

ENVIRONMENTAL MANAGEMENT PLAN FOR CONSTRUCTION AND OPERATION OF KUNENE SUBSTATION AND ASSOCIATED INFRASTRUCTURE.

2023

Proponent:



*Document written by:
Environmental section
NamPower.*

Table of Contents

1. Introduction	2
2. Environmental Management Parameters during construction and operational phases	5
3. General organizational guidelines.....	19
3.1. EMP Administration	19
3.2. Roles and Responsibilities	19
3.2.1. Project Manager/ Area Superintendent	19
3.2.2. NamPower SHEW section	19
3.2.3. Contractor during construction and operation.....	20
3.3. Environmental Management and Training	21
3.4. Public Communication	22
3.5. Non-Compliance procedure.....	22
3.6. Inspections, monitoring and audit.....	22-23
3.7. Documents,record keeping and reporting procedures.....	23

1. Introduction

NamPower is busy constructing the Kunene transmission Substation in the Kunene region, approximately 30 km south- west of Ruacana. Construction activities are scheduled to be completed in 2023 and the substation is to be energized. The NamPower land around the site is approximately 30 ha.

Location (coordinates)	Latitude: -17.656409 Longitude: 14.241972
NamPower land	30 Hactares around the site
Transmission Lines to be connected to the Substation.	<ul style="list-style-type: none">• 400kV Kunene-Omatando Transmission line.• Ruacana-Kunene• Kunene-Omburu• Planned 400kv Angola and Namibia Interconnector.

Kunene transmission station will house the 400 kV line reactors currently located at the Ruacana Power Station. These reactors need to be replaced / refurbished as a matter of urgency and the site at the Power Station is not ideal since the effectiveness of the cooling system of the equipment is compromised at the current location. Reactors play an important part in electricity supply systems, by regulating current and protecting equipment from surges, and it is therefore vital to ensure that they operate at optimum capacity.

The development will allow for more effective cooling of the equipment to take place but will also allow for the future integration of electricity infrastructure developments in the area.

The activities described above are considered listed activities under the Environmental Management Act (no 7 of 2007) and it was therefore necessary to initiate a process to determine, as best possible, the potential environmental impacts of this project on the receiving environment.

As part of the environmental assessment process, the following activities were carried out:

- Identification of legal requirements.
- Desktop study to determine possible conditions expected on site.
- Site visits by specialists.
- Public participation process.

These activities are part of the scoping process aimed at identifying the possible environmental impacts which may require further investigation and to determine possible red-flag areas of the project, which may either result in relocation of the project activities or re-evaluation of the suitability of a project within a specific environmental setting.

The Ovahimba population in the area derive their livelihoods from livestock herding and a little cultivation. Etoto and Otjekua are the areas close to the substation site.

The main impacts of this project will be on the communal farmers who stand to lose some 0.06% of their grazing area and some vegetation along the line. Overall, the project is not likely to have such negative impacts that it makes the wisdom of the development questionable. The local community has benefited during the construction phase in the form of employment and rendering of services. A resettlement action plan was not required for this project.

Based on the findings from the specialist, it is therefore anticipated that the following negative impacts may be expected as part of this project:

- Loss of biodiversity
- Disturbance to habitats
- Disturbance of sensitive wildlife / bird species
- Increased risk of veld fires
- Contribution to the spread of HIV/Aids
- Injury to members of the local community
- Increase in dust and noise levels.
- Influence on local culture
- Impact on farming activities
- Disturbance or archaeologically valuable materials
- Disturbance to hydrological flow
- Water pollution
- Erosion

Positive impacts are also likely to occur because of the project, and these include but are not limited to:

- Upgrading of other infrastructure
- Creation of temporary employment
- Facilitation of the provision or rural electrification
- Strengthening of electricity network in the region
- Protection of expensive and valuable equipment
- Possible future integration of other projects

The timing of the impacts and significance of each will vary according to the phase of the project being initiated. The significance of the possible impacts will also vary between sites and will be dependent on specific local conditions which may, in all likelihood, vary over time as well.

These impacts can be adequately managed through the implementation of a comprehensive environmental management plan, with regular monitoring and audits.

Therefore, even though impacts are likely to occur, none of the anticipated impacts will significantly alter

the ecological or social functioning within the immediate project area or beyond and it is therefore recommended that the project be approved based on the findings detailed in this scoping report without further specialist studies being required.

The purpose of an EMP is to facilitate environmental management during the construction and operational phases of any given development project. The mitigation measures proposed in this document is with reference to the preliminary impact assessment carried out to determine the possible impacts of the proposed project and is detailed in subsequent sections of this document.

The EMP is concise and practical to facilitate ease of implementation and compliance monitoring.

2. Environmental Management Parameters during construction and operational phases

This section provides information with regards to the project specific management parameters which will need to be adhered to during the construction and operation of the Kunene Substation and associated infrastructure. These parameters shall be used as the measure for determining environmental compliance of the contractor during audits and inspections and shall be kept on site at all times.

COMPONENT	OBJECTIVE	MANAGEMENT MEASURES	RESPONSIBILITY/ PARTNERSHIPS
1. Implementation	To ensure that the provisions of the EMP are implemented during construction and operation	<ul style="list-style-type: none"> • The Contractor shall appoint a person from the construction team to take responsibility for the implementation for all provisions of this EMP. • NamPower shall appoint a person to supervise activities taking place on site to ensure compliance to SHEW and technical requirements. • A member of the SHEW section shall be assigned to the project and during construction and operation to carry out regular inspections and site visits. 	Project Manager Area Superintendent Contractor SHEW section
2. SOCIAL ASPECTS	To minimise inappropriate behaviour of contract employees and to reduce complaints from affected land owners.	<p>2.1 Interaction with Neighbours</p> <ul style="list-style-type: none"> • All requirements stated in section 3 below with regards to public communication shall be adhered to • Employees shall be sensitized to the possible disruption of the daily lives of affected parties and the induction programme shall focus on the role they must play to minimise this disruption. <p>2.2 Access to Private Property</p> <ul style="list-style-type: none"> • Contractor employees will be allowed to make use of facilities within the boundaries of the work site (as described previously) only. No other property may be entered. • All work shall be restricted to the designated construction area and marked servitude. <p>2.3 Archaeological and Cultural Sites</p> <ul style="list-style-type: none"> • All identified areas of archaeological or cultural significance shall be marked and avoided. • In the case of a chance find of a site or material of archaeological or cultural significance, the following procedure shall be adhered to: • A person identifying archaeological or heritage material. 	Project Manager Area Superintendent Contractor SHEW section

		<ul style="list-style-type: none">○ If operating machinery or equipment stop work○ Identify the site with flag tape	
--	--	--	--

COMPONENT	OBJECTIVE	MANAGEMENT MEASURES	RESPONSIBILITY/ PARTNERSHIPS
		<ul style="list-style-type: none"> ○ Determine GPS position if possible. ○ Report findings to site supervisor. ● Action by site supervisor <ul style="list-style-type: none"> ○ Report findings, site location and actions taken to project manager. ○ Cease any work in immediate vicinity. ● Action by project manager <ul style="list-style-type: none"> ○ Visit site and determine whether work can proceed without damaging findings. ○ Determine and mark exclusion boundary. ○ Site location and details to be added to project GIS for field confirmation by archaeologist. ● Action by archaeologist <ul style="list-style-type: none"> ○ Inspect site and confirm addition to project GIS. ○ Advise National Heritage Council (NHC) and request written permission to remove findings from work area. ○ Recovery, packaging, and labelling of findings for transfer to National Museum ● In the event of discovering human remains <ul style="list-style-type: none"> ○ Actions as above ○ Field inspection by archaeologist to confirm that remains are human. ○ Advise and liaise with NHC and Police ○ Recovery of remains and removal to National Museum or National Forensic Laboratory, as directed. <p>2.4 Social Impact</p> <ul style="list-style-type: none"> ● Personnel should limit their contact with workers and permanent residents of the area. ● Personnel should be properly educated about the impact of HIV / AIDS and other communicable diseases. ● Any person making themselves guilty of violence, harassment, or any other activity. deemed inappropriate by the landowner, must immediately be removed from the site. 	<p>Project Manager Area Superintendent Contractor SHEW section</p>

COMPONENT	OBJECTIVE	MANAGEMENT MEASURES	RESPONSIBILITY/ PARTNERSHIPS
		<ul style="list-style-type: none"> • The distribution or supply of intoxicating liquor or drugs of any kind by the employees of the contractor or any contractor is strictly prohibited. • The Contractor shall at every site meeting report on the status of the implementation of all provisions of the EMP. 	
3. PHYSICAL ENVIRONMENT	To minimise impacts to the physical environment during construction	3.1. Waste Management <ul style="list-style-type: none"> • Separate waste containers must be provided for hazardous waste, potentially hazardous waste, general waste, and construction waste. Hazardous / harmful waste must be clearly distinguishable as such. • Containers shall be provided with lid or netting to prevent the waste from being removed by scavengers or wind. • Waste containers should not be over-filled. • Illegal dumping and littering shall not be tolerated. • Sites where waste is stored must be adequately protected from animals that might frequent the area. • Ensure that the campsites, the work site, and the surroundings are always kept in a neat condition and that windblown litter is cleared on a daily basis. • Construction rubble and other waste generated during construction must be disposed of on a regular basis at the closest approved waste management site. A temporary waste site may be demarcated for temporary storage of waste, but this area must be identified and clearly marked on the surface layout plan. • The workforce must be sensitized to disposing of waste in a responsible manner and not to litter. • No waste may be burned or buried on site. • No waste may remain on site after completion of the project. • Toilet facilities should be available in the following ratio: 1 toilet for every 15 females and one toilet for every 20 males. The toilets should be such that it can be transported to various sites and emptied at an approved sewage site. No person should have to walk more than 1 km for the use of a toilet. Toilet facilities may not be placed within 100 m of any watercourse. 	Project Manager Area Superintendent Contractor SHEW section

COMPONENT	OBJECTIVE	MANAGEMENT MEASURES	RESPONSIBILITY/ PARTNERSHIPS
		<p>3.2. Hazardous Materials</p> <ul style="list-style-type: none"> • A register shall be kept on all hazardous substances and always be available for inspection. • Storage areas shall display the required safety signs. • No fuel shall be stored on site. • Hazardous substances should be stored in a well-ventilated area, and behind lock and key. • Used oils, fuel, paints, grease, and solvents should be stored in drums or other suitable containers, which must be labelled, sealed, and removed from the site to an appropriate disposal site or recycling facility. • Areas shall be monitored for spills and any spills shall be contained, cleaned, and rehabilitated immediately. • Oil contaminated soil must be collected, stored, and removed for disposal at an appropriate waste storage facility. The area from which the contaminated soil was taken must be filled with new soil. The new soil must be free of contamination and should not be taken from a spot within a 100-metre radius of where the spill occurred. • The contractor shall submit a oil spill management procedure prior to starting work on site • Drip trays should be available for all vehicles that are intended to be used during construction. These trays should be placed underneath each vehicle while the vehicles are parked. The drip trays should be cleaned every morning and the spillage handled as hazardous waste. • Hazardous substances should be stored according to the MSDS. <p>3.3 Temporary Campsites</p> <ul style="list-style-type: none"> • Camping activities shall be restricted to the work site and must be arranged 	<p>Project Manager Area Superintendent Contractor SHEW section</p>

COMPONENT	OBJECTIVE	MANAGEMENT MEASURES	RESPONSIBILITY/ PARTNERSHIPS
		<p>beforehand with the appropriate local authority.</p> <ul style="list-style-type: none"> • Adequate ablution facilities must be provided for the staff. These facilities may not be located within 100 m of any river, stream channel, pan, dam or borehole (even if the water source is dry) and should be properly maintained in a hygienic and good working order. • On-site waste management facilities are to be provided. • Fire extinguishers, first aid kits and any other relevant safety equipment must always be easily accessible. <p>3.4. Maintenance of Vehicles</p> <ul style="list-style-type: none"> • No vehicle maintenance will be allowed on site unless in cases of emergency. • Refer to section 3.2 and 3.3. of this document with regard to the management of spills or hazardous waste which may be created because of mechanical failure on any vehicle. <p>3.5. Access roads</p> <ul style="list-style-type: none"> • National road laws shall be adhered to when making use of public roads. • All possible steps shall be taken to minimize the disruption of traffic flow because of increased traffic activity on and to the site. • Clear traffic flow parameters shall be established on site to ensure that traffic flow is optimized and risks in terms of accidents or incidents related to traffic movement is minimized. 	<p>Project Manager Area Superintendent Contractor SHEW section</p>
<p>4. NATURAL ENVIRONMENT</p>	<p>To minimise damage to the natural environment, plants, and animals during</p>	<p>4.1 Water resources</p> <ul style="list-style-type: none"> • Surface and ground water shall not be polluted under any circumstances. Storm water shall be managed to ensure that it does not become polluted. • All hazardous substances at the site shall be adequately stored and accurately identified, recorded, and labelled. 	<p>Project Manager Area Superintendent Contractor SHEW section</p>

COMPONENT	OBJECTIVE	MANAGEMENT MEASURES	RESPONSIBILITY/ PARTNERSHIPS
	construction	<ul style="list-style-type: none"> • Temporary toilet facilities (preferably chemical toilets) used at the camp site shall be sited away from any water body. • A stream or riverbed should not be obstructed with any material. • Care should be taken to ensure that diverted flood water does not increase the risk of flooding for neighboring properties. • Water must be used sparingly. • Naturally occurring water sources may not be used for any personal hygiene - washing. – or recreational activities. • Water may only be taken from private, communal, or government-owned property on a basis agreed upon between the Contractor and custodian of the water resource. • Should the contractor be required to use water from a natural source, the contractor shall supply a method statement to that effect. • Do not mix concrete directly on the ground. Always use plastic liners and mixing trays. Remove waste concrete and sediment sludge to an appropriately designated storage area to prevent contamination during rainfall. Contain cement contaminated water within the process water system / dirty water system. • The use of herbicides or similar products are not allowed on site. • Suitable flood protection shall be in place to prevent the flooding of the site during the summer rain period. • To minimize the risk of the access road flooding, the following actions shall be 	Project Manager Area Superintendent Contractor SHEW section

undertaken:

- Large box culverts need to be constructed in the road filling material to permit flow from one side to the other.
- A freeboard should be allowed for, at the final level of the proposed access road as well as the final level of the filled terrain for the substation. The level of the final fill surface should be 460 mm above the calculated flood level. This is to allow for wave action, wind generated surge and wave run-up caused by strong winds during the expected 100-year return flood.
- Gabion mattresses could be constructed on such points of concentrated flow to curb erosion.
- Roads are to be designed to reduce the risk of soil erosion.

COMPONENT	OBJECTIVE	MANAGEMENT MEASURES	RESPONSIBILITY/ PARTNERSHIPS
		<p>4.2. Fauna</p> <ul style="list-style-type: none"> • Ephemeral pans should be avoided during construction – no construction or storage of materials shall take place within the confines of the pan. • Breeding sites of raptors and other wild birds must not be disturbed. Nests may not be removed or damaged. Young chicks and eggs may not be removed from the nests. • No birds may be shot or caught. • All bird-power line interactions must be reported to the project manager, who will notify the SHEW section. • Snaring, poaching, killing, taunting, collecting, smuggling, or abuse of animal wild or domestic animal is prohibited. • No domestic animals (such as cows, chickens, dogs, cats, goats, or sheep) may be kept either at the campsite or the construction site since they can introduce diseases or interbreed with the animals occurring naturally in the area. • No domestic or wild animals belonging to landowners, may be caught, and killed – meat must be bought from reputable sources. • The use of artificial lighting should be avoided as far as possible and when nocturnal lighting is to be utilized, it is recommended that focused lighting be utilized. • Any fauna captured on site shall be released in another area with similar habitats. • Regular monitoring of the site (substation and transmission line) shall be carried out in order to determine possible collisions / electrocutions of bird species. • Rodent control within the substation will be important to avoid the 	<p>Project Manager Area Superintendent Contractor SHEW section</p>

COMPONENT	OBJECTIVE	MANAGEMENT MEASURES	RESPONSIBILITY/ PARTNERSHIPS
		<p>electrocution of owls and other predatory birds.</p> <ul style="list-style-type: none"> • Nest boxes should be fitted of site should owl nesting become a problem within the substation area. • Any negative interaction between animals and the associated infrastructure including power lines and substation equipment shall be recorded and reported to the SHEW section. <p>4.3. Flora</p> <ul style="list-style-type: none"> • Large trees outside the servitude may not be cut down. • Large trees within the servitude and substation area should be avoided as far as possible. • Vegetation management through herbicide application will not be allowed. • No fires are to be allowed within the confines of the construction area or servitude. Fire management procedures shall be adhered to as detailed previously within the camp site area. • Prevent and discourage the collecting of firewood as dead wood has an important ecological role – especially during the development phase(s). Such collecting of firewood, especially for economic reasons, often leads to abuses – e.g., chopping down of live and/or protected tree species such as <i>Acacia erioloba</i> which is a good quality wood. • Attempt to avoid the removal of bigger trees (especially protected species – i.e. <i>Albizia anthelmintica</i>, <i>Boscia microphylla</i>, <i>Combretum imberbe</i>, <i>Maerua schinzii</i>, <i>Petlophorum africanum</i>, <i>Philenoptera nelsii</i> and <i>Ziziphus mucronata</i> during the development phase(s) – especially with the development of access routes – as these serve as habitat for a myriad of fauna. • Attempt to avoid the removal of interesting and unique trees (especially large 	<p>Project Manager Area Superintendent Contractor SHEW section</p>

COMPONENT	OBJECTIVE	MANAGEMENT MEASURES	RESPONSIBILITY/ PARTNERSHIPS
		<p>specimens of <i>Colophospermum mopane</i>).</p> <ul style="list-style-type: none"> • Prevent the planting of potentially invasive alien plant species (e.g. <i>Tecoma stans</i>, <i>Pennisetum setaceum</i>, etc.) for ornamental purposes as part of the landscaping around the substation. Alien species often “escape” and become invasive causing further ecological damage. • Incorporate indigenous vegetation especially the protected species into the overall landscaping of the substation area. • Rehabilitation of the disturbed areas – i.e. initial development access route “scars” and associated tracks, as well as temporary accommodation sites. • Preferably workers should be transported in/out to the construction sites on a daily basis to avoid excess damage to the local environment (e.g. fires, wood collection, etc.). • Initiate a policy of removal of unique flora (e.g. Aloe species that may be encountered prior to and during construction) within the proposed construction areas. Such flora should be removed to other areas of similar habitat in the area or stored (cared for in onsite nursery conditions) and replanted as part of the overall natural landscaping. <p>4.4. Soil Conservation</p> <ul style="list-style-type: none"> • Utmost care should be taken to prevent erosion. • Deep ruts and inaccessible sections must be repaired to avoid vehicles having to drive around bad sections (i.e. mud, deep ruts and loose sand) thereby creating new tracks. • Vehicular movement shall be restricted to the servitude and designated construction area • Vehicular speed shall be restricted to 30 km/h when driving on site or within the servitude • All tracks should be rehabilitated at the contractor’s expense. 	<p>Project Manager Area Superintendent Contractor SHEW section</p>

COMPONENT	OBJECTIVE	MANAGEMENT MEASURES	RESPONSIBILITY/ PARTNERSHIPS
5. MAPS AND PLANS	To ensure that all activities on site are adequately planned and restricted to designated areas and to minimise the footprint of the development area	<ul style="list-style-type: none"> • A detailed surface layout plan, indicating all activities and development areas shall be kept on site. No disturbance outside of designated areas is allowed. • The surface layout plan shall indicate the following components: <ul style="list-style-type: none"> ○ Waste management site ○ Contractor's laydown or storage areas ○ Ablution facilities and potable water points ○ Existing infrastructure on site 	Project Manager Area Superintendent Contractor SHEW section
6. HEALTH AND SAFETY	To ensure health and safety of workers and the public at all times during construction	<ul style="list-style-type: none"> • Site related health and safety concerns is outside the scope of the EMP but shall be addressed in a project related to SHEW plan. • The contractor shall submit a SHEW plan during tender to which shall be taken into consideration as part of the tender evaluation process. The approved contractor's SHEW plan shall then be reviewed; updated; resubmitted and approved before implementation. • Adherence to the SHEW plan shall be monitored along with all other requirements stated in this document. 	Project Manager Area Superintendent Contractor SHEW section
7. REHABILITATION	To rehabilitate the site office, work sites, servitude areas, tracks and other areas disturbed during construction as close to their original state as reasonably possible	<ul style="list-style-type: none"> • Rehabilitate areas disturbed during construction as soon as practicably possible. Facilitate rehabilitation of disturbed areas by preparing soils and allowing the natural vegetation to re-establish. • Grass cover is fundamental as it is the first step to stabilizing the soil. • Rehabilitate erosion gullies in construction working areas using suitable material such as gabions, rock-infill or geotextile fabric. Landscape these areas to provide storm water buffering capacity. • All bunding areas, equipment, waste, temporary structures, stockpiles etc., must be removed from the camp and work sites. • All disturbed areas shall be reshaped to their original contours; as close as possible to 	Project Manager Area Superintendent Contractor SHEW section

COMPONENT	OBJECTIVE	MANAGEMENT MEASURES	RESPONSIBILITY/ PARTNERSHIPS
		<p>the natural conditions before construction commenced, including the road reserve, detours, construction camps, and temporary access routes.</p> <ul style="list-style-type: none"> • Compacted areas shall be ripped to allow natural vegetation to re-establish. 	

3. General organizational guidelines

3.1. EMP Administration

Copies of the Environmental Management Plan (EMP) shall be kept at the site office and will be distributed to all Project Manager, Contractor, and Area Superintendent. All senior personnel shall be required to familiarize themselves with the contents of this document and shall attend induction along with all other personnel prior to work starting on site.

3.2. Roles and Responsibilities

The implementation of the EMP requires the involvement of several stakeholders, each fulfilling a different but vital role to ensure sound environmental management during each phase of the project. The following roles and responsibilities have been identified as it pertains to the construction and operation phase:

3.2.1. Project Manager/ Area Superintendent

- Is responsible for the enforcement of the EMP.
- Must make sure that SHEW requirements are included in the tender documents sent to the contractor.
- Must ensure that a SHE clause is included in the contract document and communicated to the contractor before the inception of the project.
- Must ensure that the contractor remains in compliance with the requirements of this EMP, through regular communication and monitoring.

3.2.2. NamPower SHEW section

- Assist the Project Manager/ Area Superintendent in ensuring the contractor remains in compliance with this EMP.
- Review and approve SHEW file prior to start of any activity onsite.
- Provides SHE inductions for the contractors and their employees.
- Organize and implement monitoring and audit functions, in consultation with the Project Manager
- Report back to the Project manager/Area Superintendent on contractor compliance to the EMP before the project close-off and final payment is made to the contractor.

3.2.3. Contractor during construction and operation

- Is responsible for the implementation of the EMP.
- Submit SHEW file for approval to NamPower prior to site handover.
- Ensuring all tasks undertaken under the scope of work are in accordance both with NamPower's SHE policies and procedures as well as to the requirements of this EMP.
- Putting in writing a system of communication, in which all incidents and accidents are reported to the SHEW section.
- Ensuring that all employees receive a SHE induction before the start of the project.
- Ensuring that the work being done does not create a nuisance to any being working, residing, or living on adjacent properties or within the immediate surroundings of the site.

- The employer has the right to ban any employees from the site, which have not attended SHEW induction, until the time that they receive induction. The employer also has the right to stop all construction activities if it is found that a gross violation of the EMP is taking place.

3.3. Environmental Management and Training

Before any work is commenced on the site, the Contractor, Project manager, Area Superintendent and SHEW section shall ensure that adequate environmental awareness training of site personnel takes place and that all construction and operational workers receive an induction presentation on the importance and implications of the EMP. The Contractor shall liaise with the Project Manager prior to the commencement date to fix a date and venue for the training and to agree on the training content.

The Contractor shall provide a suitable venue and ensure that the specified employees attend the course. The Contractor shall ensure that all attendees sign an attendance register and shall provide the ER with a copy of the attendance register.

As a minimum, training should include:

- Explanation of the importance of complying with the EMP,
- Discussion of the potential environmental impacts of construction activities,
- The benefits of improved personal performance,
- Employees' roles and responsibilities, including emergency preparedness,
- Explanation of the mitigation measures that must be implemented when carrying out their activities,
- Explanation of the specifics of this EMP and sensitive areas,
- Explanation of the management structure of individuals responsible for matters pertaining to the EMP.

The contractor shall keep records of all environmental training sessions, including names, dates and the information presented.

3.4. Public Communication

Since a public participation process was not initiated during the assessment phase of this project, it is of great importance that all interested and affected parties are informed about the project prior to work commencing on site.

The following activities shall be carried out prior to work starting on site all interested and affected parties (as detailed in the Environmental Scoping report), shall be informed of the intention to start work on site with the necessary contact numbers being made available to the affected parties.

3.5. Non-compliance procedure

The Contractor shall comply with the environmental specifications and requirements on an on-going basis and any failure on their part to do so will entitle the Project Manager to impose any corrective actions required, including possible penalties as deemed appropriate by NamPower policies and procedures. In the event of non-compliance, the following recommended process shall be followed:

- Non-compliances can be identified during inspections or audits carried out by a designated member of the SHEW section and reported to the Project Manager
- The Project Manager shall issue a notice of non-compliance to the Contractor, stating the nature and magnitude of the contravention.
- The Contractor shall act to correct the non-conformance within 24 hours of receipt of the notice, or within a period that may be specified within the notice.
- The Contractor shall provide the Project Manager with a written statement describing the actions to be taken to discontinue the non-conformance, the actions taken to mitigate its effects and the expected results of the actions.
- In the case of the Contractor failing to remedy the situation within the predetermined time frame, the Project Manager shall impose a penalty in line with the conditions of contract.
- The Engineer shall always have the right to stop work and/or certain activities on site in the case of non-compliance or failure to implement remedial measures.
- If a trend of non-conformances or of unresponsiveness to non-conformances is identified, it is up to the discretion of the Project Manager to follow the appropriate NamPower procedure to limit a contractor's ability to carry out future work for the company for a given period of time.

3.6. Inspections, monitoring, and audits

Environmental inspections and monitoring should be conducted at least once every month during construction. Benefits derived from the monitoring and final audit process might include:

- identification of environmental risk.
- development or improvement of the environmental management system.

- avoidance of financial loss.
- avoidance of legal sanctions.
- increase in staff awareness.
- identify potential cost savings.

At least one audit shall be carried out for every six months (or part thereof) for the entire construction period.

Commonly, the environmental monitoring or audit of a site will cover all management procedures, operational activities & systems, and environmental issues and will be carried out by the NamPower SHEW section.

3.7. Documentation, record keeping and reporting procedures.

It is vital that an appropriate document handling and retrieval system be developed for all EMP documentation. This will ensure that there is adequate EMP documentation control and will facilitate easy document access and evaluation. EMP documentation should include:

- EMP implementation activity specifications.
- Induction records.
- site inspection reports; and
- monitoring reports.

Document control is important for the effective functioning of an EMP. A document handling system must be established to ensure adequate control of updating and availability of all documents required for the effective functioning of the EMP. This procedure applies to the EMP as well as procedures and policies relating to the EMP, which must be controlled (i.e. identified, registered and changes recorded).

The Environmental Officer is responsible for ensuring that the registration and updating of all relevant EMP documentation is carried out. It is the responsibility of the Project Manager to ensure that all personnel are performing according to the requirements of this procedure and to initiate the revision of controlled documents, when required by changes in process, operating procedures, legislation, specifications, monitoring or audit findings or any other circumstances, by informing the Environmental Officer of the changes. A controlled document is official only if the issue/revision has been approved. The Environmental Officer and Project Manager are responsible for ensuring that the latest versions of documents are used to conduct tasks which may impact on the project environment.



ENVIRONMENTAL REPORT FOR THE CONSTRUCTION AND OPERATION OF KUNENE SUBSTATION AND ASSOCIATED INFRASTRUCTURE.



PERIOD: 2020 - 2023

Prepared by : Calvin Sisamu

NamPower : Senior Environmentalist (Transmission Capital Projects)

1 INTRODUCTION

Construction activities commenced in July 2021 and still ongoing. It is envisaged that the substation will be commissioned later in 2023. Sinohydro and Adaptive Building Land Construction are the main contractor for the Kunene Substation project and supported by a number of subcontractors such as Nexus, Kwena Electrical and Megatron. Local people were/are employed as part of the project. Direct and indirect benefits to the local area in form of employment and rendering of required services were observed. Most of the employees on the project were from the local community. A site inspection was conducted on the 24th of April 2023 and 99 employees were recorded onsite.

2 CONSTRUCTION ACTIVITIES

The construction period is expected to be completed by September 2023 and the substation is to be commissioned still in 2023. The work associated with the project were carried out by external contractors under management from NamPower's project team. All requirements stated in the Environmental Management Plan are contractual requirements for the contractor to adhere to.

The following were conducted/ will still be conducted:

- Site Establishment and campsite establishment.
- Earth works to level site.
- Civil construction activities
- Mechanical installation and equipment installations
- Electrical installations
- Camping of personnel at intervals along the route



Figure 1: NamPower during site visit and site inspection.



Figure 2 : Rollers during early stages of the project.



Figure 3: Air cooled reactors installed.

3 OPERATION ACTIVITIES

It is envisaged that the substation will be fully commissioned in the last quarter of 2023 upon the final completion of construction activities. During operation Kunene Substation will connect to Omatando Substation via a 400kV Transmission Line and to Ruacana power station via the existing Ruacana-Omburu transmission line.

4 ENVIRONMENTAL MANAGEMENT

NamPower 's environmentalist was involved in ensuring the full implementation of the Environmental Management Plan. The Contractor submitted the Safety, Health and Environmental (SHE) File to NamPower for approval. The content of the SHE file included number of employees, Notification of construction or building work to Ministry of Labour in relation to regulation 20, Good Standing certificate from Social Security Commission, Third party Insurance, SHE policies and procedures, hazardous substance inventory and Material safety data sheets, medical fitness certificates, risk assessment, aspects and impact register, competence and training certificates for all legal appointments.

Monthly projects progress meetings and inspections were conducted onsite. Deviations identified during site inspections were communicated to the project manager and contractor for corrective action.

3.1 Training and induction

Upon approval of the contractor, SHE files by NamPower, induction sessions were conducted for all employees and contractor onsite. Toolbox talks were conducted prior to the start of a new activity on site. As part of operation, induction will be conducted prior to commencement of any activity onsite.

3.2 Waste Management

Waste generated during the project were disposed at approved dump site and good housekeeping is encouraged as part of the operations. Limited activities are anticipated during operation, therefore waste generating activities will be minimal.

3.3 Monitoring

Monitoring was conducted by NamPower 's Environmentalist during the construction phase, all deviations from the EMP were communicated to the project manager and

contractor for corrective action. Monthly project meetings were conducted. In addition, NamPower 's Safety, Health, Environmental and Wellness (SHEW) conducted a SHEW audit on the project in 2022. Find attached example of inspection reports.



Figure 4 : Project team conduction progress site inspection and overall compliance onsite.

4. INFRASTRUCTURE DEVELOPMENT

During operation Kunene Substation will connect to Omatando Substation via a 400kV Transmission Line and to Ruacana power station via the existing Ruacana-Omburu transmission line.

5 PROTECTION OF FLORA AND FAUNA

The project site is fenced off and awareness is raised as part of toolbox talks in order to discourage poaching and hunting of wildlife in the area.

6 RELATIONS WITH NEIGHBOURS, OFFICIALS AND GENERAL PUBLIC

Relations with the community and stakeholders remain cordial. No stakeholder complaints were lodged during the period under review.

7 CONCLUSION AND RECOMMENDATIONS

The overall environmental management on site is good. Inspections were conducted and environmental concerns and improvement opportunities were/are discussed.

8. APPENDIXES

(a) Site inspection and audit report.

Contractors' SHEW Audit Protocols

Project Information

Project name: Design and Construction of Kunene Substation				
Name of the Contractor: Sinohydro and Adaptive Building, Subcontractor: Nexus	Project shedule(start&end date):			
Contractor: Mr. Wang C	Number of employees: 91			
NamPower project Manager): Mr. David Hecter	Contact details: 0814333619			
Brief project: Design and Construction	Address and Project location:		Kunene Substation	
Audit Date: 27 April 2022				
Auditors names: Tupa Iyambo & Martha Ndapona	Others in attendance:			



Introduction

The scope of this audit included a site visit and reviewing the SHE files with supporting documents for the project. The objective was to review the documentation and activities at the substation and determine whether the safety, Health and Environmental programs and documentation in place are in compliance with the SHEW requirements. To achieve these objectives, the audit included: Reviewing the SHE file; interviewed relevant staff members; review supporting documentation and a walk about around the project site. The audit protocol used was developed specifically based on NamPower contractor's SHEW requirements.

A detailed list of findings observed and recommendations are listed in the table below.

No	Audit Protocol	Total Score	Actual Score Sinohydro	Actual Score - Nexus	Findings/Recommendations
1	Legal and other requirements				
1.1	Contract Agreement	1	1	1	Compliant
1.2	Mandatory Agreement with the Subcontractor/s	2	2	2	Compliant
1.3	Notification Of Construction Work To The Ministry Of Labour	1	1	1	Compliant
1.4	Indemnity Forms	1	1	1	Compliant

1.5	Third Party Insurance/Compensation insurer?	2	2	0	Sinohydro insurance is in place. Nexus Insurance is expired. No insurance documents for Doncor could be provided. Valid insurance documents that cover all employees onsite must be in place.
Total		7			
2	Permits				
2.1	Permission to Camp Form	1	1	1	Compliant
2.2	Parks Permits	0	0	0	Not Applicable
2.3	Bush Clearing Permit	0	0	0	Not Applicable
2.4	Environmental Clearance Certificate (including Environmental Management Plan)	2	2	2	Compliant
Total		3			
3	SHEQ policies & Procedures				
3.1	SHEW Policy Statement (signed and dated) and programme details	2	2	2	Compliant
3.2	Detailed Scope Specific Method Statement	2	2	1	Sinohydro is compliant. Nexus method statements do not cover all activities. Nexus to ensure that all activities have method statements.
3.3	SHEW Objectives, Targets and Plan	3	2	3	Sinohydro Environmental part is not fully covered. Nexus is compliant. Sinohydro to ensure that the environmental objectives, targets and plan are in place.
3.4	PPE Policy	1	1	1	Compliant
3.5	Environmental Policy	0	0	0	Not applicable as it is already covered in the SHE policy.
3.6	Procedure for Management of Change	1	1	0.5	Sinohydro is compliant. The procedure for Nexus is not signed.
3.7	Safe Work/Operating Procedures	5	5	3	The Nexus SOP/SWPs are in place but not detailed. Sinohydro is compliant.

3.8	Waste management procedure	2	1	1	The waste management procedures are in place but not implemented. Nexus waste management is not signed. Both companies must ensure that their procedure is implemented. Nexus procedure must be signed.
3.9	Incident / Accident Notification, Reporting, Escalation and Investigation Procedure.	2	0.5	1	Incident investigation procedure not in place. There is accident reporting form. Ensure that accident investigation and reporting procedure is in place
	Fall protection procedures	2	1	1	Fall protection procedure is in place for Sinohydro but is not signed. The procedure (plan) for Nexus is not detailed. The procedure for Nexus must be signed. Nexus to ensure that their procedure is detailed. Sinohydro procedure must be signed. Nexus must ensure that the procedure is detailed.
3.10	Alcohol and drug abuse policy/ procedure	2	2	2	Compliant
3.11	Permit To Work System (Lock Out Tag Out, Heights, Confined Spaces, High Voltage Yards, Etc.)	3	0	3	There is no permit to work system for Sinohydro. Nexus is compliant. Sinohydro must ensure that there is a permit to work system.
Total		25			
4	HAZARD IDENTIFICATION AND RISK ASSESSMENTS (HIRA),IMPACT AND ASPECT ASSESSMENTS				
4.1	HEALTH AND SAFETY MANAGEMENT				
	i. Hazard Identification for Each Of The Activities Listed;	5	3	3	Some hazards and risks associated with the work activities have not been captured in the HIRA. Example: the hazards and risks for the Concrete mixer risks have not been identified. There was a lost time injury involving a concrete mixer operator the day before the audit. Ensure that all hazards and risks are identified.
	ii. Risk Analysis (List of High Risks, Matrix And Rating);	2	2	2	Compliant. The hazard & risks that have been identified complied with this section.

	iii. Risk Mitigating / Controls / Safe Work Procedures / Method Statement;	5	3	3	Not all controls are in place as not all risks have been identified. Ensure that all hazards and risks are identified in order to ensure that appropriate controls are put in place.
	iv. HIRA Monitoring Plan and	1	0	1	Nexus has plan in place, Sinohydro has not
	v. HIRA Review Plan.	1	0	0	There is no HIRA Review Plan in place for both companies. Ensure that the HIRA Review Plan is in place.
	vi. Fire and fall protection risk assessment	2	1	2	Sinohydro have not covered fall protection in their HIRA. Nexus is compliant. Sinohydro to include fall protection in their HIRA.
Total		16			
4.2	ENVIRONMENTAL MANAGEMENT				
4.2,1	Aspect / Impact Register and Plan				
	Is there an Environmental aspects and impacts register?	5	0	2	Sinohydro does not have an environmental aspect and impact register. Nexus have a register but it is not clear and does not address most of the issues on site. Synohydro to ensure that there is environmental aspect and impact register must be in place. Nexus to review their register to make it site specific.
	Is there an action plan in place to manage the aspects and minimise the impacts identified?	3	0	0	No action plan in place for both compaines. Ensure that here is an action plan in place to minimise the impacts identified.
4.2.2	Air quality				
	i. Are there measures identified and implemented to minimise dust and other air emissions?	2	1	1	There are no measures in place e.g. No dust suppression is done on site and ambient dust was observed during the audit.

	ii. Vehicle, machinery and equipment maintenance plan? Provide proof of maintenance.	2	0	2	SinoHydro did not provide any evidence. Nexus is compliant. SinoHydro to ensure that there is a plan and proof of maintenance is kept onsite.
4,2,3	Waste Management				
	ii. Is the waste management procedure being implemented?	2	0	0	There are procedures in place but there is lack of implementation. A procedure without implementation becomes a paper exercise, ensure that the procedures are implemented.
	iii. Are hazardous waste disposed of at a registered waste disposal site? Provide the safe disposal certificates.	2	N/A	2	Compliant
4,2,4	Wastewater Management				
	i. Are toilets/ mobile toilets or septic tanks available onsite?	2	2	2	Compliant
	ii. Is there any evidence of wastewater runoff or uncontrolled discharges from the site?	1	0	0	There is evidence of wastewater runoff. Water from the showers are discharged in the environment. Ensure compliance.
4,2,5	Social Impact				
	i. Provide proof of awareness and materials on HIV / AIDS provided to employees.	2	1	1	There are HIV / AIDS materials such condoms in place but there was no awareness provided to employees. Ensure that awareness is provided to employees.
	ii. Is there complaint register available onsite?	1	0	1	SinoHydro does not have a register. Nexus is compliant. SinoHydro to ensure that there is a register on site.
	iii. Are all complaints investigated and handled immediately to ensure timely rectification?	2	1	1	No records for investigations. However, evidence was provided that the complaint regarding the employment process for employees was resolved amicably in consultation with the local headman.
4,2,6	Cultural and Heritage resource				
	i. Is there a chance find procedure onsite? Are employees aware of it?	2	0	0	There is no chance find procedure onsite and employees are not aware. Ensure that there procedure is onsite and awareness is provided to employees.



	ii. Any chance finds recorded onsite ?	0	0	0	Not applicable. No chance finds recorded.
	iii. If any , was the chance find reported to NamPower project Manager or Supervisor?	0	0	0	Not applicable. No chance finds recorded.
4,2,7	Fauna and Flora				
	i. Are there measures identified and implemented to protect flora and fauna?	2	1	1	No measures are documented. However there is a fence around the site to prevent animals to enter site. Ensure that the meaures are documented and employees are given awareness training.
	ii. Is there evidence of poaching or capturing of any animal?	2	2	2	Compliant
4,2,8	Water Resources				
	i. Are there felled trees/bushes left in the riverbed that could block the natural flow of water?	0	0	0	Not applicable, the site is on a prepared platform.
	ii. Are there measures identified and implemented to ensure that pollution of water does not occur?	3	1	1	Not fully compliant. Not all measures have been identified and implemented. Ensure that the measures have been identified and implemented in accordance with the EMP.
	iii. Is the evidence of water pollution occurring onsite?	2	1	1	Not fully compliant. The wastewater is discharged to the environment and the bund for contaminated soil is not sufficient to contain the spill. Measures must be put in place to prevent water pollution.
	iv. Is there any written agreement to take water from a private or government property?	1	1	1	Compliant
	v. Are there measures identified and implemented to conserve water resources?	2	1	1	Not fully complinant. E.g. there is evidence that the water tank at the Batch plants Over flows at times.
4,2,9	Campsite				
	i. Are the ablution facilities located within 100 m of any river, stream channel, pan, dam or borehole?	2	2	2	Compliant
4.2.10	Progressive rehabilitation				
	i. Are there measures put in place to avoid/minimise erosion?	0	0	0	Not applicable at this stage, measures to minimise erosion will be assessed during the project final inspection.
	ii. Is progressive rehabilitation taking place? Is it done satisfactorily?	2	2	2	Compliant
Total		42			
4.3	EMERGENCY MANAGEMENT				
	i) List of Potential Emergencies (Ref: Risk/Impact Assessment)	2	2	2	Compliant
	ii) Emergency Response Plan	2	2	2	Compliant

	iii) Emergency Equipment and Facilities	2	2	2	Compliant
	iv) Emergency Response Procedures	2	2	2	Compliant
Total		8			
5	SITE RULES				
5.1	Health, Safety and Environmental Rules (Site Rules)	1	0	1	Sinohydro does not have site rules. Nexus is compliant.
	Enforcement of SHEW standards, procedures and safety rules	6	2	2	Not fully compliant. E.g. Welded hammers, defective tools, Correct PPE not used, Trenches not demarcated, equipment operators without proof of training are some of the non-conformances observed.
5.2	SHEW Assessments (Inspection and Audit)	2	0	2	Sinohydro is not compliant, no inspection or audit conducted. Ensure that inspection/audits are conducted. Nexus is compliant.
5.3	Housekeeping Standards/Protocols	2	1	1	
Total		11			
6	SHEW INDUCTION/TRAINING				
6.1	Job/Scope Specific Induction - Contractor	2	1	1	General induction was given to employees but no job/scope specific induction was provided. Ensure that employees are provided with job specific induction.
6.2	General Induction – NamPower Safety Officer	2	2	2	Compliant
6.3	SHEW Training Needs Analysis and Training Plan	2	0	2	Sinohydro is not compliant. Nexus is compliant. Sinohydro to ensure that there is a SHEW Training Needs Analysis and Training Plan.
6.4	PPE/C Training and Issue	2	2	2	Compliant
6.5	Risk-Based SHEW Training – (First Aider, Fire Training, General Health & Safety And Environmental, Arrangements For Refresher Training, Induction, Incident Investigation And Root Cause Analysis, Hazard Identification And Risk Assessment, Working On Heights, Riggers, Crane / Lifting Equipment Operators, Electrical Installers and HCS training Etc Training Attendance Registers And Signatures.) Certificate of Competency To Operate (Certificate, Licence, Operating Permits). Only AIA [Approved Inspection Authority] certification accepted.	16	1	16	Sinohydro could not provide evidence for any other training besides training for the first aider. Nexus is compliant.
Total		24			
7	INCIDENTS AND ACCIDENTS				

7.1	Incident Records and Proof Of Investigations (SHEW Statistics for the past three (3) years / since inception). (Name, date, short description, type of incident, remedial action taken).	0	0	0	Not applicable. No accident recorded on site except the LTI for Nexus that happened a night before the audit which was yet to be investigated and gather all details.
Total		0			
8	FALL PREVENTION AND PROTECTION				
8.1	Testing And Maintenance Of Fall Protection Equipment	0	0	0	Not applicable as there is not work at height activities taking place on site yet.
Total		0			
9	MEDICAL EVALUATIONS				
9.2	Medical Evaluations of Physical Fitness Of Persons By A Registered Occupational Health Medical Practitioner (Originals)	5	1	5	Sinohydro is not fully compliant as only 10 employees went for medical evaluations out of 47 employees on site. Nexus is compliant. Medical evaluations must be conducted in accordance with the Labour Act. No Employee should commence work before going for medical evaluations.
Total		5			
10	GENERAL – (LOAD TEST AND CALIBRATION) CERTIFICATES AND CHECKLISTS				
10.1	Scaffold Erectors And Inspectors	0	0	0	Not applicable. There are no activities requiring the use of scaffolds yet.
10.2	Audits check list	1	0	1	Sinohydro does not have an audit checklist. Nexus is Compliant. Sinohydro to ensure that there is a checklist and that audits are conducted.
10.3	Maintenance Checklists and records	2	0	2	Sinohydro does not have maintenance checklists and records. Sinohydro to ensure that there is a checklist and records are maintained. Nexus is compliant.
10.4	Electrical Equipment	1	0	1	Sinohydro does not have a checklist for electrical equipment. Sinohydro to ensure that there are checklists and that they are completed. Nexus is compliant.

10.5	Firefighting Equipment	2	0	2	Sinohydro is not compliant. Sinohydro to ensure that there are checklists and that they are completed. Nexus Compliant
10.6	Vehicles And Mobile Plant And Equipment	2	1	2	Sinohydro has a checklist in place but no records. Synohydro to ensure that the vehicles, mobile plant and equipment are checked and records are maintained. Nexus is compliant.
10.7	Fall Arrest Equipment	0	0	0	N/A. There are currently no activites on site that requires the use of fall arrest equipment.
10.8	Personal Protective Equipment (PPE Issue And Maintenance Record)	1	1	1	Compliant
10.9	Explosive Power Tools	0	0	0	Not applicable
10.10	Materials Hoist	1	0	1	Sinohydro is not complaiant as there is no checklist and worn out hoist slings were observed on site. Sinohydro to ensure that the there is a checklist and the worn out hoist slings are removed from site and replaced with new ones. Not applicable for Nexus
10.11	First Aid Box	1	1	1	Compliant
10.12	Radiographic Equipment	0	0	0	Not applicable
10.13	Housekeeping Checklist (camp and site)	1	1	1	Compliant
10.14	SHEW Inspection Checklists	1	1	1	Compliant
10.15	Planned Task / Job Observation (tamplate)	2	2	2	Compliant
10.16	Other				
Total		15			
11	HAZARDOUS CHEMICAL SUBSTANCES (HCS)				
11.1	HCS Inventory / Register Available	1	0	1	Sinohydro does not have an HCS register. Sinohydro to ensure that there a an updated register. Nexus is compliant
11.2	Material Safety Data Sheets (MSDS) Available	2	0	2	Sinohydro does not MSDS for the chemicals available onsite. Sinohydro to ensure that there are updated MSDS on site and that awareness is provided to employees exposed to chemicals. Nexus is compliant.

11.3	Is the use, handling, storage and disposal of the hazardous chemical in accordance with the MSDS?	2	1	1	Not fully compliant. Some unlabelled chemicals were observed. The chemical store for Nexus does not have a door and is unlockable to controll access. Ensure that the chemicals are handleda and stored in accordance with the MSDS. No consumer Installation certificate for diesel tank on site
11.4	Spill Kits Available	1	0	0	Not compliant. Ensure that there are spill kits onsite.
Total		6			
12	FIRE PREVENTION & PROTECTION				
12.1	Extinguishers on site and serviced	4	4	4	Compliant
Total		4			
13	SHEQ COMMUNICATIONS				
	Indicate the method or means you are be using to communicate the SHEQ information to your personnel on site.				
	i. Notice Boards	1	1	1	Compliant
	ii. Symbolic Safety Signs	1	1	1	Compliant
	iii. SHEW Committee meetings	2	0	0	No SHEW committee meeting or any SHE related meeting taking place.
	iv. Notices and Labelling	1	1	1	Compliant
	v. Barricading	1	0.5	0.5	Not fully compliant. Not all excavations are baricaded. Ensure that all excavations barricaded.
	vi. Reports	1	1	1	Compliant
	vii. Were these policies communicated to your subordinates?	2	0	2	Sinohydro did not provide proof of communications to subordinates. Sinohydro to ensure that policies are communicated to employees. Nexus is compliant.
	viii. Toolbox Talks / Line Ups	3	3	3	Compliant
Total		12			
14	APPOINTMENTS (competencies to each appointment) An organogram stipulating the key positions proposed by the contractor who would hold legal appointments on the project. The expected roles and responsibilities of those who are proposed to receive legal appointments				
14.1	Designated Employer / Responsible Person/ CEO / MD	2	0	0	Not compliant. There is no evidence provided. Ensure compliance.
14.2	Appointment as Principal – And - Or (Sub) Contractor (s)	2	2	2	Compliant

14.3	SHE Representatives	1	0	1	Not compliant. There is no evidence provided. Ensure compliance.
14.4	Chairperson Of SHEW Committee	1	0	0	Not compliant. There is no evidence provided. Ensure compliance.
14.5	SHEW Committee Members	1	0	0	Not compliant. There is no evidence provided. Ensure compliance.
14.6	Risk Assessor	1	0	1	Not compliant. There is no evidence provided. Ensure compliance.
14.7	Incident / Accident Investigator	1	0	0	Not compliant. There is no evidence provided. Ensure compliance.
14.8	Competent Person e.g. For Machinery, Excavation Work, Demolition Work, Scaffolding, Material Hoist Operating, Batch Plant Operating, Inspecting/collector Of Explosive Power Tools, Mobile Equipment Operating (Trucks, Cranes, Forklift etc.)	1	0	1	Sinohydro is not compliant. There is no evidence provided. Ensure compliance. Nexus Compliant
14.9	First Aider (s)	2	2	2	Compliant. Nexus to ensure that there is a first aider present on site fulltime.
14.10	Construction Site Agent	1	1	1	Compliant.
14.11	(Construction) Supervisor for work	1	1	1	Compliant
14.12	Safety Officer, full/part time	1	0	1	Sinohydro is not compliant. Ensure compliance. Nexus Compliant.
14.13	<i>(Responsibilities and accountability should be reflected in the appointment letters)</i>	4	4	4	Compliant
Total		19			
15	COVID19 MANAGEMENT PLAN				
15.1	Provide a structured approach how you plan to manage potential risks associated with COVID-19 executing the project scope	3	3	3	Compliant
15.2	Compliance to COVID 19 protocol	2	2	1	Sinohydro complied. Nexus partly Compliant. Ensure compliance.
Total		5			
	Overall Total	202			
	Total Scored		105	153	
	Compliance in %		52.0	75.7	
	General Remarks				
	There is great concern with the compliance of the main contractor. Enforcement of policies, procedures and legal requirements must be prioritised by contractors and all subcontractors in order to ensure compliance.				

Auditor's Signatures
Martha Ndapona: *Martha Ndapona*
Tupomukumo Iyambo: *T Iyambo*



Damaged electric plug



Damaged slings in use



Poor housekeeping



**Wrong hand gloves for steel work.
Hand gloves modified by employees**



Open excavation not demarcated



Modified and defective hand tools



**Concrete mixer were an employee got injured
No risk assessment was done for the task.**



Incorrect storage of hazardous chemicals and waste



Incorrect handling and storage of chemicals

