



FORM A: REQUEST FOR ACCESS TO RECORD OF PUBLIC BODY

(Section 18(1) of the Promotion of Access to Information Act, 2000 (Act No. 2 of 2000) [Regulation 6]

FOR DEPARTMENTAL USE

Reference number:.....

Request received by name and surname of information officer/deputy information officer on

.....(date) at.....(place)

Request fee (if any): R.....

Deposit (if any): R

Access fee: R.....

.....Signature of information officer/deputy Information Officer

A. Particulars of public body

The Information Officer/Deputy Information Officer:

B. Particulars of person requesting access to the record

- (a) The particulars of the person who requests access to the record must be given below
- (b) The address and/or fax number in the Republic to which the information is to be sent, must be given.
- (c) Proof of the capacity in which the request is made, if applicable, must be attached.
- (d) Proof of identity, must be attached.

Full names and surname: Mariette Liefferink on behalf of the Federation for a Sustainable Environment (FSE)

Identity number: 5304240031089
FSE (Reg. No. 2007/003002/08)
NPO NUMBER 062986-NPO
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Fax number:

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E-mail address:mariette@pea.org.za

Capacity in which request is made, when made on behalf of another person:.....

C. Particulars of person on whose behalf request is made

This section must be completed ONLY if a request for information is made on behalf of another person.

Full names and surname: N/A

Identity number: N/A

D. Particulars of record

(a) Provide full particulars of the record to which access is requested, including the reference number if that is known to you, to enable the record to be located.

(b) If the provided space is inadequate, please continue on a separate folio and attach it to this form.

The requester must sign all the additional folios.

1. Description of record or relevant part of the record: The written response by the NNR pursuant to the NNR’s oral “feedback on the NNR’s response to the FSE’s questions raised in the previous webinar” (Item 5 of the Agenda of the NNR’s Webinar, which was held on the 24th of February 2021 via MS Teams.

2. Reference number, if available:.....

3. Any further particulars of record: The FSE’s questions were:

1. The status of the NNR’s compliance with the directives issued by the South African Human Rights Commission (SAHRC) and its findings pursuant to its ‘National Hearing on the Underlying Socio-Economic Challenges of Mining Affected Communities.’ The National Hearing was conducted in 2016. Please see attached Report.

For ease of reference, I subjoin hereunder the relevant extracts from the SAHRC’s Report. Please advise what the progress is since 2016 regarding the actions proposed by the SAHRC. The actions are highlighted in bold typography. The emphasis is my own.

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Nuclear waste management

The Commission finds that there is an immediate need to address the lack of clarity concerning the State’s roles and responsibilities in the remediation of contaminated mine sites, particularly where such sites have been abandoned. The Commission further finds that, in light of the potentially severe and long-lasting impacts of contaminated sites, the State must prioritise funding for the National Nuclear Regulator (NNR) to undertake remediation activities.

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In terms of the Act, “nuclear damage” is narrowly defined as:

- a. injury to or the death or any sickness or disease of a person
 - b. other damage, including any damage to or any loss of use of property or damage to the environment which arises out of, or results from, or is attributable to, the ionizing radiation associated with a nuclear installation, nuclear vessel or action.
- However, the NNR interprets nuclear damage mainly in relation to death, personal safety or injury of a person. The NNR submitted that there is not sufficient guidance with regard to property or environmental damage and has accordingly proposed an amendment to the definition.

The NNR is not mandated to undertake remediation of contaminated sites in terms of legislation, nor is it capacitated to do so. In practice, where the NNR becomes aware of elevated radiation levels, the relevant government department is informed and is expected to respond to the situation. However, the NNR has no authority to enforce the implementation of remediation activities and pointed to a lack of coordination amongst relevant stakeholders in addressing the situation relating to potential contamination of abandoned mines. The NNR developed a proposed coordinative plan and attempted to engage relevant stakeholders, including the DMR, DEA, DWS and the Department of Cooperative Governance and Traditional Affairs, over a number of years. Nevertheless, the NNR does not appear to have received sufficient cooperation and the roles and responsibilities of stakeholders remain unclear.

Section 36 of the Act enables the NNR Board to make recommendations to the Minister of Energy for the development of safety standards and regulatory practices. In this regard, the NNR has developed draft safety standards and regulations, and is in the process of establishing remediation criteria. These standards have been based on international standards in line with those issued by the International Commission of Radiation Protection, and will distinguish between existing exposure scenarios and planned exposure scenarios. These draft standards have been submitted to the Department for further consideration, following which they will be released for public comment.

The NNR is also in the process of establishing a laboratory to analyse samples from sites where radiological contamination is expected. It is also working on improving legislation, processes and procedures for addressing contaminated sites and the establishment of a database of all potentially contaminated sites. The NNR experiences huge capacity restraints and does not possess the funding, nor the human resources, necessary to conduct proper planning, coordination and monitoring activities and remediation plans can only be implemented when finances are available.

The Commission notes that stakeholders have voiced complaints regarding the lack of responsiveness and transparency in respect of data on radioactivity in certain areas. While it notes the sensitivity and complexity of the issues involved, it is important for communities to have access to information that can be used to protect or realise their rights. In this regard, the Commission notes Principle 10 of the Rio Declaration on Environment and Development, which states: Environmental issues are best handled with participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities.

The Commission finds that there is an immediate need to address the lack of clarity concerning the State's roles and responsibilities in undertaking remediation of contaminated mine sites, particularly where such sites have been abandoned. The Commission further finds that, in light of the potentially severe and long-lasting impacts of contaminated sites, the State must prioritise remediation and funding for the [NNR].

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The NNR, together with key stakeholders, must develop appropriate mechanisms for communities and other interested parties to access information necessary to protect or exercise their rights.

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The DMR must ensure that all reports and documents, with the exception of strictly confidential information as determined by the DMR, are immediately made available to the public. The DMR must develop a dissemination strategy and should consider making this information available through the Open Data Portal initiative led by the Department of Public Service and Administration which seeks to improve access to information, data and services offered by government.

The NNR, together with other relevant stakeholders, must develop mechanisms through which communities and other interested parties can access information, including information on potentially hazardous material and contamination, on a basis that informs the realisation of rights.

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- The Commission finds that there is an immediate need to address the lack of clarity concerning the State's roles and responsibilities in the remediation of contaminated mine sites, particularly where such sites have been abandoned. The Commission further finds that, in light of the potentially severe and long-lasting impacts of contaminated sites, **the State must prioritise funding for the National Nuclear Regulator to undertake remediation activities. Recommendation**
- **The NNR, together with key stakeholders, must develop appropriate mechanisms for communities and other interested parties to access information necessary to protect or exercise rights.**

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The NNR, together with other relevant stakeholders, must develop mechanisms through which communities and other interested parties can access information, including information on potentially hazardous material and contamination, on a basis that informs the realisation of rights.

2. In terms of Tang, D & Watkins, A's 2011 Report titled 'Ecologies of Gold: The Past and Future Mining Landscapes of Johannesburg'; the Gauteng Department of Agriculture and Rural Development's 2011 'Feasibility Study on Reclamation of Mine Residue Areas for Development Purposes: Phase II Strategy and Implementation Plan', Technical report no. 788/06/01/2011, and Strachan, LKC, Ndengu, SN, Mafanya, T, Coetzee, H, Wade, PW, Msezane, N, Kwata, M & Mengistu, H's 2008 Draft 'Regional Gold Mining Closure Strategy for the Central Rand Goldfield', Council for Geosciences, report no. 2008-0174, it was found that:

- It is estimated that 25 percent of the population in Johannesburg and Ekurhuleni live in informal settlements, and approximately one quarter of them, 400,000 people, are in the mining belt. The settlements range from 100 to 40,000 people, with the largest communities in Ekurhuleni.
- The majority of mine residue areas (MRAs) is radioactive because the Witwatersrand gold-bearing ores contain almost ten times the amount of uranium than gold.
- There has also been a historical migration of generally elevated radioactive levels to the urban areas of Johannesburg central business district indicating the use of dump and waste material for building purposes as well as

downstream plumes in wetlands areas (Strachan et al. 2008).

What is the status of the NNR's 2015 Position Paper on Remediation Criteria and Requirements and the NNR's 2015 (PLN-SARA-15-012) Plan for Remediation of Contaminated Sites?

What actions have the NNR taken to prohibit the use of dump and uraniferous waste material for building purposes?

3. In terms of the NNR's Report, dated 2007, titled 'Radiological Impacts of the Mining Activities to the Public in the Wonderfontein Catchment Area', report TR-RRD-07-0006, it was found that:

- Strong dust emissions from TSFs occur during wind events. Due to the small particle size of the slimes, particulate matter can be transported over relatively long distances to agriculturally used land in the surroundings. The deposition of radioactively contaminated dust on leaves of vegetable and forage plants can cause radiation exposures exceeding those from the inhalation of contaminated dust substantially.
- The measured uranium content of many of the fluvial sediments, e.g. in the Wonderfontein within the West Rand gold fields, including those off mine properties and therefore outside the boundaries of licensed sites, exceeds the exclusion limit for regulation by the National Nuclear Regulator Act (NNRA) of 1999.
- The sediment pathway can cause radioactive contamination of livestock products resulting in effective doses of the public in some orders of magnitude above those resulting via the water pathway.

What actions have been taken by the NNR to address these risks to the public?

4. The International Agency for Research on Cancer (IARC), an intergovernmental agency forming part of the WHO of the United Nations identified gaps and opportunities pertaining to the health effects in populations living around the uraniferous gold mine tailings in South Africa and contracted the Federation for a Sustainable Environment (FSE) to collect 1,600 human hair samples from mining affected communities within the West Rand gold fields. The objective of the sampling was to study the environmental exposure to uranium and its decay products of the population living in close proximity to gold mine tailing dumps in and around Johannesburg. (Please see Schonfeld, SJ, Winde, F, Albrecht, C, Kielkowski, D, Liefferink, M, Patel, M, Sewram, V, Stoch, L, Whitaker, C, Schüz, J 2014, 'Health effects in populations living around the uraniferous gold mine tailings in South Africa: gaps and opportunities for research', International Agency for Research on Cancer, Lyon.)

I now refer to the second attached Report, dated 2019 and titled 'Human exposure to uranium in South African gold mining areas using barber-based hair sampling' by Frank Winde, Gerhard Geipel, Carolina Espina, and Joachim Schuz, which concluded:

"U concentrations measured in the hair of the resident population of this South African gold mining area indicate elevated U levels that merit research on possible adverse health consequences."

Please advise what the progress is in conducting an epidemiological study in order to assess the health risks of mining affected communities within the Witwatersrand gold fields.

5. Mintails Group

The Parliamentary Portfolio Oversight Committee found during its oversight visit of the Mintails operations that:

- *"The DMR allowed Mintails to operate between 2012 and 2018, despite the fact that the Department had never approved the environmental management plans of the mine and had never issued the company with a mining right under the law".*
- *"Neither Shiva Uranium (Pty) Ltd and Mintails Mining SA (Pty) Ltd has saved all the money they were supposed to set aside under the law to pay for environmental rehabilitation. The shortfalls are R36.6-million for Shiva and R460-million for Mintails."*

(Ref. 22 November 2018: ANNOUNCEMENTS, TABLINGS AND COMMITTEE REPORTS NO 174—2018. No 174—2018, FIFTH SESSION, PARLIAMENT. Pages 39 – 52.)

Following the liquidation of Mintails Mining SA Proprietary Limited (MMSA) (Registration number 2007/004029/07) and Mintails Gold SA Proprietary Limited (MGSA) (Registration number 2007/003948/07) within the Mintails Group, the liquidators allowed the potentially radioactive 14 km pipeline and gold treatment plans to be demolished by unlawful entities and the scrap metal to be sold to scrap metal dealers. Please see subjoined photographs.



Potentially radioactive metal residue lies scattered in wetlands and adjacent to residential developments.



Failure to establish access control, fences and security, the liquidators created the opportunity for unlawful miners to strip the gold treatment plant within two months to the ground. The potentially radioactive metal from the gold treatment plant was sold to local scrap dealers.

In this regard we refer to the attached Notice of Motion, the Founding Affidavit and the Order of Court in which the Minister of Energy is listed as one of the Respondents. We trust that the NNR has taken notice of the FSE's Application and the subsequent events following the liquidation.

The FSE cordially invites the NNR to a joint site inspection of Mintails' Operations. In terms of the attached Court Order the FSE is allowed access to Mintails' Operations.

6. In terms of the findings of the NNR & DWAF'S Wonderfonteinpruit Catchment Area: Action Plan of 2009 it was found:

“Tudor Dam

- The Tudor dam is located in the south eastern portion of the headwaters of the WCA. The dam was mined by a company called Mintails to recover gold from the sediments, The soils and sediments at the site are potentially contaminated with radionuclides. The activity concentration of uranium 238 in the soils and sediments behind the dam are high, 8000- 10000 Bq/kg with radium 226 at 1700-2800 Bq/kg.
- Remediation of this site, from a radiological health perspective is required, in order to meet ALARA levels. It is recommended that recovery of material containing in excess of 0.5 Bq/g of any radionuclide be the target. It is suggested that the remediation be completed within the next year and that a complete rehabilitation plan from the responsible parties, with timelines and rehabilitation objectives, be submitted to the NNR, DME and DWAF, for approval by the authorities, within 3 months. If the detailed remediation implementation plan provides evidence that achieving the 0.5 Bq/g clearance target is

not feasible then an ALARA justification for a higher value must be carried out and approved by the regulator.

- If the Mine does not agree to do this within this time frame the regulator could require that all licensed areas be fenced and made off limits to the public until such time as the site is rehabilitated.
- It should be a requirement that this and any surface mining (dams, slimes piles, waste areas etc.) projects continue uninterrupted until the area is fully remediated and not left in a contaminated state, in which a potential public health hazard may exist. Currently it would appear that ALARA is not being achieved and the operations appear to be discontinued as soon as the profitable material has been removed.
- As a condition of its license to mine the old dam sediments the Mine must be required to mine and remediate as mining takes place. The site can in this way be converted from a mining site to a rehabilitated site.
- Once mining is completed, the site should be graded removing any hazards and re-vegetated. Access roads should be removed following remediation to prevent illegal dumping in the rehabilitated areas.
- There must be follow-up inspection by the NNR & the DWAF to confirm if cleanup is carried out as per the licence requirements.
- Independent sampling should also be conducted by the regulators since post-remedial sampling must ensure that residual soil levels of specified contaminants do not exceed remediation license levels and that the dose from all residual radionuclides will not exceed 1 mSv/a taking into account institutional control for the specified land use.

Stream Bottom 150m Downstream of Tudor Dam

- This site is a dry "wetland" below Tudor Dam.
- The channel contained well-sorted fine sediments, most likely, slimes deposited from the overflow from Tudor Dam.
- Uranium and radium activity concentrations were high here, at 2000 Bq/kg for uranium and 1200 Bq/kg for radium, as would be expected if they originated from the Tudor Dam.
- This site has contamination of radioactive material exceeding exclusion levels of 0.5 Bq/g per nuclide and will need to be remediated prior to the site being released from regulatory control.
- The site presents medium-high uranium and/or radium levels, exceeding national or international clearance standards. Remediation will be inexpensive and easy and should be done soon.
- Most of the sediments will be disturbed as a result of the poor mining practices at Tudor Dam and above. During mining the Mine was responsible to contain this material and should be required to clean up the material.
- It is recommended that this area be cleaned to release levels immediately following the rehabilitation of Tudor Dam site within the next 3 years or an ALARA justification provided as to why this should not be carried out.
- This site must be cleaned up as part of the current Tudor dam cleanup operation. The Regulators must ensure that this requirement is incorporated in the current clean-up plan of the Tudor Dam."

It is adduced from the physical evidence that none of the abovementioned recommendations were implemented. Please advise what actions the NNR has taken to protect the adjacent communities of Kagiso, the environment and properties from the exposure to the above-mentioned radiological risks.

7. Tudor Shaft Informal Settlement

We refer to Case No 24611/12 in the matter between the FSE and others and the NNR and others.

Please advise the status of the NNR's compliance with the Court Interdict.

Please note that the Steering Committee, which were established to address the Tudor Shaft Informal Settlement Matter has been in abeyance for more than 2 years.

8. In terms of the WRC Report No 1214/1/06 'An assessment of sources, pathways, mechanisms and risks of current and potential future pollution of water and sediments in gold-mining areas of the Wonderfonteinspruit catchment', WRC Report No 1214/1/06 by Wade, P., Winde, F., Coetzee, H. (2004) it was found:

- "Coetzee et al., 2003 report a uranium concentration in a surface-water body next to the northern watershed of the headwater region of the Wonderfonteinspruit (Robinson Lake) of 16 mg/l after underground mine water decanting into the Tweelopiespruit was pumped into the lake. This extreme concentration is believed to be the result of remobilisation of uranium from a contaminated sediment by acidic water.
- The combination of pH- and redox-driven reactions resulted in a measured uranium concentration of 16 mg/l, and resulted in the NNR declaring the lake a radiation area."

What actions have the NNR taken to protect the public, property and the environment in this regard. The Robinson Lake is at the time of writing unremediated, without fences or access control or warning signs and during rain events used by the children of neighbouring communities for recreational (swimming) purposes?

9. In terms of the WRC Report No 1214/1/06 'An assessment of sources, pathways, mechanisms and risks of current and potential future pollution of water and sediments in gold-mining areas of the Wonderfonteinspruit catchment', WRC

Report No 1214/1/06 by Wade, P., Winde, F., Coetzee, H. (2004) it was found:

- “In downstream farm dams uranium concentrations are still significantly elevated; uranium concentrations relative to the local background, recorded at Klerkskraal Dam (<1 mg/kg). In one specific dam (Andries Coetzee’s farm dam), concentrations of up to 900 mg/kg have been recorded in sediments.”

What actions have the NNR taken to protect the public, property and the environment in this regard? At the time of writing the Andries Coetzee’s farm dam is un-remediated, unfenced with no access control or warning signs.

9. Additional Questions and Comments:

How many court actions and enforcements were instituted by the NNR for non-compliances with the NNR Act?

It should be noted that according to the DMR’s list there are no dumps or TSFs without owners except for the Davidsonville Dump. The Tudor Dump’s ownership is uncertain.

E. Fees

- (a) A request for access to a record, other than a record containing personal information about yourself, will be processed only after a request fee has been paid.
- (b) You will be notified of the amount required to be paid as the request fee.
- (c) The fee payable for access to a record depends on the form in which access is required and the reasonable time required to search for and prepare a record.
- (d) If you qualify for exemption of the payment of any fee, please state the reason for exemption.

Reason for exemption from payment of fees: N/A

F. Form of access to record

If you are prevented by a disability to read, view or listen to the record in the form of access provided for in 1 to 4 below, state your disability and indicate in which form the record is required.

<u>Disability:</u>		Form in which record is required:	
Mark the appropriate box with an X.			
NOTES: (a) Compliance with your request for access in the specified form may depend on the form in which the record is available. (b) Access in the form requested may be refused in certain circumstances. In such a case you will be informed if access will be granted in another form. (c) The fee payable for access to the record, if any, will be determined partly by the form in which access is requested.			
1. If the record is in written or printed form:			
X	copy of record*		inspection of record
2. If record consists of visual images - (this includes photographs, slides, video recordings, computer-generated images, sketches, etc:			
	view the images	X	copy of the images* transcription of the images*
3. If record consists of recorded words or information which can be reproduced in sound:			
	listen to the soundtrack (audio cassette)	X	transcription of soundtrack* (written or printed document)
4. If record is held on computer or in an electronic or machine-readable form:			

X	printed copy of record'		printed copy of information derived from the record*		copy in computer readable form* (stiffy or compact disc)	
*If you requested a copy or transcription of a record (above), do you wish the copy or transcription to be posted to you? Postage is payable.					YES	NO
Note that <i>if</i> the record is not available in the language you prefer, access may <i>be granted</i> in the language in <i>which</i> the record is available.						
In which language would you prefer the record? English						

G. Notice of decision regarding request for access

You will be notified whether your request has been approved/denied. If you wish to be informed by an alternative method of communications, please specify and provide the necessary particulars to enable compliance with your request. How would you prefer to be informed of the decision regarding your request for access to the record/s?

By e-mail.

Signed at Fourways on this 28th day of August 2021.



SIGNATURE OF REQUESTER 1 PERSON ON
WHOSE BEHALF REQUEST IS MADE