

BP 4.37 - Safety of Dams

These policies were prepared for use by World Bank staff and are not necessarily a complete treatment of the subject.

BP 4.37
October, 2001

Note: [OP](#) and BP 4.37 replace the versions dated September 1996. Other Bank policies that may apply to projects that involve dams include the following: [OP/BP 4.01, Environmental Assessment](#); [OP/BP 4.04, Natural Habitats](#); [OP/BP 4.11, Physical Cultural Resources](#); [OP/BP 4.10, Indigenous Peoples](#); [OP/BP 4.12, Involuntary Resettlement](#); and [OP/BP 7.50, Projects on International Waterways](#). Questions on dam safety should be addressed to the Director, [Rural Development Department](#) (RDV).

Project Processing

1. When the Bank¹ begins processing a project that includes a dam, the processing team includes individuals who have relevant experience in dam engineering and in preparation and supervision of previous Bank-funded projects that have included dams. If such individuals are not available within the Region, the task team (TT) consults the Rural Development Department for referral to appropriate specialists inside or outside the Bank.
2. Bank projects involving dams are processed according to the procedures set forth in [BP 10.00, Investment Lending: Identification to Board Presentation](#).
3. As soon as a project involving a dam is identified, the TT discusses with the borrower the Bank's policy on dam safety [OP 4.37](#).

Preparation

4. The TT ensures that the borrower's terms of reference (TOR) for technical services to investigate the site and design the dam, supervise new or remedial construction, advise on initial reservoir filling and start-up operations, and perform inspections and safety assessments, as well as the qualifications of the professionals (e.g., engineers, geologists, or hydrologists) to be employed by the borrower, are adequate to the complexity of the particular dam.
5. If an independent panel of experts (the Panel) is required, the TT advises borrower staff, as necessary, on the preparation of TOR. The TT reviews and clears the TOR and the Panel members proposed by the borrower. Once the Panel is in place, TT staff normally attend Panel meetings as observers.
6. The TT reviews all reports relating to dam safety prepared by the borrower, the Panel, the independent specialists who assess an existing dam or a dam under construction, and the professionals hired by the borrower to design, construct, fill, and start up the dam.
7. The TT monitors the borrower's preparation of the plans for construction supervision and quality assurance, instrumentation, operation and maintenance, and emergency preparedness (see [OP 4.37, para. 4\(b\)](#) and BP 4.37, [Annex A](#)).

Appraisal

8. The appraisal team reviews all project information relevant to dam safety, including cost estimates; construction schedules; procurement procedures; technical assistance arrangements; environmental assessments; and the plans for construction supervision and quality assurance, instrumentation, operation and maintenance, and emergency preparedness. The team also reviews the project proposal, technical aspects, inspection reports, Panel reports, and all other borrower action plans relating to dam safety. If a Panel has been required, the team verifies that the borrower has taken the Panel's recommendations into consideration and, if necessary, assists the borrower in identifying sources for dam safety training or technical assistance.
9. The TT and the assigned Bank lawyer ensure that the legal agreements between the Bank and the borrower require the borrower
 - (a) if a Panel has been required, to convene Panel meetings periodically during project implementation and retain the Panel through the start-up of a new dam;
 - (b) to implement the required plans (see [Annex A](#)) and raise to the required standard any that have not been adequately developed; and

(c) after filling and start-up of a new dam, to have periodic dam safety inspections performed by independent qualified professionals who have not been involved with the investigation, design, construction, or operation of the dam.

Supervision

10. During implementation, the TT monitors all activities relating to the dam safety provisions in the Loan Agreement, using technical staff and, as appropriate, consultants to assess the borrower's performance. If performance in regard to dam safety is found to be unsatisfactory, the TT promptly informs the borrower that the deficiencies must be remedied.

11. During the latter stages of project implementation, the TT discusses post-project operational procedures with the borrower, stressing the importance of ensuring that written instructions for flood operations and emergency preparedness are retained at the dam at all times. The TT also points out that the advent of new technology or new information (e.g., from floods, seismic events, or discovery of new regional or local geologic features) may in the future require the borrower to modify the technical criteria for evaluating dam safety; the TT urges the borrower to make such modifications and then apply the revised criteria to the project dam and, as necessary, to other dams under the borrower's jurisdiction.

12. To ensure that completed dams are inspected and maintained satisfactorily, Regional staff may carry out supervision beyond the closing date of the project, either during work on follow-up projects or during specially scheduled supervision missions.²

1. "Bank" includes IBRD and IDA, and "loans" includes IDA credits and IDA grants.

2. See [QP/BP 13.05](#), *Project Supervision*.
