

IS 14680 : 2024 Landslide Control Measures — Guidelines (*First Revision*)

Landslides are being increasingly viewed as an important natural hazard due to large scale damages inflicted by them every year. It is a known fact that a majority of the landslides are triggered by natural causes including concentrated rain falls, cloud bursts, earthquakes and other related factors and hence are difficult to predict their occurrences. This standard has been formulated with a view to understand the general landslide phenomenon in the hills and their evaluation mainly for planning effective correction measures.

First published in 1999, revision of this standard has been brought out to incorporate the experiences gained from the use of this standard since its publication as well as to include other recent technologies in landslide control measures. In addition, the following modifications/additions have also been done:

- a. Landslide symbols to be used in the map preparation have been included along with figure;
- b. Detailed investigation procedure has been indicated, which include field investigations,
- c. laboratory testing, and desk work;
- d. Stability measures are reclassified with relevant figures; and
- e. Reference to various Indian Standards has been updated.

IS 16457 : 2024 ISO/IEC/IEEE 15288 : 2023 Systems and Software Engineering — System Life Cycle Processes (*Second Revision*)

This standard outlines a comprehensive framework for describing the life cycle of systems, reflecting the growing complexity of modern systems. This document focuses on addressing stakeholder needs, concerns, priorities, and constraints early in the development cycle, establishing requirements, and proceeding with design synthesis and system validation. It integrates various disciplines into a structured development process from conception through production to operation, ensuring that all stakeholder needs are considered to provide a quality product.

The standard applies to systems comprising hardware, software, data, humans, processes, services, and more, supporting the development and information exchange among acquirers, suppliers, and other stakeholders. It provides processes for defining, controlling, and improving system life cycle processes used within organizations or projects, applicable to one-of-a-kind, mass-produced, and customizable systems, both standalone and integrated.

Organizations can use this document to establish desired processes supported by appropriate methods, tools, and trained personnel, assessing conformance to the document's provisions. It can also guide the development of agreements between acquirers and suppliers and serve as a reference for process assessors.

While it does not prescribe specific life cycle models, development methodologies, or detailed documentation, it aligns with other standards like ISO 9001, ISO/IEC 20000, and ISO/IEC 27000, facilitating a coherent approach to system life cycle management.

IS 13407 (Part 1) : 2024 Techniques of Work Study Part 1 Method Study (*First Revision*)

The aim of this standard is to promote the use of method improvement procedures in all fields such as agricultural, industrial, commercial, service activity, etc and thereby increase productivity and quality of work life. It is essentially a practical discipline, applicable to method improvement problems in any work activity.

Work study is a generic term for method study and work measurement. Method study and work measurement are closely linked. Method study is mainly concerned with the reduction of unproductive work elements whereas work measurement is concerned with the investigation and reduction of any infective time and hence establishing time standards for the operation in improved manner as determined by method study. For the definitions of the terms work study, method study and work measurement.

The application of method study would lead to:

- a. Improvement in systems and procedures;
- b. Improvement in processes and methods;
- c. Improvement in quality;
- d. Economy in human effort and reduction of fatigue;
- e. Improved layout and materials handling;
- f. Development of better physical working condition;
- g. Improvement in safety and work environment;
- h. Improvement in the use of resources (man-power, materials, machine and money); and
- i. Cost reduction.

This standard (Part 1) describes the methodology and basic techniques used in method study. It also gives various other techniques for information collection, analysis and problem solving.

IS/IEC TR 63259 : 2022 Water Cooling Systems for Power Electronics Used in Electrical Transmission and Distribution System

In the power transmission and distribution systems, power electronic equipment, such as LCC-HVDC (line commutated converter high voltage direct current) converter valve, VSC-HVDC (voltage sourced converter high voltage direct current) converter valve, SVC (static var compensator), STATCOM (static synchronous compensator) and power distribution cabinets, are mainly used for the conversion and control of current. Heat emitted from power electronics, like thyristors, IGBTs or other kinds, needs to be removed continuously. Water cooling system is commonly used as an efficient way to remove the heat from power electronic equipment, especially when operation voltage of equipment reaches 1 000 V or above. To meet the insulation requirement, water needs to be deionized to have the property of least conductivity. De-ionized water can be mixed with antifreeze or other solutes to achieve lower freezing point or obtain other characteristics.

This document describes a kind of water cooling system, in which de-ionized water or de-ionized water mixed with other solutes is used as the heat transfer agent for the removal of heat from power electronic equipment. Water cooling system can be separated into main circuit, and control and protection system. Other cooling systems, in which de-ionized water is not the heat transfer agent, are excluded in this document.

This document provides guidance and supporting information for both purchaser(s) and potential supplier(s). It can be used as the basis for drafting a procurement specification and as a guide during project implementation.