

국제대담회(ICOLD) 현황 자료

ICOLD 총회 Question 리스트

(QUESTIONS DISCUSSED AT PRECEDING CONGRESSES)

First Congress. Stockholm (Sweden), 1933:

- Question 1a - Deterioration by ageing of the concrete of weight dams.
 Question 1b - Influence of internal temperature and distorsion of weight dams.
 Question 2a - Research methods so as to ascertain whether a given materials is suitable for being used in the construction of an earthdam.
 Question 2b - Study of physical laws governing infiltration of water through the dam and the subjacent soil

Second Congress. Washington (USA), 1936:

- Question 3 - Special cements.
 Question 4 - Design and waterproofing of shrinkage, contraction and expansion joints.
 Question 5 - Study of facing of masonry and concrete dams.
 Question 6 - Geotechnical studies of foundations materials.
 Question 7 - Calculation of the stability of earth dams.

Third Congress. Stockholm (Sweden), 1948:

- Question 8 - Uplift and resulting stresses in dams.
 Question 9 - Methods and instruments for measuring stresses and strains in earth and concrete dams.
 Question 10 - Most recent dispositions to avoid piping.
 Question 11 - Information obtained from the use of testing methods and of special cements in large dams.

Fourth Congress. New Delhi (India), 1951:

- Question 12 - Methods for determining the maximum flood discharge that may be expected at a dam and for which it should be designed. Selection of type, capacity and general arrangements of temporary or permanent outlets and spillways.
 Question 13 - Design and construction of earth and rockfill dams with their core walls and diaphragms.
 Question 14 - Sedimentation in reservoirs and related problems.
 Question 15 - Concrete for large dams.

Fifth Congress. Paris (France), 1955:

- Question 16 - Design and construction of dams on permeable soils and methods of foundation treatment.
 Question 17 - Economics and safety of different types of concrete dams.
 Question 18 - Settlement of dams due to compressibility of the dams materials or of the foundations soil, including earthquake problems
 Question 19 - The relation of the cements content of the concrete to performance in practice of:
 a) gravity dams (interior and exterior) ;
 b) arch dams ;
 c) buttress dams and its influence on permeability and frost resistance.

Sixth Congress. New York (USA), 1958:

- Question 20 - Heightening of existing dams including methods of constructing new dams in successive stages
 Question 21 - Observation of stresses and deformations in dams and in their foundations and abutments; and a comparison of these observations with computations and tests on small scale models.
 Question 22 - Compaction methods and moisture content for materials used in the construction of earth core and supporting fill for earth and rockfill dams
 Question 23 - Use of admixtures and pozzolanic materials in concrete for dams and the influence of the finer sand particles.

Seventh Congress. Rome (Italy), 1961:

- Question 24 - The selection, processing and specification of aggregates for concrete for large dams.
 Question 25 - Underground work in connection with large dams
 Question 26 - Modern techniques of concrete dams for wide valleys and ancillary works.
 Question 27 - Sealing of earth and rockfill dams with bitumen and other materials

Eighth Congress. Edinburgh (Great Britain), 1964:

- Question 28 - Physical and mechanical properties of rock in situ, means of determining these properties and improving them, with special reference to the design and construction of large dams.
 Question 29 - Results and interpretation measurements made on large dams of all types, including earthquake observations.
 Question 30 - Design of concrete for large dams of all types and influence of age on concrete properties.
 Question 31 - Design, methods of construction and performance of high rockfill dams (above or about 80 m).

Ninth Congress. Istanbul (Turkey), 1967:

Question 32 - The safety of dams from the point of view of the foundations and the safety of reservoir banks.

Question 33 - Temporary and permanent provisions for the control of flows.

Question 34 - The behaviour and deterioration of dams

Question 35 - Dams in earthquake zones or other unfavourable situations.

Tenth Congress. Montreal (Canada), 1970:

Question 36 - Recent developments in the design and construction of earth and rockfill dams.

Question 37 - Recent developments in design and construction of dams and reservoirs on deep alluvial, karstic, or other unfavourable formations.

Question 38 - Supervision of dams and reservoirs in operation.

Question 39 - Recent developments in the design and construction of concrete dams.

Eleventh Congress. Madrid (Spain), 1973:

Question 40 - The consequences on the environment of building dams.

Question 41 - Flow control and energy control during construction and after completion.

Question 42 - Impervious elements and slope protection on earth and rockfill dams.

Question 43 - New ideas for more rapid and economic construction of concrete dams.

Twelfth Congress. Mexico City (Mexico), 1976:

Question 44 - Problems associated with special types of fill dams.

Question 45 - Leakage investigations and drainage of dams and their foundations.

Question 46 - Preliminary planning of dam developments.

Question 47 - The effects on dams and reservoirs of some environmental factors.

Thirteenth Congress. New Delhi (India), 1979:

Question 48 - Interface problems of dams.

Question 49 - Deterioration or failures of dams.

Question 50 - Large capacity outlets and spillways.

Question 51 - Seismicity and aseismic design of dams.

Fourteenth Congress. Rio de Janeiro (Brazil), 1982:

Question 52 - Safety of dams in operation.

Question 53 - Influence of geology and geotechnics on the design of dams.

Question 54 - Reservoir sedimentation and slope stability. Technical and environmental effects.

Question 55 - Materials and construction methods for embankment dams and cofferdams.

Fifteenth Congress. Lausanne (Switzerland), 1985:

Question 56 - Dam and foundation monitoring.

Question 57 - Concrete dams - an old problem always present: cracking; a new technology: rolled concrete (roll concrete).

Question 58 - Foundation treatment of seepage.

Question 59 - Rehabilitation of dam to ensure safety.

Sixteenth Congress. San Francisco (USA), 1988:

Question 60 - Reservoirs and the environment - Experience in management and monitoring.

Question 61 - Embankment dams: impervious elements other than clay cores.

Question 62 - New developments in the construction of concrete dams.

Question 63 - Design flood and operational flood control.

Seventeenth Congress. Vienna (Austria), 1991:

Question 64 - Environmental issues in dam projects.

Question 65 - Ageing of dams and remedial measures.

Question 66 - Dams on difficult foundations.

Question 67 - New developments for fill dams and fill cofferdams.

Eighteenth Congress. Durban (South Africa), 1994:

Question 68 - Safety assessment and improvement of existing dams.

Question 69 - Environmental experience gained from reservoirs in operation.

Question 70 - Staged construction, raising or modification of dams.

Question 71 - Deterioration of spillways and outlet works.

Nineteenth Congress. Florence (Italy), 1997:

Question 72 - Innovative financing of projects involving dams.

Question 73 - Special problems with earthfill dams.

Question 74 - Performance of reservoirs.

Question 75 - Incidents and failures of dams.

Twentieth Congress. Beijing (China), 2000:

Question 76 - The use of risk analysis to support dams safety decisions and management.

Question 77 - Benefits and concerns about dams.

Question 78 - Monitoring of dams and their foundation.

Question 79 - Gated spillways and other controlled release facilities and dam safety

Twenty-first Congress. Montreal (Canada), 2003:

Question 80 - Financing hydraulic projects including dams.

Question 81 - Economic evaluation of hydraulic projects including dams.

Question 82 - Ageing and rehabilitation of concrete and masonry dams and appurtenant works.

Question 83 - Seismic aspects of dams.

Twenty second Congress. Barcelona (Spain), 2006:

Question 84 - Technical solutions to reduce time and costs in dam design and construction.

Question 85 - Management of the downstream impacts of dam operation.

Question 86 - Safety of earth-and rockfill dams.

Question 87 - Flood and drought evaluation and management.

Twenty third Congress. Brasilia (Brazil), 2009:

Question 88 - Dams and hydropower.

Question 89 - Management of siltation in existing and new reservoirs.

Question 90 - Upgrading of existing dams.

Question 91 - Dam safety management.

Twenty fourth Congress. Kyoto (Japan), 2012:

Question 92 - Environmental friendly techniques for dams and reservoirs.

Question 93 - Safety.

Question 94 - Flood discharge.

Question 95 - Ageing and upgrading.