FRAMEWORK EMP (fEMP) FOR A COAL-FIRED POWER STATION, AND ASSOCIATED INFRASTRUCTURE, IN THE WITBANK AREA

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
1. COMPLIANCE WITH ENVIRONMENTAL LEGISLATION								
All Activities (power station and all associated structures and infrastructure, including the coal stockyard, conveyers, water pipelines, water reservoirs/ dams and ash dump)	Compliance with Regulation 1182 and 1183 of Environment Conservation Act	Delay in onset of activity Suspension of construction & operational phases Prosecution	**Objective:** To ensure that requisite EIA authorisation has been received **Mechanism:** 1) Complete the statutory EIA[i] process	RoD[ii] (and appeal adjudication if relevant) received from DEAT[iii]	EIA Consultant	EIA process and documentation	Prior to site establishment	ESKOM
	Compliance with Sections 34, 35, 36 and 38 of National Heritage Resources Act.	Delay in issuing of ECA[iv] RoD Delay in onset of activity Suspension of construction phase Prosecution	**Objective:** To ensure that the requisite heritage inputs have been integrated into the EIA process **Mechanism:** 1) Solicit comment from Gauteng/ Mpumalanga Heritage Agency or SAHRA[v] as part of the EIA consultation process 2) Complete permit application process if required	Comment from HWC/ SAHRA as input into the DEAT RoD Permit(s) to destroy identified resources (if required) received from Responsible Heritage Authority	EIA Consultant Heritage Specialist	EIA process and documentation NHRA[vi] permit application	Prior to submission of EIA (for comment) Prior to site establishment (for any permits)	ESKOM
Power station, coal yard, conveyers and ash dump	Compliance with NEM[vii] Air Quality Act and Air Pollution Prevention Act	Delay in onset of activity Suspension of operational Prosecution	**Objective:** To ensure that requisite authorisation has been received **Mechanism:** 1) Complete permit application process.	Permit received from DEAT: Air Quality Control	ESKOM Air Quality Specialist (to provide input)	EIA process and documentation APPA[viii]/ NEMAQA[ix] permit Applications	Prior to site establishment	ESKOM
Water source and conveyance Effluent treatment and disposal	Compliance with Sections 21 & 22 of National Water Act	Delay in issuing of the ECA RoD Delay in onset of activity Suspension of construction & operational phases Prosecution	**Objective:** To ensure that the requisite authorisation has been received **Mechanism:** 1) Solicit comment from DWAF[x] as part of the EIA consultation process 2) Complete water use licence application if required	Comment from DWAF as input into the DEAT RoD Requisite water use licences (if required) received from DWAF	ESKOM EIA Consultant (to provide input)	EIA process and documentation Water use licence application	Prior to submission of EIA (for comment) Prior to site establishment (for any permits)	ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
2. ENVIRONMENTAL INPUT INTO TENDER DRAFTING AND ADJUDICATION								
All Activities (power station and all associated structures and infrastructure, including the coal stockyard, conveyers, water pipelines, water reservoirs/ dams and ash dump)	Compilation of tender documentation and Specifications	Negative impacts on environment during construction	**Objective:** To ensure acceptable management of environmental issues during construction **Mechanism:** 1) Incorporate relevant environmental management specifications into the Tender and Contract documentation[xi] 2) Incorporate relevant payment items into the Schedule of Quantities	Tender documentation and Contract Documentation include environmental management requirements	Engineering Design Consultant/ ESKOM Environmental Consultant/ ESKOM	EIA documentation Specialist studies Framework EMP In-house EMPs (where relevant and available)	Tender Design & Design Review Stage	Review by ESKOM
	Tender Adjudication	Negative impacts on environment during construction	**Objective:** To ensure acceptable management of environmental issues during construction **Mechanism:** 1) Assess ability of Tenderers to adequately manage the environmental issues	Tender evaluation report contain reference to environmental ability of tenderers Successful Contractor shows clear commitment to and capacity for meeting the environmental management obligations	Engineering Design Consultant/ ESKOM Environmental Consultant/ ESKOM	Completed Tender Documentation In-house Environmental Agreement and Tenderer Questionnaire (where applicable)	Tender Adjudication Stage	Review by ESKOM
3. ENVIRONMENTAL INPUT INTO DESIGN								
All Activities (power station and all associated structures and infrastructure, including the coal stockyard, conveyers, water pipelines, water reservoirs/ dams and ash dump)	Detailed design of infrastructure	Design fails to respond optimally to the environmental considerations	**Objective:** To ensure that the design responds to the identified environmental constraints and opportunities **Mechanism:** 1) Consider design level mitigation measures recommended by the specialists, especially with respect to visual aesthetics, noise, air quality, flora, aquatic ecology, hydrogeology, heritage and risk 2) Balance technical and financial considerations against environmental constraints and opportunities in finalising the design of key elements 3) Incorporate in-house procedures, where relevant and available	Design meets objectives and does not degrade the environment Design and layouts etc respond to the mitigation measures and recommendations in the EIR	Engineering Design Consultant/ ESKOM Environmental Consultant/ ESKOM	EIA documentation Specialist studies Framework EMP In-house procedures (were relevant and available)	Tender Design & Design Review Stage	ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
	Negotiation with landowners	Landowners unfairly prejudiced by proposed siting of power station, coal yard and ash dump or routing of conveyers and pipelines	**Objective:** To ensure adequate regard has been taken of landowner concerns and that these are appropriately addressed **Mechanism:** 1) Initiate negotiations with landowners timeously 2) Address reasonable expectations/ requests where possible 3) In event of impasse follow legal expropriation route, but ensure that extent of expropriation is minimised, restrictions on land use are minimised and reasonable costs are paid	Location of infrastructure does not prejudice any landowners Location and layout responds to issues recorded in the Issues Trail Ideally, landowners should be satisfied with outcome of negotiations process. In event of impasse requiring expropriation, landowners should be afforded reasonable and appropriate rights/ access	ESKOM	EIA process In-house procedures for landowner negotiations and expropriation	Ideally initiated together with submission of final EIA (which indicates preferred options) Finalised prior to site establishment	ESKOM
Conveyors for coal (mine to coal stockyard and coal stockyard to power station)	Selection of preferred route	Route that degrades environment unnecessarily and poses heightened health and safety risk	**Objective:** To ensure selection of BPEO[xii] for the conveyer route **Mechanism:** 1) Select route that curtails environmental impacts and enhances environmental benefits, whilst being technically feasible and affordable 2) In adjudicating the preferred routing, careful consideration must be given to, in particular, the risks associated with the conveyer (e.g. dust and noise).	Routing meets objective. Selected route minimises any negative environmental impacts, maximises any benefits and minimise health and safety risks	ESKOM/mining house (due to schedule)	EIA documentation Specialist studies Framework EMP	Prior to submission of EIA	ESKOM
Access road to power station	Selection of preferred route	Route that degrades environment unnecessarily, particularly with respect to visual aesthetics and loss of indigenous flora	**Objective:** To ensure selection of BPEO for alignment for the access road **Mechanism:** 1) Select alignment that curtails environmental impacts and enhances environmental benefits, whilst being technical feasible and affordable	Alignment meets objective. Selected alignment minimises any negative environmental impacts and maximises any benefits	ESKOM (due to schedule)	EIA documentation Specialist studies Framework EMP	Prior to submission of EIA	ESKOM

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Water source and conveyance	Finalisation of conveyance type and route[xiii]	Route that degrades environment unnecessarily and does not guarantee surety of supply	**Objective:** To ensure selection of BPEO for water conveyance type and routing **Mechanism:** 1) Select route that curtails environmental impacts and enhances environmental benefits, whilst being technical feasible and affordable	Alignment meets objective. Selected alignment minimises any negative environmental impacts, maximises any benefits and ensures a reliable supply of water to the power station in the long-term	ESKOM (due to schedule)	EIA documentation Specialist studies Framework EMP	Prior to submission of EIA	ESKOM
4. ENVIRONMENTAL MANAGEMENT OF THE CONSTRUCTION PHASE[xiv]								
All Activities (power station and all associated structures and infrastructure, including the coal stockyard, conveyers, water pipelines, water reservoirs/ dams and ash dump)	Monitoring and enforcement of specified environmental management requirements	Negative impacts on environment during construction of power station and associated structures/ infrastructure	**Objective:** To ensure that the construction of the power station and associated structures/ infrastructure does not result in avoidable impacts on the environment, and that any impacts that do occur are anticipated and managed **Mechanism:** 1) Appoint an Environmental Control Officer is (either independent or in-house) 2) Develop and implement an environmental auditing system for the construction phase 3) Audit the Contractors compliance with the requirements of the environmental specification contained within the relevant Contract Document 4) Produce regular (monthly) environmental audit reports for submission to DEAT and the ELC (if one is appointed)	Environmental impacts effectively monitored and managed during the construction phase with no residual impacts on the environment Comprehensive record of compliance and remedial actions available to ESKOM and the authorities	Site Engineer Environmental consultant ESKOM	Contract Document	During Construction Phase (from site establishment to Contract Completion)	ESKOM DEAT/ MDALA[xv]/ GDACEL[xvi]

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
	Communication with Contractor and his staff	Inability to communicate effectively with the Contractor regarding their environmental obligations, resulting in unnecessary environmental degradation	**Objective:** To ensure that there is effective communication with the Contractor on environmental issues **Mechanism:** 1) Include environmental considerations as an item on the agenda of the monthly site meetings for each Contractor 2) Include environmental considerations in the Contractors programme (where relevant) 3) Appoint a senior manager on the Contractors staff as the designated Environmental Officer, empowered to managed compliance with the environmental requirements on behalf of the Contractor 4) Compile and implement the necessary Method Statements 5) Undertake environmental awareness training of all site staff during the commencement of each Contract, with regular refreshers for the duration of the Contract	Environmental management requirements are proactively communicated with the Contractor and reflected in a more responsible approach to construction	Contractor Site Engineer Environmental consultant/ ESKOM	Contract Document Programme Meetings [Note: costs of awareness training covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant ESKOM in-house technical & environmental staff
	Communication with public	Inability to deal with public queries and complaints	**Objective:** To ensure that the public has a mechanism to contact a responsible individual in order to obtain information or report complaints **Mechanism** 1) Provide a contact number of someone responsible for the site on the site signage 2) Maintain a complaints register on site to allow public complaints to be recorded. Complaints should be noted and signed off at site meetings 3) Hold meetings with ELC at agreed frequencies	Public are able to communicate effectively with the relevant members of the project team either to obtain information or lodge complaints	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant ESKOM
	Site establishment ~ *Access*	Hazards to landowners and public, and security of materials	**Objective:** To secure the Site against unauthorised entry and to protect members of the public/ landowners **Mechanism:** 1) Secure Site in an appropriate manner 2) Where necessary to control access,	Site is secure and there is no unauthorised entry No members of the public/ landowners injured	Contractor	Contract Document [Note: costs covered within contract price]	Erection ~ during site establishment Maintenance ~ for duration of Contract	Site Engineer Environmental Consultant ESKOM in-house technical & environmental

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			fence and secure Contractor's camp 3) Provide alternative access/ detours for public/ landowners					staff
	Site establishment ~ *Site structures*	Site infrastructure that degrades the visual aesthetics of the area, unnecessarily exacerbates environmental consequences of construction and leads to public complaint	**Objective:** To minimise the environmental consequences associated with the establishment of the site infrastructure **Mechanism:** 1) Locate key site infrastructure in environmentally acceptable area and limit its extent 2) Position site infrastructure so as to limit visual intrusion on neighbours or the greater environment 3) Select materials for site infrastructure that limit reflection and blend in with the environment 4) Accommodate temporary services underground and within the same trench where possible	Site infrastructure has limited impact on the visual aesthetics of the area and does not result in unnecessary environmental degradation	Contractor	Contract Document [Note: costs covered within contract price]	During site establishment	Site Engineer Environmental Consultant ESKOM
	Site establishment ~ *Protection of topsoil and sensitive areas/ artefacts*	Destruction of loss of topsoil, and sensitive areas/ artefacts (which could include indigenous vegetation, fauna, aquatic ecosystems or heritage resources)	**Objective:** To retain topsoil for later use in closure and to ensure that disturbance to sensitive areas or artefacts is minimised **Mechanism:** 1) Locate key site infrastructure in environmentally acceptable area and limit its extent 2) Remove topsoil approximately 150 mm deep from establishment, working area and stockpile areas, and stockpile for later use 3) Protect topsoil stockpiles against erosion and contamination 4) Provide containment and settlement facilities for effluents from concrete mixing facilities 5) Provide spill containment facilities for hazardous materials like fuel and oil 6) Minimise the extent of areas cleared 7) Identify sensitive areas or artefacts and demarcate these as no-go areas 8) Develop contingency plans to address heritage resource discoveries during construction	Limited extent of vegetation destroyed during construction activities Sufficient topsoil for closure available No topsoil contaminated with cement materials, fuel, oil or other undesirable compounds Limited damage to sensitive aquatic ecosystems identified on the site No sensitive sites or artefacts damaged or destroyed	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant ESKOM

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	Site establishment ~ *Surface and groundwater*	Pollution of water resources by effluents	**Objective:** To avoid pollution of water resources **Mechanism:** 1) Establish contaminated water management system 2) Provide suitable and sufficient ablution facilities that are serviced regularly 3) Provide containment and settlement facilities for effluents from concrete mixing facilities 4) Provide spill containment facilities for hazardous materials like fuel and oil	Effluents managed effectively No pollution of water resources	Contractor	Contract Document [Note: costs covered within contract price]	During site establishment	Site Engineer Environmental Consultant ESKOM
	Site establishment ~ *Solid waste*	Pollution of environment with solid waste materials	**Objective:** To avoid pollution of environment with solid waste materials **Mechanism:** 1) Demarcate, and enforce use of, a designated eating area 2) Provide adequate waste bins 3) Set up system for regular waste removal to approved facility 4) Minimise waste by sorting wastes into recyclable and non recyclable wastes 5) Prohibit burying or burning of waste on Site	Appropriate management of solid wastes No complaints from public	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant ESKOM
	Site establishment ~ *Fire*	Increased fire risk to surrounding areas	**Objective:** To decrease fire risk **Mechanism:** 1) Provide adequate cooking and heating facilities for staff 2) Prohibit open fires 3) Develop emergency protocols for dealing with fires 4) Ensure adequate fire-fighting equipment is available on site, particularly near “hot” works	No occurrence of fires on site or on surrounding areas	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
	Site management ~ *Materials*	Risk of environmental contamination or safety hazard to public/ site staff resulting from inappropriate treatment of materials	**Objective:** To ensure that materials are handled, used and stored in a manner that limits the risk of environmental contamination or a safety hazard **Mechanism:** 1) Inform delivery drivers re requirements of the specifications 2) Secure materials during transport 3) Identify appropriate storage areas for stockpiling of materials, storage of hydrocarbons and storage of hazardous substances and ensure that these areas are appropriately prepared for their purpose 4) Dispose of hazardous substances in terms of the relevant legal requirements 5) Limit spillage of hazardous substances or substances with the potential to cause contamination of the environment 6) Develop emergency protocols for dealing with spillages particularly where these pose a pollution risk or involve hazardous substances 7) Compile and implement the necessary Method Statements 8) Undertake environmental awareness training of all site staff	Correct handling, use and storage of materials, including hazardous materials No incidents of environmental contamination No accidents or incidents related to the handling of materials No public complaints	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant ESKOM
	Site management ~ *Equipment maintenance and storage*	Presence of plant on site which exacerbates environmental impact including pollution and nuisance	**Objective:** Ensure that all plant on site is well maintained and serviced in the appropriate manner **Mechanism:** 1) Ensure that all plant is in good working order 2) Undertake maintenance within specified area (workshop) 3) Use drip trays for all stationary or parked plant and when servicing equipment away from designated areas	All plant in good working order Maintenance of plant does not result in environmental degradation No public complaints	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
	Site management ~ *Surface water and/or existing stormwater systems*	Contamination of stormwater runoff with suspended solids	**Objective:** Contain soils and materials within defined areas and prevent contamination of stormwater runoff **Mechanism:** 1) Identify predetermined stockpile areas for topsoil, construction materials and excavated material 2) Dispose of waste excavated material at appropriate waste disposal sites 3) Rehabilitate site to prevent soil erosion, including temporary revegetation of areas that will remain exposed for extended periods 4) Undertake concrete mixing away from sensitive areas and on impermeable surfaces 5) Store fuels in storage area that is appropriately bunded and drains to a sump 6) Ensure that substances that pose a risk of water contamination are appropriately stored and disposed of 7) Develop and implement water monitoring programme where work abuts aquatic systems	Correct stockpiling of excavated material on site No waste material left on site No erosion on site No pollution of water resources	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant ESKOM
	Site management ~ *Dust*	Dust nuisance from the excavated and stockpiled materials	**Objective:** To avoid dust nuisance from excavated materials or construction materials **Mechanism:** 1) Implement dust suppression measures e.g. regular watering 2) Undertake concrete mixing away from sensitive areas 3) Develop and implement dust monitoring programme	Appropriate management of dust No complaints from public No complaints from site staff	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant ESKOM
	Site management ~ *Noise*	Noise nuisance from construction equipment	**Objective:** To avoid noise nuisance from construction equipment **Mechanism:** 1) Limit working hours for noisy equipment to daylight hours 2) Fit silencers appropriate to equipment 3) Develop and implement noise monitoring programme	Appropriate management of noisy activities No complaints from public No complaints from site staff	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant ESKOM

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	Site management ~ *Public health and safety*	Hazardous conditions to landowners and members of the public	**Objective:** Provide adequate warning to landowners/ public regarding potential hazards and ensure safe access where required **Mechanism:** 1) Ensure adequate signage for landowners/ public about the work, particularly where work abuts major public thoroughfares or use areas 2) Erect and maintain fencing and gated access to restricted areas 3) Implement requisite traffic safety measures at abutting roads 4) Implement requisite safety measures where there are abutting public use areas 5) Ensure adequate accessibility to landowners/ public where required for safe access	Safe conditions for public No members of the public/ landowners injured Signboards put up before construction commences Provision of safe access routes for landowners/ public, which are clearly demarcated and visible	Contractor	Contract Document [Note: costs covered within contract price]	During Construction Phase (from site establishment to Contract Completion)	Site Engineer Environmental Consultant ESKOM
	Closure ~ *Environmental integrity*	Environmental integrity of site undermined resulting in reduced visual aesthetics, erosion, compromised land capability and the requirement for on-going management intervention	**Objective:** To ensure that the site is appropriately rehabilitated following the execution of the works, such that residual environmental impacts are remediated or curtailed **Mechanism:** 1) Remove all temporary facilities and waste materials 2) Replace stockpiled topsoil 3) Install necessary drainage works and anti-erosion measures 4) Landscape and revegetate disturbed areas with appropriate vegetation 5) Ensure that the Contractor is required to maintain revegetated areas until an acceptable cover has been achieved	All portions of site, including construction camp and working areas, cleared of equipment and temporary facilities Topsoil replaced on all areas, and stabilised Disturbed areas rehabilitated Acceptable cover achieved on closed site Closed site free of erosion and alien invasive plants	Contractor	Contract Document [Note: costs covered within contract price]	Following execution of the works	Site Engineer Environmental consultant ESKOM DEAT/ MDALA/ GDACEL

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
5. ENVIRONMENTAL MANAGEMENT OF THE OPERATIONAL AND DECOMMISSIONING[xvii] PHASES								
All Activities (power station and all associated structures and infrastructure, including the coal stockyard, conveyers, water pipelines, water reservoirs/ dams and ash dump)	Environmental management documentation and procedures	No framework within which to locate the management of the operational and decom. phases No procedures against which to assess environmental performance during the operational and decom. phases and thus no measure of compliance	**Objective:** To develop environmental management documentation and procedures which are consistent with the existing Environmental Management Procedures and will ensure the effective and proactive management of the operational and decom. phases **Mechanism:** 1) Use the existing Generation Business Unit Environmental Management Procedure as the basis to develop site specific environmental documentation and procedures for the power station, including its associated structures and infrastructure 2) Ensure that Environmental Management Procedures provide site specific environmental policies and management plans that comply with ESKOM's EMS 3) Ensure that the procedures are practical and implementable on the site	Environmental Management Procedure for the power station and associated infrastructure which is consistent with the Business Unit's existing documents, complies with ESKOM's EMS requirements and will ensure effective management of the operational and decommissionning. phases	Environmental Consultant ESKOM	EIA documentation Specialist studies Framework EMP In-house procedures (were relevant and available) ESKOM EMS	Prior to the onset of operation	ESKOM
	Environmental management of the operational phase	Negative impacts on environment during operation	**Objective:** To ensure that the operation of the power station and associated structures/ infrastructure does not result in avoidable impacts on the environment, and that any impacts that do occur are anticipated and managed **Mechanism:** 1) Implement the operational phase management procedures outlined in the Environmental Management Procedure 2) Comply with all requirements of all permits, authorisations and/ or licenses received	Environmental impacts effectively monitored and managed during the operational phase with no residual impacts on the environment Comprehensive record of compliance and remedial actions available to ESKOM and the authorities	ESKOM (in-house environmental staff)	Environmental Management Procedure ESKOM EMS	During operation	ESKOM

ACTIVITY	ASPECT	IMPACT	MITIGATION MEASURE: (objective and mechanism)	PERFORMANCE INDICATOR	RESPONSIBILITY	RESOURCES	SCHEDULE	VERIFICATION
	Environmental management of the decom.	Negative impacts on environment during decom.	**Objective:** To ensure that the decom. of the power station and associated structures/ infrastructure does not result in avoidable impacts on the environment, and that any impacts that do occur are anticipated and managed **Mechanism:** 1) Implement the decom. phase management procedures outlined in the Environmental Management Procedure	Environmental impacts effectively monitored and managed during the decom. phase with no residual impacts on the environment Comprehensive record of compliance and remedial actions available to ESKOM and the authorities	ESKOM	Environmental Management Procedure ESKOM EMS	During decom.	ESKOM

[i] EIA = Environmental Impact Assessment
[ii] RoD = Record of Decision
[iii] DEAT = Department of Environmental Affairs and Tourism
[iv] ECA = Environmental Conservation Act
[v] SAHRA = South African Heritage Resources Agency
[vi] NHRA = National Heritage Resources Act
[vii] NEM = National Environmental Management (as is National Environmental Management Act, the umbrella Act under which the Air Quality Act is promulgated)
[viii] APPA = Air Pollution Prevention Act
[ix] NEMAQA = National Environmental Management Air Quality Act
[x] DWAF = Department of Water Affairs and Forestry
[xi] The in-house EMPs may need to be augmented with project specific "project specifications" to ensure that the environmental issues are comprehensively addressed in the Tender Document.
[xii] Within this context BPEO, or Best Practicable Environmental Option, is defined as "for a given set of objectives, the option that provides the most benefits or least damage to the environment as a whole, at acceptable cost, in the long term as well as in the short term" (Royal Commission on Environmental Pollution, 1988). Here environment includes both the social and biophysical components.
[xiii] It is assumed that the source of water would have been resolved as part of the EIA process as highlighted under Section 1 of the fEMP
[xiv] It is understood that effect will be given to the requirements listed here by ensuring that they are integrated as specifications (where appropriate) into the Tender Document, as highlighted under Section 2.
[xv] MDALA = Mpumalanga Department of Agriculture and Land Affairs
[xvi] GDACEL = Gauteng Department of Agriculture, Conservation, Environment and Land Affairs
[xvii] Abbreviated to decom.