



Title: Procedure for Testing of Earth Pits

SOP No.:		Revision No.:	00
Effective Date:		Supersedes No.	Nil
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1.0 OBJECTIVE:

To lay down a procedure for Testing of earth pits.

2.0 SCOPE:

This SOP is applicable for all earth pits.

3.0 RESPONSIBILITY:

Operator / Operating Person-Engineering

4.0 ACCOUNTABILITY:

Head-Engineering

5.0 ABBREVIATIONS:

Ω Ohm
IS Indian Standard
& And

6.0 PROCEDURE:

6.1 Testing Procedure for Earth Resistance at Site:

6.1.1 Earthing pit testing shall be done by external approved licensed electrical Contractor (third party).

6.1.2 Earthing pits details shall be prepared as per **Annexure-I**.

6.1.3 Check and ensure that testing instrument (standard) is in calibrated stage and the person who will perform earthing pit testing should be trained person.

6.1.4 Below mention precaution shall be taken, while carrying out earthing pit testing:-

6.1.4.1 Earth pit testing shall be carried out as per the reference guideline of IS 3043 (1987).

6.1.4.2 Ensure that the earthing resistance value should be less than 2Ω when grid connected and shall be less than 5Ω when grid disconnected.

6.1.4.3 If the earth resistance found more than 2Ω and grid connection is OK, than earth pit shall be charged with salt and water solution. After recharging of failed earth pit, again testing of the earth pit shall be done.

6.1.4.4 Frequency of earth resistance testing is one year \pm 30 days.

6.1.5 Testing record of earthing pits shall be prepared as per **Annexure-I**.



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7.0 ANNEXURES:

ANNEXURE No.	TITLE OF ANNEXURE	FORMAT No.
Annexure-I	List of Earthing Pits	
Annexure-I	Testing Record of Earthing Pits	

ENCLOSURES: SOP Training Record

8.0 DISTRIBUTION:

- Controlled Copy No. 01 Quality Assurance
- Controlled Copy No. 02 Engineering
- Master Copy Quality Assurance

9.0 REFERENCES:

ISO 3043-1987

10.0 REVISION HISTORY:

CHANGE HISTORY LOG

Revision No.	Change Control no.	Details of Changes	Reason for Change	Effective Date	Updated By



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ANNEXURE – I LIST OF EARTHING PITS

S. No.	Location	Earthing Pit ID
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		



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ANNEXURE – II
TESTING RECORD OF EARTHING PITS

Frequency of Testing: One Year \pm 30 Days

S.No.	Location	Earthing Pit ID	Done Date	Testing Result	Due Date
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Remarks:

Prepared By
Sign & Date

Reviewed By
Sign & Date