

## **Supplier Development Forum**

19 Oct 2023



## **SAFETY STANDARS**

19 Oct 2023



## **Safety Standards - Plant and Equipment**

#### Some of the key HSE requirements;

- Compliant with local legislation, registered, licensed and insured;
- Valid pre-inspection certificate by EACOP approved third parties;
- Operator Training, Competency and Certification;
- Guards and interlocks on moving parts;
- Emergency stop facility provided;
- Fire extinguisher(s) of a suitable type and capacity;
- Seat belt anchorages to meet AS 2664 or ISO 6683;
- Flashing warning lights, automatic reverse device and manual warning system;
- ROPS, TOPS and FOPS (risk assessed);
- Planned Maintenance, Inspection and Testing;
- Pre-start checklist and JHA;
- Stop Work Authority.













## **Potential Consequences**

#### What happened:

Grader was parked in the equipment parking area, suddenly the middle tire on the backside burst with a loud sound.

#### What was the RCA??

- Did the equipment pass its pre-mobilization inspection?
- Inspection verified on arrival at site before it was allowed to start work?
- Did the operator have the correct competencies to inspect and maintain his equipment?
- Where operating procedures followed?
- Adequate resource available for maintenance?
- Evidence that daily equipment inspections are being conducted?









## **Potential Consequences**

#### What happened:

A broken-down compactor was being lifted onto the pick-up truck by attaching one end of a chain sling to a steel tooth on the bucket and the other end to the compactor.

#### What was the RCA??

- Lack of available resources spare parts and a competent site mechanic for the Compactor?
- Compliant with Project Lifting Standard?
- PTW/JSA and Lifting Plan in place?
- Life Saving Rule compliance (Safe Mechanical Lifting)?
- Competencies of lifting specialists confirmed by CPY?
- Chain sling certified and colour coded as per project procedures?





### COMPANY Standards H2SE Management Commitment

#### **ZERO HARM Safety Culture**

Our goal is: Zero Harm to people, the environment, and our communities EACOP has introduced a new Zero Harm Target for 2023.

That means: Zero fatalities, zero major injuries (injuries with major disability), zero significant environmental impact beyond the site boundary.

- Caring for one another and demonstrating care on a daily basis
- Welcoming and respecting different points of view
- Ensuring all workers go home safely every day
- Challenging ourselves to think 'what am I or others tolerating' that could lead to someone being hurt?
- Taking responsibility for our own, and our colleagues', health and wellbeing including those we may never meet
- Being proactive and asking: "What is the worst thing that can happen?" and "How can I mitigate this?"
- Questioning rules and procedures if they do not make sense to us, and then *choosing* to follow them rather than *having* to follow them
- Speaking up when you see something unsafe
- Listening to others when they raise concerns for our welfare.



## **Industry Standards - IOGP**

#### LIFE-SAVING RULES





BYPASSING SAFETY CONTROLS



DRIVING



HOT WORKS







CONFINED SPACE





LINE OF FIRE



SAFE MECHANICAL LIFTING





WORKING AT HEIGHTS





## **EACOP AGIs Early Civil Work Introduction**

19 Oct 2023



## TABLE OF CONTENTS

- 1. SCOPE OF WORK :
  - Presentation
  - Time-line
  - Key quantities & dimensions

- 2. ECW Typical:
  - General Sequence
  - Early Works Activities Sequence
  - Temporary Drainage
  - Cut and Fill



## PRESENTATION

abwar	N25	kapi Wildli Reserve	fe	Dala	KABAALE)-		EPY	From	То	Distance (Km)	Light Vehicle Time (Hour)	Heavy Vechile Time (Hour)
Þ		Reserve	N4-	Kingi	sher CPE	ICPY-PS1	Uganda	2	MCPY1	1850	62	93
fe				6		MCPY-1		- r	MCPY2	1720	57	86
				Fort P	ortal	100K		1	МСРҮЗ	1620	54	81
			Beni	5 %	A109		2 Kampala	Bungo	MCPY4	1500	50	75
			Butembo	Kasese				Kal	MCPY5	1450	48	73
	ĺ		~	<b>F</b>		EMCPY-3	Entebbe	Dar Es Salam	MCPY6	1350	45	68
				$  \rangle \rangle$		200Km	a	There are a second seco	MCPY7	1180	39	59
aiko nal P	ark				Mbarara			Port	MCPY8	1080	36	54
		Kitshan	ga 🔼	S S	300	m_MCPY-4			MCPY9	980	33	49
			Rutshur		TT V		110		MCPY10	860	29	43
~				Kikun	giri	MCPY-5	Jan Star		MCPY11	750	25	38
$\sim$		$\sim$	Gomao Ruher	ngeri	1				MCPY15	280	9	14
			R	wanda	ふくん	H400Km			MCPY16	340	11	17
2		NS	C 17 2	525	~~//			S MCPY11	MCPY12	310	9	16
		NZ	le la	185		1500	Mwanza	Nat MCPY12	MCPY13	120	5	6
			N5 PNTO	ANC.	8-h		CPY-7. Ibisabageni	MCPY13	MCPY14	180	7	9
	P.f.um		RN9	75 50	XXX		Geita	MCPY14	MCPY15	200	7	10
	Mwe	nga	Light Vechile	Average	2 R at 1	Average	600km	Rese MCPY15	MCPY16	130	4	7
Fron	То	Distance (Km)	Time (Hour )	Speed km/h	Heavy Vechile Time (Hour)	Average Speed km/h	ame 75VrTZ ve McPY-9	199	X - 1			Momb
MCPYI	PS-1	60	2	30	3	20	MCPY-10	Bab	ati 🔍 📏			Ukunda
MCPY3	PS-2	11	0.5	30	1	20						A14
MCPY	PS-3	15	0.5	30	1	20		Singlation 1000K	ma			Tanga R
MCPY8	PS-4	20	1	30	1	20	Tabora		m aoa ICPY-12 <mark>: 100K m</mark>	FRS-0		Jan 7
MCPY1	) PS-5	20	1	30	1	20		S IN	PY-13 MC	13 120 0Km	14 MGPY-15	-1400Km
MCPY1	l PS-6	45	2	30	2	20	River	Manyoni		-14		Nungwi
MCPY1	B PRS-1	70	2	30	3	20						
MCPY1	5 PRS-2	2 20	1	30	1	20						



## SCOPE AGIs OVERALL QTY – Early Work

	AGIs OVERALL QTY per COMMODITIES												
Activities	Comodities	PS1	PS2	PS3	PS4	PS5	PS6	PRS1	PRS2				
Land Surface		134 000 m2	80 000 m2	97 000 m2	152 000 m2	153 000 m2	78 000 m2	23 000 m2	22 000 m2				
5014/	Cut	179 279 m3	162 570 m3	134 021 m3	89 753 m3	19 520 m3	76 760 m3	14 929 m3	4 981 m3				
ECW	Fill Typ2	82 139 m3	108 460 m3	133 313 m3	112 897 m3	131 770 m3	62 985 m3	15 353 m3	8 944 m3				
Top Soil	Removal	40 286 m3	23 961 m3	33 776 m3	78 012 m3	76 375 m3	31 340 m3	7 028 m3	6 583 m3				



## CONSTRUCTION Typ PS4-5 – General Sequence





## CONSTRUCTION Typ PS5 – Early Works

Early civil work Construction Process TYP







## CONSTRUCTION Typ PS5 – Temporary Drainage



# SEDIMENT POND SECTION 1 SECTION 2 SECTION 3 retaining dam existing ground



### CONSTRUCTION TYP PS4 – CUT & FILL TYPICAL



## Quantities (according to EPcmC 2021 – to be revised based on new geotechnical data)

- Cut volume (excluding top soil): 89 000m3
- Fill volume: 112000m3



- > Top soil to be disposed
- Gravel Sand in cut zones : to be re-used
- Silty Clay : may be re-used when mixed with Gravel/Sand material



## **QUALITY ASPECT**

19 Oct 2023



## TAKE AWAY FOR QUALITY ASPECTS

#### Introduction to Quality: Simple concept

• Quality is defined as all the tools and activities to be implemented by CONTRACTOR in order to ensure that the product or service is delivered in accordance with the CONTRACT requirements.



#### What does it mean for this SCOPE of WORK?

ISO 9001: Quality Management System – No ISO 9001:2015 certification

of the CONTRACTOR organization is required for providing equipment.

#### Nevertheless

- A nominated Quality representative shall be able to provide at any time the traceability of the equipment documentation with regards to critical equipment identified by the discipline such as lifting, welding equipment...
  - **Technical Verification, Inspection, Testing and Continuous Maintenance of equipment** shall be **auditable** throughout the CONTRACT duration.
- Traceability control of maintenance documentation, certification and calibration of equipment shall be implemented.
- Third Party Certification agencies shall be approved by COMPANY.





## **Supplier Development Forum**

19th October 2023

### Introduction-CPP



#### As Of 2022

**100,000 km** onshore pipeline projects **200 km** offshore pipeline projects **30 million m<sup>3</sup>** oil and gas storage projects **100 sets of** oil & gas field surface facilities

### **Introduction-SOW of Tanzania**









## MCPYs 12

## AGIs 6

## PPL 1147 km

### **Introduction-Location**



### **Civil construction**



Drainage Drainage Berms preparation Foundation Electrical cables Roads

Marshalling yard



AGI

SITE Preparation:

Earthworks

**Civil Works** 

Building

Architecture

Roads

**Underground Networks** 



ROW preparation: Ditching Padding / Backfilling Block Valve Stations

### **Equipment rental services**



### **Contracting Process**

RTA **Report to award** 

CFT **Call for tender** 

PQR **Pre-qualification** 

DA

0707 EOI **Expression of interest** 

03



S/N	Category	Equimpmemt Name	Model	Total	Only For AGI	Only For PPL
Trans	portation equipn	nent				
1		SUV	4X4	32	7	25
2		Pick-Up	4X4	229	73	156
3		Bus (9 Seats)	-/-	4	4	
4		Bus (10 Seats)	-/-	79	29	50
5	VEHICLES	Bus (33 Seats)	-/-	51	18	33
6	VEHICLES	Light Truck	5 Seats, 5T	48	0	48
7		Truck	10T; 4X2; Truck Bed:6.25*2.3	12	3	9
8		Fueling Bowser	10T	11	5	6
9		Fueling Bowser	5T	3	3	
10		Water Bowser	10T	9	5	4
		SUB TOTAL		478	147	331
Gener	al equipment					
1		Excavator	20-30T	69	18	51
2		Forklift	3T	6	6	
3		Forklift	5T	6	6	
4		Forklift	8/10T	2	2	
5		Generator	<50KW	69	24	45
6		Generator	50KW-100KW	70	18	52
7	PPL&AGI Installation	Hiab	Truck Bed: 7.2m(length)*2.4m(width), 6X4; Crane: folding arm crane, 10T;	45	16	29
8	Equipment	Hiab	Truck Bed: 7.2m(length)*2.4m(width), 6X4; Crane: folding arm crane, 12T;	37	12	25
9		Bulldozer	162KW/220HP	4		4
10		Loader	5T	6		6
11		Wheeled Crane	25T	52	21	31
12		Wheeled Crane	50T	4	4	
13		Wheeled Crane	200T	1	1	
		SUB TOTAL		371	128	243

S/N	Category	Equimpmemt Name	Model	Total	Only For AGI	Only For PPI
Specia	alized equipment	t				
1		Internal Bending Machine	ø760	3		3
2		Vacuum Lifter	7T	25		25
3		Excavator (used in conjunction with a vacuum lifters)	XE310 or Equivalent	17		17
4		Excavator (used in conjunction with a vacuum lifters)	XE370	22		22
5		Sideboom	20T	7		7
6		Sideboom	40T	82		82
7		Sideboom	70T	19		19
8		Mobile Lift	41M	5	5	
9		Lifting and Bevelling Integrated Machine	-/-	4		4
10		Portable Bevelling Machine	-/-	32	12	20
11		Beveling Machine	-/-	13	4	9
12		Mobile Power Station (ancillary equipment of welding machine)		22		22
13		Mobile Power Station (ancillary equipment of welding machine)	100KW	44	11	33
14		Mobile Power Station (ancillary equipment of welding machine)	140KW	12		12
15		Mobile Power Station (ancillary equipment of welding machine)	180KW	20		20
16		Welding Machine (customized by CPP)	-/-	132	37	95
17		Self-Generating Welding Machine	-/-	33		33
18		TIG Welding Machine	-/-	96	42	54
19		Automatic Welding Machine	-/-	44		44
20	PPL&AGI Installation Equipment	Internal Line-up Clamp with Copper Shoes	-/-	12		12

S/N	Category	Equimpmemt Name	Model	Total	Only For AGI	Only For PPL
21		Internal Line-up Clamp	-/-	6		6
22		External Line-up Clamp	-/-	68		68
23		Electrode Drying Oven	-/-	53		53
24		Flame Cutting Machine	-/-	42		42
25		Magnetic Cutting Machine	-/-	10		10
26		Mid-Frequency Induction Heater	-/-	13		13
27		Post Weld Heat Treatment Equipment	-/-	7		7
28		Rotatable Spreader (Specialized For Fit- Up)	-/-	51		51
29		Auto-matic welding workshop	-/-	42		42
30		Auger Drill	-/-	2		2
31		Pipe Carrier	-/-	20		20
32		Crawler Crane	150T	2	2	
33		Crawler Crane	200T	1	1	
34		Generator	100-200KW	17		17
35		Generator	>200KW	14		14
36		Site Lighting Coach	-/-	4		4
37		Toothless Saw	-/-	8		8
38		Hydraulic Wrench	-/-	4		4
39		Torque Wrench	-/-	32		32
40		Air Compressor	0.8/1.6	28		28
41		lifting Beam (specialized in pipeline rotation jointing)	-/-	25		25
42		Tractor-Lowbed	30T	3		3
43		Tractor-Lowbed	40T	14	5	9
44		Tractor-Lowbed	60T	7		7
1		Air Compressor	>20M <sup>3</sup>	18	13	5
2		Air Booster Compressor	-/-	4		4
3		Centrifugal Pump (Water Injection)	280-43X7 or Equivalent	10	4	6

S/N	Category	Equimpmemt Name	Model	Total	Only For AGI	Only For PPL
4		Centrifugal Pump (Water Injection)	H=600m	4		4
5	HYDRO-TEST Equipmen	Hydro Test Pump	CSY-3GB-250/ QSY350-65/ Or Equivalent	12	6	6
6	TYDRO-TEST Equipme	Electric-Hydro Test Pump	3PO/3DZ	12	9	3
7		Nitrogen Generator	-/-	2		2
8		Drying Machinery	-/-	2		2
9		Pig Launcher&Receiver	-/-	8		8
10		Dead Weight Tester	-/-	10		10
11		Pressure Recorder	-/-	8	4	4
12		Temperature Recorder	-/-	8	4	4
1		Air Compressor	-/-	16	7	9
2		Air Dryer System	-/-	16	4	12
3		Vacuum blasting System	-/-	5	5	
4		Sandblasting Actuator	-/-	11	7	4
5	COATING Equipment	Plural Pump System	-/-	13	4	9
6	COATING Equipment	Spray Actuator	-/-	11	7	4
7		Sand blasting Tank	-/-	7	4	3
8		PUF Foaming Machine	-/-	12	7	5
9		LEFD	-/-	16	7	9
10		Manual PE Extruder	-/-	16	7	9
1		HDD Rig	-/-	2		2
2		Steering Room	-/-	2		2
3		Rig Anchor	-/-	2		2
4		Steering System	-/-	1		1
5		Magnetic Target	-/-	1		1
6		Mud Pump	-/-	4		4
7	Horizontal Directional Drilling Equipment	Mud Tank	-/-	6		6
8	Drining Equipment	Mud Recycling System	-/-	3		3
9		Mud Funnel	-/-	1		1
10		Pully Block	-/-	1		1
11		Pipe Hammer	2000T	1		1
12		Roller	-/-	20		20

S/N	Category	Equimpmemt Name	Model	Total	Only For AGI	Only For PPL
13		Mud-water balancing rig	-/-	1		1
1		Circumferential Ray Flaw Detector	-/-	30		30
2		RT crawler	-/-	30		30
3		Directional Ray Flaw Detector	-/-	42		42
4		Developing Machine	-/-	15	5	10
5	Non-destructive testing	PAUT Machine	-/-	8		8
6		TOFD Equipment	-/-	1		1
7	Equipment	Densitometer	-/-	15		15
8		Manual Ut Detector	-/-	13		13
9		X-Ray Film Viewer	-/-	19	12	7
10		X-Ray Film Scanner(NDT)	-/-	7	5	2
11		MT Detector	-/-	13	5	8
12		Milligauss Meter	-/-	13		13
13		Ultrasonic Flaw Detector	-/-	6	6	
		SUB TOTAL		1595	251	1344
		SUM TOTAL		2444	526	1918

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	Section 5	Inspect	ion foi	m					
1	nspection Guide	CTR to verify items prior to EACOP co	onducting	the in:	spectio	n on eq	juipment		
A – Doo	cumentation	Documentation req			· ·				
Ref #	1	tem to be inspected	C/ N/A	P Ins	pecto R	r U	CTR Pre-Inspection Verification		
A1	Insurance Certificates	in date and visible							
A2	Service and Maintaine	d logbook available & up to date							
A3	Regulatory / Authority	inspection report available and in date							
A4	Instruction Manual Av	ailable (English)							
A5	Road worthiness confi	rmation							
A6	Name plates and seria	I numbers match and visible							
A7	Operator certification	available and up to date							
<b>A</b> 8	IVMS (In vehicle Monit								
A9	Equipment should be o provided - to provide r a spill on site								
A10	Static equipment should be provided with spill kits too or within quick, easy reach of spill kit/s								
A11	Check all parts of the r spills, drips, leaks	nachinery/equipment for any evidence of							
B – Ge	neral	General items on equipmer	nt which	h ne	eds t	o be i	in place		
B1	Windscreen and mirro	rs free of cracks							
B2	Seat(s) free from defe	cts, seat belts functioning							
B3	Flashing beacon prese	nt and in operation							
B4	All lights, indicators, H	azard lights functioning.							
B5	Horn and reverse alarr	ns in working condition							
C – Eng	gine Compartment	Condition to be verified and in	specte	d in (	engin	ie cor	npartment		
C1	Radiator cleanliness /	Coolant level							
C2	Battery clean and secu	re							
C3	Fuse and relay box clea	an, secure, closed							
C4	Belts in good condition properly tensioned								
C5	Air-filter cover secure,	orientated correctly							
C6	Engine oil level/ Clutch	and Brake reservoir levels							
<b>C7</b>	Hydraulic lines overall	condition and free of leaks							
C8	Wiring secure, condition	on, frays, corrosion							

D – Cab		Interior of	f Truck	Cab		
D1	Cleanliness					
D2	Alarm / Warning light operation					
D3	Pedals, Controls, steering wheel in order in place functioning					
D4	PTO controls functioning	ng				
D5	All gauges and display messages functioning					
D6	Hand brake system in o	pperation and functioning				
D7	Wiring and electrical					
D8	Doors, hinges, access t	o cab				

		Doc Number	OVF - 003			
		Revision	00			
	Onboarding Verification Form	Onboarding Verification Form Rev. Date				
PIPELINE	General Requirement Page Doc Type	Page	Page 3 of 4			
		Doc Type	Form			
		Discipline	H & S			

y Tray (Load Bin)	Condition of	the Lo	ad B	in		-			
Body up Alarm indicator function									
3ody up Safety Stops									
Warning Signs available pointing out possible Crushing Points									
Hydraulic Cylinders / pipes for leaks									
Hydraulic Cylinder locating pins									
	Body up Alarm indicato Body up Safety Stops Warning Signs available Hydraulic Cylinders / pi	Body up Alarm indicator function Body up Safety Stops Warning Signs available pointing out possible Crushing Points Hydraulic Cylinders / pipes for leaks	Body up Alarm indicator function       □         Body up Safety Stops       □         Warning Signs available pointing out possible Crushing Points       □         Hydraulic Cylinders / pipes for leaks       □	Body up Alarm indicator function <ul> <li>Body up Safety Stops</li> <li>Warning Signs available pointing out possible Crushing Points</li> <li>Hydraulic Cylinders / pipes for leaks</li> <li>Image: Comparison of the state of the</li></ul>	Body up Alarm indicator function       Image: Constraint of the second sec	Body up Alarm indicator function       Image: Constraint of the second sec			

Ref #	Item to be inspected		CPP Inspector			CTR Pre-Inspection		
			N/A	С	R	U	Verification	
F – Truck Accessories Any accessories fitted to the equipment								
F1	Any aux pumps or attachments in proper conditions							
F2	Any leaks on fittings and hoses							
F3	Fuel Tanks in order, any secondary fuel tank transfer systems							
F4	Exhaust and silencer in order							
F5	Exhaust guarding							
F6	Is Load bin body up alarm functioning							
F7	Load bin controls functioning and marked							
F8	Load bin mast cylinder pins installed correctly							
F9	Mast cylinder and hosesfree of leaks							
F10	Load bin back flap functioning correctly							
F11	Load bin back flap locating pins in order							
F12	Load bin lifting and lowering smoothly							
F13	Clean, free of organic materials (mud, dirt, weeds, or seeds)							
F14	Spill Containment Kit available							
G – Wheels Wheels of				the truck				
G1	Correct Wheels for intended operation							
G2	Tread, conditions (General wheel alignment)							
G3	Rims in good condition							
G4	Wheel Studs and Nuts							
G5	Spare Wheels and Tyres							
G6	Jacks and Wheel Spanners available and working condition							
G7	Safety / Vehicle Triangle / Equipment / Breakdown Equipment							
H – Chassis / Structural Verify condition of chassis and a				any structural failure or concerns				
H1	Check for loose or miss	ing fasteners						
H2	Any cracks, damaged frames, cracked structures, defects							
H3	Check suspension blades for cracks							
H4	All air pipes secured to chassis free of leaks							
H5	Shock absorbers free of defects and secured							
H7	Correct Fire Extinguisher / In service and inspected							
H8	Vehicle GVM payload carrying capacity plate attached.							
H9	Check for any structural welding repairs							
I - Other If there are any other defects to note not covered in the inspection form								
11								
12								



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