

**IN-SITU NONDESTRUCTIVE EVALUATION AND ADVICE ON THE
PRESENT CONDITION OF WINDING ROPES OF MAHAGIRI MINES
(CHROMITE) OF IMFA LTD., ODISHA**

EXECUTIVE SUMMARY

Two winding ropes in Fixed Drum side (South) and Loose Drum side (North), each of nominal dia. 32 mm, Strand construction– 39Z/14H+14+22+16-8+8-8-8-1, Wire finish – Galvanised, Core/Lay rotation – IWRC/RH, Usha Martin Ltd., India make of Double Drum Winder of Mahagiri Mines (Chromite) of M/s Indian Metal & Ferro Alloys Limited, Odisha have been subjected to nondestructive investigation on **6th Feb., 2020** for the **first time** after installation of new ropes as per **IS 17235:2019 [Magnetic Rope Testing (MRT)– Specification]** for monitoring their suitability in the installation, using INTRON Rope Tester, (Russian make). Two winding ropes [Fixed Drum side (South rope) and Loose Drum side (North rope)] have been stated to be installed on 28.07.2017.

Calibration of the instrument (INTRON Rope Tester, Russian make) has been carried out in air before commencement of the scanning of each rope.

Keeping in view of the observations, condition of both the Winder ropes [Fixed Drum side (South rope) and Loose Drum side (North rope)] have been found to be satisfactory and these ropes may be recommended for further continuance in the installation till the next non-destructive investigation having close visual watch of the portions of the ropes which have not been covered under this investigation. The first non-destructive investigation on these two winder ropes has been carried out after nearly two years and six months of installation. It is also suggested to have next nondestructive investigation on these two winding ropes during the month of **Aug. –Sept., 2020**.

*This non-destructive investigation on winding rope does not include the aspect of **fatigue** which may develop in the rope in course of time.*