Indian Standard

CODE OF PRACTICE FOR DESIGN OF TUNNELS CONVEYING WATER

PART V STRUCTURAL DESIGN OF CONCRETE LINING IN SOFT STRATA AND SOILS

1. SCOPE

1.1 This standard (Part V) covers the criteria for structural design of plain and reinforced concrete lining for tunnels and shafts in soft strata and soils mainly for river valley projects.

NOTE - The provision may, nevertheless, be used for design of tunnel. for roadways, railways, railways, and water supply schemes, provided that all factors peculiar to such projects as may affect the design are taken into consideration.

1.2 This standard, however, does not cover the design of steel and prestressed concrete lining, the design for concrete lining in swelling and squeezing rocks subject to internal tectonic stresses and design for seismic forces.

APPENDIX B
(*Clauses* 7.5 *and* 7.7.1.2)
STRATA LOADS OF TUNNEL LINING

B-1. SCOPE

B-1.1 This appendix gives several alternative methods for evaluating loads from strata on tunnel lining,

APPENDIX C
(*Clause* 7.9.1)
BASIC EQUATIONS FOR ANALYSIS OF TUNNEL LINING CONSIDERING IT AND THE SURROUNDING ROCK AS A COMPOSITE CYLINDER

C-1. SCOPE

C-l. l This appendix contains basic equations for calculating radial and tangential stresses in concrete lining and the surrounding rock mass considering both as parts of a composite cylinder.