THE LIABILITY OF HISTORICAL MINE AUTHORIZATION HOLDERS FOR REHABILITATION

Dissertation submitted in partial fulfilment of the requirements for the degree LLM Environmental Law and Governance at the North-West University (Potchefstroom Campus)

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DECLARATION

I, the undersigned, Suzette Hartzer, hereby declare that the content of this dissertation is my original work and that I have not previously submitted it, in part or in its entirety, for a degree at any other university.

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Signature

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Date
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<tr>
<td>DM</td>
<td>Department of Minerals</td>
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<tr>
<td>DME</td>
<td>Department of Minerals and Energy</td>
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<td>DWAF</td>
<td>Department of Water Affairs and Forestry</td>
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<td>DWEA</td>
<td>Department of Water and Environmental Affairs</td>
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<td>EIA</td>
<td>Environmental Impact Assessment</td>
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<td>EMP</td>
<td>Environmental Management Plan or Programme</td>
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<td>GDACE</td>
<td>Gauteng Department of Environmental Affairs</td>
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<td>GG</td>
<td>Government Gazette</td>
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<td>GN</td>
<td>Government Notice</td>
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<td>MA</td>
<td>Minerals Act 50 of 1991</td>
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<td>MHSA</td>
<td>Mine Health and Safety Act 29 of 1996</td>
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<td>MPRDA</td>
<td>Mineral Petroleum Resources Development Act 28 of 2002</td>
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<td>MPRDAA</td>
<td>Mineral Petroleum Resources Development Act 49 of 2008</td>
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<td>MWA</td>
<td>Mines and Works Act 27 of 1956</td>
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<td>NELAA</td>
<td>National Environment Laws Amendment Act 14 of 2009</td>
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<td>NEMA</td>
<td>National Environmental Management Act 107 of 1998</td>
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<td>NHRA</td>
<td>National Heritage Resources Act 25 of 1999</td>
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<td>National Water Act 36 of 1998</td>
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<td>PHRAG</td>
<td>Provincial Heritage Resources Agency of Gauteng</td>
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<td>SAHRA</td>
<td>South African Heritage Resources Agency</td>
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<td>Stell LR</td>
<td>Stellenbosch Law Review</td>
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ABSTRACT

Historically, irresponsible mining companies have escaped their duty to rehabilitate. The *Mineral Petroleum Resources Development Act* does not oblige mining companies to rehabilitate if their operations ceased before the *Minerals Act* came into force. In the court case *De Beers Consolidated Mines v Ataqua Mining (Pty) Ltd and others* 2006 1 SA 432 (T), the court held that the *Mineral Petroleum Resources Development Act* is not applicable to tailings dumps that were created through mining that had been conducted under the *Minerals Act*. This ruling leaves unanswered the question about who would be liable to rehabilitate old order tailings dumps once such tailings dumps are re-mined or not mined at all. The aim of this dissertation is to determine whether companies that ceased mining operations before the *Mineral Petroleum Resources Development Act* came into effect could be held liable for rehabilitation by introducing the scenario that applied in the *De Beers court case*.

KEYWORDS

**UITREKSEL**

In die verlede het onverantwoordelike mynmaatskappye versuim om hul mynbou-aktiwiteite te rehabiliteer. Die *Wet op die Ontwikkeling van Minerale en Petroleumhulpbronne* verplig nie mynmaatskappye om te rehabiliteer nie indien hulle hulle mynbou-aktiwiteite gestaak het voordat die *Mineraalwet* in werking getree het. In die *De Beers Consolidated Mines v Ataqua Mining (Pty) Ltd and others*-saak het die hof beslis dat die *Wet op die Ontwikkeling van Minerale en Petroleumhulpbronne* nie van toepassing is uitskot of mynhope wat ontstaan het as gevolg van ‘n mineraalreg wat toegestaan is in terme van die *Mineraalwet* (d.i. ‘n mineraalreg uit ‘n vroeëre bedeling). Hierdie hofsaak het die vraag laat onstaan na wie verantwoordelik is vir die rehabilitasie van afval van beneficieringsaanlegte of mynhope wat ontstaan het as gevolg van ‘n mineraalreg wat in terme van ‘n vroeëre bedeling toegeken is. Die doel met hierdie skripsie is om, teen die agtergrond van die De Beers hofsaak, te bepaal of mynmaatskappye wat hulle mynbou-aktiwiteite gestaak het voordat die inwerkingtreding van die *Wet op die Ontwikkeling van Minerale en Petroleumhulpbronne* in werking getree het aanspreeklik gehou kan word vir rehabilitasie nie.

**TREFWOORDE**

Mineraalreg, rehabilitasie, minerale uitskot of mynhope, die *Wet op die Ontwikkeling van Minerale en Petroleumhulpbronne* 28 of 2002.
1. Introduction

Mines cause extensive pollution and environmental degradation that can affect the health and well-being of people living in the vicinity of the mines. Environmental pollution caused by mining does not end when mining operations cease.\(^1\) Abandoned mines pose a risk, because they may pollute water resources and the air and endanger public safety.\(^2\) Historically, mining companies did not necessarily use mining methods that took the environmental consequences of their activities into account. Some mining companies avoided environmental rehabilitation by liquidating the company or leaving the country before rehabilitation\(^3\) was done. Abandoned mines are a common feature of the South African landscape. There are at present approximately five times more abandoned mines than operating mines.\(^4\) A mutual agreement that was concluded between the Chamber of Mines and the Minister of Water Affairs in 1976 determined that the rehabilitation of mines that were abandoned prior to 13 July 1956 is the responsibility of the state.\(^5\) Section 46 of the *Mineral Petroleum Resources Development Act* 28 of 2002 (MPRDA) states that the state is responsible for the rehabilitation of an abandoned mine if the owner is deceased, can not be traced, ceased to exist or has been liquidated.\(^6\) Rehabilitation of these mines has extensive financial consequences for the state and indirectly, for the taxpayer.

\(^1\) Strydom and King *Environmental Management* 551.
\(^2\) Asbestos mines that have been abandoned by foreign companies since 1987 are the cause of asbestos-related diseases (ARD), air pollution, water pollution and exposure to hazardous waste. See Feris “The asbestos crisis – the need for strict liability for environmental damage” 289-291. Also see Strydom and King *Environmental Management* 551.
\(^3\) Swart 2003 *Journal of South African Institute of Mining and Metallurgy* 489.
\(^4\) Davenport 2008 www.engineeringnews.co.za.
\(^5\) Franklin and Kaplan *Mining* 574.
\(^6\) S 46(1) of the MPRDA.
In terms of the MPRDA, the liability for rehabilitation only ceases once the Department of Minerals (DM)\(^7\) issues a closure certificate.\(^8\) The MPRDA repealed the *Minerals Act* 50 of 1991 (MA) and its regulations. The transitional provisions in the MPRDA provide that mining rights obtained in terms of the MA (old order rights) must be converted to a MPRDA mining right and that the conditions, *inter alia* the obtaining of a closure certificate, pertaining to the old order right will remain valid until they are converted.\(^9\) The MPRDA does not address the issue of the rehabilitation of mines in cases in which operations ceased before the MA came into force.\(^10\) In *Bareki No and Another v Gencor Ltd and Others*\(^11\) (*Bareki case*) the court held that the respondents, who had ceased mining activities between 1980 and 1985, were not liable in terms of the *Mines and Works Act* 27 of 1956 (MWA) or the MA, because the MPRDA had repealed both these acts on 1 May 2004.\(^12\) Furthermore, the court ruled that section 28 of the *National Environmental Management Act* 107 of 1998 (NEMA) does not have retrospective application. The consequence of this judgment is that mining companies are only liable for pollution that occurred after the promulgation of NEMA on 29 January 1999.\(^13\) According to Du Plessis and Kotzé\(^14\) the *Bareki* case left unanswered the question regarding who is to be held liable for pollution that occurred prior to this ruling. NEMA has subsequently been amended to address this issue.\(^15\)

In the court case *De Beers Consolidated Mines v Ataqua Mining (Pty) Ltd and others*\(^16\) (*De Beers case*), the court held that the MPRDA is not applicable to

\(\footnotesize{7}\) The former Department of Minerals and Energy (DME) was split into two departments in 2009, namely the Department of Minerals (DM) and the Department of Energy. In this dissertation, reference will be made to both DME and DM, depending on the historical context.

\(\footnotesize{8}\) See discussion of closure certificates in terms of the MPRDA in 5.1.

\(\footnotesize{9}\) Item 10 of the MPRDA.

\(\footnotesize{10}\) See discussion in 5.1.

\(\footnotesize{11}\) 2006 1 SA 432 (T).

\(\footnotesize{12}\) See discussion in 5.1.

\(\footnotesize{13}\) The retrospective application of NEMA is discussed in 5.2.

\(\footnotesize{14}\) Du Plessis and Kotzé "Absolving Historical Polluters from Liability through Restrictive Judicial Interpretation: Some thoughts on *Bareki No v Gencor Ltd*" 2007 *Stell LR* 193.

\(\footnotesize{15}\) See 5.2.

\(\footnotesize{16}\) 2008 2 SA 3215 (O).
tailings dumps that were created through mining that were conducted under the MA (“old order tailings”).\textsuperscript{17} If the MPRDA is not applicable to old order tailings dumps, then it is not certain who would be liable to rehabilitate the area once such tailings dumps are re-mined or not mined at all.\textsuperscript{18} It is further not certain which company would be liable to rehabilitate when a mine is sold to a second or third party. Currently liabilities are transferred by way of contract, but it is uncertain whether this is a viable option.\textsuperscript{19}

The aim of this dissertation is to determine the responsibility of historical mining right holders for rehabilitation against the background of the scenario that applied in the \textit{De Beers} case. In this paper the term “historic polluters” refers to mining companies that caused pollution and environmental degradation as a result of their mining activities before the MA came into force in 1991. This study is based on a literature survey as well as on current and previous legislation that deals with rehabilitation.

In the \textit{De Beers} case, reference was made to tailings and residue stockpiles. A brief description of the facts of the \textit{De Beers} case is presented in a subsequent section of this dissertation. Thereafter an attempt is made to define tailings, residue stockpiles and structures as well as to identify possible methods of rehabilitation. The liability of mining authorization holders before 2000 and post 2000 is discussed in order to determine whether companies that only have mined tailings dumps would be able to escape their rehabilitation liability. The possibility of excluding liabilities by means of clauses in contracts are also discussed, Finally, conclusions and recommendations are formulated.

\textsuperscript{17} See 2 and par 68(vi) of the \textit{De Beers} case.
\textsuperscript{18} See discussion of \textit{De Beers} case in 2.
\textsuperscript{19} See discussion in 7.
2. **The De Beers case**

In the *De Beers* case, the court was required to determine whether the MPRDA deprived De Beers of its ownership of the minerals in the tailings dumps. The court confirmed that the MPRDA removed from private ownership the mining rights to minerals that have not been mined and vested these rights in the custodianship of the state.\(^{20}\) However, the court held a different opinion on tailings.

The New Jagersfontein Mining and Exploration Company Ltd (herein referred to as the New Company) conducted mining operations at Jagersfontein in 1887 and became part of De Beers Consolidated Mines (the applicant) in 1932.\(^{21}\) The mine was closed in 1932 and reopened in 1949 when it recommenced production after being equipped with a new reduction plant. The applicant leased all the assets of the New Company in terms of a notarial deed of agreement entered into in 1940.\(^{22}\) The applicant discontinued mining operations on Jagersfontein in 1971 and deproclaimed the mine in 1972.\(^{23}\) The applicant was fully aware that the tailings dumps contained diamondiferous material and that the material could be re-mined when economic circumstances were conducive to further exploitation.\(^{24}\) In 1973, the applicant became the owner of the tailings dumps situated on subdivision 16 of the farm Jagersfontein 14 in the, Magisterial District Fauresmith, when the New Company ceded, assigned and transferred all movable and immovable assets to the applicant.\(^{25}\)

The applicant was in the possession of a section 6 mineral prospecting permit,\(^{26}\) issued in terms of the MA (MA authorization), in respect of the Jagersfontein tailings dumps. When the MPRDA came into effect, the applicant decided not to...

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\(^{20}\) Par 67.
\(^{21}\) Par 4.
\(^{22}\) Par 5.
\(^{23}\) Par 6.
\(^{24}\) Par 4.
\(^{25}\) Par 6.
\(^{26}\) Permit number 13/2000.
apply for the conversion of the MA authorization under the MPRDA, because the applicant was of the view that the MPRDA did not apply to its tailings dumps.\(^{27}\)

A dispute arose when the former Department of Minerals and Energy (DME) issued a prospecting right in terms of the MPRDA to an empowerment company called Ataqua Mining (the first respondent), which gave this company the right to conduct prospecting operations on certain tailings situated on Subdivision 16.\(^{28}\)

The applicant applied to the court for a declaratory order that the applicant is the owner of the tailings dumps situated on subdivision 16 and that the first respondent is not entitled to conduct prospecting operations on these tailing dumps. The applicant applied for an order to review and to set aside the decision of the Deputy Director-General of the DME (third respondent) and the Minister of Minerals and Energy (fourth respondent) to grant a prospecting right to the first respondent in respect of subdivision 16.\(^{29}\) The court found that old order tailing dumps are not subject to control by the MPRDA.\(^{30}\)

The court therefore confirmed that the applicant was the owner of the Jagersfontein tailings dumps.\(^{31}\) The court agreed with the applicant’s argument that the tailings dumps are movables and that the diamonds in the tailings dumps still occur naturally in the ore, but not naturally in or on the earth.\(^{32}\)

Tailings dumps do not occur naturally, because tailings dumps are created by mining activity and are therefore not considered to be natural.\(^{33}\) In order for diamonds or any other mineral resource to fall under the definition of “minerals”\(^{34}\)

\(^{27}\) Par 68 (viii), see discussion on transitional provisions of the MPRDA at 5.1.

\(^{28}\) Par 2.

\(^{29}\) Par 2.

\(^{30}\) Par 68.

\(^{31}\) Par 68(i).

\(^{32}\) Par 68 (i).

\(^{33}\) Par 68(ii).

\(^{34}\) A mineral is defined as follows in section 1 of the MPRDA: “any substance, whether in solid, liquid or gaseous form, occurring naturally in or on the earth or in or under water and which was formed by or subjected to a geological process, and includes sand, stone, rock, gravel, clay, soil and any mineral occurring in residue stockpiles or in residue deposits, but excludes
in the MPRDA, the mineral should be found naturally in the earth and not in a tailings dump.\textsuperscript{35} The court warned that the inclusion of tailings in the MPRDA jurisdiction would lead to expropriation, because it would entail that the state would be the custodian of the minerals that remain in tailings dumps. If the legislature had been intended to take away the private rights in tailings dumps, which have existed for more than a hundred years, it would have indicated this intention clearly and unambiguously in the wording of the MPRDA.\textsuperscript{36}

The court pointed out that the MA recognized the mining of tailings dumps. However, the MPRDA has an explicit definition of a \textit{residue stockpile}\textsuperscript{37}, which does not include tailings dumps that were created under an old order right.\textsuperscript{38} According to the court, the applicant's MA authorization did not continue under schedule II of the MPRDA's transitional arrangements.\textsuperscript{39} The court made it clear that the MPRDA did not intend to regulate mining in old order tailings dumps and that the regime under the MA regarding tailings dumps did not persist. The court indicated that mining of a tailings dump is to be regarded as the processing or the winning of a mineral.\textsuperscript{40}

The court furthermore found that no absurd conclusion would arise if old order tailings dumps were to be excluded from the MPRDA.\textsuperscript{41} If old order tailings dumps were left out of the MPRDA it would not be difficult to give full and proper effect to the MPRDA. The MPRDA targeted mining rights in respect of unsevered minerals in the ground and not the already mined rights that are found in tailings.\textsuperscript{42}

\textsuperscript{35} Par 68(xi).
\textsuperscript{36} Par 68 (vi).
\textsuperscript{37} See 3.2 for the definition of residue stockpile.
\textsuperscript{38} Par 68(iv).
\textsuperscript{39} Par 68(iv).
\textsuperscript{40} Par 68(iv).
\textsuperscript{41} Par 68 (vii).
\textsuperscript{42} Par 68 (vii).
In the light of this ruling it would appear that the right to mine tailings dumps is not subject to the provisions of the MPRDA. It therefore implies that the owners of old order tailings dumps do not have to assure the Minister of Minerals that they have the necessary technical and financial ability to conduct mining operations. It furthermore implies that they do not have to submit the prescribed social and labour plan,\textsuperscript{43} environmental management plan\textsuperscript{44} or financial provision for environmental rehabilitation.\textsuperscript{45} In its conclusion, the court held that the processing of minerals from dumps that were created in terms of the MA is not an unregulated activity. The legislature contemplated that environmental legislation, such as NEMA, would regulate the processing of minerals in tailing dumps when the MPRDA was enacted.\textsuperscript{46} The respondents submitted that NEMA did not regulate the taking of minerals from tailing dumps and that there is no requirement in NEMA that instructs a holder of a mining right to undertake an environmental impact assessment (EIA)\textsuperscript{47} or make financial provision for rehabilitation.\textsuperscript{48}

\textsuperscript{43} S 23(1)(e) of MPRDA.
\textsuperscript{44} S 39 of MPRDA. Section 33 of the \textit{Mineral Petroleum Resources Development Amendment Act 49 of 2009 (MPRD Amendment Act)} repealed this section. The MPRDAA was promulgated on 21 April 2009, but will only commence on a date to be proclaimed in the \textit{Government Gazette}. S 39 will be replaced by s 24N of the \textit{National Environmental Management Amendment Act 62 of 2008 (NEM Amendment Act)}. S 14(2) of the NEM Amendment Act stipulates that any provision relating to prospecting, mining, exploration and production and related activities comes into operation 18 months after the commencement of either the NEM Amendment Act or the \textit{Mineral and Petroleum Resources Development Amendment Act 49 of 2008 (MPRDA)}, whichever commences last. The MPRDAA has not yet come into effect. Therefore the commencement of the 18 months referred to in section 14(2) will depend upon the date of commencement of the MPRD Amendment Act.
\textsuperscript{45} S 41 of MPRDA; see also 5.1. S 33 of the MPRDAA will repeal this section and it will be replaced by s 24P of the NEM Amendment Act.
\textsuperscript{46} Par 68(ix).
\textsuperscript{47} S 24 and 24D of NEMA read with GN R385 in GG 28753 of 21 April 2006. See also 7.
\textsuperscript{48} S 24P(1) of the NEM Amendment Act states that: “an applicant for an environmental authorization relating to prospecting, mining, exploration, production or related activities on a prospecting, mining, exploration or production area must make the prescribed financial provision for the rehabilitation, management and closure of environmental impacts, before the Minister of Minerals and Energy issues the environmental authorization.” See also 7.
Although the main thrust of the judgment was not based on rehabilitation and environmental matters, the facts of the *De Beers* case is used to illustrate the difficulty of determining the identity of the person who is liable for rehabilitation.\(^{49}\)

3. **Definitions**

The court did not regard the reworking or reclamation of tailing dumps as mining. It could therefore be concluded that it is probably not subject to rehabilitation. To obtain greater clarity on this matter and to determine if the assumption of the court was correct, it is necessary to determine what "rehabilitation" is and to investigate the possible interpretations of "tailings", "residue stockpiles" and "structures".

3.1 **Rehabilitation**

It is incontestable that current South African mining legislation imposes an obligation on mining companies to rehabilitate the environment after the closure of a mine. However the word “rehabilitation” has never been defined by the legislator or by the courts.\(^{50}\)

Early legislation did not pay much attention to environmental concerns.\(^{51}\) Mining legislation before 1970 was silent on the issue of the rehabilitation of mines.\(^{52}\) GN R922 of 1970\(^{53}\) provided for surface protection, but did not specifically refer to rehabilitation.\(^{54}\) In 1980, GN R537\(^{55}\) amended R992 by providing, in regulation 5.12, for the rehabilitation of mining areas.\(^{56}\) Rehabilitation had to be conducted

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\(^{49}\) See 1.

\(^{50}\) Barnard *Environmental law* 97.

\(^{51}\) Badenhorst and Du Toit 2002 *Stell LR* 26.


\(^{53}\) In GG 2740 of 26 June 1970.

\(^{54}\) See also 5.1.

\(^{55}\) GN R537 in GG 6892 of 21 March 1980.

\(^{56}\) See 5.1.
concurrently with mining operations in accordance with a rehabilitation programme that was prescribed by the Inspector of Mines.\textsuperscript{57} Regulation 5.13 required that, when mining or prospecting ceases, the surface is to be rehabilitated to its natural state to the greatest extent possible.\textsuperscript{58} Rehabilitation was not defined in specific terms.

The MWA was repealed by the MA in 1992, but the regulations remained in force until they were repealed in terms of the MA.\textsuperscript{59} One of the aims of the MA was the rehabilitation of the surface of affected land.\textsuperscript{60} Section 38 of the MA made rehabilitation a requirement.\textsuperscript{61} The MA did not provide a clear definition of rehabilitation, but stated in section 1 that:

Rehabilitation means, in relation to the surface of land and the environment, the execution by the holder of a prospecting permit or mining authorization of the rehabilitation programme referred to in section 39 to the satisfaction of the regional director.\textsuperscript{62}

The MPRDA currently regulates rehabilitation, but it too, does not provide a definition of rehabilitation. Section 38(1)(d) states that the holder of a prospecting right or mining right must rehabilitate the environment that has been affected by his prospecting or mining activities, as far as it is practicable, to its natural state or to a predetermined and agreed standard or land use which conforms to the concept of sustainable development.\textsuperscript{63}

\textsuperscript{57} Reg 5.12. See also Franklin and Kaplan \textit{Mining} 568.
\textsuperscript{58} GN R 537 in GG 6892 of 21 March 1980 issued in terms of the \textit{Mines and Works Act} 27 of 1956 (MWA). The MWA is discussed in greater detail in 5.2.
\textsuperscript{59} Kaplan and Dale \textit{Minerals Act} 1 and 196.
\textsuperscript{60} Kaplan and Dale \textit{Minerals Act} 3-4.
\textsuperscript{61} In terms of s 38 of the MA, rehabilitation is to be carried out according to the conditions contained in the rehabilitation programme that has been approved in terms of s 39. Rehabilitation has to form an integral part of the prospecting or mining operations, done while operating and be done to the regional director’s satisfaction. For further discussion, see to Kaplan and Dale \textit{Minerals Act} 196 and Barnard \textit{Environmental law} 97.
\textsuperscript{62} S 1 MA.
\textsuperscript{63} See 5.1. Sustainable development is defined in section 1 of NEMA as “the integration of social, economic and environmental factors into planning, implementation, and decision-making so as to ensure that development serves present and future generations.”
The *Oxford Paperback Dictionary*\(^{64}\) defines rehabilitation as “to restore to a good condition or for a new purpose.” Kidd\(^{65}\) suggests that rehabilitation may also be seen as the measures taken after damage to the environment has been done. Rehabilitation in a mining context may be defined as a process of restoring land that has been affected by mining to a condition similar to that in which it was before mining commenced.\(^{66}\)

It is, however, not always possible or reasonable to restore the land to its natural state,\(^{67}\) but, if it is not practicable, the affected environment should be rehabilitated to a sustainable, usable condition with minimal loss of land use capability that is of net benefit to the community.\(^{68}\) It might not always be a viable option to rehabilitate the affected environment to a predetermined and agreed standard, especially if major societal changes have occurred in the area.\(^{69}\) According to Barnard\(^{70}\), rehabilitation is acceptable once a piece of land is replaced with a use that is not necessarily of similar nature, but that has similar value. The result of rehabilitation should be that the degraded land is revegetated or restored as closely as possible to its previous condition.

For purpose of this study, “rehabilitation” is defined as the process of restoring the environment that has been affected by mining to, or as close as possible to, its natural state. If this is not practicable, the environment should be restored to a condition of sustainable use that has similar value to that of its prior natural state and as agreed upon by the government and the affected communities.

If rehabilitation includes the restoration of the environment to at least a condition of sustainable usage, it follows that it is necessary to determine what is meant by tailings, residue stockpiles and structures.

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67 www.cesnet.co.za/expertise/rehab.
70 Barnard *Environmental Law* 241.
3.2 Tailings

Franklin and Kaplin\textsuperscript{71} state that the term “mine dump” includes all dumps that comprise of tailings, slimes, waste rock, sand or other residues produced in the course of mining operations and deposited upon land in respect of which mining operations are being or have been conducted. The Chamber of Mines\textsuperscript{72} includes tailings in its following definition of residue:

A residue means any waste rock, slimes or tailings derived from any mining operation or processing of mineral and includes part of a material that remains or results after processing to extract those constituents or parts which is profitable to extract at the time.

The \textit{Mines and Works Act} 12 of 1911, MWA, \textit{Precious Stones Act} 73 of 1964 and the \textit{Mining Rights Act} 20 of 1967 did not provide a definition of tailings. The MA introduced the concept “tailings” and defined it as “waste rock, slimes or residue derived from any mining operation or processing of any material.”\textsuperscript{73} Unlike the MA, the MPRDA does not provide a specific definition of tailings. However, it defines residue stockpile as follows:

\ldots any debris, discard, tailings, slimes, screening, slurry, waste rock, foundry sand, beneficiation plant waste, ash or any other product derived from or incidental to a mining operation and which is stockpiled, stored or accumulated for potential re-use, or which is disposed of\ldots by the holder of a mining right, mining permit or production right.

The \textit{National Water Act} 36 of 1998 (NWA) defines residue as:

\ldots any debris, discard, tailings, slimes, screenings, slurry, waste rock, foundry sand, beneficiation plant waste, ash or any product incidental to the operation of a mine.\textsuperscript{74}

\textsuperscript{71} Franklin and Kaplan \textit{Mining} 45.
\textsuperscript{73} S 1 of the MA. Also refer to Kaplan and Dale \textit{Minerals Act} 10.
\textsuperscript{74} GN R704 in GG 20119 of 4 June 1999.
For the purpose of this study, tailings is defined as the material that is either stockpiled or accumulated for potential re-use after most of the recoverable valuable mineral or economically recoverable material has been extracted or the material that is to be discarded.\textsuperscript{75}

If tailings are stockpiled or accumulated for re-use at a later stage or comprise material that is to be discarded, the question arises as to whether tailings should be rehabilitated. The original intention with the creation of tailings dumps was to dispose of what was, at that time, regarded as waste material that had been produced in the course of normal mining operations.\textsuperscript{76} One hundred years ago, mineral extraction processing methods were not as effective as the current sophisticated methods.\textsuperscript{77} Several mining companies reprocess old tailings dumps as mining techniques and the price of minerals improve. This process is known as dump reclamation.\textsuperscript{78}

The MWA provided for dump reclamation by including in the definition of “works” the working and trading of any tailings and the recovery of any valuable content thereof.\textsuperscript{79} This definition implied that dump reclamation was not considered to be

\begin{itemize}
  \item[(a)] The crushing, screening, washing, classifying or concentrating of any mineral;
  \item[(b)] The treating of any mineral in the form obtained from a mine in the production of coke or for the production of a base metal in any shape or from, including ingots, billets and rolled sections;
  \item[(c)] The working and treating of any mine tailings deposit or mine dump for the recovery of any valuable content thereof;
  \item[(d)] The extracting of any precious metal from any mineral or concentrate;
  \item[(e)] Refining of any precious metal;
  \item[(f)] The drying or claiming of any source material as defined in the Atomic Energy Act;
  \item[(g)] The making, repairing, re-opening or closing of any subterranean tunnel;
  \item[(h)] Deleted;
  \item[(i)] The transmitting and distributing, to any other consumer, of any from of power from a mine by the owner thereof to the terminal point of bulk supply or, were the supply is not in bulk, to the power supply meter on such consumer’s premises.
\end{itemize}

\textsuperscript{75} GDACE 2008 www.bullion.org.za.
\textsuperscript{76} Franklin and Kaplan Mining 48.
\textsuperscript{77} Strydom and King Environmental Management 523.
\textsuperscript{78} Strydom and King Environmental Management 523.
\textsuperscript{79} The MWA defined “works” as:
mining. Regulation 5.10 required dumps to be covered with sludge or soil.80 Section 161 of the MRA dealt with the right to treat or utilize any tailings, slimes, waste rock or other residues. The MRA did not make any provision for or include any requirement regarding rehabilitation.

In the MA, the extraction of minerals from tailings was considered to be mining, because it was included in the definition of “mine”.81 The MA stated that mining is any excavation in the earth, including any tailings, whether or not it is being worked, or made for the purpose of searching for or winning of material.82 The requirements in respect of rehabilitation were therefore also applied to the recovery of minerals in tailings.83

The MPRDA stipulates that no person may prospect for, remove or “mine” any “mineral” without a prospecting right, mining right or mining permit.84 The definition of “mineral” in the MPRDA does not refer to tailings, but includes minerals that occur in residue stockpiles or in residue deposits. In the MPRDA, a “mine” is defined as any operation or activity that is directed at extracting any

80 Du Plessis and Kotze 2007 Stell LR 170. Also see Franklin and Kaplan Mining 567.
81 The MA defined “mine” to mean:
(a) when used as a noun-
   (i) any excavation in the earth, including the portion under the sea or under other water or in any tailings, as well as any borehole, whether being worked or not, made for the purpose of searching for or winning a mineral; or
   (ii) any other place where a mineral deposit is being exploited, including the mining area and all buildings, structures, machinery, mine dumps, access roads or objects situated on such area and which are used or intended to be used in connection with such searching, winning or exploitation or for the processing of such mineral: Provided that if two or more such excavations, boreholes or places, or excavations, boreholes and places, are being worked in conjunction with one another, they shall be deemed to comprise one mine unless the Director: Mineral Development notifies the owner thereof in writing that such excavations, boreholes or places, or excavations, boreholes and places, comprise two or more mines;
and
(b) used as a verb, the making of any excavation or borehole referred to in paragraph (a)
   (i) or the exploitation of any mineral deposit in any other manner, for the purpose of winning a mineral, including any prospecting in connection with the winning of such mineral.

82 S 5.
83 Kaplan and Dale Minerals Act 29.
84 S 5(4).
mineral from *inter alia* any residue deposit. A residue deposit is currently defined as "any residue stockpile remaining at the termination, cancellation or expiry of a mining right." In terms of the MPRDA, the holder of a license to mine minerals in residue stockpiles or in residue deposits is responsible for rehabilitation.\(^{85}\)

In the *De Beers* case, the court ruled that the MPRDA does not govern old order tailings, because the words “old order mining right” were not included in the definition of a "mining right" in the MPRDA.\(^{86}\) Consequently, tailings dumps created under a MA mining right did not fall within the definition "residue deposit". The consequence of this ruling is that the minerals in old order tailings can be removed from the tailings without a mining right. As a result of the judgment in the *De Beers* case, the owner of an old order tailings dump does not have to comply with the provisions of the MPRDA and, as a consequence, does not have to comply with those portions of the MPRDA that deal with rehabilitation, because he or she is not the holder of mining rights.\(^{87}\)

However, the owner of tailings dumps created under a MPRDA mining right is obliged to comply with the rehabilitation requirements, because these tailings dumps fall within the definitions of "*residue stockpile*" and "*residue deposit*".\(^{88}\) The post-2000 owner of a tailings dump is required to apply for a mining right to remove minerals from residue deposits that were created under the MPRDA, because the definition of "*mine*" refers to residue deposits. Should a person without a mining right remove minerals from a residue deposit that was created under the MPRDA, he will be in contravention of section 5(4) of the MPRDA.

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\(^{85}\) S 43.
\(^{86}\) See discussion of *De Beers* in 2.
\(^{87}\) See discussion of the *De Beers* case in 2.
\(^{88}\) See 5.1.
3.3 Structures

If a scenario arose in which an owner of pre-2000 tailings could not be obliged to rehabilitate the area, it would be necessary to establish whether tailings could not be regarded as a structure that should be removed upon the closure of the mine. Regulation 5.13.3 of the GN R537\(^{89}\) imposed a duty on the owner of a mine to demolish all buildings, walls, foundations, dams, swimming pools, posts or other “structures”\(^{90}\) and installations, pipelines and private railway lines laid on the surface of the land where such operations were conducted when the operation finally ceased.\(^{91}\) Similar to the provisions of regulation 5.3.13, the MA required that all buildings, structures and objects were to be removed once a prospecting permit or mining authorization had been suspended, cancelled or had lapsed.\(^{92}\)

Both the MWA and the MA did not define the word "structure." The *Oxford Paperback Dictionary* defines structure as “a constructed thing” or “a building”.\(^{93}\) If the word “structure” were to be defined to include tailings, it would mean that, in terms of the MWA and MA, tailings would have to be removed.

Although the MPRDA obliges mining right holders to rehabilitate mines, the holders may not demolish buildings, structures or objects if such removal is regulated by another law or if the holder and the surface owner had come to another agreement.\(^{94}\) The *National Heritage Resources Act* 25 of 1999 (NHRA) protects structures or parts of structures older than 60 years by providing that they may not be demolished or altered without a permit that has been issued by the relevant provincial heritage resources authority.\(^{95}\) The NHRA defines a "structure" as "any building, works, device or other device or other facility made

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\(^{89}\) GN R537 in GG 6892 of 21 March 1980.
\(^{90}\) Own emphasis.
\(^{91}\) Franklin and Kaplan *Mining* 569.
\(^{92}\) S 40.
\(^{93}\) Hawkins *Oxford Paperback Dictionary* 812.
\(^{94}\) S 44. See also the discussion in Glazewski *Environment* 475 and Kidd *Environmental Law* (2008) 191.
\(^{95}\) S 34 of the NHR. Also see Glazewski *Environment* 475.
by people and which is fixed to land and includes any fixtures, fittings and equipment associated therewith”. Tailings are man made, but are not fixed to land, and, according to the court, should be regarded as a movable asset. Tailings that are older than 60 years will probably not receive protection in terms of this section of the NHRA.

The South African Heritage Resources Agency (SAHRA) has the power to declare areas around a national heritage site to be protected areas, provided that the owner of such land consents to the declaration. Section 28(1)(c) specifically provides that SAHRA may declare a mine dump to be a protected area by means of a notice in the *Government Gazette*, but is obliged to obtain the permission of the land owner to do so. If the area covered by a tailings dump is regarded to be of national importance, SAHRA must formulate regulations that will provide protection to the area. When making such regulations, SAHRA must consult with the land owner, interested and affected parties within the mining community and the DM.

The following questions arise in the event of a mine dump being declared a protected area: What rehabilitation measures will be required? Who will be responsible? Will the owners be able to escape their rehabilitation liability?

It is the land owner who must consent to the classification of particular tailings as a protected area and not the owner of the tailings. In the *De Beers* case, it would have been the applicant. The surface or land owner is therefore not always the owner of the tailings. This distinction could increase the confusion regarding

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96 Refer to the discussion in 2 and par 68(i) of the *De Beers* case.
97 S 28(1).
98 S 28(4). The Provincial Heritage Resources Agency of Gauteng (Phrag) attempted to preserve the Top Star, a mine dump more than 100 years old, situated in Johannesburg. Phrag argued that the tailings dump represented South Africa’s mining history and that it should be preserved. Phrag issued a two-year provisional protection order in August 2009. The order was opposed and it was “referred to adjudication before the appropriate forum”. Phrag withdrew the order fourteen months later (in December 2007) due to a technicality. A month later, in January 2008, Phrag issued a six-month temporary protection order. In August 2008, dump reclamation started. In this regard see Davie 2009 http://joburg.org.za.
the issue of who is to rehabilitate the area and who could escape his liability to rehabilitate.

3.4 Why tailings should be rehabilitated

The most important impact of that tailings could have are water pollution and run-off water. If water is not controlled or water pollution can not be controlled, vegetation can not be established and erosion will occur.99

There are various methods by means of which tailings can be rehabilitated. The method that could be used to restore the environment as close as possible to its natural state would be to remove or relocate the tailings. This application of this method is very expensive and is usually only used when the tailings are re-mined.100 Even if re-mining reduces the visual impacts and minimizes dust, the legacy or remaining footprint of the tailings should also be rehabilitated.101 Tailings waste can be used to fill cavities left by surface mining operations after mining activities have ceased, but steps should be taken to ensure that this operation will not lead to the contamination of groundwater.102

Revegetation is the most cost-effective method that is used to prevent wind erosion and to control water erosion.103 The Gauteng Department of Environmental Affairs104 (GDACE) indicates that revegetation is a widely practiced method that can be very successful if suitable plants are planted.105 Revegetation is also the most cost-effective method for the prevention of wind erosion.106 Unfortunately, revegetation does not address the problem of the

99 Strydom and King Environmental Management 542.
101 Strydom and King Environmental Management 534.
102 Water contamination includes the contamination of surface and ground water. The contamination is caused by the leaching of metals and minerals as well as by other contaminants that are used in the extraction process.
103 Strydom and King Environmental Management 542.
106 Strydom and King Environmental Management 542.
infiltration of water into mine residues.\textsuperscript{107} Revegetation may play an important role in rehabilitation, but it should not be considered to encompass the total process.\textsuperscript{108} For example, liners may be installed beneath tailings deposits or tailings can be capped, which prevents the formation of acid and the contamination of groundwater.\textsuperscript{109} This very brief overview indicates that it is both necessary and possible to rehabilitate tailings.

In the preceding sections reference is made to legislation to define tailings and rehabilitation. The sections that follow deal in greater detail with the position regarding rehabilitation before and after the introduction of the MPRDA.

4. Responsibility of mining authorization holders before 2004

In the following paragraphs the responsibility of mining authorization holders before 2004 is discussed with reference to the MWA and the MA.

4.1 MWA

The MWA was concerned with the operation and works of mines and the machinery used in connection with these activities. It was not concerned with the right to mine.\textsuperscript{110} When the MWA was introduced, it only regulated the protection of employees of mines and was concerned with safety in the event of the closure of a mine.\textsuperscript{111} It did not contain requirements regarding environmental rehabilitation when mining operations are ceased.\textsuperscript{112} Due to the pollution of water and the nuisance of dust caused by discontinued mining operations and abandoned mines, chapter 5 was included in GN R922.\textsuperscript{113}

\textsuperscript{107} GDACE 2008 www.bullion.org.za.
\textsuperscript{108} GDACE 2008 www.bullion.org.za.
\textsuperscript{109} GDACE 2008 www.bullion.org.za.
\textsuperscript{110} The right to mine was regulated in terms of the Precious Stones Act and the Mining Rights Act. Franklin and Kaplan Mining 539.
\textsuperscript{111} Franklin and Kaplan Mining 556.
\textsuperscript{112} Strydom and King Environmental Management 551. Also see 3.
\textsuperscript{113} Franklin and Kaplan Mining 556. Also see 3.1.
In terms of regulation 2.1, the owner of a mine who discontinued the operation of or abandoned the working of a mine was obliged to give written notice thereof within 14 days to the Inspector of Mines or the Inspector of Machinery.\textsuperscript{114} In terms of regulation 2.11, the owner or the person acting as the manager remained responsible for compliance with the requirements of the MWA regulations until the Inspector of Mines had issued a certificate that all the regulations had been complied with.\textsuperscript{115} As stated above,\textsuperscript{116} in order to prevent the spreading of dust or sand from mine dumps, regulation 5.10 required that dumps were to be covered with sludge or soil or were to be treated in accordance with the requirements of the Inspector of Mines.\textsuperscript{117}

The MWA was amended in 1977 to enable the Minister to formulate regulations that were aimed at the conservation of the environment at or near mines. These regulations also pertained to the restoration of land on which activities in connection with mines or works were performed or had been performed.\textsuperscript{118} Legal requirements regarding the rehabilitation of mines were introduced in 1980 when regulations 5.11 to 5.15 were added to GN R922.\textsuperscript{119} Regulation 5.12 directly regulated the rehabilitation of mining surfaces and introduced the rehabilitation programme.\textsuperscript{120} Regulation 5.12.2 required that the rehabilitation of the surface of an opencast mine was to be an integral part of the mining operations.\textsuperscript{121} Mines were obliged to conduct rehabilitation while the mine was in operation and, in certain situations, rehabilitation had to be done in accordance with a programme that was prescribed by the Inspector of Mines after consultation with the manager and after the plan had been approved by the Government Mining Engineer.\textsuperscript{122}

\begin{flushleft}
\textsuperscript{114} Franklin and Kaplan \textit{Mining} 556.
\textsuperscript{115} Franklin and Kaplan \textit{Mining} 567.
\textsuperscript{116} Also see 3.2.
\textsuperscript{117} Franklin and Kaplan \textit{Mining} 567; Du Plessis and Kotzé 2007 \textit{Stell LR} 170.
\textsuperscript{118} Strydom and King \textit{Environmental Management} 547.
\textsuperscript{119} GN R537 in GG 6892 of 21 March 1980.
\textsuperscript{120} Franklin and Kaplan \textit{Mining} 568.
\textsuperscript{121} Franklin and Kaplan \textit{Mining} 568.
\textsuperscript{122} Franklin and Kaplan \textit{Mining} 568.
\end{flushleft}
Regulation 5.13.3 imposed a duty on the owner of a mine to rehabilitate the surface, as far as it is practicable to its natural state, when mining operations ceased.\textsuperscript{123} The MWA defined the owner as the person or company who leases a mine, works, machinery or any part thereof and who is the person who is a tributer to the working of the mine. The definition of an owner did not include a person who only owns the surface rights of the land on which the mine, works or machinery is situated.\textsuperscript{124}

Once the clearance certificate had been issued by the Inspector of Mines in terms of regulation 2.11, the owner or manager could not be held responsible for compliance of the regulations contained in chapter 5.\textsuperscript{125} Although, in terms of the MWA, liability ended with the issuing of a clearance certificate, an owner could at that time still be held liable for pollution that was caused by mining in terms of then \textit{Water Act} 54 of 1956 and the \textit{Atmospheric Pollution Prevention Act} 45 of 1965.\textsuperscript{126}

When De Beers became the owner of the Jagersfontein tailings dumps in 1973, the company was therefore regulated, \textit{inter alia}, in terms of the \textit{Water Act} 54 of 1956, the \textit{Atmospheric Pollution Prevention Act} 45 of 1965 and the MWA.\textsuperscript{127} In terms of Regulation 5.10 of GN R922, De Beers was required to, at least, cover the tailings dump with sludge or soil.

\section*{4.2 Minerals Act 50 of 1991}

The MA came into operation on 1 January 1992 and it repealed \textit{inter alia} the MWA.\textsuperscript{128} In terms of section 68(2) of the MA, the regulations of the MWA remained in force. In terms of section 63 of the MA, regulations 15.2.2 and

\textsuperscript{123} See the discussion in 2.3 and Franklin and Kaplan \textit{Mining} 569.
\textsuperscript{124} See the definition of owner in section 1 of the MWA.
\textsuperscript{125} Franklin and Kaplan \textit{Mining} 572.
\textsuperscript{126} Discussion in Franklin and Kaplan \textit{Mining} 578.
\textsuperscript{127} Par 6 of the \textit{De Beers} case. Due to restrictions on the length of this dissertation the \textit{Water Act} and \textit{Atmospheric Pollution Prevention Act} could not be discussed in detail.
\textsuperscript{128} See 2 and Kaplan and Dale \textit{Minerals Act} 187.
15.3.13 were repealed with effect from 1 January 1992, and were replaced by the rehabilitation provisions contained in sections 38, 39 and 40 of the MA.\footnote{Kaplan and Dale Minerals Act 1991 195. Du Plessis and Kotze 2007 Stell LR 192. See discussion of the repealed sections in 3.1 and 4.2.} In terms of section 63, regulation 5.10 remained in force.\footnote{GN R 5.10 imposed a duty to cover dumps sludge or soil. Refer to 3.2 and 4.1.}

Section 38 of the MA enforced rehabilitation on all holders of authorizations, including holders of authorizations to re-mine tailings.\footnote{See 3.1.} Authorization holders were required to rehabilitate the surface of the prospecting or mining area during the course of their operations and after the suspension, cancellation, abandonment or lapsing or the authorization. Rehabilitation therefore became an integral part of the operation and had to be done in accordance with the conditions contained in the EMP and to the satisfaction of the Regional Director.\footnote{For a discussion of this matter see Environmental law (1997) 119, Swart 490; Mabiletsa and Du Plessis 2001 SAJELP 195.}

Authorization holders were required to apply for a closure certificate when the authorization lapsed, was suspended, cancelled or abandoned.\footnote{S 12. Also see Swart 2003 Journal of South African Institute of Mining and Metallurgy 491; Kaplan and Dale Minerals Act 1991 195.} Liability for compliance with the provisions of the MA remained with the authorization holder until the Regional Director had issued a closure certificate.\footnote{S 12.} This provision entailed that the authorization holder was accountable for rehabilitation until the certificate was issued.\footnote{Kaplan and Dale Minerals Act 1991 195.} A closure certificate that was issued in terms of section 12 relieved authorization holders from their liabilities in terms of the MA only and not from liabilities imposed by other environmental legislation. It was not necessary to consult other departments before the certificate was issued.\footnote{Mabiletsa and Du Plessis 2001 SAJELP 196.}
The provisions of the MA applied only to authorizations that were issued post 1991. De Beers was in possession of an MA authorization. This situation implies that before De Beers could commence prospecting operations, it had to provide proof to the Director of Mineral Development that it had the ability to carry out rehabilitation, and that it was in possession of an approved EMP before its prospecting operations could commence. The question that remains unanswered is whether De Beers could be obliged to rehabilitate in terms of the post-2000 legislation.

5. Rehabilitation post 2000

The MPRDA mainly regulates rehabilitation post 2000. However, the regime is to be changed as both the MPRDA and the NEMA were amended in the course of 2008 and 2009 to transfer the environmental responsibilities from the Department of Minerals to the Department of Water and Environmental Affairs. The NEM Amendment Act and the National Environment Laws Amendment Act 14 of 2009 (NELAA) are currently in operation. It was envisaged that the DM would continue to be the decision-maker on matters pertaining to the environment and rehabilitation for a further three years. However, section 28 of NEMA, section 19 of the NWA and the National Environmental Management: Waste Act 59 of 2008 (NEMWA) may also impact on the obligation of mining right holders to rehabilitate.

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137 Refer to 2 and par 45 and 66 of the De Beers case.
138 ss 6 (2)(c) and 9(3)(c). Also see Mabiletsa and Du Plessis 2001 SAJELP 193.
139 S 39 of MA.
140 The MPRD Amendment Act, NEM Amendment Act and the National Environment Laws Amendment Act 14 of 2009. The Department of Water and Environmental Affairs comprises the departments previously known as the Department of Water Affairs and the Department of Environmental Affairs and Tourism. The two departments were merged in 2009.
141 As mentioned before, s 14(2) of the NEM Amendment Act stipulates that any provision relating to prospecting, mining, exploration and production and related activities will come into operation 18 months after the commencement of either the NEM Amendment Act or the MPRD Amendment Act, whichever is the last to come into effect.
142 See 5.2-5.3.
5.1 MPRDA

The MPRDA is the primary legislation that governs the mining industry and its activities.\(^{143}\) The MPRDA repealed the MA and the environmental regulations of the MWA that remained in force under the MA.\(^{144}\) The Act does not make provision for a savings clause for the MWA regulations that regulated matters pertaining to the environment and rehabilitation.\(^{145}\)

One of the objectives of the MPRDA is to give effect to the environmental right that is contained in section 24 of the Constitution.\(^{146}\) For this reason environmental management has to be integrated into all aspects of mining.\(^{147}\) An EMP must be approved before mining may commence.\(^{148}\) Regulation 52 of GN R 527\(^{149}\) sets out the contents of an EMP. Rehabilitation must take place during and after mining\(^{150}\) and rehabilitation plans must therefore be included in the EMP in order to obviate irremediable impacts to the environment and to ensure that the site will be usable in future.\(^{151}\) The DM will only approve an EMP if the applicant provides proof of the capacity to rehabilitate and manage any negative effects on the environment.\(^{152}\) Schedule II of the MPRDA provides for transitional arrangements.\(^{153}\) Schedule 10(1) provides that EMPs that were approved in terms of section 39(1) of the MA and were in force when the MPRDA took effect, shall continue to remain in force. The Minister has the authority to direct that a programme of this nature be amended in order to bring it in line with the

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\(^{143}\) Glazewski *Environment* 466.  
\(^{144}\) The applicable health and safety regulations of the MWA were retained in the Mine Health and Safety Act 29 of 1996. Also see Du Plessis and Kotzé 2007 *Stell LR* 170 as well as Glazewski *Environment* 467.  
\(^{146}\) Glazewski *Environment* 467 and Strydom and King *Environmental Management* 548.  
\(^{147}\) Glazewski *Environment* 468.  
\(^{148}\) S 39.  
\(^{149}\) In GG 26275 of 24 April 2004.  
\(^{150}\) S 38 and GN R 527 in GG 26275 of 24 April 2004. Also see Strydom and King *Environmental Management* 517.  
\(^{151}\) Glazewski *Environment* 473.  
\(^{152}\) S 39(4)(a)(ii).  
\(^{153}\) See Badenhorst, Mostert and Pienaar *Silberberg and Schoeman's Law of Property* 692 for a discussion on transitions from old order rights to new order rights.
requirements of the MPRDA.\textsuperscript{154} This provision is not adequate to enforce the rehabilitation, because, in a case in which an EMP had not been approved under section 12 of the MA and the old order right holder decides not to apply for conversion, the holder can not be compelled to manage the environmental impacts on the mining area. If De Beers had an approved EMP, the question arises whether the EMP would remain in force, because the court stated that De Beers’ MA prospecting permit did not continue to be valid under schedule II of the MPRDA’s transitional arrangements.\textsuperscript{155} In addition, item 10(1) of the MPRDA does not address the situation of the mines that ceased operations before the MA came into force, because old order rights are defined as rights that were obtained in terms of section 6 and 9 of the MA.\textsuperscript{156} If De Beers did not have an MA authorization, rehabilitation would not have been enforceable in terms of the Jagersfontein tailings dumps.

Section 38 of the MPRDA imposes a duty on holders of rights in terms of the MPRDA to rehabilitate the affected environment when mining has ceased.\textsuperscript{157} It means, by implication, that if a person is not a holder of a mining right, he or she is not obliged to rehabilitate a mine.

Section 38(2) is an important provision in the context of rehabilitation in a situation in which a holder of a mining right is obliged to rehabilitate. The directors of a company or members of a close corporation can jointly and severally be held liable for any unacceptable negative impact that the mine concerned may have on the environment. Such impact includes damage, degradation or pollution that is adversely or unadvisedly caused by the company or close corporation that the directors of members represent or represented.\textsuperscript{158} In *Minister of Water Affairs and Forestry v Stilfontein Gold Mining Company Ltd* and

\begin{itemize}
\item \textsuperscript{154} Item 10(2).
\item \textsuperscript{155} Par 68(vi) of the *De Beers* case and 2.
\item \textsuperscript{156} Refer to 1.
\item \textsuperscript{157} Glazewski *Environment* 473.
\item \textsuperscript{158} S 38.
\end{itemize}
others\textsuperscript{159} (Stilfontein case) the respondents were ordered to bear the cost of continuing to pump underground mine water from a liquidated mine, which, if it were not pumped, would have caused significant damage to the underground water, flooding the applicants mine and eventually causing pollution in the Vaal River.\textsuperscript{160} Furthermore, the court imposed upon the respondents a fine of R15000 or a prison sentence of six months and the obligation to pay the costs of the applicant.\textsuperscript{161}

Section 38(2) makes significant inroads into the principle contained in company law that directors of a company can not be personally liable for their company’s liabilities\textsuperscript{162}. It was nevertheless illustrated in Bareki that historic polluters can not be liable for rehabilitation in terms of the MWA regulations, because these regulations were repealed by the MA and the MPRDA.\textsuperscript{163} Item 10(5) provides that section 38 of the MPRDA is applicable to holders of old order rights. Unfortunately, item 10(5) does not address the historic polluters concerned and they can not be compelled to rehabilitate.\textsuperscript{164}

Financial provision for the rehabilitation of the mining area is an essential requirement of the MPRDA.\textsuperscript{165} Before the Minister will approve an EMP, the applicant must prove that he or she has made the prescribed financial provision\textsuperscript{166} to rehabilitate the mining area and to manage the negative environmental impacts that could be caused by the mining activities.\textsuperscript{167}

Regulation 53\textsuperscript{168} provides for the various methods by means of which the

\textsuperscript{159}2006 JOL 17516 (W).
\textsuperscript{160}For a discussion of the case, see Kotzé Enforcing liabilities and responsibilities 23-30.
\textsuperscript{161}Par 22 of the Stilfontein case.
\textsuperscript{162}Glazewski Environment 468.
\textsuperscript{163}Du Plessis and Kotzé 2007 Stell LR 170.
\textsuperscript{164}See 1.
\textsuperscript{165}S 41. Also see Glazewski Environment 474.
\textsuperscript{166}Financial provision is defined as insurance cover, bank guarantee, trust fund or cash that an applicant must provide in order to guarantee the availability of sufficient funds to undertake the agreed rehabilitation.
\textsuperscript{167}S 41(1). Also see Kidd Environmental Law (2008) 190.
\textsuperscript{168}The MPRD Amendment Act will repeal this section and it will be replaced by s 24P of the NEM Amendment Act – see 6.
financial provision indicated in section 41 may be made. According to regulation 54(1), the quantum of the financial provision is determined in accordance with a guideline that was published by the former DME.\textsuperscript{169} This guideline may be updated from time to time.

If a holder of mining rights abandons a mine without rehabilitating it or is unable to rehabilitate it, the Minister has the authority to use all or part of the financial provision to rehabilitate the area affected by the mining activities.\textsuperscript{170} The Minister may retain a portion of the financial provision to cover the cost of dealing with the latent or residual environmental impacts after closure.\textsuperscript{171}

During mining operations, the ultimate objective of a holder of a mining right should be to obtain a closure certificate.\textsuperscript{172} The MPRDA provides that the holder shall remain responsible for any environmental damage, pollution or ecological degradation for its management until the Minister of the DM has issued a closure certificate.\textsuperscript{173} The holder is obliged to apply for a closure certificate when the right of the holder lapses, is cancelled, the holder decides to abandon the right, the holder sells or cedes the mining operations to a third party or when a holder relinquishes to another party a portion of the land on which prospecting is undertaken. Application should be made for a closure certificate when the prescribed closure plan is completed.\textsuperscript{174} The application for a closure certificate should be made to the appropriate regional manager\textsuperscript{175} within 180 days of the event that requires a closure certificate.\textsuperscript{176} No closure certificate may be issued without confirmation by the Chief Inspector of Mines and the Department of

\textsuperscript{169} Companies and persons who receive, hold and apply money to be used to rehabilitate, protect or make land safe, prevent or combat pollution or protect water sources, following mining, prospecting, quarrying or similar operations, will qualify for such exemptions. Tax exemption for rehabilitation is provided for in s 10(1)(cH) of the Income Tax Act 58 of 1962.

\textsuperscript{170} Kidd \textit{Environmental Law (2008)} 190 and Strydom and King \textit{Environmental Management} 554.

\textsuperscript{171} Glazewski \textit{Environmental 475} Strydom and King \textit{Environmental Management} 554.

\textsuperscript{172} Glazewski \textit{Environmental 474}.

\textsuperscript{173} S 43(1) Strydom and King \textit{Environmental Management} 553 and Glazewski \textit{Environment 475}.

\textsuperscript{174} S 43(4); Strydom and King \textit{Environmental Management} 553.

\textsuperscript{175} Regional Manager appointed in terms of s 8 by the Director General of the DM in a specific area.

\textsuperscript{176} Reg 57 of GN R 527 sets out the requirements for an application of a closure certificate.
Water and Environmental Affairs that the provisions pertaining to health, safety and management of potential pollution of water resources have been addressed.\textsuperscript{177} As illustrated in the *Bareki* case, regulation 2.11\textsuperscript{178} of the MWA remained in force in terms of section 68(2) of the MA until the MWA was repealed in terms of section 12(2) of the Interpretation Act 33 of 1957. Regulation 2.11 required compliance with the MWA until the Inspector of Mines had issued a certificate to the effect that all the regulations had been complied with.\textsuperscript{179} Regulation 2.11 would only be enforceable if legal proceedings were instituted before the MPRDA came into force.\textsuperscript{180} Although item 10(4) of the MPRDA directs holders of old order rights to apply for a closure certificate in terms of section 43 of the MPRDA when mining operations cease, this provision does not address the rehabilitation of mines in respect of which operations ceased before the MA came into force.

In the *De Beers* case, the court ruled that De Beers would not need a mining right to "re-mine" the tailings, which ruling excluded them from the provisions of the MPRDA with regard to rehabilitation, financial obligations and the obtaining of a closure certificate.\textsuperscript{181} The question that arises from this situation is whether De Beers could be compelled to rehabilitate in terms of the NEMA, NWA or NEMWA.

\textsuperscript{177} S 43(5). In terms of the MPRDAA a closure certificate will only be issued when each government department, charged with the administration of any law which relates to any matter affecting the environment (not only the Department of Water and Environmental Affairs), has confirmed in writing that the provisions pertaining to health and safety and management of potential environmental impacts, pollution of water resources and the pumping and treatment of extraneous water have been addressed. This amendment promotes environmental cooperative governance and gives insurance to the holder that all his or her liabilities and responsibilities end with regard to the mining area.

\textsuperscript{178} In GG 2740 of 26 June 1970.

\textsuperscript{179} Du Plessis and Kotze 2007 *Stell LR* 170.

\textsuperscript{180} 449I-J of the *Bareki* Case.

\textsuperscript{181} Refer to par 67 of the *De Beers* case.
5.2 NEMA and NWA

Section 28 of NEMA (hereinafter referred to as section 28) and section 19 of the NWA (hereinafter referred to as section 19) both impose on polluters a general duty of care to prevent pollution and to remediate any pollution caused.\(^{182}\) Section 28 addresses air, land and water pollution,\(^{183}\) while section 19 concentrates only on the protection of water resources.\(^{184}\)

Sections 28 and 19 place an obligation on a number of people, inter alia landowners, persons in control of land and a person who has a right in or a right to use the land, to minimize and remediate pollution.\(^{185}\) Therefore it is not only the originators of pollution that could be held responsible.\(^{186}\)

The retrospective application of section 28 was challenged in the Bareki case.\(^{187}\) The court established that section 28 does not have retrospective application and that mining companies could only be held liable for the rehabilitation of pollution.

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\(^{182}\) Ss 28(1) and 19(1). Also see Strydom and King Environmental Management 211, 660 and Glazewski Environment 150, 568, 623-624.

\(^{183}\) Kotzé Enforcing liabilities and responsibilities 13.

Section 1(xxiv) of NEMA defines “pollution” as:

any change in the environment caused by substances; radioactive or other waves; or noise, odours, dust or heat emitted from any activity, including the storage or treatment of waste or substances, construction and the provision of services, whether engaged in by any person or an organ of state, where that change has an adverse effect on human health or well-being or on the composition, resilience and productivity of natural or managed ecosystems, or on materials useful to people, or will have such an effect in the future.

\(^{184}\) Kotzé “Enforcing liabilities and responsibilities” 18.

Section 1(xv) of NWA defines “pollution” as:

the direct or indirect alteration of the physical, chemical or biological properties of a water resource so as to make it-

(a) less fit for any beneficial purpose for which it may reasonably be expected to be used,

(b) harmful or potentially harmful-

(aa) to the welfare, health and safety of human beings;

(bb) to any aquatic or non-aquatic organisms;

(cc) the resource quality;

(dd) or to property.

\(^{185}\) For example contractors and sub-contractors.


\(^{187}\) Du Plessis and Kotzé 2007 Stell LR 162; Tzpeva Mining Weekly 34.
that occurred after the promulgation of NEMA on 29 January 1999. The loophole was closed when the NELAA came into operation on 18 September 2009. Subsection 28(1A) was inserted into section 28 of NEMA, which states that:

Subsection (1) also applies to a significant pollution or degradation that -
(a) occurred before the commencement of this Act;
(b) arises or is likely to arise at a different time from the actual activity that caused the contamination, or arises through an act or activity of a person that results in a change to pre-existing contamination.

The retrospective application of section 19 has never been challenged in the courts. According to an agreement between the Chamber of Mines and the Minister of Water Affairs and Forestry in 1976, pollution control measures, the maintenance of such measures and all related costs of mines or works that were abandoned prior to 13 July 1956 are the responsibility of the state. It appears that, on basis of this agreement, it could be argued that the retrospective application of section 19 would only apply until 1956. Due to the agreement, the scenario in the De Beers case would be excluded, should any pollution have occurred before 1956.

**5.3 NEMWA**

Mines are the biggest producers of waste in South Africa. The NEMWA came into operation on 1 July 2009. The aim of the Act is *inter alia* to enforce the remediation of contaminated land and to create a national waste information system. Section 16 of NEMWA also imposes a duty of care on holders of waste. The definition of waste includes waste that is generated by mines,
but excludes by-products and any portion of waste that is re-used, recycled or recovered. The NEMWA is not applicable to residue deposits and residue stockpiles that are regulated in terms of the MPRDA.\(^{197}\) In terms of the NEMWA, tailings created by mining operations that hold a MPRDA mining right are not subject to the regulations.\(^{198}\) However, because the MPRDA does not govern old order tailings, the NEMWA may be interpreted to regulate old order tailings.\(^{199}\)

The Minister of the DWEA or the responsible MEC may also identify a piece of land on which specified high-risk activities take place or have taken place and that may have caused the contamination of that land.\(^{200}\) The Minister or MEC may in such circumstances direct that an investigation of possible contamination be undertaken.\(^{201}\) If a significant risk of harm is identified by the investigation, a remediation order may be issued.\(^{202}\) The Act applies to the contamination of land even in cases in which the contamination had occurred before the NEMWA came into force.

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A holder of waste must, within the holder’s power, take all reasonable measures to
(a) avoid the generation of waste and where such generation can not be avoided, to minimise the toxicity and amounts of waste that are generated;
(b) reduce, re-use, recycle and recover waste;
(c) where waste must be disposed of, ensure that the waste is treated and disposed of in an environmentally sound manner;
(d) manage the waste in such a manner that it does not endanger health or the environment or cause a nuisance through noise, odour or visual impacts;
(e) prevent any employee or any person under his or her supervision from contravening this Act; and
prevent the waste from being used for an unauthorized purpose.

\(^{196}\) “Waste” is defined as:
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 purpose of production;
(c) that must be treated or disposed of;
(d) or that is identified as waste by the Minister by notice in the Gazette,
i. and includes waste generated by the mining, medical or other sector, but- a by-product is not considered waste; and
ii. any portion of waste, once re-used, recycled and recovered, ceases to be waste.

\(^{197}\) S 4(1)(b).
\(^{198}\) MPRDA.
\(^{199}\) Refer to 2, 3.2 and 5.1.
\(^{200}\) S 36(1)(a).
\(^{201}\) S 37.
\(^{202}\) S 38(2).
into force.\textsuperscript{203} If it could be argued that NEMWA regulates old order tailings dumps, rehabilitation could be enforced through NEMWA.

6 Solutions introduced by the legislator

As stated above\textsuperscript{204}, the MPRD Amendment Act was promulgated on 21 April 2009, but will only come into effect on a date to be proclaimed in the Government Gazette.\textsuperscript{205}

In the \textit{De Beers} case, the court held that the MPRDA does not regulate old tailings dumps, but only dumps that fall within the definitions of "residue stockpile" and "residue deposit" and that are created in terms of a right or permit granted in terms of the MPRDA and not in terms of previous mining legislation.\textsuperscript{206} Furthermore, the court cautioned that tailing dumps are movable assets and that the inclusion of these tailings under the MPRDA and the reallocation of mining rights will lead to expropriation.\textsuperscript{207} Nevertheless, the MPRD Amendment Act amended the definitions of “residue stockpile”\textsuperscript{208} and “residue deposits”\textsuperscript{209} to include all mine dumps that resulted from mineral rights that were obtained under old order rights and were created prior to 1 May 2004 and mineral rights that were created under the MPRDA.\textsuperscript{210}

\textsuperscript{203} S 35(a).
\textsuperscript{204} See 2.
\textsuperscript{205} GN 437 in GG 32151 of 21 April 2009.
\textsuperscript{206} See par 68(iv) of the \textit{De Beers} case and 2 above.
\textsuperscript{207} See par 68(vi) of the \textit{De Beers} case.
\textsuperscript{208} "Residue stockpile" means: any debris, discard, tailings, slimes, screening, slurry, waste rock, foundry sand, beneficiation plant waste, ash or any other product derived from or incidental to a mining operation and which is stockpiled, stored or accumulated for potential re-use, or which is disposed of, by the holder of a mining right, mining permit, production right or an old order right.
\textsuperscript{209} "Residue deposit" means: any residue stockpile remaining at the termination, cancellation or expiry of a mining right, mining permit, production right or an old order right.
\textsuperscript{210} The amendment of these definitions to include tailing dumps under the jurisdiction of the MPRDA has the implication that the State is now exposed to potential claims for compensation.
The five-year period during which old order mining rights could be converted into new order rights ended on 30 April 2009. The MPRD Amendment Act\(^{211}\) now prohibits the removal or mining of a mineral without a mining right that has been granted under the MPRDA.\(^{212}\) Once the MPRD Amendment Act comes into effect, it will be illegal to mine minerals in or remove minerals from an old order tailings dump without a new order right. Although this amendment is in conflict with the *De Beers* judgement, companies and individuals that hold old order rights in tailings will have to apply for a MPRDA mining right, which includes the submission of the prescribed social and labour plan,\(^{213}\) environmental management plan\(^{214}\) and proof of financial provision for environmental rehabilitation.\(^{215}\) The MPRD Amendment Act does not make provision for a transitional period during which companies or individuals that have old order tailings dumps are given preferential rights to apply for the right to mine the dumps once the MPRD Amendment Act comes into effect.

It appears that section 34 of the MPRD Amendment Act holds historical polluters accountable for rehabilitation. “Previous holders of old order rights” and “previous owner of works that have ceased to exist” are included as parties that are required to apply for a closure certificate in terms of section 43 of the MPRDA and will remain responsible for the rehabilitation of the mine until a closure certificate has been issued by the Minister.\(^{216}\) Unfortunately, the legislator did not include a clear definition of "previous owner of works that have ceased to exist" in the MPRD Amendment Act. The MPRD Amendment Act only states that "owner of works" has the same meaning as the definition of "owner" in section 102 of the *Mine Health and Safety Act* 29 of 1996 (MHSA).\(^{217}\) In terms of the MHSA, “owner” can be (a) a holder of a MPRDA authorization; (b) a person who does not have a MPRDA authorization, but undertakes activities that are defined in the

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\(^{211}\) S 4(d) deletes s 5(4) of the MPRDA and inserts s 5A.  
\(^{212}\) S 5 of Act 49 of 2009.  
\(^{213}\) Refer to 2.  
\(^{214}\) Refer to 2 and 5.1.  
\(^{215}\) Refer to 5.1.  
\(^{216}\) S 34(1).  
\(^{217}\) S 1(q) of the MPRDA.
MHSA as “mine” and (c) “the last person who worked the mine or that person’s successor in title”.

If the definition of "previous owner of works that has ceased to exist" includes owners who owned and closed mines before the MA came into effect, many historical polluters, for example the polluters mentioned in the Bareki case, could be held accountable for rehabilitation.\(^{218}\) De Beers, with its MA authorization, could also have been held responsible for the rehabilitation of the tailing dumps if it had, for example, closed the mine before the MA came into effect.

The MPRD Amendment Act extends the duties and responsibilities of the holders of mining rights before the issuing of closure certificates. Not only will the holder remain responsible for any environmental liabilities, pollution or ecological degradation, but he or she will also be responsible for the pumping and treatment of extraneous water, compliance to the conditions of environmental authorizations and the management and sustainable closure of the mine.\(^{219}\) As the MPRD Amendment Act only applies to mineral right holders, it would not be applicable to the De Beers scenario. Even if the MPRDA does not apply to the De Beers tailings dumps, De Beers still has a duty in terms of the NWA not to pollute water.\(^{220}\)

A question that remains to be answered, is whether a mining company may transfer by means of a contract its liabilities to rehabilitate.

7. Transfer of liabilities in terms of contract

Mining companies sell their mines as a consequence of changes in the economy, for financial reasons or as a result of a change in their business strategy. Some

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\(^{218}\) See 5.1.

\(^{219}\) The liability to pump and treat extraneous water until a closure certificate is issued, might have been included as a reaction to the problems illustrated KOSH case with regard to extraneous water. See 5.2.

\(^{220}\) See 5.2.
mining companies that had been environmentally irresponsible in the past could try to sell a mine with the main objective of transferring their environmental responsibility to another mining company.\textsuperscript{221}

The MPRDA clearly stipulates in section 11 that a mine may not cede, transfer, alienate or dispose its MPRDA authorization without the written consent from the Minister.\textsuperscript{222} Once the an MPRDA authorization is ceded to the purchaser the seller will receive a section 43 closure certificate.\textsuperscript{223}

The MWA and the MA did not contain a provide that permission must be obtained from the Minister for the sale of a mine. The MA clearly stated, \textit{inter alia}, that when a mining licence is cancelled or abandoned the owner of the mine shall remain liable for compliance with the Act until a closure certificate has been issued.\textsuperscript{224} Similar to the provisions of the MA, the MWA only required that a closure certificate should be obtained when mining ceases and that the owner, or the person acting as the manager, remains responsible for compliance with the requirements of the MWA regulations until the Inspector of Mines has issued a certificate to the effect that all the regulations have been complied with.\textsuperscript{225}

It is clear that, in terms of the MPRDA, the seller of a mine bears no further responsibility or liability in respect of the rehabilitation obligations or liabilities once the DM has approved the cession and has issued a closure certificate to the seller. However, a closure certificate that is issued in terms of the MPDRA does not indemnify the seller from liabilities in terms of environmental legislation. The seller remains liable for the rehabilitation of existing pollution as well as historical pollution in terms of \textit{inter alia} NEMA,\textsuperscript{226} the NWA\textsuperscript{227} and NEMWA.\textsuperscript{228}

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\textsuperscript{221} Swart 2003 \textit{Journal of South African Institute of Mining and Metallurgy} 490.
\textsuperscript{222} S 11.
\textsuperscript{223} In terms of section 43(3) of the MPRDA a holder of mining right that wishes to sell the mine must apply for a closure certificate before the effective date of the sale of the mine.
\textsuperscript{224} Reg 2.11 of the MWA.
\textsuperscript{225} S 12 of the MA.
\textsuperscript{226} S 28, refer to 4.2.
\textsuperscript{227} S 19 refer to 4.3.
\end{flushright}
This is the reason why the seller of a mine would attempt to “sell” the greatest possible proportion of the environmental liabilities to the buyer.229

Should De Beers, for example, decide to transfer its tailings dumps to a BEE company, the question arises as to how it could "rid" itself of its potential liabilities that may arise in terms of the legislation that is set out above. NEMA, the NWA and NEMWA have retrospective application and historical owners may be held liable for historical pollution. In terms of the MPRD Amendment Act230, even previous mining right holders may be held liable for the rehabilitation of mines.

Possible answers to the question posed above may be found in the Law of Contracts and Company Law. A company can purchase a mine by purchasing the shares of the company that controls the mine or by purchasing the business as a going concern. The term “takeover” is used when a company purchases the majority of the shares of another company or assumes control of the business.231 The purchaser obtains full control over the company and its assets by taking control of the board of directors, management and policies.232 The existence of the acquired company is not affected, because the transaction merely entails a change in the total shareholding.233 The liabilities, including the environmental liabilities, remain with the company.

The term “sale of business” is used in situations in which a purchaser acquires the whole or major part of a business or its assets.234 The liabilities are not transferred with the business and therefore the seller has to specify in the sale of

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228 Refer to 4.4.
229 Tzpneva Mining Weekly 34.
230 Ss 34 and 86.
231 Steyn, Warren and Jonker Analysis, Valuations and Restructuring 393. Also see Visser et al Mercantile and Company Law 401.
232 Cilliers et al Korporatiewe Reg 460.
233 Cilliers et al Korporatiewe Reg 460. Also see Steyn, Warren and Jonker Analysis, Valuations and Restructuring 393.
business contract that the liabilities, assets or business are being transferred to the purchaser.

According to the Law of Contracts, it is possible to insert a clause in the contract that frees a party from legal liability. Such terms in a contract should be expressed clearly or remain unambiguous. If it is not stated clearly or unambiguously, the meaning should be asserted in the same way as in any other clause in a contract. A court will be inclined to give effect to a clause in a contract that is clear and unambiguous.235

The ideal situation for a seller would be for the purchaser to “take over” all historic, current and future rehabilitation liabilities and obligations and to indemnify the seller against all claims that may arise from environmental claims and rehabilitation obligations or liabilities. If a claim for non-performance of rehabilitation obligations should arise against the seller, the seller would, in terms of the contract, then have a claim against the purchaser for the claim or penalty concerned.236

8. Conclusions and recommendations

8.1 Conclusions

For many years mines have caused pollution, but it was not always clear who was to be held be liable for the rehabilitation of a mine. The aim of this dissertation is to determine the liability of historical mining right holders for the rehabilitation of a mine. The facts in the De Beers case are applied to illustrate the complexity of the problem.237 The court found that the MPRDA does not

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235 Kellaway Principles of legal interpretation 519.
236 Information obtained from experts in the practice. Names of the experts can not be disclosed due to client-attorney confidentiality.
237 See 2.
regulate old order tailings dumps.\textsuperscript{238} This finding means, by implication, that the rehabilitation measures contained in the MPRDA do not apply to the pre-2000 tailings dumps. This implication leads to the question regarding the liability of other historical mining rights holders with regard to rehabilitation.

This study confirms that it is necessary to rehabilitate tailings as they may cause water contamination and air pollution.\textsuperscript{239} For the purposes of this study, rehabilitation in relation to tailings is defined as restoring the environment that is impacted by tailings to its natural state as far as it is practicable by relocating the tailings and restoring the remaining footprint to a stable condition and sustainable future use. If it is not practicable to relocate or remove the tailings, the affected environment should be restored to a condition of sustainable use. Revegetation and capping could be used to soften the visual impact of the tailings and to limit and control air and water pollution. It is necessary that the government and the affected communities should agree on the method to be used in the rehabilitation of the tailings as well as on the restored land use.\textsuperscript{240}

In the execution of this study it was considered necessary to determine from the relevant literature what “tailings” are. Tailings are defined as the left-over material that originates from mining operations and is stored for re-use after most of the economical recoverable material has been extracted. It was also necessary to define the term “residue stockpiles”. Residue stockpiles are defined as the material that results from or is incidental to a mining operation and which is stockpiled, stored or accumulated for potential re-use or which is disposed of by the holder of a MPRDA mining right.\textsuperscript{241} In addition, a structure is defined as a constructed man-made item.\textsuperscript{242}

\textsuperscript{238} See 1.
\textsuperscript{239} See 3.2
\textsuperscript{240} See 3.1 and 3.4.
\textsuperscript{241} See 3.2.
\textsuperscript{242} See 3.3.
The HRA makes provision for the protection of structures that are older than 60 years. Therefore a mine dump or tailings may, with the permission of the land owner, be declared to be a protected area.\textsuperscript{243} However, when a mine dump or tailings is declared to be a protected area, it is not clear who is to be held liable for its rehabilitation and what measures are to be required from that party.

In the course of the previous century various laws were promulgated to regulate when and how tailings are be rehabilitated. In this study it is found that, in regard to the liability to rehabilitate, it is necessary to distinguish between the period prior to 2000 and the period post 2000.

Before 2000, rehabilitation was regulated by the MWA and the MA. Although the MWA came into effect in 1956, rehabilitation only became a requirement in 1980 when rehabilitation regulations were promulgated.\textsuperscript{244} During the period 1970-1980, mines were only required to cover their tailings with sludge or soil in accordance with the instructions of the Inspector of Mines or the dumps had to be dealt with in a manner that was satisfactory to the Inspector of Mines. Regulation 5.10 did not require the rehabilitation of dumps.\textsuperscript{245} When regulation 5.13.3 came into effect in 1980, owners\textsuperscript{246} or managers of mines were required to rehabilitate the mining surface. The rehabilitation of tailings had to be effected in the course of mining operations. When the recovery of the mineral ceased, rehabilitation had to be ensure that the surface was returned to its natural state to the greatest extent possible and to the satisfaction of the Inspector of Mines.\textsuperscript{247}

The MA imposed a duty on the holders of a mining authorization\textsuperscript{248} to rehabilitate tailings.\textsuperscript{249} Tailings had to be rehabilitated in the course of the lifetime of the

\begin{footnotes}
\begin{enumerate}
\item See 3.3.
\item See 3.1 and 4.1.
\item See 3.2 and 4.1.
\item The owner is the person who leased a mine or the person who contributed to the working of a mine and not the owner of the surface.
\item See 4.1.
\item Authorization holders included holders of rights to re-mine tailings.
\item S 38 of the MA, see 3.1 and 4.2.
\end{enumerate}
\end{footnotes}
operations and after closure. The rehabilitation of tailings had to be done in accordance with the conditions contained in the EMP and to the satisfaction of the regional director.  

Post-2000 rehabilitation was regulated by means of the MPRDA. Tailings are included in the definition of “residue stockpiles”. When the right to mine minerals in “residue stockpiles”, which right was issued in terms of the MPRDA, expires or is cancelled, tailings dumps become a “residue deposit”, which the MPRDA authorization holder is compelled to rehabilitate. The environment that had been affected by the tailings dumps must be rehabilitated in such a manner that the environment is restored to its natural state or to a predetermined and agreed standard or land use that conforms to the concept of sustainable development.

Although, in terms of the MPRDA, tailings are regarded as residue stockpiles that have to be rehabilitated, only the holders of mineral rights are compelled to rehabilitate them. The legislator aimed to correct this position by promulgating the MPRD Amendment Act. The MPRD Amendment Act will inter alia amend the definition of “residue stockpile” and “residue deposits” to include all mine dumps created under all mineral and mining rights, including those that existed under the old order mining rights.

The MPRD Amendment Act does not make provision for a transitional period for companies or individuals that have old order tailings dumps. Once the MPRD Amendment Act comes into effect, all old order tailings will become "residue deposits". If the holder of an old order right does not apply for the conversion of his or her right, he or she shall be compelled to commence the rehabilitation of the tailings. The reason for this situation is that the MPRDA states that if no application for conversion is lodged in respect of an old order mining right, the old

250 See 4.2.
251 See 3.2.
252 See 6.
order right "ceases to exist" and a residue stockpile becomes a residue deposit upon the expiry of an old order right. The MPRD Amendment Act extends the requirement to apply for a closure certificate to include “previous holders of old order rights” and “owners of previous works”. This is an excellent amendment, because it now becomes possible to hold historic polluters liable for rehabilitation until a closure certificate is obtained. The only concern in this regard is that the legislator did not include a definition of "previous owner of works that has ceased to exist", which omission opens up the possibility of incorrect interpretation by the administrators of the Act as well as by the courts.

In the De Beers case, the court ruled that the MPRDA does not apply to the Jagersfontein tailings. The tailings will become "residue deposits" once the MPRD Amendment Act comes into effect. De Beers will then be obliged to apply for a closure certificate in respect of the tailings as it is considered to be a previous holder of old order rights.

When selling a mine to another company, mining companies have attempted to escape the liability of rehabilitation by including the transfer of their environmental responsibilities and liabilities in the contract of sale. Before a holder of an MPRDA authorization can sell a mine, the holder is obliged to obtain permission for the transaction in terms of section 11 of the MPRDA and a closure certificate. Once the MPRDA closure certificate is issued, the seller is no longer liable in terms of the MPDRA provisions, but the seller is not indemnified from liabilities in terms of environmental legislation. In terms of Company Law, it is possible to transfer environmental liabilities to a purchaser by means of a “take over” or a “sale of business” transaction. With a sale of business transaction, the liabilities are not automatically transferred to the purchaser and the seller would have to specify in the sale of business contract that the liabilities, assets or

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253 Item 7 of schedule II of the MPRDA.
254 See 6.
255 See 6.
business are being transferred to the purchaser. The terms in the contract should be explicit and unambiguous. This requirement entails that, if the seller specifies in the sale of business agreement that the purchaser “purchases” all the historic, current and future rehabilitation liabilities and obligations, the seller would have a claim against the purchaser if a claim should be instituted against the seller for rehabilitation.

8.2 Recommendations

In order to ensure that the holders of historical mining rights do rehabilitate tailings (or mines), it is recommended that the MPRDA be amended in the following manner:

The following definition of "rehabilitation" should be included in the MPRDA: “restoring the environment affected by prospecting or mining to its natural state, as far as it is practicable, or to a predetermined and agreed standard or land use that conforms to the concept of sustainable development.”

A separate definition of tailings should be included in the MPRDA to ensure that the liability for rehabilitation of tailings is enforced on all polluters and not only on holders of MPRDA and MA authorizations. Tailings could be defined as: “the material that originates from mining operations and stored for re-use after all of the economically recoverable material has been extracted by the holder of a mining right, mining permit, production right, an old order right; a previous holder of old order rights; or an owner of previous works”. Alternatively, the definition of "residue deposit" and "residue stockpiles" could be amended to include previous holders of old order rights and owners of previous works that have ceased to exist.

Although SAHRA has not yet successfully declared a tailings or mine dump to be a protected area by invoking the provisions of the NHRA, provision ought to be
made for such instances in the MPRDA. The MPRDA should state that: “the owner of tailings or a mine dump that has been declared to be a protected area in terms of the NHRA must put measures in place that will ensure that the environmental impact of the tailings or mine dump is limited and controlled to the satisfaction of the DWEA and the DM”.

There is at present no definition of “previous owner of works that have ceased to exist”. It is important that a definition be included in the MPRDA in order to remove uncertainty and the risk of incorrect interpretation. The following definition could be considered for a "previous owner of works that have ceased to exist", namely “a person who or company that undertook activities with the aim of extracting minerals in or under the earth surface, in water or in a residue stockpile or a residue deposit, including related activities, in a mine owned or leased between 1956 and 2004, with or without the necessary permissions, who has closed, disposed of, abandoned or liquidated the mine”. If the above-mentioned definition is used, numerous historical polluters would be compelled to rehabilitate, because they would remain liable until a closure certificate is issued to them.

If it should still not be possible to enforce rehabilitation effectively through the MPRDA after the MPRD Amendment Act comes into effect, rehabilitation could still be enforced through NEMA. Subsection 1(A) has been inserted in section 28 of NEMA, which insertion provides NEMA with retrospective application. This amendment ensures that the “polluter pays” principle can be applied to historical polluters and it has become possible to enforce rehabilitation on historical polluters.

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256 Refer to 8.
257 Refer to 5.2.
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