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The definition of waste in the National Environmental Management Waste Act: Have the amendments brought South Africa closer to a circular economy?

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As the candidate's supervisor I agree to the submission of this dissertation

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2023

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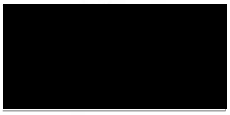
Signed: 

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Acknowledgements and dedications

"strength does not come from winning. Your struggles develop your strengths. When you go through hardships and decide not to surrender, that is strength" – Mahatma Gandi

Mom and dad, you have both always told me that I can do anything I set my mind to. Your unwavering belief in me and my ability has given me strength when I needed it most. I would never have had the opportunity to study law if it was not for the constant sacrifices you both made to make it possible. Your love knows no bounds and I am eternally grateful for that, and proud to be your daughter.

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Abstract

South Africa is one of the most resource rich countries in the world. South Africa is also one of the highest polluters in the world. It is estimated that 90% of waste generated in South Africa is sent to landfills, with air spaces overflowing and illegal dumping becoming more common, the waste landscape in South Africa is dire. A move away from a linear economy system to a circular economy system is no longer a matter of mere preference, but an absolute necessity to ensure the longevity and protection of our natural resources, economy and social rights.

Pre-1996, there was little environmental protection and with exponential population growth and development, the environment and its inhabitants suffered. In the wake of the new constitutional dispensation, a plethora of environmental legislation and policies have been implemented aimed specifically at waste management.

When considering waste management, one of the most important elements of the legislation is the definition of waste. The definition of waste has been amended three times and each amendment has resulted in a need for potential waste producers to interpret the definition in accordance with their operations to determine if compliance with provisions of waste legislation is necessary. However, each definition has resulted in different interpretive conflicts between the public and private sector, leaving the court to align the practical implementation of the definition with the text.

The definition of waste holds direct consequence for the public and private sectors. In short, a waste management system that results in over or under regulation of the private sector possess a material risk to discouraging the private sector. A proper understanding of the definition of waste and the consequences of the wording used to describe waste are necessary to fully appreciate how this definition aligns South Africa with or moves South Africa away from a circular economy. The purpose of this dissertation is to understand the different definitions of waste in South Africa and to reach a conclusion on which definition is best suited to the current economic, social and environmental landscape in South Africa.

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1. CHAPTER ONE: INTRODUCTION

1.1 Background

As a concept, 'waste' on a superficial level seems inconsequential: there is the stuff that you put into the bin, or the stuff that the rubbish truck takes away (if one is fortunate enough) and that is where any consideration of waste starts and ends for most. However, this consideration is insular - the concept of 'waste' extends far beyond the general household waste that we only see moving through black bags. The concept of waste holistically considers the impact that certain materials have on the environment and how the lifecycle of those materials should be regulated to mitigate that impact and protect the environment.

As the economy in a country grows, so too does the amount and hazardous nature of waste within that country. South Africa has experienced exponential social and economic growth and in almost direct relation thereto, an increase in the amount of waste produced.[1] It is important to note that waste can never be wholly avoided – there will always be some residue that find its way (through water, air or land) into the environment.[2] If waste is not properly managed the impact would be felt across environmental and social spheres and at all levels – global, regional and local.[3] This emphasizes the need to ensure that waste is properly managed to mitigate the residue that impacts the environment as far as possible.

One of the tools used by the legislature and government (in tandem) to manage waste in South African is legislation.[4] By enacting legislation, a legislated standard is set that requires compliance by all persons (natural and legal). One of the most important aspects of this legislation (certainly, the most important definition) is the definition of 'waste'. It is submitted that the definition of waste is crucial to waste legislation because whether or not compliance with waste legislation is required rests solely on whether or not one creates waste as it is defined in the waste legislation.

The issue of compliance with waste legislation is contextualised by a consideration of the objectives of waste legislation. Waste legislation seeks to regulate waste management to protect

[1] N King, H Strydom & F Retief *Environmental Management in South Africa*, 3 ed (2018) 1055.
[2] Ibid.
[3] Ibid.
[4] The legislation used will be fully considered in Chapter 3.

the environment through prevention of pollution and environmental degradation. The objectives of waste management will be fully considered further in this dissertation.

1.2 Brief history

The definition of 'waste' first came about in the Environment Conservation Act which was assented to on 1 June 1989.[5] The next definition of waste followed almost 10 years later in the National Water Act which was assented to on 26 August 1998.[6] On 27 November 1998, a shift in the environmental management regime was introduced in the National Environmental Management Act, which saw a variety of sections in the Environmental Conservation Act being repealed.[7] However, the sections relating to waste management were only repealed on 10 March 2009, when the National Environmental Management: Waste Act was assented to.[8]

The National Environmental Management: Waste Act provided an unprecedented body of waste management legislation in South Africa which included a new definition of 'waste'. This definition was subsequently amended in the National Environmental Management: Waste Amendment Act 26 of 2014 which was assented to on 30 May 2014. The definition of waste was also set to be amended in the National Environmental Management Laws Amendment Act which was assented to on 24 June 2022.[9]

On each instance that the definition of waste has been amended, businesses and individuals have had to consider the new definition and whether the business or individual creates waste in terms of the new definition. If the business or individual does create waste, then it is necessary for the business or individual to ensure that it complies with the relevant piece of legislation regulating waste management.

These amendments are not made in a vacuum and the context that each amendment is made in is important. The context is especially important in understanding what the intention of the legislature was in amending the definition and the purpose the new definition is set to fulfil. In order to understand the context, other important documents that support legislative amendments should be considered. For example, in 2020, the South African Department of

[5] Environment Conservation Act 73 of 1989.
[6] National Water Act 36 of 1998.
[7] Sections 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 14A, 14B, 14C, 27A and 38 of the Environment Conservation Act. 1989 (Act No, 73 of 1989) were repealed.
[8] National Environmental Management Waste Act 59 of 2008.
[9] National Environmental Management Laws Amendment Act 2 of 2022.

Forestry, Fisheries and Environment released a guideline titled, 'A Circular Economy Guideline for the Waste Sector – A Driving force towards Sustainable Consumption and Production'. This Guideline will be considered in this dissertation as it provides insight into what the legislation seeks to achieve. Promulgating a Guideline is a much quicker process than amending or enacting new legislation, which is why documents such as these can often provide the best context.

1.3 The purpose of the study

The purpose of this study is to thoroughly analyse the history of the definitions of waste as well as the current definition and provide an understanding to the reader of how these definitions impact South Africa's move towards a circular economy.

1.4 The methodology of the study

The study is based on the doctrinal method of study. The body of information available that has been considered consists of primary and secondary sources. The information considered consists of legislation, case law, textbooks, articles, and other sources. These sources were interpreted and assessed to develop the understanding of the definition of waste and the legal complexities and repercussions associated with the definition.

1.5 The structure of the study

The remainder of this study is divided into four further chapters:

Chapter Two: Definitions of 'waste' in South Africa

Chapter Two will consider the definitions of waste contained in the Environmental Conservation Act, the National Water Act, the National Environmental Management: Waste Act, the National Environmental Management Waste: Amendment Act and the National Environmental Management Laws Amendment Act.

Chapter Three: South African Jurisprudence on the definition of waste

Chapter Three will consider the matters of *Minister of Environmental Affairs and Another v ArcelorMittal South Africa Limited* [10] and *South African Iron and Steel Institute and Others v Speaker of the National Assembly and Others*.[11] These two cases provide detailed analyses of the definitions of waste contained in the Environmental Conservation Act, National Environmental Management: Waste Act, National Environmental Management: Waste Amendment Act and the National Environmental Laws Amendment Act.

Chapter Four: How the definition of waste impacts a circular economy

This chapter will explore the concept of a circular economy and how a circular economy impacts South Africa. This chapter will importantly consider how each definition of 'waste' aligns with the concept of a circular economy and if the definition moves South Africa closer away or further from meeting this goal.

Chapter Five: Conclusion

This chapter will provide a summary of the findings and provide recommendations and final analysis on the definitions of 'waste' and how these definitions have impacted the circular economy in South Africa. This chapter will finally provide a note to policy makers and the legislature on how the definition of waste should be drafted and recommendations.

1.6 History of 'waste' in South Africa

In 1977, the Tchobanoglous model of the waste life cycle was established. In short, this model sets out the process from waste generation to disposal, discharge or emission. The cycle flows from waste generation to temporary storage, to collection, to transport, to transfer or recover/treatment and ends with disposal/discharge/emission.[12]

This Tchobanoglous model sets out the cradle to grave approach, which is a part of the current environmental legislative framework in South Africa. This model is important because it recognises that waste has the potential to cause harm to the environment at any point in its life

[10] *Minister of Environmental Affairs and Another v ArcelorMittal South Africa Limited* (Case no 342/2019) [2020] ZASCA 40 (17 April 2020).
[11] *South African Iron and Steel Institute and Others v Speaker of the National Assembly and Others* [2023] ZACC 18.
[12] N King, H Strydom & F Retief op cit note 1 at 1061.

cycle. Accordingly, it is not just the waste generation or disposal that should be considered as potentially harmful to the environment but the possibility of that waste causing harm to the environment at any point in its life cycle.[13]

Waste management can be broken up into five categories: waste prevention, waste reduction, resource recovery, waste treatment and waste disposal, discharge or emission. The order the categories appear in are hierarchical from the best sustainable waste management solution to the least. Waste prevention is (of course) the best method to use for sustainable waste management as it envisages no waste production at source and no life cycle management is necessary. Waste reduction is the second category which entails reducing the total amount of waste produced through the use of better processes within a business model. Resource recovery is the category that recycling and reuse of waste falls into. Waste treatment is the penultimate category which consists of treating waste to reduce the impact of the waste on the environment and to reduce the amount of waste as a whole. The final category in the hierarchy is waste disposal/discharge or emission which entails disposing/discharging or emitting the waste at the end of the life cycle of the waste. This is the least preferable of the categories as it poses the highest threat of harm to the environment.[14]

It has been argued that the approach to recycling in South Africa has been informed by the European approach this being so, because South Africa has lagged behind in terms of managing waste, this has resulted in South Africa following European standards and ideals around waste management.[15]

Waste management in South Africa commenced with the use of landfill sites. A landfill can be described as 'an engineered pit, in which layers of solid waste are filled, compacted and covered for final disposal'.[16] The bottom of the pit is covered with a material to prevent the ground from being contaminated by the waste. Landfill sites are popular in South Africa as a

[13] Ibid at 1062.
[14] Ibid at 1073-1077.
[15] L Godfrey 'Defining waste in South Africa: moving beyond the age of 'waste'' (2008) 104 (7/8) *South African Journal of Science* at 1.
[16] B Stauffer 'Landfills factsheet' available *at https://sswm.info/water-nutrient-cycle/wastewater-treatment/hardwares/solidwaste/landfills#:~:text=Executive%20Summary,bottom%20to%20prevent%20groundwater%20pollution*, accessed on 13 October 2023.

waste disposal method and are used for both general and hazardous waste. In 2017, it was estimated that 90% of all waste is sent to landfill sites to be disposed of.[17]

Initially landfills were not properly regulated due to a lack of legislation providing standards and regulations. This resulted in the first licensing requirements being enforced in the Environmental Conservation Act. The landfill method to dispose of waste is certainly the cheapest for businesses, however, the cheap cost is due to the lack of innovative waste treatment technologies. Landfill sites will account for 10% of greenhouse gas emissions by 2025; they cause soil and water contamination; they cause a danger in the form of fire and explosions due to the chemicals and emissions at the landfill sites; and they negatively impact fauna and flora.[18] Notwithstanding these negative impacts, landfill sites are still the most popular form of waste management by an overwhelming majority.[19]

Recycling first emerged in South Africa in 1976. In 2001, there was significant growth to the waste recycling sector prompted by industry enforcing recycling solutions, investment and economics. [20] This led to the establishment of companies such as PET Recycling company (PETCO) and The Glass Recycling Company.[21] The growth seen in recycling has been significant with the numbers for can collection, bottle recycling and paper and packaging recycling growing at the least (paper and packaging) by 16% and at the most (can collection) by 54% between 1993 and 2016.[22] Although there has been significant growth in the use of recycling as a tool to avoid landfill, recycling is still not comparatively popular.

In response to the lack of recycling, recovery and reuse of waste, government implemented the Extended Producer Responsibility Regulations.[23] Although these Regulations have been criticized for only holding specific industries accountable for their waste contribution, the crux of the EPR Regulations remains that producers are held responsible for the waste that they create through their products. There are EPR Regulations in place for the paper and packaging industry; electrical, electronic equipment and lighting industry.[24] These Regulations have placed a responsibility on these businesses to 'extend' their responsibility for the products that

[17] L Godfrey 'Quantifying economic activity in the informal recycling sector in South Africa'(2021) 117 (9/10) *South African Journal of Science* at 4.
[18] Ibid at 4-5.
[19] Ibid at 4-5.
[20] Ibid at 5.
[21] Ibid at 5.
[22] Ibid.
[23] Extended Producer Responsibility Regulations in GN 1184 *GG* 43879 of 5 November 2020.
[24]Ibid.

they place on the market. These Regulations will be discussed in greater depth later in this dissertation.

In essence, South Africa has seen significant growth in the management of waste and introduced measures for waste management that are better for the environment than landfill sites. However, EPR Regulations only cover a part of the South African waste producers. For example, there are no EPR Regulations for the construction and biomass industry, or power generation and mining industries.[25] Moreover, in order for EPR to achieve its goal, there must be a clear producer, otherwise a producer may avoid liability for this. The link between the EPR Regulations and the definition of waste is important. In the absence of the EPR Regulations, waste producers would have less responsibility and accountability for the waste they produce. By enacting the EPR Regulations, waste producers that do not produce waste at the source of production still hold responsibility for the ultimate waste that is introduced as a result of consumption of their products. For example, previously producers of plastic packaging would hold no responsibility for their packaging, however, as a result of the Extended Producer Responsibility Scheme for Paper, Packaging and Some Single Use Products, there is accountability for this packaging for the lifecycle of the plastic packaging.[26]

1.7 **Waste and the Constitution**[27]

The implementation of the interim and final Constitution introduced a new era of recognition for human rights in South Africa. The rights contained in the Constitution are interrelated and interdependent.[28]

The Constitution expressly recognises the need to protect the environment for the benefit of present and future generations. The environmental right contained in section 24 of the Constitution states:

> Everyone has the right—
>
> (a) to an environment that is not harmful to their health or wellbeing; and

[25] Ibid.
[26] GG1187, GNR. 43882 5 November 2020.
[27] Constitution of the Republic of South Africa, 1996.
[28] Ibid.

(b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that—

(i) prevent pollution and ecological degradation;

(ii) promote conservation; and

(iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

The environmental right set out above is multifaceted and complex. It is notable that the environmental law right does not exclusively require the environment to not be harmful to the health of a person, but quite significantly the environment must not be harmful to the 'wellbeing' of a person. The second aspect of this right is that the environment must be protected for the benefit of present *and* future generations. In providing for the benefit of future generations, the environmental law right accounts for intergenerational equality.

The environmental right envisages protection through reasonable legislative and other measures which squarely places this responsibility on the State. The 'legislative and other measures' implemented by the State are focussed on meeting three objectives: prevent pollution and ecological degradation, promote conservation *and* secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development. It follows then, that in drafting and implementing legislation, the State must carefully consider how legislation can be drafted that will ensure that pollution and ecological degradation are prevented, and conservation is promoted. From an environmental perspective these two objectives align and are complimentary in many aspects. However, the third objective requires a more multifaceted approach.

The third objective requires secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development. This objective pulls away from the environmental right as it has been framed up until this point by adding a caveat requiring the ecologically sustainable development that takes place to simultaneously promote justifiable economic and social development. It is submitted that whilst the use of the word 'justifiable' does provide a limitation to the scope of the consideration of economic and social development, it does not negate the fact that the caveat to ecological development exists. By including this caveat to ecological development, the operation of the environmental right includes sustainable development.

The environmental right does not exist in isolation in the Constitution and as stated above, the rights contained in the Constitution are interrelated. For example, the right to an environment can be linked to the right to dignity, the right to life and the best interests of the child. Where an environment becomes harmful to health and/or wellbeing, there is an intrinsic link to right to dignity of a person being similarly infringed. Moreover, in some instances, where the health of a person deteriorates to the point of death due to the environment a person is in, there is once again an intrinsic link between the right to life and the environmental right.

2. CHAPTER TWO: DEFINITIONS OF 'WASTE' IN SOUTH AFRICA

2.1 Environment Conservation Act[29]

The first definition of waste in South African law is found in the Environment Conservation Act (ECA) which was enacted on 1 June 1989.[30] The ECA set out the first legislated requirements for waste management in South Africa. The ECA described 'waste' as:

> any matter, whether gaseous, liquid or solid or any combination thereof, originating from any residential, commercial or industrial area or agricultural area identified by the Minister as an undesirable or superfluous by-product, emission, residue or remainder of any process or activity.[31]

The ECA also contained the first definition of 'environment', which it described as, 'the aggregate of surrounding objects, conditions and influences that influence the life and habits of man or any other organism or collection of organisms'.[32] This is important as the definition of environment provides an understanding of what needs to be protected by the State and its citizens. The ECA provided the then Minister of Environmental Affairs with the power to implement notices in the Gazette to 'determine the general policy'.[33] However, in terms of section 20 of the ECA, a disposal site could only be operated with permission (in the form of a permit) from the then Minister of Water Affairs which would set out the conditions that the disposal site had to comply with.

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[29] Op cit note 5.
[30] Ibid.
[31] Ibid at s 1(xxii).
[32] Ibid at s 1(x).
[33] Ibid.

The Minister of Water Affairs also had the power to request further information surrounding an application if the Minister deemed further information necessary. The Minister of Water Affairs was under the obligation to retain a register of all permits issued and was also provided with the power to promulgate notices in the Government Gazette regulating the management and control of disposal sites in general,[34] of certain disposal sites or disposal sites handling specific types of waste[35] and the procedure to be followed before any disposal site may discontinue use or commence use for another purpose.[36]

Section 20 of the ECA concludes with requiring waste disposal to be done at a site which has a permit issued in terms of subsection (1) (described above) or at a facility or by use of a specific method as prescribed by the Minister.[37]

It is clear from the exposition of section 20 above, that the legislature placed focus on the regulation, licensing and management of waste disposal sites. The legislature did provide the Minister with regulatory powers to enact regulations regarding waste management, however regulations to this effect were not promulgated.[38] At this stage in the history of waste management regulation, the legislature was primarily focussed on the reduction of the negative impact the improperly managed landfill sites had on the environment.[39] The ECA placed the power to regulate waste management sites and to create further policy to protect the environment from any harm in the hands of the Minister of Water Affairs.

When reviewing the definition of waste contained in the ECA as well as the legislative provisions pertaining to waste management, it is clear that there was a lacuna in environmental waste management laws.

2.2 The National Water Act[40]

The National Water Act describes waste as, ‘includes any solid material or material that is suspended, dissolved or transported in water (including sediment) and which is spilled or deposited on land or into a water resource in such volume composition or manner as cause, or

[34] Ibid at s 20(5)(a).
[35] Ibid at s 20(5)(b).
[36] Ibid at s 20(5)(c).
[37] Ibid at s 20(6)(a)-(b).
[38] Ibid at s 24.
[39] Linda Godfrey and Suzan Oelofse ‘Historical Review of Waste Management and Recycling in South Africa’ (2017) 6 *Resources*.
[40] National Water Act 36 of 1998.

to be reasonably likely to cause the water resource to be polluted'.[41] This definition of waste focuses on how waste reacts with water when it is in the water, transported by water and how waste ultimately impacts the land that it is deposited on after travel in the water. This definition does not holistically consider waste and the impact that waste has outside of its impact on water resources.

Although the definition of waste in the National Water Act primarily focusses on the impact of waste on water, there is recognition of the impact of waste on land in section 21 of the National Water Act.[42]

2.3 The National Environmental Management Act[43]

Following the implementation of the Constitution,[44] a new era of human rights recognition came into force. Part of the new era of human rights recognition consisted of the implementation of the environmental law right contained in section 24 of the Constitution discussed in Chapter One.[45] In order to give effect to this environmental law right, the National Environmental Management Act was implemented.[46]

The National Environmental Management Act (NEMA) was enacted on 27 November 1998 and is a framework piece of legislation that regulates environmental management more thoroughly in South Africa than its predecessor, the ECA. The NEMA introduced a wholesale shift in environmental law regulation and management in South Africa.[47]

The NEMA defines environment as:

> The surroundings within which humans exist and that are made up of—
>
> (i) the land. water and atmosphere of the earth:
>
> (ii) micro-organisms, plant and animal life:
>
> (iii) any part or combination of (i) and (ii) and the interrelationships among and between them: and

[41] Ibid at s 1(xxiii).
[42] Op cit note 6 at s1.
[43] National Environmental Management Act 107 of 1998.
[44] Op cit note 5.
[45] Ibid at s 24.
[46] Op cit note 36.
[47] Ibid.

> (iv) the physical. chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.[48]

In comparison to the definition of 'environment' contained in the ECA, the definition of environment contained in the NEMA is significantly broader. It is submitted that the broadness of this definition is important to note as the NEMA not only increased the amount of legislative protection for the environment through increasing the amount of legislation, but also by widening the scope of the definition of environment. The definition of environment is essential to understanding the purpose of the definition of waste. The NEMWA commences with the following purpose:

> To reform the law regulating waste management in order to protect health and the environment by providing reasonable measures for the prevention of pollution and ecological degradation and for securing ecologically sustainable development

Accordingly, to understand the importance of the definition of waste, one must understand the purpose the NEMWA seeks to achieve. It follows that the definition of 'environment' is central to understanding that purpose.

The NEMA provides a list of principles that demonstrate the attitude of the legislature towards environmental management and protection which is important to note.[49] These principles appear at briefly in Chapter 1 and form a foundation to understanding and interpreting environmental law in South Africa. For current purposes, two of these principles will be discussed: the cradle- to-grave principle and the sustainable development principle.[50]

The cradle-to-grave principle is discussed briefly in the introduction in Chapter 1. It envisages a waste creator being responsible for their waste for the entirety of the life cycle of that waste and promotes industry accountability at each step of the life cycle of waste. The cradle-to-grave approach has been defined as 'the management of waste as a holistic and integrated management approach extending from waste prevention and minimisation to generation, storage, collection, transportation, treatment and final disposal of waste.'[51] When the cradle-to-grave approach is implemented correctly, the waste that is created is managed for its life

[48] Ibid at s 1.
[49] Ibid at s 2.
[50] Ibid.
[51] The *White Paper on Integrated Pollution and Waste Management for South Africa* (GN686 in *GG* 20978 of 17 March 2000).

cycle in a manner that does not harm the environment. The implementation of the cradle-to-grave principle is essential to limiting the harmful impact that waste has on the environment.

The second principle that is important to developing an understanding of the legislature's intention when drafting the environmental legislation is the sustainable development principle. This principle is submitted to be one of the most contentious principles in the NEMA due to the amount of litigation that has taken place on the interpretation and implementation of this principle.

Sustainable development as a concept can also be found in section 24 of the Constitution in the environmental right which requires development to be environmentally, economically and socially sustainable.[52] In terms of the NEMA, sustainable development is the integration of social, economic and environmental factors into planning, implementation and decision-making to ensure that development serves present and future generations.[53]

The NEMA should be considered as a framework for the Specific Environmental Management Acts, for example, the National Environmental Management: Waste Act. Although the NEMA does not provide for specific waste or waste management legislation, the NEMA provides the underlying principles and holistic understanding of how the environment should be protected in South Africa and the repercussions for the failure to do so. One of the important pieces of legislation enacted under the framework of the NEMA, are the Environmental Impact Assessment Regulations.

2.4 The National Environmental Management: Waste Act[54]

The NEMWA is a detailed, lengthy piece of legislation that provides for far greater environmental protection, waste regulations and management than its predecessor, the ECA. The preamble to the National Environmental Management: Waste Act commences with a repetition of the environmental right contained in the Constitution.[55] This recognition is further qualified by the recognition of the effect waste management practices have on the health of the environment and how the poor are disproportionately impacted by 'improper' waste

[52] Op cit note 21 at s 24.
[53] Op cit note 36 at s 2.
[54] National Environmental Management: Waste Act 59 of 2008.
[55] Ibid.

management practices. This is followed by a basic outline of the waste management hierarchy in the context of sustainable development which recognises that waste should be avoided, where it cannot be avoided it should be reduced, reused, recycled or recovered and only if none of these options are available, treated, and safely disposed of. Further, the preamble recognises the importance of natural resources and minimizing pollution by various measures to ensure the environment is protected from the impact of waste. The penultimate point in the preamble is an interesting one as it contrasts with the previous points contained in the preamble; the penultimate point recognises waste as a resource (under certain circumstances) and the economic opportunities waste offers. The final point contained in the preamble provides an exposition of how the waste management practices will be regulated through national legislation, norms and standards, applied uniformly throughout the Republic within a system of co-operative governance.[56]

This preamble is important as it sets the context for the NEMWA and aids in a holistic interpretation and understanding of the Act. The recognition of the importance of the environment and the need to mitigate the impact of waste is notable. However, as stated above, it is also notable that there is still recognition of the importance of the economic opportunities waste provides. It is submitted that the regulation and implementation of the NEMWA can be achieved through the legislature and the State working in tandem to enact legislation to fulfill this purpose.

Chapter 1 of the NEMWA originally set out the definition of waste as follows:

> waste means any substance, whether or not that substance can be reduced, re-used, recycled and recovered –
>
> (a) That is surplus, unwanted, rejected, discarded, abandoned or disposed of:
>
> (b) which the generator has no further use of for the purposes of production;
>
> (c) that must be treated or disposed of; or
>
> (d) that is identified as a waste by the Minister by notice in the Gazette, and includes waste generated by the mining, medical or other sector, but –
>
> (i) a by-product is not considered waste; and

[56] Ibid.

(ii) any portion of waste, once re-used, recycled and recovered ceases to be waste.[57]

This definition begins by defining waste as a 'substance' and follows on by immediately including whether or not the substance can be reduced, re-used, recycled and recovered. This widens the scope of the definition of waste by including substances that have the potential to be reduced, reused, recycled and recovered. This means that the mere potential for a substance to be reduced, reused, recycled and recovered does not result in a substance falling outside of the definition of waste.

The definition then requires the substance to be surplus, unwanted, rejected, discarded, abandoned or disposed of. This introduces an important element to the definition of waste because if a substance fits the criteria of being 'surplus, unwanted, rejected, discarded, abandoned or disposed of' this may not necessarily be clear and easy to determine. For example, a company may have rejected products which it does not intend to sell directly to the market, but these rejected products may still be useful to a third party that could purchase the rejected products and use them within the third party's own process. Accordingly, waste would go from being rejected to being wanted for resale. Further to this, the rejected products could even be acceptable for reuse within a producer's own company.

The important element introduced to the definition of waste by using terms such as 'surplus, unwanted, rejected, discarded, abandoned or disposed of' is the element of subjectivity which, as illustrated by the aforementioned example, results in the waste producer's subjective intention determining at what point (if any) the substance becomes surplus, unwanted, rejected, discarded, abandoned or disposed of.

The definition then includes substances, objects or materials that the generator has no further use of for the purposes of production, or that must be treated or disposed of, or that are identified by the Minister by notice in the Gazette and includes waste generated by the mining, medical or other sectors.[58]

Finally, the definition adds two exclusionary categories: first, by-products are not considered to be waste, and second, any portion of waste once reused, recycled and recovered ceases to be

[57] National Environmental Management Waste Act 59 of 2008 at s 1.
[58] Notably, the Minister in the NEMWA is defined as the Minister of Environmental Affairs and Tourism. Accordingly, the Minister of Water Affairs was no longer the decisionmaker and regulator for waste matters as previously indicated in the ECA.

waste. These exceptions are crucial elements of the definition of waste because they provide a waste generator with means to fall outside of the definition of waste by ensuring that the generator reuses, recycles and recovers the substance, so that the substance is not considered to be waste. The other category of exemption is by-products. 'By-products' are defined in the NEMWA as, 'a substance that is produced as part of a process that is primarily intended to produce another substance or product and that has characteristics of an equivalent virgin product or material'.[59] An example of a by-product is bagasse, which is a dry, fibrous material that is the by-product of crushing sugar cane.

The importance of the amendments to this definition can be seen in the recognition of subjective intention of a waste producer. The definition is inherently wide and with argument by a waste producer, provides flexibility to waste producers to argue that they do not produce waste in terms of this definition based on their intention for the substance, material or object.

2.5 National Environmental Management Amendment Act[60]

In 2013 the National Environmental Management Amendment Act provided two small amendments, being the inclusion of 'or' to replace 'and' so that the first part of the definition would read: 'waste means any substance, whether or not that substance can be reduced, re-used, recycled *or* recovered' The second small amendment was made to (d)(ii) which was also amended to replace 'and' with 'or' which was amended to read: any portion of waste, once re-used, recycled *or* recovered ceases to be waste'.[61]

These two small amendments may seem fairly insignificant, but both amendments impact the definition of waste in notable ways. Firstly, the substitution of 'or' for 'and' in the first amendment increased the scope of what could fall within the definition of waste. The second amendment is a bit more important as it expands the scope of when waste will cease to be waste and no longer requires waste to be re-used, recycled *and* recovered in order to fall outside the definition of waste, instead waste can be re-used, *or* recycled *or* recovered and still fall outside the definition of waste as a result of any one of these three actions instead of all three actions needing to be present. This is a significant amendment as it allows more substances to fall

[59] NEMWA at s 1.
[60] National Environmental Management Laws Amendment Act 14 of 2013.
[61] Ibid at s 38.

outside of the definition of waste. However, there is still a lack of clarity surrounding this definition.

2.6 National Environmental Management Waste: Amendment Act[62]

With the enactment of the National Environmental Management: Waste Amendment Act came the introduction of a new definition of waste in 2014:

> (a) any substance, material or object, that is unwanted, rejected, abandoned, discarded or disposed of, or that is intended or required to be discarded or disposed of, by the holder of that substance, material or object, whether or not such substance, material or object can be re-used, recycled or recovered and includes all wastes as defined in Schedule 3 to this Act; or
>
> (b) any other substance, material or object that is not included in Schedule 3 that may be defined as a waste by the Minister by notice in the Gazette, but any waste or portion of waste, referred to in paragraphs (a) and (b), ceases to be a waste —
>
> (i) once an application for its re-use, recycling or recovery has been approved or, after such approval, once it is, or has been re-used, recycled or recovered;
>
> (ii) where approval is not required, once a waste is, or has been re-used, recycled or recovered;
>
> (iii) where the Minister has, in terms of section 74, exempted any waste or a portion of waste generated by a particular process from the definition of waste; or
>
> (iv) where the Minister has, in the prescribed manner, excluded any waste stream or a portion of a waste stream from the definition of waste.[63]

The first difference between the definition in the Act as promulgated in 2008 and the 2014 amended definition can be seen in the length of the definitions – the amended definition being notably longer and containing more detail. The first difference in content between the 2008 definition and 2014 definitions can be seen in the inclusion of ‘material or object’ after ‘substance’. The 2008 definition only included ‘substance’. Accordingly, the scope of the definition of waste is immediately widened to include materials or objects. The second part of the amended definition of waste deleted the word ‘reduced’ and now reads ‘re-used, recycled

[62] National Environmental Management: Waste Amendment Act 26 of 2014.
[63] Ibid at s 1.

or recovered'. The importance of this amendment is that by including re-use, recycle or recovery, the scope of how waste can be treated in order to no longer be deemed to be waste increases. Previously, only that which was reduced would be deemed to no longer be waste, but in this amendment, where a substance is re-used, recycled or recovered it will no longer be deemed to be waste. Although the scope is increased to include re-use, recycle or recovery, these actions are still limited by definition in terms of the NEMWA.[64]

Neither substance, material nor object are defined in the NEMWA. Accordingly, the inclusion of 'material or object' can be seen to broaden the scope of the definition of 'waste' to be more all-encompassing. One of the principles of statutory interpretation is that where a word is not defined in an Act or piece of legislation, that word should be ascribed its ordinary meaning unless to do so would result in an absurdity.[65]

The 2008 definition of waste could be criticized for being too broad. This definition does not recognize the intention of a party to discard or dispose of the substance material or object. However, the 2014 amendment changed this position by including 'or that is intended or required to be discarded or disposed of'. This is important because it clarifies the position that a substance, material or object cannot be deemed to be waste if there is no intention to discard or dispose of the substance, material or object.

The definition goes on to include (as in the 2008 definition) that a substance, material or object will be deemed to be waste regardless of whether or not that substance, material or object can be re-used, recycled or recovered. However, the term 'reduced' has been deleted from the 2014 definition. In section 1(i)(a), the definition of waste also includes the wastes defined in Schedule 3 to the NEMWA.[66] This is a new addition to the definition of waste as the 2008 definition did not include a schedule.

The second part of the 2014 definition provides the Minister with the power to define any other substance, material or object as waste (not included in Schedule 3) by proclamation in the Government Gazette.

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[64] "recycle" means a process where waste is reclaimed for further use, which process involves the separation of waste from a waste stream for further use and the processing of that separated material as a product or raw material; "re-use" means to utilise articles from the waste stream again for a similar or different purpose without changing the form or properties of the articles; "recovery" means the controlled extraction of a material or the retrieval of energy from waste to produce a product

[65] *Propfokus 49 (Pty) Ltd and others v Wenhandel 4 (Pty) Ltd* [2007] 3 All SA 18 (SCA).

[66] Ibid at s 1(i)(a).

Further to the above, the second part of this definition goes on to provide four exclusions to substances, materials or objects that would fall into the definition of waste described above: firstly, when an application for re-use, recycling or recovery has been approved and after the approval, once such re-use, recycling or recovery has taken place. Secondly, where such approval is not required, when the re-use, recycling or recovery has taken place. Thirdly, where a section 74 exemption of waste or a portion of waste is in place or finally, where the Minister has excluded a waste stream or portion of a waste stream.

The exclusionary provisions above vary quite substantially to the exclusionary provisions contained in the 2008 definition. The 2008 definition only excluded by-products, and waste that was re-used, recycled and recovered. The 2014 definition completely removes the exclusion of by-products[67] and provides further regulation of waste falling outside the definition on the basis of re-use, recycling or recovery. The further regulation with regard to re-use, recycling or recovery of waste is included by categorizing waste that is re-used, recycled or recovered into two categories: first, waste that requires an application for re-use, recycling and recovery, which must be approved (and will cease to be waste upon such approval or after such re-use, recycling or recovery takes place).[68] Second, waste that does not require an application, will cease to be waste once it is re-used, recycled or recovered.[69]

The third exclusionary provision has been included to connect section 74 applications to the waste exclusions. Section 74 allows for an exemption application to the Minister to preclude a certain substance, object or material from falling within the definition of waste. Accordingly, by including recognition for this part in the exclusionary provisions, this confirms that a successful section 74 application will result in a substance, material or object no longer falling within the definition of waste.[70]

The final exclusion provides that where the Minister excludes a waste stream or portion thereof (in the prescribed manner) the substance, material or object will cease to fall within the definition of waste. This is a new provision and is sensible as it provides the Minister with further powers to exclude certain substances, materials or objects from the definition of waste.[71]

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[67] By-products in their entirety have been deleted from the NEMWA in this Act as the definition was also deleted in the amendment.
[68] National Environmental Management Waste Amendment Act 26 of 2014 at s 1(i)(b)(i).
[69] Ibid at s 1(i)(b)(ii).
[70] Ibid at s 1(i)(b)(iii).
[71] Ibid at s 1(i)(b)(iv).

In summary, the 2014 definition of waste is progressive in clearly including the subjective intention of a party and providing further detail on exactly when a substance, material or object will be deemed to be waste. The subjective intention of a party would be proven by the party providing factual evidence to substantiate their claim that the substance, material or object is not waste, i.e. producing invoices for a company that purchases the 'waste'. The 2014 definition of waste also clarifies the powers of the Minister which provides the Minister with further oversight and power in relation to waste management and regulation.

However, this definition does still present an opportunity for waste producers to bypass the need to comply with waste legislation by claiming that the substance is not *intended* to be waste.

2.7 The National Environmental Laws Amendment Act[72]

The below amended definition of waste in the NEMLAA did not come into operation (together with certain other provisions) due to a court case which will be discussed in the following chapter. However, the amended definition that was set to be brought into effect is significantly different from the 2014 definition and must be considered. The 2022 amended definition reads as follows:

> 'waste' means—
>
> (a) any substance, material or object—
>
> (i) that the generator of that substance, material or object has no further use for within its own processes, whether or not it has any commercial value for the generator, but which can be re-used, recycled, recovered or traded in by any person;
>
> or
>
> (ii) that is rejected, abandoned, discarded or disposed of, either temporary or permanently, or is intended to be discarded or disposed of by the generator of that substance, material or object, regardless of whether or not that substance, material or object has any commercial value for the generator or can be re-used, recycled, recovered or traded in by any person;
>
> or

[72] National Environmental Management Laws Amendment Act 2 of 2022.

> (b) any other substance, material or object that may be defined as a waste by the Minister by notice in the Gazette; but any waste or portion of waste, referred to in paragraphs (a) and (b), ceases to be a waste—
>
> (aa) once it is re-used, recycled or recovered or traded in by the holder of that waste or portion of waste in accordance with a condition stipulated in a valid waste management licence, where applicable, or in accordance with an applicable norm or standard made in terms of this Act; or
>
> (bb) where the Minister has, in the prescribed manner, excluded the holder of any waste stream or a portion of a waste stream from the definition of waste, enabling the holder thereof to trade in the excluded waste stream or portion of the excluded waste stream, provided that the holder has satisfied the requirements of proving the environmentally safe use of the waste stream or portion of waste stream by it or any other person and committed to provide the Minister with annual reports of the use thereof[73]

Once again, it is immediately evident that the newly amended definition of waste is longer than the 2014 amended definition. The first subsection of the 2022 definition completely amends the 2014 definition and states that any substance, material or object that the generator 'no longer has further use for within its own process'. This first portion is a complete shift from the 2014 amendment which did not consider where the substance, material or object fell within the generator's own process at any point. The 2022 definition then goes on to state 'whether or not it has any commercial value for the generator' which is another completely new inclusion that did not find any place in the previous versions of the definition.[74] This part of the amendment immediately places a hurdle in front of waste producers that sell their waste to a third party (which in accordance with the pre-2022 amendment would result in the waste no longer falling within the definition of waste).

The second subsection of this definition states (in the alternative) that a substance, material or object that is 'rejected, abandoned, discarded or disposed of either temporarily or permanently', this first part of this subsection is notable as 'unwanted' which previously formed part of this phrasing no longer forms part of this section. Therefore, the subjective element required to determine if a substance, material or object is unwanted is no longer present in the definition. Further in this subsection, the amended definition states, 'either temporarily or permanently' which results in a substance, material or object falling within the definition even if it is only

[73] Ibid at s 61(k).
[74] Ibid at s 61(k)(a)(i).

waste (as defined) temporarily.[75] The inclusion of 'temporarily' adds a further layer to the complexity and scope of this definition as it no longer allows for a substance to not be deemed to be waste if that substance is to be re-used, recycled or recovered in a manner that would previously exclude it from being deemed to be waste. Instead, the substance is immediately deemed to be waste and attracts all legislative repercussions of falling into that definition.

The subsection goes on to state, 'or is intended to be discarded or disposed of by the generator of that substance, material or object, regardless of whether or not that substance, material or object has any commercial value for the generator'. This section of the 2022 definition once again moves away from the previous definitions because the substance, material or object will be deemed to be waste regardless of whether or not that substance, material or object has any commercial value for the generator. This subsection finally states that a substance, material or object will be deemed to be waste regardless of if the substance, material or object can be re-used, recycled, recovered or traded in. This is in line with the 2014 definition.[76]

The final part of the 2022 definition provides a third alternative which aligns with the previous definitions in that it provides for any other substance, material or object defined by the Minister in the Government Gazette to be waste.[77] This subsection provides for two circumstances where a substance, material or object that was considered to be waste in terms of (a) and (b) (discussed above) would cease to be waste. First, that a substance, material or object will cease to be waste once the waste is re-used, recycled or recovered or traded in by the holder of the waste.

However, this exclusion then goes on to state that this must be done in accordance with a condition from a valid waste management licence or an applicable norm and standard made in terms of the NEMWA.[78] The effect of this exclusion is that regardless of whether or not a waste generator re-uses, recycles or recovers waste, it will still be necessary to obtain a waste management licence (or comply with the Norms and Standards for the Storage of Waste[79]) as the substance, material or object will only be deemed to no longer fall within the definition of waste after the re-use, recycle or recovery done in accordance with a waste management licence or norm and standard.[80] This is problematic, as waste management licences are costly and time-

[75] Ibid at s 61(k)(a)(ii).
[76] Ibid.
[77] Ibid at s 61(k)(b).
[78] Ibid at s 61(k)(aa).
[79] GN 926, GNR 37088 29 November 2013. Norms and Standards for the Storage of Waste
[80] The Norms and Standards for The Storage of Waste promulgated under the NEMWA provide norms and standards for waste that does not require a licence containing specific provisions for the management of that waste, but rather sets out a list of applicable norms and standards that will govern how that waste is to be treated

consuming to obtain. Accordingly, a waste producer would need to spend a large amount of time and money to obtain a waste management licence regardless of the fact that the waste will be re-used, recycled or recovered.

Second, the Minster (as in the previous definitions) has the power to exclude a specific waste stream (or portion thereof) from the definition of waste.[81] However, this exclusion then goes on to state that by the Minister making this exclusion, the holder of the waste can trade in the excluded waste stream. This is a new introduction to the amendment as it only allows for trading in the waste if the Minster allows this by excluding the substance, material or object from the definition of waste. Furthermore, the definition goes on to become more restrictive as it states that this trading will only be allowed if the waste holder can satisfy the requirements that the exclusion of the waste stream is environmentally safe for use by the waste holder, or any other person. Moreover, the waste holder must also provide the Minister with annual reports evidencing environmentally safe use of the waste.[82]

The 2022 definition introduced amendments that extensively changed the definition of waste. In summary, the new 2022 definition would have the following impacts:

(i) The inclusion of substances, materials or objects in the definition of waste regardless of whether or not the substance, material or object had commercial value for the generator.

(ii) The inclusion of substances, materials or objects in the definition of waste when they are no longer used within the waste generator's own processes.

(iii) The inclusion of substances, materials or objects in the definition of waste that are temporarily rejected, abandoned, discarded or disposed of.

(iv) The inclusion of substances, materials or objects in the definition of waste that are intended to be discarded or disposed of by the generator for commercial value for the generator.

(v) When a substance, material or object is to be reused, recycled or recovered, the substance, material or object will still require a waste management licence or need to comply with the Norms and Standards until such time as the waste is re-used, recycled or recovered or traded

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and managed. Compliance with the Norms and Standards is compulsory and registration with the Department is necessary.

[81] An example of the minister excluding a waste stream can be seen in GN85, GNR42990 3 February 2020 Notice Indicating The Exclusion Of Certain Waste Streams Or Portions Of Waste Streams From The Definition Of Waste For Beneficial Use

[82] National Environmental Laws Amendment Act 2 of 2022.

in by the waste management licence holder (in accordance with the waste management licence) or the relevant Norms and Standards.

(vi) Waste can be excluded from the definition where the Minister has prescribed such exclusion, and this allows the waste holder to trade in that excluded stream or portion of waste.

(vii) A waste holder under (vi) above will only be allowed to trade in the excluded waste stream if the Minister deems the trade to be environmentally safe and if annual reports are provided to the Minister evidencing this.

From the above, it is clear that the 2022 definition introduces a wholesale shift in the approach to waste management and regulation in South Africa. The 2022 definition closes out almost all opportunities for industry to plan their waste management to ensure that their substances, materials and objects do not fall within the definition of waste. The impact of this is discussed in the following chapter.

3. CHAPTER THREE: SOUTH AFRICAN JURISPRUDENCE ON 'WASTE'

As explored in the previous chapter, the definitions of waste in South Africa have increased in length and complexity from the first to the most recent definition. With each amendment made, a review must be done by waste generators to carefully consider if the substance, material or object they produce still falls within the definition of waste or if it no longer falls within the definition. However, issues of interpretation of legislation are often encountered when legislation is complex.

Two important South African cases will be discussed and considered to demonstrate the interpretation adopted by the Courts of the definitions of waste.

3.1 ***Minister of Environmental Affairs and Another v ArcelorMittal South Africa Limited*** [83]

The first significant decision made by a South African Court regarding the definition of waste was made by the Supreme Court of Appeal in the matter of *Minister of Environmental Affairs*

[83] *Minister of Environmental Affairs and Another v ArcelorMittal South Africa Limited* (Case no 342/2019) [2020] ZASCA 40 (17 April 2020).

and Another v ArcelorMittal South Africa Limited.[84] This matter was originally heard in the Gauteng Division of the High Court (Pretoria) and was appealed to the Supreme Court of Appeal.

The First Appellant in this matter is the Minister of Environmental Affairs who is the decisionmaker whose decision was the subject of the (internal) appeal and subsequent review in the Gauteng Division of the High Court. The Second Appellant in this matter is the Deputy Director-General: Legal, Authorisations, Compliance and Enforcement. The Second Appellant made the decision (issuing a compliance notice and directive) which formed the subject of the review in the High Court. The Respondent is ArcelorMittal South Africa. A South African company that received an unfavourable decision made by the Minister which they reviewed in the High Court.[85]

Arcelormittal is 'one of the country's oldest and leading steel manufacturers'.[86] When the steel is manufactured, a by-product referred to as Basic Oxygen Furnace slag (BOF slag) is created.[87] The BOF slag is categorized by Arcelormittal into two categories: 'current arisings' and 'reclaimed slag'. The combined sales generated through the sale of current arisings and reclaimed slag amount to (approximately) R1.1 million per month.

The difference between the current arisings and reclaimed slag can be found in how the slag is dealt with after it is produced. The current arisings are temporarily placed in a stockpile and then crushed and screened prior to delivery to a third party. Reclaimed slag is not immediately sold to a third party. Instead, the reclaimed slag is 'temporarily deposited into AMSA's disposal site for storage'. Only once the reclaimed slag is sold to a third party is the reclaimed slag converted on site to the third party's specifications and subsequently delivered.[88]

This matter commenced with Environmental Management Inspectors inspecting the AMSA Newcastle operations which was followed by the Deputy Director-General issuing a pre-compliance notice and pre-directive, and ultimately a combined compliance notice and directive in terms of section 31L and 28(4) of the NEMA.[89]

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[84] Supra note 73.
[85] Supra note 73 at para 1.
[86] Supra note 73 at para 6.
[87] Supra note 73 at para 9.
[88] Supra note 73 at para 10.
[89] Supra note 73 at para 12.

The compliance notice identified two main uses: first, BOF slag was being disposed of without a waste management licence. Second, third parties purchasing the BOF slag (both categories) also required a waste management licence. Accordingly, the notice requested ArcelorMittal to cease disposal of BOF slag and selling BOF slag to third parties. Arcelormittal would only be allowed to commence the disposal of BOF Slag in the disposal site once the Department provided written consent and the sale of BOF slag to third parties could only commence once the respective third party could provide a waste management licence.[90]

The directive identified section 67(1)(a) of the NEMA which makes it an offence to conduct, commence or undertake a waste management activity without a waste management licence issued by the Department in terms of that specific activity. Arcelormittal disagreed with the compliance notice and directive issued and attempted to engage with the Deputy Director-General on multiple occasions in an attempt to convince the Deputy Director-General that Arcelormittal did not need to comply with the ECA, NEMA and NEMWA because these pieces of legislation were not in force at the time that Arcelormittal commenced operations.[91] However, the Deputy Director-General was unwavering in his view that Arcelormittal and the third party purchasers required respective waste management licences. Resultantly, Arcelormittal appealed the directive to the Minister and lodged an objection against the compliance notice.[92] The appeal and objection lodged with the Minister were both unsuccessful.[93]

In the appeal, Arcelormittal stated that both categories of BOF slag could not fall into the definition of waste because neither category was 'rejected, abandoned or unwanted' as required by the definition of waste contained in the NEMWA. In response to this, the Deputy Director-General argued that because ArcelorMittal no longer had use for the BOF slag, the BOF slag was resultantly 'rejected, abandoned or unwanted'.[94]

Arcelormittal reviewed the Minister's decision in the High Court. The High Court found in favour of Arcelormittal and disagreed with the reasoning of the Minister and Deputy Director-General. The High Court reasoned its finding by stating that both decisions were 'materially

[90] Supra note 73 at para 13.
[91] Supra note 73 at para 17.
[92] Supra note 73 at para 17.
[93] Supra note 73 at para 17.
[94] Supra note 73 at para 19-20.

flawed or influenced by an error of law or fact' and concluded that ArcelorMittal did not require a waste management licence to deposit its BOF slag at the disposal site.[95]

This decision was then appealed by the Minister and Deputy Director-General. In the Supreme Court of Appeal, section 21(1) and 22(1) of the ECA were considered. The ECA came into effect on 9 June 1989. Section 21(1) of the ECA provides the Minister with the authority to promulgate lists of activities which the Minister believes would have a substantial, detrimental effect on the environment in the Government Gazette.[96] Section 22(1) of the ECA works in tandem with section 21(1) by disallowing persons from continuing with any of the activities listed by the Minister (in terms of section 21(1)) without a written authorisation issued by the Minister (or other duly authorised official). ArcelorMittal does not contest that it would be required to comply with these sections if its operations commenced after the ECA came into effect.[97]

The SCA considered four issues. However, for the purpose of this discussion, the two issues that will be considered are:

(i) Was the Minister correct in dismissing AMSA's appeal against the DDG's directive and objection to the DDG's compliance notice?

(ii) Was AMSA required to obtain a WML under the NEMWA for its activities in respect of its old BOF slag disposal site undertaken since the 1970s before the ECA, the NEMA and the NEMWA were enacted?[98]

In order to understand if the Deputy Director-General was correct in his use of subsection 28(4) and 31L(1) of the NEMA, the SCA had to undertake an interpretive exercise in order to determine what is meant by 'waste' in terms of section 1 of NEMWA. At the time that this matter was heard, the 2014 definition (as discussed in the previous chapter) was in force.[99]

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[95] Supra note 73 at para 21.
[96] Supra note 73 at para 23.
[97] Supra note 73 at para 24.
[98] Supra note 73 at para 27.
[99] (a) 'Any substance, material or object that is unwanted, rejected, abandoned, discarded or disposed of, or that is intended or required to be discarded or disposed of, by the holder of that substance, material or object, whether or not such substance, material or object can be re-used, recycled or recovered and includes all wastes as defined in Schedule 3 to this Act; or

The SCA enunciated the principles of statutory interpretation required to interpret the definitions: 'the language used in the light of the ordinary rules of grammar and syntax; the context in which the provision appears; the apparent purpose to which it is directed'.[100] The Court also referenced the case of *Cool Ideas 1186 CC v Hubbard and Another*[101] which stated that 'words in a statute must be given their ordinary grammatical meaning, unless to do so would result in an absurdity…'[102]

It is notable that Arcelormittal raised the argument that there is no difference between the BOF slag that falls within the category of current arisings and the BOF slag which falls within the category of reclaimed slag. Arcelormittal raised the argument that current arisings (the BOF slag that is immediately sold) cannot fall within the definition of waste for two reasons: first, because the current arisings BOF slag is not stored nor deposited in the BOF slag disposal site it is not unwanted, rejected, abandoned or discarded as set out in the definition of waste. Second, the current arisings BOF slag has financial (commercial) value to Arcelormittal because it is sold to third parties.

With regard to the reclaimed slag, Arcelormittal contested that once the reclaimed slag is retrieved from the BOF slag disposal site, and recycled, the reclaimed slag ceases to be waste. According then to section 1(b)(i) to (iv) of the NEMWA, the reclaimed slag cannot fall within the definition of waste contained in the NEMWA. Finally, Arcelormittal argued that the third parties purchasing the BOF slag immediately (current arisings) or after the BOF slag had been on the BOF slag disposal site (reclaimed slag) did not require a waste management licence

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(b) Any other substance, material or object that is not included in Schedule 3 that may be defined as a waste by the Minister by notice in the Gazette, but any waste or portion of waste, referred to in paragraphs (a) and (b), ceases to be a waste –

(i) once an application for its re-use, recycling or recovery has been approved or, after such approval, once it is, or has been re-used, recycled or recovered;
(ii) where approval is not required, once waste is, or has been re-used, recycled or recovered;
(iii) where the Minister has, in terms of section 74, exempted any waste or a portion of waste generated by a particular process from the definition of waste; or
(iv) where the Minister has, in the prescribed manner, excluded any waste stream or portion of a waste stream from the definition of waste.'

[100] Supra note 73 at para 32.
[101] *Cool Ideas 1186 CC v Hubbard and Another* [2014] ZACC 16; 2014 (4) SA 474 (CC).
[102] Supra note 73 at para 33.

because what they purchased from Arcelormittal was not waste as defined by section 1 of the NEMWA.[103]

The SCA found the definition of waste contained in section 1 of the NEMWA to be 'clear and unequivocal'. The court stated that it was 'readily apparent' that any 'substance, material or object that was not unwanted, rejected, abandoned, discarded or disposed of' is not waste. Moreover, the SCA found that when an object, material or substance is recycled, it ceases to be waste once it has been re-used or recycled. In conclusion, the SCA found that both the current arisings and reclaimed BOF slag fell outside of the definition of waste.[104]

The SCA identified a crucial point regarding recycling in its decision.[105] The SCA noted that the NEMA calls for the protection of the right to an environment. This right is supported by a list of principles contained in the NEMA – one of which, is the principle of sustainable development. This principle states that 'sustainable development must be balanced against the need to avoid waste or where waste cannot be altogether avoided or minimized, it must be recycled'. Accordingly, the SCA identified that in recycling the BOF slag, ArcelorMittal was promoting one of the principles foundational to the NEMA and the protection the environmental right.[106] This is an important point and will be elaborated on in Chapter 5. Furthermore, the Court answered the two questions set out above in the negative and the appeal resultantly failed.

This case is important because it provides insight into how the SCA interpreted the definition of waste, which interpretation was clear, and unequivocal. In accordance with this decision, a precedent was set that waste cannot be waste if the substance, object or material is not unwanted, rejected, abandoned, disposed of or discarded. The SCA also confirmed that once an object, material or substance is recycled, it ceases to be waste. Accordingly, this case sets very clear boundaries for when a substance, object or material is waste in terms of the NEMWA and when the substance, material or object is not waste.

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[103] Supra note 73 at para 38.
[104] Supra note 73 at para 41.
[105] Section 1 of the National Environmental Management Waste Amendment Act 2014 defines recycle as: 'a process where waste is reclaimed for further use, which process involves the separation of waste from a waste stream for further use and the processing of that separated material as a product or raw material.'
[106] Supra note 73 at para 42.

3.2 *South African Iron and Steel Institute and Others v Speaker of the National Assembly and Others*[107]

The second significant decision made by a South African Court regarding the definition of waste was made by the Constitutional Court in the matter of *South African Iron and Steel Institute and Others v Speaker of the National Assembly and Others*.[108] This case was recently decided after the Arcelormittal matter discussed above. This matter was heard on successful application for direct access to the Constitutional Court and the judgment was unanimous.

On 24 June 2022 the NEMLAA was assented to. Amongst other amendments, this Amendment Act introduced a host of amendments to the NEMWA. One of the most notable of those amendments being the amendment to the definition of waste.[109]

As will be discussed by the Court, the above amended definition of waste contains material difference to the current definition of waste. The applicants in this matter were South African Iron and Steel institute (first applicant), Fertilizer Association of Southern Africa (Second Applicant), Arcelormittal South Africa Limited (Third Applicant) and H Pistorius & Kie Proprietary Limited (Fourth Applicant). The applicants are all materially impacted by the definition of waste due to their involvement in the steel industry and fertilizer industry.[110]

There are thirteen respondents in this matter: the speakers of each provincial legislature, the Speaker of the National Assembly, the Chairperson of the National Council of Provinces, the Minister of Forestry, Fisheries and Environment and the President of the Republic of South Africa.[111]

There are two issues that this judgment addresses: first, if the amendments made to the NEMWA are material. Second, if the amendments made to the NEMWA required public involvement beyond that which was undertaken.[112]

The amendment process began prior to 16 September 2015 (on which date the NEMLA was approved by Cabinet). The next step in the process to enact a new piece of legislation is to invite public comment. At this stage, the version of the definition of waste was not materially

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[107] *South African Iron and Steel Institute and Others v Speaker of the National Assembly and Others* [2023] ZACC 18.
[108] Supra note 97.
[109] The 2022 amended definition of waste appears in full in Chapter 2, under sub-heading 2.7, beginning on page 23.
[110] Supra note 97 at para 3-4.
[111] Supra note 97 at para 5.
[112] Supra note 97 at para 2.

different (i.e. did not have a material effect) to the definition in its current form. Almost three years later, on 24 April 2018, further consultation took place when stakeholders made representations which resulted in a further version of the Bill (version "B") being introduced. The amendments were (once again) not material to the effect of the definition.

On 17 April 2020, the Arcelormittal decision discussed above was handed down in the Supreme Court of Appeal. This decision was not appealed by the Department of Environmental Affairs.[113] In the aftermath of the Arcelormittal judgment, it was stated by the Gauteng Provincial Legislature that the definition of waste should be "simple and unambiguous" and that the definition needs to "allow for rational, risk-based beneficiation of waste without the need for any waste management licence or compliance with the NEMWA as the material in question would not be considered a waste".[114]

In stark contrast to the statements made by the Gauteng Provincial Legislature, the Department released an entirely new definition (the newly amended definition) in June 2021.[115] This definition was materially different, and the effect of the new definition would be felt across almost all industries. The applicants requested further public participation with the Department and the Chairperson of the National Council of Provinces after finding out about the material amendments to the definition of waste. Ultimately, this version of the definition of waste was assented to by the President on 24 June 2022.[116] Although not yet in force, the amended version of the definition of waste would come into force on the date the president proclaimed. In response to this, the applicants launched proceedings in the Constitutional Court.[117]

One of the main issues identified in this case is that of inadequate public participation. (This issue is not relevant for the purpose of this paper. The court found that public participation in this has been inadequate.) The main issue in this case (relevant for present purposes) is if the newly amended definition was materially different to the previous definition and what impact those differences would have. The applicants raised the issue that persons who previously did not create waste (in terms of the definition) would, under the new definition create waste. The applicants further argued that this could be evidenced by the transitional provisions for those

[113] Supra note 97 at para 13.
[114] Supra note 97 at para 14.
[115] Supra note 97 at para 15.
[116] Supra note 97 at para 20.
[117] Supra note 97 at para 20.

products which previously did not fall within the definition of waste and as a result of the amendment, now did.[118]

The respondents disputed that the amendments made to the definition of waste were material.[119] In order to determine if there were material differences between the two versions of the definition, the Court compared the two definitions and the regulatory scope of the NEMWA under each definition.[120] The Department submitted that the newly amended version was introduced as a means to 'counteract' the Arcelormittal decision.[121] Of course, by virtue of the reasoning of the respondents of 'counteracting' the Arcelormittal decision, it would be remiss for the respondents to then argue that the newly amended definition contains no material differences.

One of the most notable and important amendments to the definition was the inclusion of "materials for which a generator has no further use for within its own processes, whether or not it has any commercial value for the generator".[122] The court recognised that by including this in the amended definition a large range of objects, materials and substances which did not previously fall within the definition of waste (and require regulation by the NEMWA) would now fall within the newly amended definition of waste. Further, that these items which previously fell outside the regulatory scope, would result in the 'waste' producer needing to meet the requirements of the NEMWA and the cost implication that follow – which can in some instances reach R500,000.00.[123] Even more costly, is the cost of non-compliance which can result in fines of up to R10 million and/or imprisonment.[124]

Not only would the 'waste' producer need to comply with the transitional provisions[125] set out in the Amendment Act, but also the requirement to obtain a waste management licence (in

[118] Supra note 97 at para 22.
[119] Supra note 97 at para 23.
[120] Supra note 97 at para 33.
[121] Supra note 97 at para 34.
[122] Supra note 97 at para 35.
[123] Supra note 97 at para 39.
[124] Supra note 97 at para 36.
[125] Transitional provision due to amendment of definition of "waste" 88. (1) Any substance, material or object, which is "waste" in terms of the amended definition of "waste", but was not regarded as such prior to the commencement of the amended definition must be regarded as waste from the date of the commencement of the amended provision, unless it is excluded in terms of section 4 from the scope of the National Environmental Management: Waste Act, 2008. (2) A person in control of the substance, material or object must within 60 days from the date of the commencement of the amended definition of "waste", either— (a) apply for a waste management licence, if the person conducts an activity, which is listed in terms of section 19(1) of the principal Act; (b) comply with a norm or standard, if the person conducts an activity, which is listed in terms of section

accordance with section 20 of the NEMWA).[126] The only way to avoid needing to obtain a waste management licence is if the waste management activity falls within the Waste Norms and Standards.[127]

Turning to consider the transitional provisions, the court noted that the transitional provisions made provision for those persons who were in control of 'waste' (in accordance with the new definition) to apply for a waste management licence, comply with a norm or standard (if a listed activity is being conducted) and/or apply for an exclusion of the substance, material or object within 60 days of the amendment.[128]

The Court outlined four possible implications of the transitional provisions:

(1) 'Applying for an exemption in terms of section 74 of the NEMWA;
(2) Ceasing the primary production activity which causes the co-product or by-product to be produced
(3) Ceasing the sale of the co-product or by-product and stockpiling these products on site; and
(4) Customers of the co-product themselves having to obtain a waste management licence in order to utilize the product which is now to be considered "waste".'

The Court concluded that the amendments were material,[129] that the impugned provisions were unconstitutional (due to 'the procedural defects in their enactments'), and finally that the pre-amendment definition would remain in force.[130]

Although this definition of waste was not enacted, the NEMLAA has been partially brought into effect.

4. CHAPTER FOUR: HOW 'WASTE' IMPACTS A CIRCULAR ECONOMY

4.1 The recognition of a circular economy in South Africa

A circular economy is described by the Ellen MacArthur Foundation as:

19(3) of the Act, if applicable; or (c) apply for the exclusion of the substance, material or object from the definition of waste in the prescribed manner.
[126] Supra note 97 at para 36.
[127] Supra note 97 at para 36.
[128] Supra note 97 at para 37.
[129] Supra note 97 at para 40.
[130] Supra note 97 at para 50.

> a system where materials never become waste and nature is regenerated. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting. The circular economy tackles climate change and other global challenges, like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources.[131]

The Polokwane Declaration represented a keen step forward in recycling ambition in South Africa. The Polokwane Declaration (2002) sought to achieve a 30% growth rate in the recycling industry by 2012. Furthermore, the Polokwane Declaration sought to reduce levels of waste to zero by 2022.[132] Even in 2002, the legislative framework was identified as a crucial element for waste minimisation and recycling. The paper highlighted the need for promulgation of legislation at a national, provincial and local government level. The paper identifies the need for specific provision for recycling to be made in the Draft Waste Management Bill, inter alia, 'ensuring an appropriate definition of waste'. This is important, as the definition of waste was already highlighted as an important element to ensure recycling is properly prioritized. [133]

In 2005 a move to improve and increase recycling in South Africa was implemented by the Recycling Component of the National Waste Management Strategy Implementation (NWMSI) Projects and a summit was held and the goal "to reduce waste generation and disposal by 50% and 25% respectively by 2012 and develop a plan for zero waste by 2022". During the summit, various waste streams were identified with the purpose of using recycling initiatives to combat the harm caused by each waste stream. The identified waste streams being beverage cans, papers, glass, plastic materials, tyres and used oils. Furthermore, five suggestions were made to better waste management practices in South Africa: prioritization of waste for recycling; recommendation for Extended Producer Responsibility; increase waste exchange system; information needed for waste information system, and pilot projects.[134]

In the period of October 2004 to January 2005, provincial recycling workshops were held during which time the National Waste Management Strategy Implementation Project

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[131] Ellen MacArthur Foundation 'What is a circular economy?' *https://www.ellenmacarthurfoundation.org/topics/circular economyintroduction/overview#:~:text=The%20circular%20economy%20is%20a,remanufacture%2C%20recycling%2C%20and%20composting,* accessed on 24 November 2023.
[132] Department of Environmental Affairs and Tourism 'National Waste Management Strategy Implementation South Africa' (2005) at 22.
[133] Department of Environmental Affairs and Tourism 'National Waste Management Strategy Implementation South Africa' (2005) at 22.
[134] Ibid at 6-7.

Recycling Component was discussed. The workshops were aimed at key stakeholders and role players from both the public and private sector. The significance of this being that public and private sector engagement was necessary for the suggestions outlined above to be effectively implemented.[135]

The importance of recycling for South Africa is found in environmental conservation, prevention of pollution and support to prevent ecological degradation. From an economic and social perspective, recycling also provides an opportunity for job and business creation. The approach to recycling in South Africa is not one that is adopted at the end of a product's life cycle, but rather an approach that encompasses holistic integration of recycling from start to finish.[136]

A more recent legislative instrument that is important to understanding waste management in South Africa is the Circular Economy Guideline for the waste sector. The circular economy guideline recognizes the importance of using policies and regulations to create an environment that supports sustainable consumption and production, and a circular economy.[137] The benefit of a circular economy extends beyond the environment and into business development and socio-economic upliftment. At the time that this Guideline was drafted, 90% of waste that still had a significant recyclable content was being sent to landfill.[138]

At present, although there has been an increased recognition of the importance of a circular economy to South Africa, as country, we are still moving waste in accordance with a more linear approach.[139] The linear economy is described as a 'take, make, dispose' approach to natural resources.[140] The linear approach is unsustainable, and detrimentally harmful to our environment, making it necessary to fully incorporate a circular economy into our waste management.[141] In a circular economy materials that are not used are still regarded as useful because these materials can undergo processes to add value to the material to make them usable again and increase their value. This process is called 'upcycling'.[142] However, this process is

[135] Ibid at 8.
[136] Ibid at 10.
[137] Department of Environment, Forestry and Fisheries 'A Circular Economy For The Waste Sector – A Driving Force Towards Sustainable Consumption And Production' (2020) at 4.
[138] Ibid.
[139] Ibid at 6.
[140] Ibid at 17.
[141] Ibid.
[142] Ibid at 24.

only possible if the whole value chain of the business model is analysed to identify where the opportunities to upcycle lie. Furthermore, redesign of products may be required to extract the most of the opportunity to reuse certain elements of the products - this means that the products will impact the environment less at every stage of the lifecycle of the product. The move away from a linear economy is crucially important as the costs (health and economic) are dire.[143]

An important facet of the circular economy is the end goal of 'sustainable consumption and production'. The concept of 'Sustainable consumption and production' is defined as, 'a holistic approach to minimizing the negative environmental impacts of production and consumption in society'.[144]

Sustainable consumption and production require resource efficiency at every step of the value chain.[145] An important element of this is eco-design which requires the material chosen to make a product being consciously chosen to ensure that the material can be recovered and reused; the actual design of the product should also further this objective.[146] Put in simple terms, 'waste must be designed out of the system'.[147]

The importance of moving towards a circular economy for businesses is multi-faceted. At the forefront is the economic benefit the businesses would obtain from avoiding high landfill costs, which will only increase as landfill space lessens.[148] In terms of the business operations at a management level, we have already seen the Johannesburg Stock Exchange invoke the King Code which incorporates principles of environmental, sustainability and governance (ESG), which requires businesses listed on the JSE to (amongst other things) ensure that they are environmentally conscious in decision making. [149]

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[143] The health costs from air pollution associated with linear economy practices are estimated at over USD 5 trillion per year. Worldwide, 8 to 9 million avoidable deaths occur annually from pollution; over 6 million tonnes of plastic are discharged into the oceans ever year; 83% of a sample of global water supplies from public taps contain microplatsics; and 95% of all plastics are discarded after a single use. Such costs represent a loss of USD 80 to 120 billion per year, which does not account for negative externality costs, ibid at 28.
[144] Op cit note 125 at 18.
[145] Ibid at 18.
[146] Ibid at 27.
[147] Ibid at 35.
[148] Linda Godfrey 'The Circular Economy As Development Opportunity' (2021) CSIR: Pretoria at 22-23 and 32.
[149] June 2022. https://www.jse.co.za/our-business/sustainability/jses-sustainability-and-climate-disclosure-guidance. Johannesburg Stock Exchange. Accessed on 22 March 2024.

The Guideline highlights the importance of including all actors in the value chain in decision-making regarding policy and legislative frameworks.[150] Of course, input from the those actively involved in the practical application of the legislative principles and policies is crucial to ensuring that policies and legislative frameworks are implementable. The circular economy benefits are especially important to South Africa considering the benefits include the increase of employment opportunities, better use of resources, reduction of carbon emissions, amongst others.[151]

An important theme for circular economy system implementation, is cross-sector collaboration, and more importantly, integration in order for a circular economy system to be implemented.[152]

More recently, the Council for Scientific and Industrial Research (CSIR) published a document titled 'The Circular Economy As A Development Opportunity'. At the outset, the context set in this book, is that a circular economy is not about how a system manages waste, but rather how a system sustainably manages resources.[153]

It is submitted that the definition of waste directly impacts the ease of the implementation of the circular economy. By incentivizing the private sector to ensure the materials, objects or substances they produce are recycled, reused or developed in a manner that falls outside of the definition of waste, the private sector moves away from a linear economy by using materials, substances and objects in a manner that promotes this. It is submitted that if the definition of waste encourages re-use, recovery and recycling through incentivizing industry then South Africa will move closer to a circular economy. However, if the definition of waste is overly stringent and tedious, and fails to encourage industry to re-use, recover and recycle, then industry will not be encouraged to move towards a circular economy.

To understand the extent of how far South Africa is from implementing a circular economy, South Africa only recycles an estimated 7% of waste, of which only 2% is derived from materials within the economy. Being such a resource rich nation has resulted in high extraction rates but as evidenced, very low reuse and recycle rates which presents a challenge when those

[150] Op cit note 144 at 6.
[151] Op cit note 144 at 27.
[152] Op cit note 144 at 74.
[153] Linda Godfrey 'The Circular Economy As Development Opportunity' (2021) CSIR: Pretoria at ii.

resources are continuously extracted without sufficient time for replenishment. In a circular economy, primary resource extraction is limited as resources are extracted from goods already in use.[154] A move to a circular economy has proven beneficial to developing countries through job creation, reduced pollution, GDP growth, environmental benefits, economic growth, increase in scarce primary materials and improved environmental health.[155]

On 28 January 2021, the Minister of the Department of Forestry, Fisheries and Environment signed the National Waste Management Strategy 2020 into effect.[156] The Waste Management Strategy explicitly recognises the management of waste as falling within the scope of responsibility of the Department of Forestry, Fisheries and Environment by consequence of section 24 of the Constitution.[157] The importance of moving to a circular economy cannot be understated with South Africa only diverting 11% of waste from landfill in 2017. The waste management strategy recognizes the importance of diverting waste from landfill through the use of a secondary resources economy that encourages a circular economy through recycling and recovery.[158]

The Waste Management Strategy identifies waste prevention (in accordance with the waste management hierarchy) to be the most important of the waste management practices. The Waste Management Strategy explains that waste prevention is implemented at every stage of production from the raw material selection, to packaging, to production and *industrial symbiosis*.'[159] Industrial symbiosis is defined as 'the association between industrial facilities or companies in which the waste or by-products of one become raw materials for another'.[160]

With major budgetary and human capital restraints, the local government authorities are unable to provide the most basic services to municipalities. Accordingly, the focus of support waste management programmes is increasingly difficult. With an increase in budgetary and human

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[154] Ibid at 3.
[155] Ibid at 4.
[156] GN 36 GG 44116 of 28 January 2021.
[157] Ibid at 10.
[158] Ibid at 12.
[159] Ibid at 14.
[160] Nilsson Kjell 'Industrial symbiosis' available at *https://nordregio.org/nordregio-magazine/issues/industrial-symbiosis/what-is-industrial-symbiosis/#:~:text=Industrial%20symbiosis%3A%20Industrial%20symbiosis%20is,become%20raw%20materials%20for%20another*, accessed on 24 November 2023.

capital constraints, municipalities are finding it increasingly difficult to provide basic services and waste stream segregation and management is struggling.[161]

The factors further impeding waste prevention are identified as low landfill costs, lack of incentives, lack of information on waste streams, commercial pressure to shorten product development cycles, amongst others.[162]

The enablers of waste prevention are identified as: measures supporting public and private investment in EPR, environmental awareness, institutional arrangements to evolve decision-making process, amongst others. [163]

The five key principles of the Waste Management Strategy are waste minimization, waste prevention waste as a resource, sustainable strategic partnerships and environmentally sound socioeconomic development.[164]

The Waste Management Strategy identifies the circular economy as a crucial element of waste management for South Africa. It identifies the two strategic entry points of waste management within a circular economy and waste prevention and waste as a resource.[165]

South Africa has improved the policy framework to move towards a circular economy. One of the important legislative instruments being used is the Extended Producer Responsibility Regulations.[166] The Extended Producer Responsibility Regulations came into effect on 5 May 2021. The Regulations are aimed at 'extending' the 'responsibility' of producers and brand owners to cater for the full lifecycle of the products they produce and put on the market. The regulations are aimed at bettering circular economy initiatives, management of identified products, and providing a framework for an extended producer responsibility schemes.[167]

[161] Op cit note 142 at 16.
[162] Ibid.
[163] Ibid.
[164] Ibid at 23.
[165] Ibid at 27.
[166] Ibid at 5.
[167] Op cit note 5 at s 1-2.

5. CHAPTER FIVE: CONCLUSION

The amendments to the definitions of waste demonstrate that there has been significant growth in the understanding of the concept of waste and how the definition of waste impacts the environment. From the first definition of waste contained in the Environment Conservation Act,[168] to the amended definition of waste contained in the NEMWAA,[169] recycling, reuse and recovery of materials at every stage of the production process and thereafter have been encouraged. This is in accordance with the need to move away from a linear economy system and towards the implementation of a circular economy system.

Further, the increasing recognition of the importance of a circular economy system for South Africa has grown as the definitions of waste have been amended to reflect this importance. However, the 2022 amended definition of waste demonstrates a clear misunderstanding of the impact of the definition and the link between the definition of waste and a circular economy. If the 2022 amended definition of waste was to be accepted, the limitations would result in overregulating and disincentivizing the private sector from implementing measures to avoid their materials, substances and objects from falling within the definition of waste.

The most important consideration when analyzing the definition of waste is the purpose of the definition of waste. The definition of waste was promulgated (along with the relevant waste management legislation) to ensure that the environment is protected from the potentially harmful consequences of waste that is mismanaged. The definition of waste achieves this purpose by describing and identifying what substances, objects and materials could potentially harm the environment and seeking to regulate those.

However, as the historical analysis in this dissertation has demonstrated, a concise definition of waste that appeases both the public and private sectors is difficult, if not impossible to achieve. In managing waste, the regulator (public sector) is expected to understand the

[168] Op cit note 5.
[169] Op cit note 55.

subjective intention of each waste producer and where this is not achieved by the regulator, a waste producer may produce waste that sits indefinitely (polluting the environment) because the waste producer has the intention to recycle the waste 'at a later stage'.

The time period between the creation of waste and the actual recycling, recovery or re-use of waste is separated only by intention on the part of the waste producer. This potential loophole which the regulator has attempted to close by negating the intention of the waste producer (as seen in the 2022 amendment), also has the unintended consequence of moving South Africa further away from a circular economy.

It is submitted that this approach should not be adopted by the legislature and regulator. Instead, it is recommended that Norms and Standards are drafted to regulate the management of waste during the time period between the creation of waste (made with the intention to recycle, recover and reuse the waste) and the actual recycle, recovery and reuse of waste. The Norms and Standards would alleviate the need to obtain a waste management licence and circumvent the costly and time-consuming process that accompanies obtaining a waste management licence. However, by implementing Norms and Standards the legislature and regulator would be able to ensure that no harm or pollution occurs to the environment while the waste is in while waiting to be re-used, recycled or recovered.

It is further submitted that this would achieve the balance sought in the Constitution under the environment right contained in section 24 which balances environmental protection against sustainable development "while promoting justifiable economic and social development'.[170]

It is recommended that the public sector engage in extensive consultation with the private sector prior to amending the definition of waste in future to ensure that the input from the private sector is thoroughly considered. The move to a circular economy system is not possible without private sector cooperation. With a definition of waste that encourages reuse, recycling and recovery of waste ergo, encouraging a circular economy, South Africa can move closer to the protection of environmental rights as envisaged in the Constitution.[171]

[170] Op cit note 21.
[171] Op cit note 21 at s 24.

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UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

Miss Natercia Catherine Dos Santos Niz (222067390)
School Of Law
Pietermaritzburg

Dear Miss Natercia Catherine Dos Santos Niz,

Original application number: 00021702
Project title: The definition of waste in the National Environmental Management Waste Act: Have the amendments brought South Africa closer to a circular economy?

Exemption from Ethics Review

In response to your application received on 20 June 2023 , your school has indicated that the protocol has been granted **EXEMPTION FROM ETHICS REVIEW.**

Any alteration/s to the exempted research protocol, e.g., Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through an amendment/modification prior to its implementation. The original exemption number must be cited.

For any changes that could result in potential risk, an ethics application including the proposed amendments must be submitted to the relevant UKZN Research Ethics Committee. The original exemption number must be cited.

In case you have further queries, please quote the above reference number.

PLEASE NOTE:
Research data should be securely stored in the discipline/department for a period of 5 years.

I take this opportunity of wishing you everything of the best with your study.

Yours sincerely,

[redacted]----------

Mr Matthew Blain Kimble
obo Academic Leader Research
School Of Law