed and the root (causes) of the problem that will be addressed by the new rule.

1.1.1 Summary of the proposal (Summary Background of the proposed policy/bill/ regulations/ other)

Problem Analysis

Health care waste (HCW) is all of the waste generated from a healthcare facility (HCF) and may be further subdivided into health care risk waste (HCRW) and health care general waste (HCGW). The HCGW portion, which makes up to 90% of the HCW generated within a facility, is similar to domestic waste and includes paper, packaging, food, flowers, etc. whereas the HCRW portion is waste that is infectious or hazardous and requires controlled treatment and/or disposal. HCRW includes infectious materials, sharps, hazardous chemicals, diagnostic drugs, human tissue and residues of a radioactive nature. Due to its infectious and hazardous properties this waste poses a threat to human health and the environment if not well managed.

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 healthcare facility that generate HCRW, 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. Due to its hazardous nature, HCRW must undergo treatment to reduce the potential risks to human health and the environment.

The lack of uniform standards regarding the management of HCRW has resulted in mismanagement of HCRW across the country and the past has seen cases of illegal disposal of waste, exposure of children to untreated HCRW, tender irregularities, poorly operated treatment facilities etc. Challenges experienced by the health care sector include:

- Poor or incorrect segregation of HCRW by healthcare institutions
- Lack of national standards for the management of HCRW within healthcare institutions resulting in several different systems being used which makes the handling of HCRW more difficult.
- Uneven playing fields with respect to legal requirements between provinces with provincial legislation applicable to HCRW in Gauteng and Western Cape – companies are unable to tender for contracts on the same footing.
- Dominance of the sector by large contractors, small contractors in the treatment market, being unable to invest in large robust treatment technologies.

- Uncooperative behaviour within the industry towards each other resulting in long distance transport of HCRW between provinces.
- Competition within the HCRW sector is fierce and leads to situations where companies tender for contracts at rates that are unable to sustain the business.
- There is no national service specifications and no standard tenders. There is therefore no standard level of service provided by the industry.
- Pressure on all aspects of the service, collection, transport, storage and disposal – need to do more for less.

Background to the proposal

Section 24 of the Constitution provides all with the right to an environment that is not harmful to their health or wellbeing and to have the environment protected through reasonable legislative measures. In response, the Department of Environmental Affairs (DEA) is responsible for managing the environment and protecting the natural resources so that all the people of South Africa can live and work in a safe and healthy environment. This is enacted through, amongst others, the National Environmental Management: Waste Act, Act No. 59 of 2008 (NEM:WA) which provides a coherent and integrated legislative framework addressing all the steps in the waste management hierarchy. The purpose of the Act is to introduce and promote an integrated approach to the waste management hierarchy with focus on waste prevention and minimisation at source, reuse, recycling, recovery, treatment and disposal as a least favoured option.

The Act obliges the Department to develop Regulations and Norms and Standards on key regulatory matters to ensure implementation of the waste hierarchy and includes measures for avoiding and minimizing the generation of waste, for treating and safely disposing of waste as a last resort and preventing pollution. In ensuring proper waste management the Department has a cradle-to-grave approach which ensures that the waste stream is handled responsibly from generation to final disposal. To give effect to the objectives of the Act, the Department has developed National Waste Management Strategy, 2011(NWMS) which outlines eight goals that can assist in achieving improved waste management in South Africa. The NWMS is an institutionally inclusive strategy as it relies on the participation of numerous role-players in the public sector, the private sector and civil society. Goal 5 aims to achieve integrated waste management planning and one of the targets is the development of regulations managing health care risk waste.

In response to the Act and the NWMS the Department reinitiated work on HCRW Regulations. HCRW management had been identified by the 1999 National Waste Management Strategy (NWMS-1999) as one of the priority issues that required urgent attention given the nature of the waste and the poor management practices evident, including incorrect segregation and packaging, poor storage, illegal dumping and poorly operated treatment facilities. As a result, the Department together with the national Department of Health (DoH) as part of NWMS implementation project (2004 – 2006), undertook a project to develop a HCRW management policy and associated Regulations that would set the overall objectives for management of

HCRW in South Africa. Outputs from this project included a draft national policy on HCRW management and the associated Regulations to implement the policy. The draft Regulations required further work to align them with the Act.

The review was undertaken together with the DoH and hence represented the joint focus and priorities of government regarding HCRW management. During the review a number of key issues were raised by stakeholders that required further research to enable finalisation of the draft Regulations, one of which was the lack of uniform microbial inactivation standards for non-combustion treatment technologies. The decision was subsequently made to surrender the development of the Policy and advance with the finalisation of the HCRW Management Regulations together with the development of National Norms and Standards for the validation of the treatment efficacy and operation of a non-combustion treatment technology (“Norms and Standards”). Substantial additional work was subsequently undertaken to develop disinfection standards for non-combustion treatment technologies applicable to the South African context.

The draft Regulations aim to regulate the management of HCRW throughout its lifecycle in line with the Act and prescribe the responsibilities of generators, transporters and waste managers when managing HCRW. These minimum requirements aim to provide mechanisms which could implement correct segregation from the source of generation, correct measures for storage, handling and transportation, proper treatment and correct disposal post treatment to ensure that the waste is well managed and ultimately safely disposed of after treatment and

to ensure third party protection. The Regulations further prescribe the duties of generators; transporters and waste managers in terms of management of HCRW. The draft Norms and Standards aim to set a level of microbial disinfection that must be obtained by all non-combustion technologies used to treat HCRW. The Norms and Standards further prescribe the frequency and quantity of testing that is required to confirm the level of disinfection obtained.

The Regulations and the Norms and Standards were gazetted on 1 June 2012 for public comments and were also circulated in 2013 to the provincial departments responsible for waste management as well as to the Ministers of Correctional Services, Health, Trade and Industry, Defence and Military Veterans and Transport for comment. The documents were revised in line with the comments and were to be gazetted for promulgation after approval from the Minister. At the same time the DoH developed Regulations on medical waste. The Regulations were gazetted for comment in 2014. Both Departments acknowledged that publication of the two sets of Regulations as is would create confusion in the healthcare sector and hence requested their respective Ministers to engage on how to take the Regulations forward. In the interium the Departments have planned engagement to review the two sets of Regulations.

To date there are two provinces that have developed and implemented legislation relevant to HCRW namely Gauteng (Gauteng Health Care Waste Regulations (2004)) and Western Cape (Western Cape Health Care Risk Waste Management Act (2007))

and Health Care Risk Waste Management Regulations (2008)). To ensure alignment of the national Regulations and the Norms and Standards, focus groups meetings were held with the Gauteng Department of Agriculture and Rural Development (GDARD) and the Western Cape Department of Environmental Affairs and Development Planning (DEADP) to discuss the provincial legislation and ensure alignment thereof. GDARD has indicated that their Regulations will be reviewed once the national Regulations and Norms and Standards are promulgated.

1.1.2 Problem/s and root causes that the proposal is trying to address

Identified Problem	Root causes
<p>The HCRW have infectious and hazardous properties which poses a threat to human health and the environment if not well managed. 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</p>	<ul style="list-style-type: none"> • Lack of national legislation specific to HCRW • Improper treatment and disposal of HCRW • Poorly segregated HCRW • Poor storage of HCRW • Illegal dumping of HCRW • Lack of capacity at healthcare facilities • Uneven playing fields between provinces in relation to management of HCRW as some provinces have legislation specific to HCRW whilst others lack such legislation • Legislation limited to two provinces • Lack of compliance to existing standards • New treatment technologies are unable to tender on an equal footing as their capital and operating costs are much higher.

Identified Problem	Root causes
<p>HCRW are potentially at risk, including those within healthcare facility that generate HCRW, 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.</p>	<ul style="list-style-type: none"> • Overloading, reduced maintenance and cutting corners to be able to compete for tenders • Lack of national standards for treatment technologies resulting in different requirements between provinces • Different levels of operation of non-combustion treatment technologies. • Undercutting of prices to win tenders • Small treatment units that do not trigger a waste management licence are unregulated

1.2 Describe the intended outcomes of the proposal

The overall intended outcome of the proposed Regulations and Norms and Standards is to ensure protection of the environment and human health through environmentally sound management of HCRW across the country. This will be achieved through:

- The Regulations that aim to provide the minimum requirements which could implement correct segregation from the source of generation, correct measures for storage, handling and transportation, proper treatment and correct disposal post treatment to ensure that the waste is well managed and ultimately safely disposed of after treatment and to ensure third party protection.

- Developing Norms and Standards to provide a uniform level of disinfection and operation for all non-combustion treatment technologies. The legislation will also provide an equal playing field such that new players may enter the market and invest in the health care risk waste management value chain.

1.3 Describe the groups that will benefit from the proposal, and the groups that will face the cost. These groups could be described by their role in the economy or in society. As a minimum, consider if there will be specific benefits or costs for the poorest households (earning R 7000 a month or less); for black people, youth or women; for small and emerging enterprise; and /or for rural development. Add more rows if required

Groups that will benefit	How will they benefit?
HCRW generators	Equal requirements regarding segregation from the source of generation, collection, transport and treatment of HCRW ensuring environmentally sound management of the waste.
HCRW transporters	Equal requirements regarding collection, storage and transport of HCRW.
HCRW managers (treatment and/or disposal facilities)	By providing equal playing field in terms of the standards of operations that all must meet so that the market does not favour existing facilities. All have to meet the same standard of operation.

Groups that will benefit	How will they benefit?
National and provincial environmental departments	They will have mechanism of enforcement specific to HCRW that is uniform across the country
Municipalities	They will have mechanism of enforcement specific to HCRW that is uniform across the country, and Reduced cases of illegal dumping of HCRW
Community	Less exposure to poorly managed HCRW and therefore reduced risk of infectious disease
NGOs	Access to environmentally sound management of HCRW and protection of human health and the environment

Groups that will bear the cost or lose	How will they incur the costs or lose?
Generators (public and private healthcare facilities)	Cost will be incurred by generators by ensuring HCRW is: <ul style="list-style-type: none"> • segregated, packaged, labelled and stored appropriately • properly treated and disposed of
Transporters	Costs will be incurred by the transporter in: <ul style="list-style-type: none"> • ensuring HCRW is stored appropriately • appropriate procedures are in place to manage HCRW
Waste managers	Costs will be incurred by: <ul style="list-style-type: none"> • providing a weighbridge to capture volumes of HCRW received for treatment

Groups that will bear the cost or lose	How will they incur the costs or lose?
	<ul style="list-style-type: none"> • providing storage and refrigeration facilities for HCRW • developing and maintaining procedures for the management of HCRW
<p>Government (DEA, provincial environmental affairs departments and municipalities)</p>	<p>Costs will be incurred by:</p> <ul style="list-style-type: none"> • providing human resources and the necessary operational equipment to conduct compliance, monitoring and enforcement activities enforcement action resulting from mismanagement of HCRW e.g. clean-up, litigation etc.

1.4 Describe the behaviour that must be changed, main mechanisms to achieve the necessary changes. These mechanisms may include modifications in decision making process systems; changes in procedures; educational work; sanctions; and or incentives. Also identify groups inside or outside government whose behaviour will have to change to implement the proposal. Add more rows if required.

Groups inside Government	Behaviour that must be changed (Current Behaviour)	Main mechanism to achieve the necessary changes
DEA	Lack of national legislation specific to HCRW	Promulgation of national HCRW Regulations and Norms and Standards; Capacity building
Provincial Environmental departments	Lack of provincial legislation for HCRW in most provinces	Alignment of existing provincial legislation with the national HCRW legislation once promulgated; Capacity building
Department of Health (national and provincial)	Lack of standardised approach to management of HCRW	Promulgation of national HCRW Regulations and Norms and Standards; Capacity building
Municipalities	Lack of standardised approach to management of HCRW	Promulgation of national HCRW Regulations and Norms and Standards;

Groups inside Government	Behaviour that must be changed (Current Behaviour)	Main mechanism to achieve the necessary changes
		Updating local legislation where necessary; Capacity building
Other Government healthcare facilities (e.g. Department of Correctional Services, Department of Defence,)	Lack of standardised approach to management of HCRW	Promulgation of national HCRW; Regulations and Norms and Standards Capacity building

Groups outside Government	Behaviour that must be changed (Current Behaviour)	Main mechanism to achieve the necessary changes
Private healthcare facilities	Poor segregation, packaging and storage of HCRW	Providing the necessary resources to ensure HCRW is appropriately segregated, packaged, labelled, stored, treated and disposed of.

		Monitoring compliance to the Regulations.
Transporters	Poorly managed HCRW, illegal storage and/or dumping of HCRW.	Providing the necessary resources to ensure HCRW is transported, stored and delivered to a waste management facility in line with the Regulations.
Waste managers	Poorly operated HCRW treatment facilities, illegal dumping of untreated HCRW.	Operating the treatment facility in line with operational requirements of the Regulations and Norms and Standards.

1.5 Report on consultations on the proposal with the affected government agencies, business and other groupings. What do they see as the main benefits, costs and risks? Do they support or oppose the proposal? What amendments do they propose? And have these amendments been incorporated in your proposal?

Table on consultations:

Affected Stakeholders	What do they see as main <u>benefits, costs and risks?</u>	Do they <u>support</u> or <u>oppose</u> the proposal?	What <u>amendments</u> do they propose?	Have these amendments been <u>incorporated</u> in your proposal?
<p>1. Government Departments and Agencies (DoH; provincial environmental departments)</p>	<p>Benefits: Minimum requirement to ensure environmentally sound of management of HCRW</p> <p>Costs: Roadshow to build provincial capacity on the Regulations</p> <p>Risks: Human resource availability (One-on-one discussions were held with the two provinces that have legislation regarding HCRW to ensure alignment of the legislation)</p>	<p>Support</p>	<p>Ensure alignment with existing provincial legislation specifically the Gauteng Health Care Waste Management Regulations (2004) and the Western Cape Health Care Waste Management Act (2007) and the Western Cape Health Care Risk Waste management Regulations (2013)</p>	<p>Yes DEA has engaged with the competent authorities i.e. DEADP and GDARD to ensure alignment of national and provincial legislation.</p> <p>Due to developments and improvements within the healthcare sector since promulgation of the Gauteng HCW Management Regulations, in 2004, the Regulations will be revised to ensure alignment with the national Regulations</p>

Affected Stakeholders	What do they see as main <u>benefits, costs and risks?</u>	Do they <u>support</u> or <u>oppose</u> the proposal?	What <u>amendments</u> do they propose?	Have these amendments been <u>incorporated</u> in your proposal?
				<p>particularly in the section detailing the minimum requirements for combustion and non-combustion technologies.</p> <p>The proposed national Regulations have taken into consideration the requirements of the WC HCRW Regulations to ensure alignment between the two sets, specifically the required temperature for storage of waste prior to treatment.</p>

Affected Stakeholders	What do they see as main <u>benefits, costs and risks?</u>	Do they <u>support</u> or <u>oppose</u> the proposal?	What <u>amendments</u> do they propose?	Have these amendments been <u>incorporated</u> in your proposal?
2. Business (Name them)	Inputs to be considered after publication of the draft Regulations and the Norms and Standards. (Comments were received in 2012 when the first draft was published for comment but given the time lapsed it has been decided to republish for comment).			
3. Organised Labour	Inputs to be considered after publication of the draft Regulations and the Norms and Standards			
4. Civil Society	Inputs to be considered after publication of the			

Affected Stakeholders	What do they see as main <u>benefits, costs and risks?</u>	Do they <u>support</u> or <u>oppose</u> the proposal?	What <u>amendments</u> do they propose?	Have these amendments been <u>incorporated</u> in your proposal?
	draft Regulations and the Norms and Standards (Comments were received in 2012 when the first draft was published for comment but given the time lapsed it has been decided to republish for comment).			
5. The Public	Inputs to be considered after publication of the draft Regulations and the Norms and Standards (Comments were received in 2012 when the first draft was published for comment but given the			

Affected Stakeholders	What do they see as main <u>benefits, costs and risks?</u>	Do they <u>support</u> or <u>oppose</u> the proposal?	What <u>amendments</u> do they propose?	Have these amendments been <u>incorporated</u> in your proposal?
	time lapsed it has been decided to republish for comment).			
6. Other groupings (Name them)	Inputs to be considered after publication of the draft Regulations and the Norms and Standards (Comments were received in 2012 when the first draft was published for comment but given the time lapsed it has been decided to republish for comment).			

1.6 Describe possible disputes arising out of the implementation of the proposal, and system for settling and appealing them. How onerous will it likely be for members of the public to lodge a complaint and how burdensome and expeditious is the proposed dispute-settlement procedure?

Possible disputes:

- The National Health Act (Act No 61 of 2003) provides the DoH with the mandate to develop Regulations on medical waste which may overlap or contradict the Regulations proposed by DEA
- Dispute may arise with the sections of the Gauteng HCW Management Regulations (2004) until such time as the Regulations are updated, for example, the standards for non-combustion treatment technologies are outdated and will need to be revised.
- Industry may complain of stricter compliance and enforcement measures in the legislation that they have to comply to.

System for settling disputes:

- Engagement between the Ministers or Departments particularly with the DoH to address possible overlaps and contradictions
- Engagement with provinces with the relevant departments responsible for implementing the legislation to ensure alignment of legislation
- GDARD intend to revise the provincial Regulations as soon as the national Regulations and the Norms and Standards have been promulgated
- DEA intends to publish the proposed Regulations and the Norms and Standards for a further round of public consultation where concerns may be raised by stakeholders
- Chapter 4 of National Environmental Management Act (NEMA) provides mechanisms for dealing with any dispute that may arise in the implementation of the Waste Act.

How onerous will it likely be for members of the public to lodge a complaint and how burdensome and expeditious

- DEA also has a call centre that the public may use, to enquire on legislation administered by the Department. Effort is made to respond within 24 hours.
- The Promotion of Access to Information Act (Act No 2 of 2000) and the Promotion of Administrative Justice Act (Act No 3 of 2000) provides for mechanisms for persons to request information.
- Enquiries are responded to within five working days

2 Impact Assessment

2.1 Describe the costs and benefits of implementing the proposal to the groups identified in point 6 above, using the following chart. Add more rows if required

Group	Implementation Costs	Costs of changing behaviour	Costs/Benefits from achieving desired outcome	Comments
Generators	Equipment/Receptacles; weighing of waste; storage space; internal transport; human resources;	Training and awareness campaigns	Environmentally sound management of HCRW applied equally across the country; reduced exposure of those working with HCRW	
Transporters	Weighing of waste; storage facility; human sources	Training and capacity building	Environmentally sound management of HCRW applied equally across the country; reduced exposure of those working with HCRW	

Group	Implementation Costs	Costs of changing behaviour	Costs/Benefits from achieving desired outcome	Comments
Waste managers	Infrastructure; storage requirements; monitoring requirements; human resources	Training and capacity building	Environmentally sound management of HCRW applied equally across the country; reduced exposure of those working with HCRW Equal standards applying to all treatment facilities	
DEA	Human resources;	Publication of the Regulations and Norms and Standards; Awareness campaigns; training and capacity building; compliance and enforcement	Minimum requirements applied equally across the country Protection of the environment	
Provincial Environmental departments	Human resources;	Training and capacity building;	Minimum requirements applied equally across the country	

Group	Implementation Costs	Costs of changing behaviour	Costs/Benefits from achieving desired outcome	Comments
		compliance and enforcement	Protection of the environment	
Municipalities	Human resources;	Training and capacity building; compliance and enforcement	Minimum requirements applied equally across the country Protection of the environment Reduction in illegal dumping	
Civil society	None	Awareness campaigns	Access to a clean and healthy environment Increased environmental protection	

2.2 Describe the changes required in budgets and staffing in government in order to implement the proposal. Identify where additional resources would be required for implementation. It is assumed that existing staff are fully employed and cannot simply absorb extra work without relinquishing other tasks.

- During implementation, DEA will need to allocate time and budget to conduct road shows across the provinces to build capacity in provinces and local authorities
- The compliance component of the relevant authorities will need to allocate time to monitoring implementation of the Regulations and Norms and Standards

- Additional resources (time) may be required within each level of government to enable monitoring and compliance

2.3 Describe how the proposal minimises implementation and compliance costs.

- Existing staff will conduct the required roadshows
- Compliance will be conducted by the environmental enforcement component of the relevant authority who are currently dealing with HCRW related non-compliances
- There will be a reduced cost to the state for cleaning up the environment from illegal dumping and that the health costs potentially incurred due to illness from exposure to poorly segregated waste may be reduced
- DEA and NDOH have developed Regulations as required by respective Principal Acts- these however can create duplication or regulatory burden to those who have to implement and comply- further engagement to conclude this overlap will be needed before finalising and approving the regulations.

3 Managing Risk

3.1 Describe the main risks to the achievement of the desired ends of the policy/bill/regulations/other and/ or to the national priorities (aims) that could arise from adoption of the proposal. Also describe the measures taken to manage the identified risks. Add more rows if necessary.

Identified Risk	Mitigation Measures
Insufficient human resources	<ul style="list-style-type: none"> • Ensure budget allocation to maintain staff complement • Ongoing training and capacity building of staff Review job descriptions to ensure HCRW is included • Transfer of staff

Identified Risk	Mitigation Measures
Lack of compliance and enforcement	<ul style="list-style-type: none"> • Allocate resources to conduct training of officials to ensure compliance monitoring and enforcement • Conduct national roadshows/workshops to build capacity within the sector • Finalise cases of non-compliance, issuing of pre-compliance/compliance notice or directives • Respond to queries received
Limited capacity within healthcare establishments	Training and capacity building of staff working with HCRW
Overlapping and or contradiction with DoH Regulations on medical waste creating regulatory burden to those who have to implement and comply	<ul style="list-style-type: none"> • Consultation between the DEA and DoH to ensure Regulations complement one another
Compliance burden to the industry	<ul style="list-style-type: none"> • Consultation between the DEA and DoH to ensure Regulations complement one another

3.2 Describe the mechanisms **included in your proposal** for monitoring implementation, evaluating the outcomes, and modifying the implementation process if required. Estimate the minimum amount of time it would take from the start of the implementation process to identify a major problem and remedy it.

- In terms of the Waste Classification and Management Regulations (2013), waste generators, transporters and managers are required to maintain waste manifest documentation and records that must be made available to the competent authority on request. This will assist in monitoring the implementation of the Regulations and the Norms and Standards
- Waste managers are also required to report in terms of the Waste Information Regulations (2012) on the quantities of waste treated on site.

- Depending on the treatment capacity, waste managers are also required to apply and operate according to a waste management licence the conditions of which include reporting to the Department.
- Successful implementation of the Regulations and the Norms and Standards will be informed by the number of cases of illegal dumping of HCRW and by the number of queries received from the sector
- Media articles on the number of illegal dumping incidents across the country.
- Complaints from members of the public

4 Summary

4.1 Summarise the impact of the proposal on the main national priorities

National Priority	Impact
1. Social Cohesion	The development of national regulations and norms and standards will promote a clean and healthy environment to all regardless of location (rural versus urban) and will result in levelling playfields within the sector. For example, historically, HCRW generated in rural areas or informal settlements was not well managed, in most instances it was buried or burnt on site and previously disadvantaged communities were exposed to illegally dumped HCRW, with instances of exposure of children to HCRW.
2. Security (Safety, Financial, Food, Energy and etc.)	<ul style="list-style-type: none"> • Health and safety of the general public will be improved by ensuring uniform standards are applied across the country. • The Regulations acknowledges and promotes the potential use of the resulting residue as an alternative energy source.
3. Economic Growth	Not directly applicable

National Priority	Impact
4. Economic Inclusion (Job Creation and Equality)	Equal standards applied across the country will facilitate entry of newcomers, including SMMEs into the market.
5. Environmental Sustainability	The minimum requirements applied will ensure HCRW is managed in an environmentally sound manner thereby ensuring a safe and healthy environment available to all.

4.2 Identify the social and economic groups that would **benefit most** and that would **bear the most cost**. Add more rows if required.

Main Beneficiaries	Main Cost bearers
Public/Users (patient; workers; visitors) of health care facilities	Generators of HCRW (public and private)
Emerging business – transporters, waste managers	Waste transporters and waste managers
Community	DEA and responsible Provincial Departments

4.3 In conclusion, summarise what should be done to reduce the costs, maximise the benefits, and mitigate the risks associated with the policy/bill/regulations/other. Note supplementary measures (such as educational campaigns or provision of financing) as well as amendments to the draft itself, if appropriate. Add more lines if required.

4.3.1 What should be done to reduce the costs?

- Generators of HCRW must ensure correct segregation of the waste as this will reduce the volume requiring ultimate treatment and disposal.

4.3.2 What should be done to maximise the benefits?

- Monitoring of the implementation of the Regulations and Norms and Standards

4.3.3 What should be done to mitigate the risks associated with the legislation?

- Awareness and capacity building on the requirements of the Regulations and the Norms and Standards
- Respond to queries received

4.4 Please identify areas where additional research would improve understanding of the costs, benefits and/ or risks of the policy/bill/regulations/other

More research may be identified when the Regulations are implemented.

Potential research could focus on developing a mechanism to endorse new treatment technologies.

For the purpose of building SEIAS body of knowledge please complete the following:

Name of Official/s	Ms Sharon Mogomotsi; Dr Shauna Costley; Mr Kagiso Mokone; Mr Crystal Baloyi; Mr Mashudu Nevuvha, Ms Tanya Faber
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