Interim cover of the free areas of the tailings of IAA Culmitzsch as prerequisites for the preparation of recultivating works



D-09117 Chemnitz • Jagdschänkenstraße 52 Tel.: +49 (0) 371 881 4228 • Fax: +49 (0) 371 881 4311 E-mail: info@cue-chemnitz.de Internet: www.cue-chemnitz.de

Project target: Interim cover of the free areas of the tailings in order to reduce

the radioactive exposition and the transporting of dust directly in the surrounding as prerequisites for the preparation of recultiva-

tion works

Location: SB Ronneburg /

IAA Culmitzsch

Client: WISMUT GmbH

Beneficiary: WISMUT GmbH

Time period: Since 2000

Initial situation:



As a result of the direct recultivation of the industrial tailings pond Culmitzsch (almost 250 ha) a reduction of the pollutants via the air according to the regulations for the radiation protection becomes an important necessity. This is achieved by the placing of geotextiles followed by a 1,0 m thick cover of local earth material from the waste rock dump. Through the weight of the cover material the consolidation process of the fine tailings is accelerated; thus enhancing the weight-bearing capacity of the subsurface, and thereby creating the basis for the subsequent reshaping and final cover of the tailings pond.

Main tasks:



- Evaluation of the measuring results carried out by shear vane tests (measuring grid 5 × 20 m) in areas of the fine tailings
- Release of areas of the tailings for the establishment of an interim cover after testing the stability for the installing vehicles (dozer, hydraulic excavator)
- Determination of the installation technology for interim cover in the released bulk area (thickness of the interim cover, safety distance of for installing vehicles, installation speed, waiting time)
- Control of construction works by site management and site supervision

File: Culmitzsch tailings.doc Datum: 09.05.01