



Cluett Consulting Management Aid

**Topic: Pro-forma Compliance Audit:
GN R704: Regulations on Use of Water for Mining and Related
Activities Aimed at the Protection of Water Resources.**

Actionable	Level of Action	Urgency	Implementation Date	Reporting			Cost Implication
Yes	Group	Immediate	Current	Authority	Hard	DMR	Yes
					Electronic	DEA	
No	Operational	6 Months		Internal	EMS	DEA:AQ	
					H&S	DEA:WM	
Information Only	Department	>1 Year		Group	Finance	DWS	
					Legal	Province	

Requirement: Compliance with GN R704
Action Required: Audit for compliance and remedying actions or applications made for exemption as necessary
Applicable Legislation: National Water Act (36 of 1998)

Summary of GN R704 requirement:

On the 4th of June 1999, Regulations on Use of Water for Mining and Related Activities Aimed at the Protection of Water Resources were published under GN R704 (in GG20119). Previous versions of this regulation were published in GN R287 (20 February 1976). GN R704 has been issued by the Department of Water Affairs and Sanitation in accordance with their mandate for the protection, use, development, conservation, management and control of the water resources of South Africa on a sustainable basis.

This Management Aid provides an Audit checklist covering the requirements of GN R704 that may be applicable to any mine or mining related activity, as defined in the regulation. In order to run a compliance audit on GN R704 requirements this checklist should be amended by the inclusion of a responsible person, an Action Log and a date for completion for non-compliances. The Audit should be signed off by the Mine or Operations Manager.

An "activity", as defined in these regulations, is any mining related process such as the operation of washing plants, mineral processing facilities, mineral refineries and extraction plants and the operation and use of mineral loading and off-loading zones, transport facilities, mineral storage yards, whether situated at the mine or not, in which any substance is stockpiled, stored, accumulated or transported for use in such process and out of which process and residue is derived, stored, stockpiled, accumulated, dumped, disposed of or transported.

In terms of GN R704 the employer must provide the manager with the means necessary and every facility required to enable the manager to comply with the provision of these regulations. The penalties for non-compliance with these regulations are severe and include fines and/or imprisonment of up to 5 years for the individual/individuals responsible.

Additional Legislation:

Additional legislation, regulations and standards that may apply include:

- ☞ National Water Act (36 of 1998);
- ☞ GN R991 in GG9225 of 18 May 1984: Requirements for the Purification of Waste Water or Effluent (as amended by GN R1864 in GG17567 of 15 November 1996)





Regulation GN R704 Compliance Audit

Audit Site: _____

Audit Date: _____

Lead Auditor: _____

Audit Team: _____

Audit Findings: _____

Action Plan: _____

Management Sign Off: _____

Date: _____





	Regulation	Requirement	Exemption Possible? (Reg. 3)	Compliance Yes / No / N/A
Information and Notification	2(1)	The Department must be notified at least 14 days prior to the start of a new mine or a new activity	Exemption Not possible	
	2(2)(a)	A copy of all amendments to the EMP must be submitted to the Department	Exemption Not possible	
	2(2)(b)	The Department must be notified, in writing, at least 14 days before the temporary or permanent cessation of the operation of a mine or the conducting of an activity or the resumption of such operation or activity	Exemption Not possible	
	2(2)(c)	The Department must be notified by the fastest possible means of any emergency incident or potential emergency incident involving a water resource at or incidental to the operation of a mine or the conducting of any information, including information as described in Regulation 2 (c) (i-v)	Exemption Not possible	
	2(2)(d)	Within 14 days of an incident contemplated in Regulation 2(c), the department must be informed of measures taken to correct the incident and to prevent recurrence	Exemption Not possible	
Restrictions on Locality	4(a)	No residue deposit, dam, reservoir, any associated structures or any other facility may be located or placed within the 1:100 year flood-line or within a horizontal distance of 100m from any watercourse or estuary, borehole or well (excluding boreholes or wells that serve to monitor groundwater pollution) or on water-logged ground, or ground likely to become water-logged, undermined, unstable or cracked	Exemption Possible	
	4(b)	No underground or opencast mining, prospecting or any other operation or activity may take place within the 1:50 year flood-line or within a horizontal distance of 100 metres from any watercourse or estuary, whichever is the greatest (except in relation to Regulation 10 regarding winning sand and alluvial minerals from watercourse or estuary)	Exemption Possible	
	4(c)	No residue or substance which causes or is likely to cause pollution of a water resource may be placed or disposed of in the workings of any underground or opencast mine excavation, prospecting diggings, pit or any other excavation	Exemption Possible	
	4(d)	No area may be used or any sanitary convenience, fuel depots, reservoir or depots for any substance which causes or is likely to cause pollution of a water resource may be located within the 1:50 year flood-line of any watercourse or estuary	Exemption Possible	
Restriction on use of material	5	Residues or substances which cause or are likely to cause pollution of a water resource may not be used for the construction of any dam or other impoundment or any embankment, road or railway, or for any other purpose which is likely to cause pollution of a water resource	Exemption Possible	
Capacity requirements of clean and dirty water systems	6(a)	Unpolluted water must be confined to a clean water system, away from any dirty area	Exemption Possible	
	6(b)	Any clean water system at the mine or activity must be designed, constructed, maintained and operated so that it is not likely to spill into any dirty water system more than once in 50 years	Exemption Possible	
	6(c)	Water arising within any dirty area, including water seeping from mining operations. outcrops or any other activity must be collected into a dirty water system	Exemption Possible	
	6(d)	Any dirty water system at the mine or activity must be designed, constructed, maintained and operated so that it is not likely to spill into any clean water system more than once in 50 years	Exemption Possible	





	Regulation	Requirement	Exemption Possible? (Reg. 3)	Compliance Yes / No / N/A
Capacity requirements of clean and dirty water systems	6(e)	Any dam or tailings dam that forms part of a dirty water system must be designed, constructed, maintained and operated to have a minimum freeboard of 0.8 metres above full supply level. Refer to Chapter 12 of the NWA	Exemption Possible	
	6(f)	All water systems must be designed, constructed, maintained and operated so as to guarantee the serviceability of such conveyances for flows up to and including those arising as a result of the maximum flood with an average period of recurrence of once in 50 years	Exemption Possible	
Protection of water resources	7(a)	Water containing waste or any substance which causes or is likely to cause pollution of a water resource must be prevented from entering any water resource, either by natural flow or by seepage, and must retain or collect such substance or water containing waste for use, re-use, evaporation or for purification and disposal (in terms of the National Water Act)	Exemption Possible	
	7(b)	All water systems, including residue deposits, in any area must be designed, modified, located, constructed and maintained so as to prevent the pollution of any water resource through the operation or use thereof and to restrict the possibility of damage to the riparian or in-stream habitat through erosion or sedimentation, the disturbance of vegetation or the alteration of flow characteristics	Exemption Possible	
	7(c)	The flow of any surface water or floodwater into mine workings, opencast workings, other workings or subterranean caverns, through cracked or fissured formations, subsided ground, sinkholes, outcrop excavations, adits, entrances or any other openings must be minimised through effective measures	Exemption Possible	
	7(d)	Any dams, residue deposits or stockpiles used for the disposal or storage of mineral tailings, slimes, ash or other hydraulic transported substances must be designed, modified, constructed, maintained and used so that the water or waste therein, or falling therein, won't result in the failure, or impair the stability thereof	Exemption Possible	
	7(e)	The erosion or leaching of materials from any residue deposit or stockpile from any area must be prevented and materials or substances eroded or leached in such an area must be contained by providing suitable barrier dams, evaporation dams or any other effective measures to prevent this material or substance from entering and polluting any water resources	Exemption Possible	
	7(f)	Water used in any process at a mine or activity is recycled as far as practicable and any facility, sump, pumping installation, catchment dam or other impoundment used for recycling water must be of adequate design and capacity to prevent spillage, seepage or release of water containing waste at any time	Exemption Possible	
	7(g)	Any water system must be kept free from any matter or obstruction which may affect the efficiency thereof, at all times	Exemption Possible	
	7(h)	All domestic waste, including wash-water, which cannot be disposed of in a municipal sewage system, must be disposed of in terms of an authorisation under the National Water Act	Exemption Possible	
Security and additional measures	8(a)	Any impoundment or dam containing any poisonous, toxic or injurious substance must be effectively fenced-off so as to restrict access there to and warning notice boards must be erected at prominent locations so as to warn persons of the hazardous contents thereof	Exemption Possible	
	8(b)	Access control in any area used for the stockpiling or disposal of any residue or substance which causes, has caused or is likely to cause pollution of a water resource must be ensured so as to protect measures taken in terms of these regulations	Exemption Possible	





	Regulation	Requirement	Exemption Possible? (Reg. 3)	Compliance : Yes / No / N/A
Security and additional measures	8(c)	The area contemplated in 8(a) and (b) must not be used for any other purpose, if such use causes or is likely to cause pollution of a water resource	Exemption Possible	
	8(d)	Any existing pollution control measures must be protected or replaced if they have been deleteriously affected, damaged or destroyed by the removing or reclaiming of materials from any residue deposit or stockpile and additional measures for the prevention of pollution of a water resource which might occur, is occurring or has occurred as a result of such operations must be established	Exemption Possible	
Temporary or permanent cessation of mine or activity	9(1)	All pollution control measures must have been designed, modified, constructed and maintained so as to comply with these regulations at either the temporary or permanent cessations of an mine or activity	Exemption Not possible	
	9(2)	The in-stream and riparian habitat of any water resource, which may have been affected or altered by a mine or activity must be remedied so as to comply with these regulations	Exemption Not possible	
	9(3)	The Minister may request a copy of any surface or underground plans as required in terms of the Minerals Act, 1991 (repealed through the MPRDA) on either temporary or permanent cessation of a mine or activity	Exemption Not possible	
Additional regulations relating to winning sand and alluvial minerals from watercourse or estuary	10(1)(a)	Sand, alluvial minerals or other materials from the channel of a watercourse or estuary may not be extracted unless reasonable precautions are taken as described in 10(1)(a)(i-iii)	Exemption Possible	
	10(1)(b)	No slimes dam or settling pond may be established within the 1:50 year flood-line or within a horizontal distance of 100 metres of any watercourse or estuary	Exemption Possible	
	10(2)(a)	When winning sand, alluvial minerals or other materials from the bed of a watercourse or estuary, treatment facilities must be constructed to treat the water to the standard prescribed in GN R991 (26 May 1984) as amended or by any subsequent regulation under the Act before returning the water to the watercourse or estuary	Exemption Possible	
	10(2)(b)	When winning sand, alluvial minerals or other materials from the bed of a watercourse or estuary, the stockpiles or sand dumps established on the bank of any watercourse or estuary must be limited to that realised in two days of production. All other production must be stockpiled or dumped outside of the 1:50 year flood-line or more than a horizontal distance of 100 metres from any watercourse or estuary	Exemption Possible	
	10(2)(c)	When winning sand, alluvial minerals or other materials from the bed of a watercourse or estuary, control measures must be implemented that will prevent the pollution of any water resource by oil, grease, fuel or chemicals	Exemption Possible	
Additional regulations for rehabilitation of coal residue deposits	11(a)	Coal residue deposits must be rehabilitated so that all residue deposits are compacted to prevent spontaneous combustion and minimise the infiltration of water	Exemption Possible	
	11(b)	Coal residue deposits must be rehabilitated so that all residue deposits the rehabilitation of residue deposits is implemented concurrently with the mining operation	Exemption Possible	

Further requirements in Regulation 12, describe the power of the Minister to require a technical investigation or inspection aimed at preventing pollution of a water resource or damage to in-stream or riparian habitat. A programme of implementation to prevent or rectify any pollution of a water resource or damage to in-stream or riparian habitat, as recommended by this investigation may be required and may require a compliance monitoring network to monitor the programme.

