



**Business Management System
Construction Services
INSPECTION AND TEST PLAN**
(As per Eskom Requirements PDP-MAN-SP01)

Form No.: FM CI 138
Rev No.: 5
Date: 15 May 2013
Page: 1 of 1

ITP 00

Contract name: Witkop 132kV Feeder 10 Bay Order no: _____ Date: _____
Project Section/Unit: _____
Description: Construction of Civil Works Equipment Foundations

Activity	Instruction Procedure/ Drawing or Specification Reference	Visual/Dimensional/ Documentation or Non-Destructive Examination Activities				Construction Services hold (H) inspection (I) Test (T) Witness (W) Surveillance (S) Points			Client hold (H) Inspection (I) Test (T) Witness (W) Surveillance (S) Points			Remarks / Deficiency or non-conformance report numbers
		VIS	DIM	DOC	NDC	Interv	Sign	Date	Interv	Sign	Date	
1	Setting out					I			I			
2	Excavation	SANS 1200: sec 5.2.2				I			I			
3	Base compaction	93% Mod AASHTO SANS 1200D: sec 6 & 7				I,T,H			I,T,H			
4	Blinding concrete	15MPa (15/19) Thickness: 50mm				I			I			
5	Base and plinth reinforcement.	SANS 1200G: 5.1 SANS 763.				I,H			I,H			
6	Base concrete casting <i>+ CURING. NOT CAST</i>	25MPa (25/19) SANS 1200G: 4.4, 5.5.1.2, 5.5.6, 7.1-				I,T,H			I,T,H			

Intervention: [H] - Hold [W] - Witness
[I] - Inspection [S] - Surveillance
[T] - Test

NOTE: The term 'organisation' is the title given to Rotek Industries SOC Limited and Roshcon SOC Limited.
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ITP 00

Contract name: Witkop 132kV Feeder 10 Bay Order no: _____ Date: _____
Project: Re-use of bus-bar 1 Isolator Foundation Section/Unit: _____
Description: _____ Isolator Foundation

Activity	Instruction Procedure/ Drawing or Specification Reference	Visual/Dimensional/ Documentation or Non-Destructive Examination Activities				Construction Services hold (H) inspection (I) Test (T) Witness (W) Surveillance (S) Points			Client hold (H) Inspection (I) Test (T) Witness (W) Surveillance (S) Points			Remarks / Deficiency or non-conformance report numbers		
		VIS	DIM	DOC	NDC	Interv	Sign	Date	Interv	Sign	Date			
1	Breakout the concrete up-stand and cut off existing bolt, level with the concrete.	0.54/465							I			I		
2	Install new chemical anchors as per the following spec: M20; effective anchorage depth of 160mm; drill hole depth of 24mm; FIS EM 390 S. <u>Setting out of bolts (no bolts to be closer than 100mm from edge of existing foundation)</u>	Engineers' recommendations-refer attached email and photographic illustration							I			I		
4	Final Inspection	PR-1.6-CI-03 (Procedure for Inspection, Test & Acceptance)							I			I		
5	Document Review	PR-1.6-CI-03 (Procedure for							H			H		

Intervention: [H] - Hold [W] - Witness
[I] - Inspection [S] - Surveillance
[T] - Test

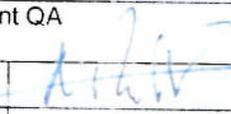
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		Inspection, Test & Acceptance)												
6	Handover	PR-1.6-CI-03 (Procedure for Inspection, Test & Acceptance)						H					H.	

Intervention: [H] - Hold [W] - Witness
[I] - Inspection [S] - Surveillance
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Approval

Approved by Construction Services		Approved by Client QA		Approved by Client Technical		Approved by Client Projects	
Signature		Signature		Signature		Signature	
Name	D. VERSEYEN	Name	A. MOLLANA	Name	D. Sankal	Name	R. CHAVANE
Designation	SM	Designation	QA	Designation	CIVIL DESIGN	Designation	PROJECT MANAGER
Date	2/9/2013	Date	02/09/13	Date	5-9-2013	Date	4/9/13

Intervention: [H] - Hold [W] - Witness
[I] - Inspection [S] - Surveillance
[T] - Test

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3/7/2013

0.54/465

1. CUT OFF EXISTING BOLT, LEVEL WITH CONCRETE
• BREAK OUT CONCRETE UPSTAND.
2. INSTALL NEW CHEMICAL ANCHORS AS PER THE SPEC
⊗ M20 ⇒ EFFECTIVE ANCHORAGE DEPTH = 160mm
DRILL HOLE DEPTH = 170mm
DRILL HOLE DIAMETER = 24mm

USE FISHER INJECTION MORTAR: FIS EM 300S
A SAND/CEMENT MIXTURE IS NOT ALLOWED

⊗ SETTING OUT OF BOLTS ACCORDING TO 0.54/465
NO BOLTS TO BE CLOSER THAN 100mm FROM EDGE OF EXISTING FOUNDATION

(NEW)
200

(EXIST)
260

Sara Raphaela

From: Christy Thomas
Sent: 03 July 2013 10:40 AM
To: Robert Chauke
Cc: Dave Smuts; Bongani Soci; Ryno le Roux (Ryno.leRoux@aurecongroupp.com); Bridgette Mtileni; Razaak Jones; Jan Calitz; Dawie Naude
Subject: RE: Witkop Feeder 10 QS SITE
Attachments: 0.54-465-0-8-.pdf; Reuse of exist 0.54-465 with rough notes.pdf

Good Morning Robert

Reply to bullet 2 item:

The existing foundation is 0.54/465 (outline attached).
The work to be done is as follows:

- Breakout the concrete upstand and cut off existing bolt, level with the concrete.
- Install new chemical anchors as per the below spec:
M20
Effective anchorage depth = 160mm
Drill hole depth = 170mm
Drill hole diameter = 24mm
Use Fisher Injection mortar: FIS EM 390 S
A sand cement mixture is not allowed.
Setting out of bolts according to 0.54/465.
No bolts to be closer than 100mm from edge of existing foundation.

Kind regards

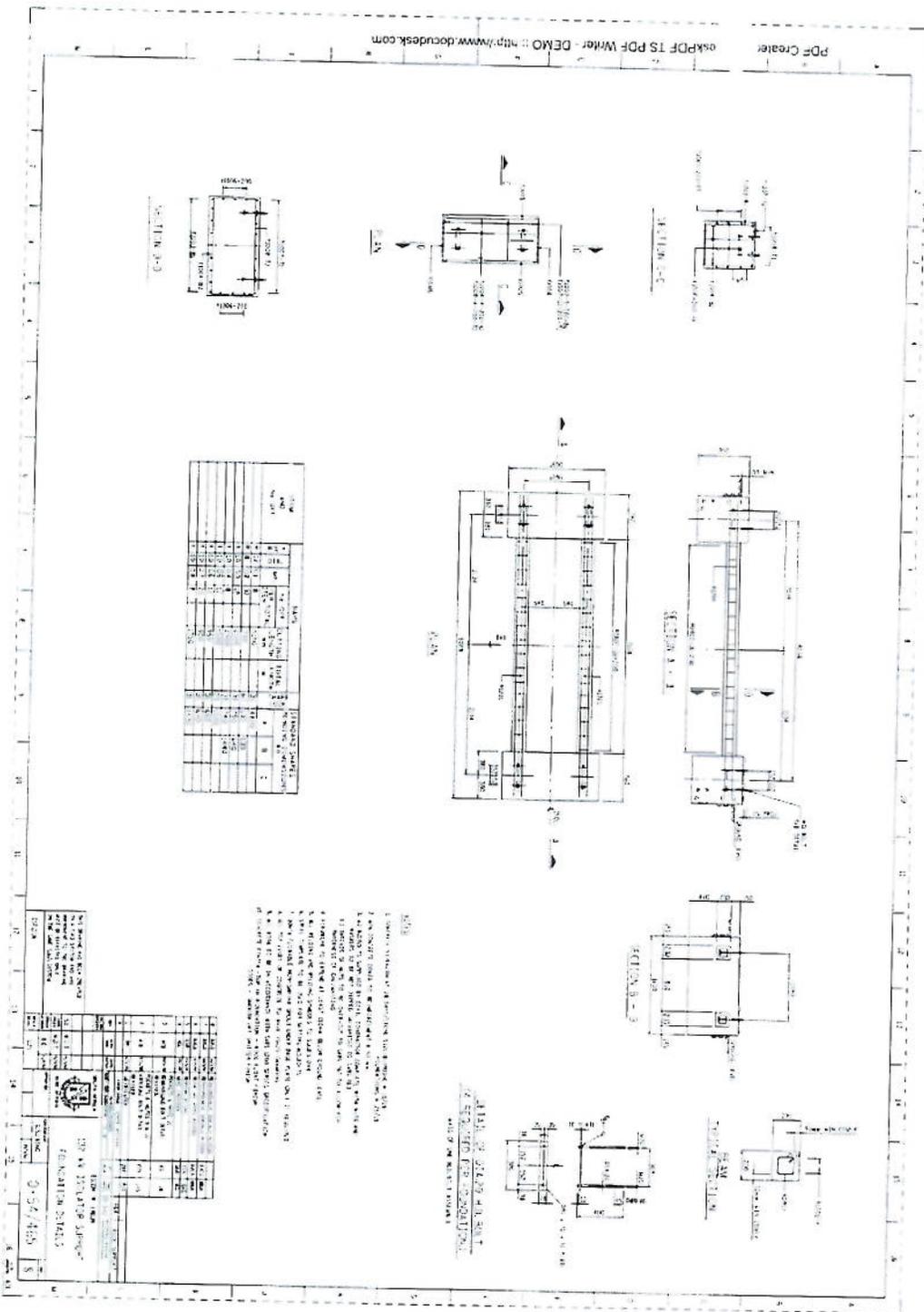
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From: Robert Chauke
Sent: 03 July 2013 09:29 AM
To: Christy Thomas; Jan Calitz
Cc: Dave Smuts; Bongani Soci; Ryno le Roux (Ryno.leRoux@aurecongroupp.com); Bridgette Mtileni; Razaak Jones
Subject: Witkop Feeder 10 QS SITE

As discussed telephonically, I was on site with the Quantity Surveyor and other stakeholders. The following have been raised and require your clarification/elaboration:

- Installation of Feeder 10 protection panel on a position that is currently being occupied by live Feeder panel will posed very serious challenges in obtaining the feeder outage to move the panel-Secondary plant Engineering to provide work procedure
 - Re-use of bus bar 1 isolator foundation. Holding down bolts are bent and rusted. Primary plant Engineering to provide re-use procedure
 - Cable block diagram for existing spencer by-pass-Northern Grid secondary plant to provide.
- I hope you will find this in order and respond accordingly.

Robert Chauke- Pr.Sci.Nat.
Project Manager – Cape Grids



NO.	DESCRIPTION	QTY	UNIT	REMARKS
1	CONCRETE	1.00	M ³	
2	STEEL	1.00	T	
3	FORMWORK	1.00	M ²	
4	LABOR	1.00	HR	
5

NOTES:
 1. ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
 2. ALL REINFORCEMENT SHALL BE AS PER IS: 456-1978.
 3. ALL REINFORCEMENT SHALL BE AS PER IS: 1786-1963.
 4. ALL REINFORCEMENT SHALL BE AS PER IS: 1786-1963.
 5. ALL REINFORCEMENT SHALL BE AS PER IS: 1786-1963.
 6. ALL REINFORCEMENT SHALL BE AS PER IS: 1786-1963.
 7. ALL REINFORCEMENT SHALL BE AS PER IS: 1786-1963.
 8. ALL REINFORCEMENT SHALL BE AS PER IS: 1786-1963.
 9. ALL REINFORCEMENT SHALL BE AS PER IS: 1786-1963.
 10. ALL REINFORCEMENT SHALL BE AS PER IS: 1786-1963.

NO.	DESCRIPTION	QTY	UNIT	REMARKS
1	CONCRETE	1.00	M ³	
2	STEEL	1.00	T	
3	FORMWORK	1.00	M ²	
4	LABOR	1.00	HR	
5

DR. ANANTHARAJU
 FOUNDATION DESIGN

0-54/450
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