

Utilities (Dam Safety Code) Determination 2014

Disallowable instrument DI2014–292

made under the

***Utilities Act 2000*, section 65 (application of industry code provisions)**

1 Name of instrument

This instrument is the *Utilities (Dam Safety Code) Determination 2014*.

2 Commencement

This instrument commences the day after it is notified.

3 Repeal of previous codes

This instrument repeals the Dam Safety Code (March 2003), as amended September 2008 and made under the *Utilities Act 2000*.

4 Determination of code

The Minister determines the Dam Safety Code.

5 Public access to documents

This Code is available for inspection by the public between 8:30 am and 4:30 pm, from Monday to Friday except for public holidays, at the Environment and Planning Directorate (EPD) at South Building, Dame Pattie Menzies House, 16 Challis Street Dickson ACT. Copies of the Code can be also made at the EPD office. Electronic copies of the Code are available on the EPD website at <http://www.environment.act.gov.au/>. No charge will apply.

Simon Corbell MLA
Minister for the Environment
13 November 2014



Australian Capital Territory

DAM SAFETY CODE

November 2014

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1. INTRODUCTION

1.1 Technical Codes

The Dam Safety Code (this Code) is a technical code under part 5 of the *Utilities Act 2000* (the Act).

1.2 Utility to comply with Technical Codes

Section 25(2)(a)(iv) of the Act requires licence holders to comply with technical codes.

2. APPLICATION AND PURPOSE

2.1 Application

This Code applies to a utility with respect to any dam that the utility owns, leases or sub-leases or for any Scheduled dam for which the Utility has obtained development approval.

2.2 Purpose

The purpose of this Code is to identify and regulate the safety of dams with the potential for a failure which could have a significant adverse effect on community interests.

3. DICTIONARY

The dictionary at the end of this Code is part of this Code.

4. RESPONSIBILITY FOR DAM SAFETY

Over the whole life cycle of each scheduled dam, the utility must remain fully responsible for the safety of that dam. The role of the director-general is to ensure that the utility properly discharges its responsibility.

5. APPLICABLE GUIDELINES

In this Code the term guidelines refers collectively to the current versions of:

- (1) The NSW Dams Safety Committee Technical Guidance Sheets; and
- (2) The ANCOLD Guidelines.

Throughout this code, if there is any conflict between the NSW Dams Safety Committee Guidance Sheets and the ANCOLD Guidelines, then the former shall prevail unless the director-general approves otherwise.

6. DAM SAFETY MANAGEMENT SYSTEM

6.1 Utility to implement and maintain Dam Safety Management System

Over the whole life cycle of each scheduled dam, the utility must implement and maintain a Dam Safety Management System (DSMS) to identify, keep under review and control as low as reasonably practicable the risks posed by the scheduled dam. The DSMS must be based on contemporary good practice, including as set out in the guidelines.

6.2 Utility to report on compliance

The utility must provide a written report annually to the director-general in the form required by the director-general.

7. UTILITY SUBMISSIONS

All submissions by the utility to the director-general must include a letter of transmittal issued under the authority of the utility.

8. PEER REVIEWS

- (1) Any design documentation or dam safety review report submitted by the utility to the director-general for extreme or high consequence category scheduled dams must be accompanied by
 - (a) a separate signed report from (an) independent peer reviewer(s) and
 - (b) the utility's statement of its proposed response to that review report.

In giving or withholding any endorsement under this Code, the director-general must consider any advice or recommendations in the peer review report.

- (2) The utility must define the scope of the peer review and select and engage reviewer(s) whose qualifications and experience are acceptable to the director-general.
- (3) Peer reviewers must be independent senior practitioners widely recognized for their knowledge of dam engineering and dam safety. To be considered independent a practitioner must:
 - (a) not have prepared any part of the document being reviewed, although the citation or inclusion of excerpts from previous work of the practitioner is acceptable;
 - (b) not be an employee of the utility;

- (c) not be an employee of the entity which prepared and took responsibility for the document.
- (4) The role of reviewers is to pass judgement on the soundness of inputs, analysis methods and outputs. It is not their role to verify computations.
- (5) The peer review shall not shift responsibility to the reviewer.
- (6) The utility, through its analysts and peer reviewers, must be able to defend the validity of the analyses.

9. DESIGN, CONSTRUCTION, COMMISSIONING OR DECOMMISSIONING OF DAMS

- (1) A utility must design, construct or commission any new scheduled dam or modify or decommission any existing scheduled dam in accordance with contemporary good practice and the guidelines.
- (2) The utility undertaking work under clause 9(1) must, as a minimum, submit design and construction information and reports as required by Schedule 2.

10. OPERATION AND MAINTENANCE OF DAMS

A utility must operate and maintain each scheduled dam in accordance with the guidelines.

11. DAM SURVEILLANCE

- (1) A utility must develop and maintain a dam surveillance program for each scheduled dam. A dam surveillance program must:
 - (a) be developed and maintained in accordance with contemporary good practice and the guidelines;
 - (b) be under the direct supervision of a competent dam safety engineer with relevant knowledge and experience in dam engineering and the day-to-day safety management of dams of a height, type and consequence category similar to the relevant Scheduled dam;
 - (c) provide for dam safety inspections and their recording;
 - (d) provide for the monitoring of dam performance by the reading of instruments or by other means, and the recording of the results;
 - (e) provide for the evaluation of surveillance records by the dam safety engineer; and
 - (f) provide for preparation of a surveillance report one year after dam construction, or on first filling if earlier, and at five yearly intervals

thereafter. Surveillance reports must be submitted promptly to the director-general following their completion.

- (2) Details of the dam surveillance programs and the documented results of scheduled dam surveillance must be made available, on request, to the director-general.

12. SAFETY REVIEWS

- (1) A utility must undertake safety reviews in accordance with the guidelines.
- (2) Safety reviews must be submitted promptly to the director-general following their completion.

13. SAFETY IMPROVEMENTS

- (1) If a safety review shows a need for improvement, the utility must submit to the director-general a proposal for risk reduction which includes a program for making the improvement.
- (2) If the director-general considers that the proposal does not sufficiently reduce risk as required by the guidelines or that there would be unreasonable delay in the reduction of risk, then the director-general may require the utility to amend the proposal.
- (3) The utility must undertake the risk reduction work in accordance with the proposal accepted by the director-general.

14. DAM SAFETY EMERGENCY PLANS

14.1 Preparation of Dam Safety Emergency Plans

A utility must, within six months of the grant of its utility services licence and thereafter periodically as specified below.

- (1) prepare a draft dam safety emergency plan for each scheduled dam where dam failure would pose a significant threat to public safety or other interests of the community (subject to clauses 15 and 16 below); and
- (2) submit the draft Plans to the director-general for endorsement.

14.2 Dam Safety Emergency Plans updates

- (1) The utility must by 30th of April each year update dam safety emergency plans to reflect any changes to particulars in that plan and submit a certificate to the director-general to verify that the update has occurred and has been agreed with the emergency response agencies.

- (2) The utility must within one month of a plan's review as specified in clause 14.6 submit a revised draft dam safety emergency plan to the director-general for endorsement. The previously endorsed dam safety emergency plan remains valid prior to the endorsement.
- (3) Upon becoming aware of any shortcoming in the dam safety emergency plan, the utility must as soon as reasonably practicable, review the plan and submit a revised draft dam safety emergency plan to the director-general for endorsement.

14.3 Contents of Dam Safety Emergency Plans

- (1) The contents of a dam safety emergency plan must conform to the contents set out in the guidelines.
- (2) Inundation mapping and flood wave travel time must cover all areas where dam failure would pose a significant threat to public safety or other interests of the community where early warning could mitigate the consequences of flooding.
- (3) Inundation maps must be prepared in the format required for the flood sub-plan of the ACT Disaster Plan.
- (4) When identifying persons, organisations and agencies with responsibilities relevant to the dam safety emergency plan, the utility must include:
 - (a) all relevant management officers and staff employed by the utility; and
 - (b) all relevant emergency service organisations, including ACT Police (Australian Federal Police), the ACT Emergency Services Agency, NSW State Emergency Service and NSW Police.
- (5) The notification flowchart must include position titles, but need not identify the names of position holders.
- (6) The draft dam safety emergency plan must include a contact list showing the names of position holders and contact details for each position title in the notification flowchart.
- (7) The draft dam safety emergency plan must include a distribution list made up of the contact list specified above, the director-general and each organisation, agency or individual having responsibilities under the plan.

14.4 Endorsement of Dam Safety Emergency Plans

As soon as practicable after the utility submits a draft dam safety emergency plan to the director-general for endorsement, the director-general must:

- (1) consult with interested parties including, but not limited to, the ACT Emergency Services Agency; and
- (2) either:
 - (a) Endorse the draft dam safety emergency plan or

- (b) If the draft dam safety emergency plan does not adequately address a matter referred to in the guidelines require the utility to amend the plan.
- (3) If the director-general requires a utility to amend the draft dam safety emergency plan, the utility must within 14 days of receipt of the director-general's requirement submit an amended draft plan.

14.5 Distribution of Dam Safety Emergency Plans

As soon as practicable after the dam safety emergency plan is endorsed by the director-general and after each update:

- (1) the utility must distribute controlled printed copies of the dam safety emergency plan to each party included in the distribution list for the endorsed plan; a utility may also supply an additional electronic copy.
- (2) the utility must also distribute the dam safety emergency plan to all on-call utility duty officers-in-charge.

The utility must make available its electronic inundation mapping data as requested by the director-general.

14.6 Maintenance of Dam Safety Emergency Plans

The utility must test and review each dam safety emergency plan in accordance with the guidelines.

15. COTTER RIVER DAMS

A single dam safety emergency plan may be submitted for all the scheduled dams on the Cotter River provided the plan otherwise meets the requirements of this Code.

16. NSW DAMS

16.1 Dam Surveillance Reports

A dam Surveillance Report

- (1) for a scheduled dam which is located in NSW and is a prescribed dam under the Dams Safety Act 1978 (NSW); and
- (2) which is prepared to the requirements of NSW Dams Safety Committee made pursuant to that Act; and
- (3) for which the utility provides evidence to the director-general that those NSW requirements have been met,

satisfies the requirements of this Code for a dam Surveillance Report.

16.2 Dam Safety Emergency Plans

A dam safety emergency plan:

- (1) for a scheduled dam which is located in NSW and is a prescribed dam under the Dam Safety Act 1978 (NSW); and
- (2) which is prepared to the requirements of NSW Dams Safety Committee made pursuant to that Act; and
- (3) for which the utility provides evidence to the director-general that those NSW requirements have been met need not undergo the consultation and endorsement processes specified in clause 14 except in relation to:
 - (a) the roles and responsibilities, including arrangements for notification, of ACT agencies; and
 - (b) whether the inundation mapping of land within the ACT complies with clause 14.3(2).

17. REPORTING OF INCIDENTS, EMERGENCY EVENTS AND FAILURES

- (1) A utility must send a written emergency event report to the director-general as soon as reasonably practicable but not later than five business days after the occurrence of an emergency event at a scheduled dam; and/or five business days after receiving a request from the director-general,
- (2) The emergency event report must be in the form required by the director-general from time to time and must contain the following:
 - (a) details of the event and the dam at which the event took place;
 - (b) the time and date at which the event took place;
 - (c) notifications made;
 - (d) agencies notified;
 - (e) the safety status of the dam;
 - (f) maintenance details or repair and other actions to be taken by the utility to ensure the long term safety of the dam;
 - (g) the causes of the event so far as they are understood at the time, lessons learned and details of any improvements to documents, procedures or practices which are considered to be necessary and which the utility intends to make; and
 - (h) any other details requested by the director-general.
- (3) In submitting the emergency event report the utility may seek leave of the director-general to submit a more comprehensive report at a later time. If the

director-general grants leave, the second report must be submitted to the director-general within six calendar weeks of the end of the emergency event.

- (4) Alternatively the director-general may require the Utility to submit a more comprehensive emergency event report within six calendar weeks of the end of the emergency event.

18. DIRECTOR GENERAL MAY GIVE DIRECTION TO UTILITY

The director-general may give a direction to a utility requiring submission of proposals for improved documents, procedures or practices if the director-general is not satisfied with:

- (1) The effectiveness of the utility's emergency response;
- (2) the utility's adherence to its respective dam safety emergency plan; or
- (3) the utility's compliance with the guidelines.

19. TRAINING

A utility must ensure that its employees and officers understand, and have had training in, their duties, responsibilities and authorisations as required by the guidelines.

20. RECORDS AND INFORMATION RELEVANT TO DAM SAFETY

A utility must keep, or cause to be kept, comprehensive and accurate records of:

- (1) compliance with the requirements of the guidelines;
- (2) compliance with the requirements of this Code; and
- (3) any other matters reasonably required by the director-general.

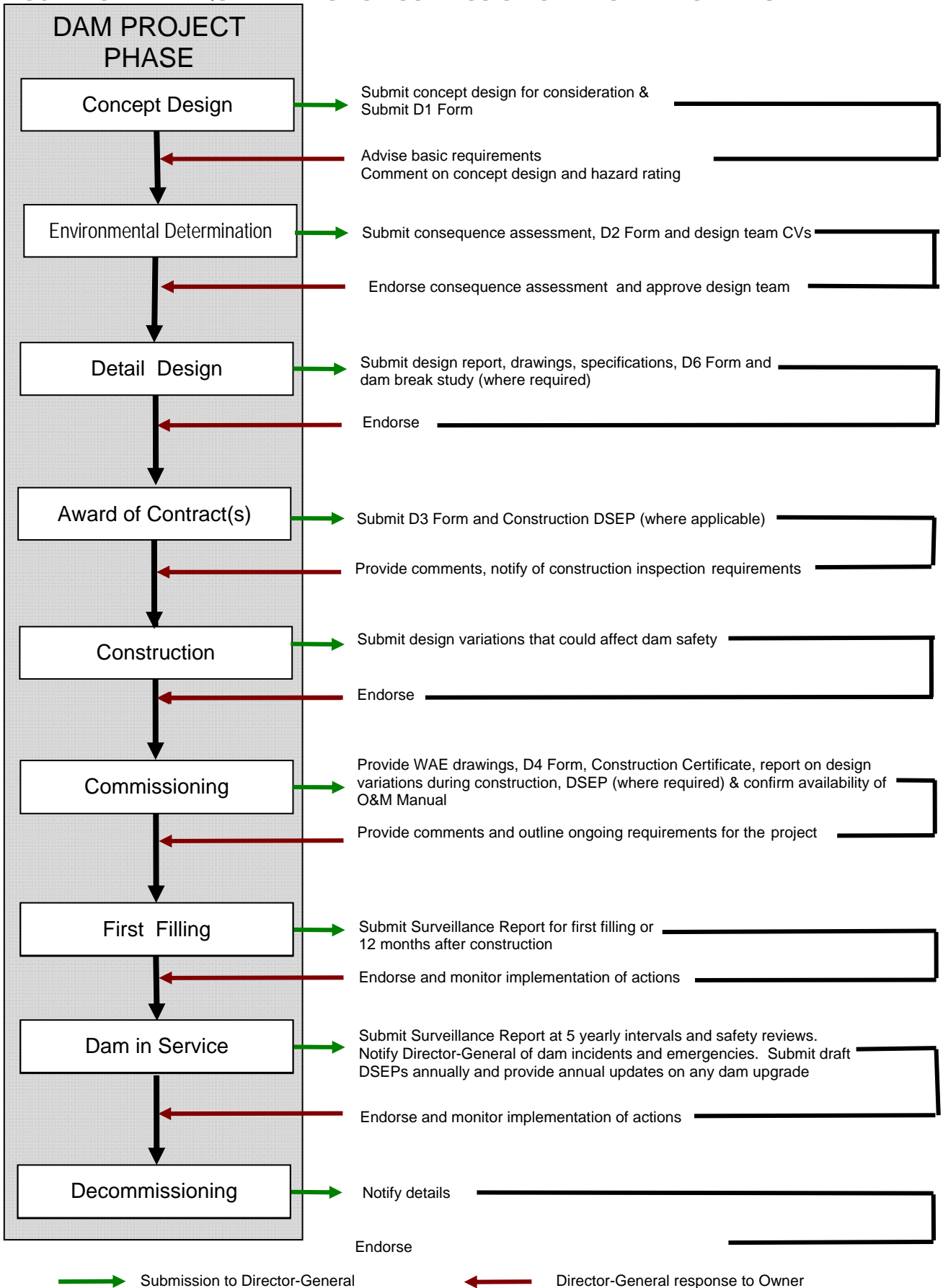
The records must at least satisfy the requirements of the guidelines and must be made available for inspection as requested by the director-general.

The director-general may request any document or other information relevant to the safety of a scheduled dam and the Utility must provide the document or information as soon as reasonably practicable. If the information is not available the Utility must cause the information to be obtained and must furnish it to the director-general as soon as reasonably practicable.

SCHEDULE 1: DAMS

- (1) The dam known as Cotter Dam or “Enlarged Cotter Dam” located on the Cotter River downstream of the old Cotter Dam.
- (2) The dam known as Bendora Dam located on the Cotter River.
- (3) The dam known as Corin Dam located on the Cotter River.
- (4) The dam known as Googong Dam located on the Queanbeyan River.
- (5) The Lower Molonglo Water Quality Control Centre Bypass Storage Dam.
- (6) Dams determined by the technical regulator in a notifiable instrument.

SCHEDULE 2: REQUIREMENTS FOR SUBMISSION OF INFORMATION BY UTILITY



For description of the stages and report types refer to DSC2B
 This diagram has been adapted from Figure 1 in NSW DSC2B

DICTIONARY

- (1) “Act” means the *Utilities Act 2000*;
- (2) “ANCOLD” means the Australian National Committee on Large Dams;
- (3) “ANCOLD Guidelines” means the most recent version of any current guideline document published by ANCOLD and relevant to the safety of a Scheduled Dam;
- (4) “business day” means a day, other than a Saturday, Sunday or public holiday in the Territory;
- (5) “director-general” has the same meaning and functions as defined under the Act;
- (6) “Consequence Category” means one of a number of states under a dam classification system based on the scale of adverse consequences subsequent to a dam failure assigned in accordance with the guidelines;
- (7) “development approval” means a development approval under the *Planning and Development Act 2007*.
- (8) “Dam Safety Code” means the Dam Safety Code approved as a Technical Code by the Minister under the Act;
- (9) “emergency event” means an emergency as defined under the ANCOLD Guidelines on Dam Safety Management 2003 or as updated and these may include seismic, flood, landslides, or other unusual events such as sabotage;
- (10) “guidelines” means guidelines as defined in clause 5.
- (11) “Minister” means the Minister responsible for administering Part 5 of the Act;
- (12) “NSW Dams Safety Committee” means the Dams Safety Committee constituted under the *Dams Safety Act 1978 (NSW)*;
- (13) “NSW Dams Safety Committee Technical Guidance Sheets” means the Technical Guidance Sheets published from time to time by the NSW Dams Safety Committee in which NSW specific terms are interpreted as follows:

Term in Guidance Sheet	Required interpretation
NSW	the Territory
DSC	Director-General
owner	Utility
prescribe / prescription	include(d) in Schedule 1 to this Code
- (14) “scheduled dam” means a dam listed in Schedule 1 of the Dam Safety Code and includes appurtenant works;

- (15) “technical code” means a code approved or determined by the Minister under Part 5 of the Act;
- (16) “Territory” means the Australian Capital Territory;
- (17) “utility” has the same meaning and functions as defined under the Act;
- (18) “utility services licence” means a licence granted to a utility by ICRC under Part 3 of the Act;