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Irene Singo-Rambevha
Manager Projects
TPD

Date:
02 March 2023

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Dear Irene

SECURITY THREAT ASSESSMENT (STA) REPORT: Manogeng Switching Substation

1. INTRODUCTION

As part of a continuous security service to Transmission, an STA was conducted by the mandated security official to assist the client to better understand their current security threat profile. This report identifies and describes any evident threats identified that may affect the Client's accountable and responsible business function.

This report further assists the Client to effectively manage legal compliance and organizational conformance and other key performance areas and may also assist with the SWOT analysis and the identification of risks regarding their Operational and Business Plans.

2. MANDATE

The mandate of the security team that conducted this STA is described within their formal appointment as agreed with their responsible line management.

3. SCOPE

The scope of a Security Threat Assessment is guided by the Security Threat Assessment (STA) Standard (240-79537982) in consultation with the Client and according to their needs.

4. CONTEXT OF THE STA METHODOLOGY

The STA methodology is based on a systematic and guided approach as set by the Security Threat Assessment (STA) Standard (240-79537982) that compliments legal compliance. As part of the assessment, a study is conducted on the Micro and Macro environments and all the related PESTEL elements thereof that may affect the security, site, or regional operations of the organization. The STA forms the basis for a security design and is the most important aspect in determining where and how to treat the security threats as part of a security design. Also, the STA assists with the identification of the most appropriate and needed security control measures to effectively manage security threats by reducing the probability and/or impact of an uncertain event where threats against the organization's assets and resources are evident.

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5. THREAT PROFILE

5.1. Environmental Scanning results

a) Number of Employees: 20 (Daily contractor employees)

b) Number of Visitors / Clients: 06 (ERI-Personnel)

c) Socio-Economic Circumstances

The project site is located within the Elias Motswaledi municipality area in the Sekhukuni region. This area continues to be part of the vast unemployment challenges where unemployment in this area is also very high. This is one of the municipalities that experienced population growth rates higher than economic growth rates. Therefore, this has a severe impact on the infrastructure in this municipality district of Limpopo.

d) Demography

Manogeng Switching Station is situated 25km on the offroad of the R555 outside Rossenekal/Elias Motswaledi Local Municipality in the Limpopo province, surrounded by a few villages within the Sekhukhune district and 95km north-east of Middelburg(Mpumalanga Province).

5.2. Site Details

a) Area or Address of Site : Manogeng 400kV Switching Station

b) Sector / Part of Site : Tx Substation

c) Coordinates Latitude : 25 07'21.0"S

d) Coordinates Longitude : 29 49'44.6"E

e) Site Description : The site is a Transmission Switching Station allocated 25km outside Rossenekal on the off road of the R555.



g) Site Map / Geographical Map (Visual Representation of Site or Area)



a) Guardhouse x 2

The Guardhouse/s at the first entrance and the substation entrance at Manogeng switching substation.



b) Main Gate/s to Site and Substation

The first gate provide access into the Site and the second gate provide access into the Substation.



c) Site Office

This coble site office will soon be removed and the Site supervisor will move into the substation offices .



d) Scrap Metal

The Visible scrap material are from lines and will be removed from site, as cleaning process has already started.



e) Project Material

Project Material that will be installed in the Substation.



f) Project Material

Project Material in picture (e) and (f) will be removed from their positions into the Substation as the second picture in (f)

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g) Project Material between overgrown vegetation

Project material laid previous lay down area overgrown with vegetation, contributing to visibility

6. CRIME STATISTICS OF SITE OR AREA (Crime Statistics Worksheet)

#	1	Threat (What and when?)	Latest theft - 13/02/2023			
Asset; processes; people; information; plant building equipment etc.			Copper cable			
Place (Where?)			Manogeng Switching Substation Container storage.			
Modus Operandi (Where and When?)			Whilst security guards on duty, unknown suspects cut and enter the first access gate perimeter fence behind long grass,armed rob and tight security before break open the container/s and stole copper cable .			
Aggressor (Who?)			Unknown suspects			
Probability (likelihood)		7	Consequence (Impact)	Serious	Threat Index (1 -10)	4

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7. CURRENTS SECURITY CONTROLS MEASURES IMPLEMENTED

The current security controls security measures were recorded and evaluated during the STA.

#	1	Security Control Measure – Type	Physical Guarding					
Security Control Measure – Description			Access gates x 2; Unarmed Grade C officer x2; Armed Grade a Supervisor x1					
Threat Control Effectiveness			FE		ME	x	MI	None

#	2	Security Control Measure – Type	Perimeter Fence /					
Security Control Measure – Description			- Razer and normal farm Fence at first (material storage) access entrance. 3-Tier fence newly installed but not energised yet at second (substation) access entrance 1.5-meter mesh fence with razer wire on top newly installed .					
Threat Control Effectiveness			FE		ME	x	MI	None

Legend					
FE	Fully Effective	ME	Most Effective	MI	Mostly Ineffective

8. THREAT ASSESSMENT RESULTS

SECURITY THREAT ASSESSMENT							
#	Asset Description	Threats	Type of Compromise	Probability	Consequences	Impact	Threat Index
1	Materials/Equipment	Theft/ Malicious damage to property	Loss of asset/injury	7	Loss of asset	severe	5
2	Vehicles	Theft/ Malicious damage to property	Loss of asset/injury	7	Loss of asset	severe	5
3	Office equipment	Theft/ Malicious damage to property	Loss of asset/injury	6	Loss of asset	serious	5

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4	People	Arson / Theft / Malicious Damage to Property / Sabotage	Loss of Asset / Injury	6	Loss of asset / Injury	serious	5
5	fuel	Arson / Theft / Malicious Damage to Property	Loss of Asset / Injury	6	Loss of asset	serious	5

Legend												
Threats	Who		What		When		Where		Why		How	
Type of Compromise	Disclosure		Modification		Destruction		Removal		Interruption		Injury	
Probability	Low (1-6)				Medium (7 -9)				High (10)			
Consequence	Privacy			Trust			Asset			Service		
Impact	Trivial				Serious				Severe			
Threat Index	1	2	3	4	5	6	7	8	9			

PROBABILITY RATING	7
ORGANISATIONAL IMPACT LEVEL	Serious
VULNERABILITY LEVEL	High
THREAT INDEX	5

9. THREAT AND RISK ASSESSMENT

Date of assessment (YYYY-MM-DD)	2023-03-02
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10. DETAILS OF ASSESSMENT TEAM

#	NAME	DESIGNATION
1	Nathan Kouter	TPD Officer Security
2	Sunday Tshatsi	Project Site supervisor
3	Irene Singo-Rambevha	Project Manager

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11. RECOMMENDATIONS

It is the prerogative of the Client/asset owner to decide on how to treat the security threats specifically or collectively and how to manage the related risks that arise from the threats as described in this document. Based on the information gathered during the threat assessment, the following recommendations need to be considered for improvement of security control measures:

#	Security Measures Type	Recommendations
1	Physical Guarding	• Main gate - 2x Day;2x Night shift - Grade C unarmed security officers. • Inside perimeter/Equipment - 2x Day; 2x Night shift. • Security Grade A-Armed Supervisors – 1x Day; 1x Night with 4x4 patrol vehicle. • Substation gate – 2x Day; 2x Night shift. • Substation perimeter – 2x Day shift;2x Dog handlers with dogs. • Grade C- Armed response Team: 1x Day and 1x Night (Standby at Rosenekal SAPS)(Two armed Grade C with 4x4 Bakkie) • Panic buton – Once off • Clocking system-Once off
2	Perimeter Lighting	• The lighting at the inside of the maingate perimeter is not conducive at night for Security officers and therefore proper perimeter lighting is required around the site.
3	Perimeter Fence	• The boundary fence from the main gate from the gravel road, surrounding the Substation, are partly razer blade and partly farm wired fence which poses a high risk for intrusion to get access to the paremeter fence of the Substation. Therefore the main gate perimeter fence lightning must be upgraded to ensure adequate visibility for security during perimeter patrol where the project equipments are stored.
4	Vegitation	• Regular vegetation management control to be done on a regular basis to minimise any risk or visibility obstructions during security patrols.

12. SECURITY RECOMMENDATION

	Grade-A-Armed (Supervisor)	Grade C Unarmed	Grade C- Armed	4x4 Bakkies- Patrol&Armed response.	Dog handler and Dog
Day	1	8	2	2	0
Night	1	6	2	2	2
Total Security	2	14	4		
Total Vehicles				4	
Total dogs					2

13. FURTHER RECOMMENDATIONS

CONTROLLED DISCLOSURE

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If threats are rated with a high probability, impact, or high frequency of occurrence, the Client needs to consult with their designated Risk Manager to conduct an Integrated Risk Management Assessment.

Project site supervisor/s are urged to have all the necessary control measures in place.

	Subject	Expectation
1.	Project Material inventory	Must be in the position of the Site supervisor.
2.	Project Material Inspection sheet	Must be done daily by the Site supervisor.
3.	Project Security Posting sheets	Must be submitted to the Site supervisor-Daily
4.	Project Security Inspection sheets	Total Security officers on duty-Uniform/Firearm competency if armed/Patrol vehicle present and on duty/Panic button test/Radio or Communication test done.
5.	Substation patrolling inspection sheets	Substation gate-operational/Energise fence functional/Lightning serviceable/Perimeter fence-any holes inspection/All buildings-doors and windows close and locked/Any building keys-locked in safe.

14. PREVIOUS CRIMINAL INCIDENTS AT MANAOGENG SWITCHING SUBSTATION

Number	Date	Crime	Short description
01	10/06/2020	Theft	At about 00:15 while a security officer was conducting his site patrols, he heard a sound coming from one of the storage containers. When he went to inspect the sound he was approached by 3 armed men who then forced the security officer into the kitchen and tied him with cable ties. The armed men then proceeded to the guard house where the rest of the other security officers were. The armed men then took the officers to the kitchen where the other officer was tied. They then tied the other officers with cable ties as well and then proceeded to break into the storage containers where they took power tools and all the PPE that was on site.
02	18/02/2021	Theft	At about 05:00 while security personnel were conducting the last site patrol for the shift, they discovered that the electric perimeter fence had been cut open. They then followed the tracks from the cut fence and discovered that there were offcuts of copper cable that was stolen from site. One 16mm/100mt 4 Core cable as well as one 70mm/12mt 4 Core cables were stolen.
03	03/08/2021	Theft	On the 3rd of August 2021 at about 00:15, a group of about 12 men (unarmed) entered the site through a hole in the perimeter fence. The group of men managed to gather the 5 security guards in the guard house while 3 other security guards managed to run away. They then broke a locked storage container and took a grinder to cut open the other containers. They cut open 4 other containers and took PPE, power tools and copper.
04	28/03/2022	Theft	On the 28th of March 2022 at about 10pm, a group of five armed men managed to gain entry to site by cutting the fence behind the ERI kitchen. They then proceeded to the guard house where they found four security officers. They then tied the four security officers with soft wire and asked where the other security officers were. The guards showed the robbers where the rest of the security guards were. The robbers then proceeded to the eating area where they found three other security officers. The three

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			security officers were then taken to the guard house and they were tied with soft wire as well. One security officer managed to hide in the bobcat and the robbers could not see him. At about 11pm the patrol officer came to conduct his night patrols. Upon arrival to site, he was met by one of the robbers who was now in security uniform taken from one of the guards. The patrol officer noticed a gun whilst talking to the robber and immediately sped off to get assistance from the police station. The patrol officer came back to site with police officers but by that time the robbers had already fled (They tried to flee with one of the security officer's vehicle but could not get far because the vehicle did not have enough fuel). The police officers untied the security officers, took each of their statements and opened a case at Roosenekal Police Station.
05	13/08/2022	Theft	On the 13th of August 2022 at approximately 5am whilst security personnel were doing their final patrol for the shift, they noticed that the perimeter fence had been cut open. Upon investigating they noticed that there was copper cable that was dug out as well as a compressor that belongs to Rigamani was missing. As they continued to investigate they also noticed that there was diesel that was stolen from a parked plant in the site camp. The amount of stolen copper is estimated around 150meters.
06	17/01/2023	Theft	On the 17th of January 2023 at approximately 00:45 a group of six armed men managed to gain entry to site through a cut hole in the fence. There were six security guards on duty of which two managed to flee upon seeing the armed men. The other four officers were then captured by the armed men, tied with their shoe laces and locked in one of the storage containers. The armed men then tried to locate the other two security officers but failed. They then broke into an ADT that was parked next to the container in which copper was stored. They moved the ADT in order to get access to the copper store and then broke into the store. They stole four rolls of copper and then proceeded to break into the offices where they stole copper crimps, copper taps as well as copper clamps. Eskom's offices were also broken into and the following items were stolen: 1 x 4 core x16mm 500m;

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15. DISCLAIMER & CONFIDENTIALITY

The contents of this threat assessment are strictly confidential. The report is solely intended for the use of the addressee(s) named herein. It is, however, advised that should management decide to submit this assessment, in whole or in part, to any other party outside of the mentioned addressee(s), such a decision should be made after consultation with this BU/department. This assessment is compiled solely to address the engagement agreed upon and endorsed herein. Any copying, disclosure, or publication of this assessment in whole or in part or any form whatsoever, without the writer's consent, is strictly prohibited.

Yours sincerely

Compiled by

Nathan Kouter
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Nathan Kouter
TPD Officer Security
Date: 2023/03/09

Supported by

Sunday Tsatsi
.....
Sunday Tsatsi
Project Site supervisor
Date:

Approved by

Geoffrey Smail
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