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Bob Branfield	Kris Ro	zmiarek Riaz V		/ajeth		
Senior Consultant	Chief Ei	ngineer	Senior M	anager		
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APPROVED MANUFACTURERS OF STEEL POLES

Unique Identifier:240-97087024Revision:1Page:2 of 5

Content

Page	
Revision History	Re
1. Executive Summary	1.
2. Evaluation criteria	2.
2.1 Quality	
2.2 Technical	
2.3 Categories of approval4	
3. Design accountability and ESKOM acceptance4	3.
4. Approved steel pole manufacturers4	4.
Annex A – Pole Purchasing Schedule	An
Tables	Tal

Table 1: Approved steel pole manufacturer evaluation details	.4
Table 2: Approved steel pole manufacturer contact details	.4

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APPROVED MANUFACTURERS OF STEEL POLES

Unique Identifier: 240-97087024

3 of 5

Revision: 1

Page:

Revision History

Date	Rev	Compiler	Remarks				
Sept 2015	1	B Branfield	First issue				

1. Executive Summary

Since the introduction of steel pole technology some 15+ years ago two local manufacturers, Structa Technologies (formerly Dorbyl) and CIS Engineering have dominated the production of steel poles for consumption by Dx, Tx and the rest of the local market. A small amount of poles were imported from Turkey however as 'Electrical pylons' have now been earmarked by DTI for local production ESKOM may only procure locally manufactured poles. In terms of the ESKOM procurement procedure poles may only be procured from OEM's (Original Equipment Manufacturer's) Therefor for the purpose of this document a manufacturer is also the supplier.

In recent years some new manufacturers showed interest to manufacture steel poles for ESKOM. Three applicants were evaluated for Quality and Technical compliance and one manufacturer, Zenith Installations was approved. Subsequently the two legacy manufacturers were also evaluated and approved. The criteria and results are below.

Once a greater degree of regional standardisation of the pole structures has been achieved the market will be tested for more manufacturers via the commercial RFI process. Until that point any promising manufacturer will considered for an 'ad hoc' evaluation as defined by the CAP process.

2. Evaluation criteria

2.1 Quality

The quality assessments were carried out by the Supplier Assessment Department of the Sustainability Division – Quality management. Lead assessor Ms Feziwe Mogamisi. Criteria considered of the supplier Quality management systems (QMS) were:

- Document and record control
- Provision of human resources
- Quality control plans / Inspection and test plans
- Training awareness and competency
- Supplier/Subcontractor evaluation and selection
- Company structure, scope of supply and commercial references
- Control of NCR,CAR and PA
- Infrastructure
- Work environment
- Product realization activities

2.2 Technical

The technical assessments were carried out by a team of LES staff, S&I staff and a regional engineer. Criteria considered were:

- Critical equipment to make a range of transmission poles
- Critical staff competence, training and skills
- Critical experience/history in relevant pole manufacturing

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- Plant layout and capacity
- Overlap with Quality i.t.o. material traceability, housekeeping etc.

2.3 Categories of approval

As two distinct type of manufacture exist, two levels of evaluation and approval have been instituted Category 1:

- Light and medium poles
- Poles with wall thicknesses 8mm or less.
- Typically planted poles
- Includes triple poles, H-poles and braced H-poles
- If flanged, not flanged self-supporting monopole angle strains.

Category 2:

All steel poles

3. Design accountability and ESKOM acceptance

Unless stated otherwise, all pole manufacturers are legally and professionally accountable for the design of their poles to meet the design specifications and/or loading as stated in the schedule. ESKOM engineers may peruse and accept the manufacturer's shop drawings and carry out product inspections but the accountability remains with the manufacturer. It is therefore important for the ESKOM engineer to diligently fill out the schedule and for the buyer to refer to the schedule.

4. Approved steel pole manufacturers

Table 1: Approved steel pole manufacturer evaluation details

Manufacturer	Quality Report No.	Technical Report No.	Date.	Category	
CIS Engineering	QSASA-AS-PRE-ESKC-875	240-87061459	09/03/2015	2	
Structa Technologies	QSASA-AS-PRE-ESKC-874	240-87061443	09/03/2015	1*	
Zenith Installations	QSASA-AS-PRE-ESKC-803	240-76647496	09/03/2015	1*	

*May move to category 2 if flanged self-supporting monopoles are successfully type tested at tower test station.

Table 2:	Approved	steel pol	e manufacturer	contact details
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Manufacturer	Vendor No.	E-mail	Web Site	Tel No.	
CIS Engineering	11012970	christo@cisengineering.co.za	cisengineering.co.za	016-986 1135	
Structa Technology	11063389	info@structatec.co.za	structatec.co.za	016-362 9100	
Zenith Installations	11061415	sales@zenithinst.co.za	zenithinst.co.za	043-745 0325	

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APPROVED MANUFACTURERS OF STEEL POLES	Unique Identifier:	240-97087024
	Revision:	1
	Page:	5 of 5

Annex A – Pole Purchasing Schedule

Pole purchasing schedule													
Line I	Name	2:											
Cond	uctor	·>				S/Wire 1> S/Wire 2>							
Line	Qty	SAP No.	Title	ESKOM GA Drawing No	Manufact GA Drawing No	Length	Strain / Int / Susp	Planting Depth	Spacing E/Phase		S/Wire brckt Dbl / Single	Wind Span	Weight Span
1													
2													
3													
4 5													
6													
7													
8													
9													
10													
-			0280, ESKOM S	-									
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			<u>gn</u> and supply						•	N s a strend	oth factor of 0.9		
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Com	men	ts:											

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