

THE DAM SAFETY ACT, 2021

ARRANGEMENT OF SECTIONS

CHAPTER I

PRELIMINARY

SECTIONS

1. Short title, extent and commencement.
2. Declaration as to expediency of Union control.
3. Application.
4. Definitions.

CHAPTER II

NATIONAL COMMITTEE ON DAM SAFETY

5. Constitution of National Committee..
6. Functions of National Committee.
7. Meetings of National Committee.

CHAPTER III

NATIONAL DAM SAFETY AUTHORITY

8. Establishment of National Dam Safety Authority.
9. Functions of Authority.
10. Officers and Employees of Authority.

CHAPTER IV

STATE COMMITTEE ON DAM SAFETY

11. Constitution of State Committee on Dam Safety.
12. Functions of State Committee.
13. Meetings of State Committee.

CHAPTER V

STATE DAM SAFETY ORGANISATION

14. Establishment of State Dam Safety Organisation.
15. Officers and employees of State Dam Safety Organisation.

CHAPTER VI

DUTIES AND FUNCTIONING IN RELATION TO DAM SAFETY

16. Surveillance and inspection.
17. Vulnerability and hazard classification of dams.
18. Maintenance of log books.
19. Records of dam failures and dam incidents.
20. Instructions on safety of specified dams.
21. Funds for maintenance and repairs.
22. Technical documentation.

SECTIONS

23. Qualifications and experience of individuals responsible for safety of specified dams.
24. Jurisdiction of State Dam Safety Organisation and Authority.
25. Cost of investigation.
26. Construction or alteration of dams.
27. Initial filling of reservoirs.
28. Operation and maintenance.
29. Responsibility of owner of specified dam.

CHAPTER VII

SAFETY, INSPECTION AND DATA COLLECTION

30. Dam safety unit.
31. Inspection.
32. Instrumentations to be installed in every specified dam.
33. Establishment of hydro-meteorological station.
34. Installations of seismological station.

CHAPTER VIII

EMERGENCY ACTION PLAN AND DISASTER MANAGEMENT

35. Obligation of owner of specified dam.
36. Emergency action plan.
37. Assistance to other disaster management authorities.

CHAPTER IX

COMPREHENSIVE DAM SAFETY EVALUTION

38. Comprehensive dam safety evaluation.
39. Compulsory evaluation in certain cases.
40. Reports of comprehensive evaluation.

CHAPTER X

OFFENCES AND PENALTIES

41. Punishment for obstruction, etc.
42. Offences by Departments of Government.
43. Offence by companies.
44. Cognizance of offences.

CHAPTER XI

MISCELLANEOUS

45. Annual report of safety status of specified dam.
46. Safety measures in respect of dams other than specified dams.
47. Safety measures in respect of dams located outside territory of India.
48. Act to have overriding effect.
49. Power to amend Schedules.
50. Power of Central Government to give directions.
51. Vacancies, etc., not to invalidate proceedings of National Committee on Dam Safety Authority and State Committee on Dam Safety.

SECTIONS

- 52. Power of Central Government to make rules.
- 53. Power of State Government to make rules.
- 54. Power to make regulations by Authority.
- 55. Rules and regulations to be laid before Parliament.
- 56. Power to remove difficulties.

THE FIRST SCHEDULE.

THE SECOND SCHEDULE.

THE THIRD SCHEDULE.

THE DAM SAFETY ACT, 2021

ACT NO. 41 OF 2021

[13th December, 2021.]

An Act to provide for surveillance, inspection, operation and maintenance of the specified dam for prevention of dam failure related disasters and to provide for institutional mechanism to ensure their safe functioning and for matters connected therewith or incidental thereto.

BE it enacted by Parliament in the Seventy-second Year of the Republic of India as follows:—

CHAPTER I

PRELIMINARY

1. Short title, extent and commencement.—(1) This Act may be called the Dam Safety Act, 2021.

(2) It extends to the whole of India.

(3) It shall come into force on such date¹ as the Central Government may, by notification in the Official Gazette, appoint.

2. Declaration as to expediency of Union control.—It is hereby declared that it is expedient in the public interest that the Union should take under its control the regulation of uniform dam safety procedure for specified dam to the extent hereinafter provided

3. Application.—Save as provided under this Act, it applies to the owner of every specified dam, —

(a) being a public sector undertaking or institution or a body owned or controlled by the Central Government or a State Government or jointly by one or more Governments, as the case may be; and

(b) being an undertaking or company or institution or a body other than those owned or controlled by the State Government or the Central Government, as the case may be.

4. Definitions.—In this Act, unless the context otherwise requires, —

(a) "alteration of dam" means alterations or repairs as may directly affect the safety of the dam or reservoir;

(b) "annual report" means a report giving the activities of the Authority and the State Dam Safety Organisation and the safety status of the specified dams falling under their jurisdiction during each financial year;

(c) "appurtenant structure" means the structure being—

(i) spillways, either in the dam or separate therefrom;

(ii) low level outlet structure and water conduits such as tunnels, pipelines or penstocks, either through the dam or its abutments or reservoir rim;

1. 30th December, 2021, *vide* notification No. S.O.5422(E), dated 30th December, 2021, *see* Gazette of India, Extraordinary, Part II, sec. 3 (ii).

- (iii) hydro-mechanical equipment including gate, valve, hoist, elevators;
 - (iv) energy dissipation and river training structure; and
 - (v) other associated structures acting integrally with the dam or its reservoir or reservoir rim;
- (d) "Authority" means the National Dam Safety Authority established under section 8;
- (e) "dam" means any artificial barrier and its appurtenant structure constructed across rivers or tributaries thereof with a view to impound or divert water which also include barrage, weir and similar water impounding structures but does not include—
- (a) canal, aquaduct, navigation channel and similar water conveyance structures;
 - (b) flood embankment, dike, guide bund and similar flow regulation structures;
- (f) "dam failure" means any failure of the structure or operation of a dam which leads to uncontrolled flow of impounded water resulting in downstream flooding, affecting the life and property of the people and the environment including flora, fauna and riverine ecology.
- Explanation.*—For the purposes of this clause, failure in the operation shall mean such faulty operations of the dam which are inconsistent with the operation and maintenance manual;
- (g) "dam incident" means all such problems occurring to a dam that have not degraded into a dam failure, and includes—
- (i) any structural damage to the dam and the appurtenant structure;
 - (ii) any unusual reading of any instrument in the dam;
 - (iii) any unusual seepage or leakage through the dam body;
 - (iv) any unusual change in the seepage or leakage regime;
 - (v) any boiling or artesian condition noticed below the dam;
 - (vi) any sudden stoppage or unusual reduction in seepage or leakage from the foundation or body of the dam or any of its galleries;
 - (vii) any malfunction or inappropriate operation of gates;
 - (viii) occurrence of flood, the peak of which exceeds the available flood discharge capacity of the dam or seventy per cent. of the approved design flood;
 - (ix) occurrence of flood, which resulted in encroachment on the available freeboard, or the approved design freeboard;
 - (x) any unusual erosion in the near vicinity up to five hundred metres downstream of the spillway or waste-weir; and
 - (xi) any other occurrence which a prudent dam engineer may relate to dam safety concerns;
- (h) "dam safety unit" means a dam safety unit of any specified dam referred to in section 30;
- (i) "distress condition" means the occurrence or potential development of such conditions in the dam or appurtenance structure or its reservoir or reservoir rim, which if left unattended to, may impede the safe operation of dam for its intended benefits or may pose serious risks to the life and property of people and the environment including flora, fauna and riverine ecology;

(j) "documentation" means all permanent records including electronic records concerning investigation, design, construction, operation, performance, maintenance, major repair, alteration, enlargement and safety of dams and includes design memorandum, construction drawings, geological reports, reports of specialised studies simulating structural and hydraulic response of the dam, changes made in design and drawings, quality control records, emergency action plan, operation and maintenance manual, instrumentation readings, inspection and testing reports, operational reports, and dam safety review reports and other similar reports;

(k) "enlargement of dam" means any change in the scope of an existing dam or reservoir, which raises water storage elevation or increases the volume of water impounded by the dam;

(l) "Government" means the Central Government or a State Government, as the case may be;

(m) "inspection" means on-site examination of any component of a dam and its appurtenant structure;

(n) "investigation" means collection of evidence, detailed examination, analysis or scrutiny of a specific problem pertaining to the dam and its appurtenant or a part thereof and includes laboratory testing, in-situ testing, geological exploration, model testing and mathematical simulation of the problem;

(o) "National Committee" means the National Committee on Dam Safety constituted under section 5;

(p) "notification" means a notification published in the Official Gazette and the term "notify" shall be construed accordingly;

(q) "operation of dam" means elements of the use, control and functioning of the dam which may primarily affect the storage, release of water and the structural safety of the dam;

(r) "operation and maintenance manual" means the written instructions that provide operation procedures, maintenance procedures, emergency procedures and any other features necessary for the safe operation of dam;

(s) "owner of specified dam" means the Central Government or a State Government or jointly by one or more Governments or public sector undertaking or local authority or company and any or all of such persons or organisations, who own, control, operate, or maintain a specified dam;

(t) "prescribed" means prescribed by rules made by the Central Government or, as the case may be, by the State Government;

(u) "regulations" means the regulations made by the Authority under this Act;

(v) "remedial measures" means such structural or non-structural measures, as may be required in relation to the specified dam or appurtenant structure or reservoir or reservoir rim or catchment area of reservoir for the purpose of removing or mitigating the distress condition of the specified dam;

(w) "reservoir" in relation to a dam shall mean any spread of water impounded by a specified dam;

(x) "specified dam" means a dam constructed before or after the commencement of this Act, which is, —

- (i) above fifteen metres in height, measured from the lowest portion of the general foundation area to the top of dam; or
- (ii) between ten metres to fifteen metres in height and satisfies at least one of the following, namely: —
 - (A) the length of crest is not less than five hundred metres; or
 - (B) the capacity of the reservoir formed by the dam is not less than one million cubic metres; or
 - (C) the maximum flood discharge dealt with by the dam is not less than two thousand cubic metres per second; or
 - (D) the dam has specially difficult foundation problems; or
 - (E) the dam is of unusual design;
- (y) "State Committee" means the State Committee on Dam Safety constituted under sub-section (1) of section 11;
- (z) "State Dam Safety Organisation" means the State Dam Safety Organisation established under section 14; and
- (za) "vulnerability and hazard classification" means the system or systems of classifying dams on the basis of their condition, location, damage or hazard potential.

CHAPTER II

NATIONAL COMMITTEE ON DAM SAFETY

5. Constitution of National Committee.—(1) With effect from such date as the Central Government may, by notification, appoint, there shall be constituted, for the purposes of this Act, a National Committee to be known as the National Committee on Dam Safety consisting of the following members, namely: —

- (a) the Chairman, Central Water Commission—Chairperson, *ex officio*;
- (b) not exceeding ten representatives of the Central Government not below the rank of Joint Secretary to that Government or equivalent dealing with matters relating to dam engineering or dam safety, nominated by the Central Government—Members, *ex officio*;
- (c) not exceeding seven representatives of the State Governments of the level of Engineer-in-Chief or equivalent by rotation, nominated by the Central Government—Members, *ex officio*; and
- (d) not exceeding three specialists in the field of dam safety and allied fields nominated by the Central Government—Members.

(2) The National Committee shall be constituted within a period of sixty days from the date of commencement of this Act, and shall be reconstituted for every three years thereafter.

6. Functions of National Committee.—(1) The National Committee shall discharge such functions as specified in the First Schedule as may be necessary to prevent dam failure related disasters and to maintain standards of dam safety.

(2) The National Committee may, in discharge of its functions, constitute such sub-committees as it may consider necessary to assist it and the secretarial assistance to the National Committee and the sub-committees shall be provided by the Authority.