

# TAILINGS STORAGE FACILITIES

## Regulation amendment: High risk activity notification for mines

December 2019

### Introduction

Traditionally, specific mine health and safety legislation for metalliferous and extractives mines (i.e. mines other than coal mines) has not required notification or approval to carry out activities regarding the establishment, operation or decommissioning of tailing storage facilities (TSFs). This differs from the regulatory oversight of equivalent activities carried out in relation to coal mines.

There are many cases of tailings dam failures across the world resulting in the escape of tailings materials off site and/or significant landform instability issues. Consequences range from the displacement of downstream communities through to significant injuries and the death of mine workers and the public.

The NSW Resources Regulator identified potential health and safety issues associated with the structural integrity of TSFs at NSW mines in an investigation of an event notified under notifiable/high potential incident provisions of the *Work Health and Safety (Mines and Petroleum Sites) Act 2013* and the *Work Health and Safety (Mines and Petroleum Sites) Regulation 2014* (the Regulation).

Subsequently, the Resources Regulator's Compliance Priority Project on the construction, operation and decommissioning of tailings dams, initiated in 2018, identified uncertainties and knowledge gaps in relation to the management of tailings dams.

Dam failure is required to be addressed by all mines when considering control measures to manage risks associated with inundation or inrush in developing the mine's principal hazard management plans (clause 2(1)(a) of Schedule 1 in the Regulation).

### Amendment to include TSFs as a high risk activity

The *Work Health and Safety (Mines and Petroleum Sites) Amendment Regulation 2019* (the Amendment Regulation), which commences on 1 February 2020, includes an amendment requiring high-risk activity (HRA) notification for TSFs for metalliferous mines when certain activities are carried out in relation to TSFs.

This amendment:

- creates regulatory consistency across coal mines (existing requirements remain) and metalliferous mines.
- provides for appropriate regulatory oversight by the Resources Regulator by enabling it to review the risks identified for HRAs regarding TSFs and ensure appropriate methods are employed by the mine operator to manage those risks.
- applies to all mines other than:
  - coal mines, and
  - opal mines, and
  - small gemstone mines, and
  - mines at which the inundation or inrush of any substance would not reasonably be likely to result in an emergency situation or present a risk to the health and safety of workers and other persons.

**Note:** The terms ‘emplacement areas’ and ‘tailings storage facilities’ will be maintained in the Regulation. The term ‘emplacement areas’ is a common term used in the coal sector and the term ‘tailings storage facilities’ is a common term used in the non-coal sector.

## TSFs in relation to mines other than coal mines

A new Part 7 has been included in Schedule 3 of the Regulation. The following activities in relation to TSFs are specified in the new clause 35(1) of Part 7 of Schedule 3 as high risk activities:

- establishment
- operation
- alteration, and
- decommissioning.

Essentially, the new requirements replicate the legislative scheme for HRA notification for emplacement areas at coal mines. Though certain terms are defined to ensure all relevant HRAs in respect of TSFs are captured and certain provisions are appropriately adapted to maintain consistency with other requirements in the Regulation applying to mines other than coal mines (e.g. where a mine survey plan may not be required).

This approach enables the terminology to reflect that which is frequently used in the metalliferous and extractives sector (e.g. TSFs) for the form of product resulting from processing of minerals other than

coal. It also results in the HRA notification process for emplacement areas in the coal sector to remain the same, therefore reducing any confusion.

### Changes to emplacement areas for coal mines

To ensure regulatory consistency, what constitutes an ‘emplacement area’ in relation to coal mines has been clarified by amending its definition in clause 3 of the Regulation to include specific reference to TSFs. This recognises tailings as one form of reject from processing coal which are captured for the purposes of HRA notification.

As part of the amendment package, clause 27 of Part 5 of Schedule 3 has also been amended as follows:

- subclause (1) to add the activity of ‘alteration’ as a HRA for emplacement areas
- new subclause (3)(a1) by requiring ‘dam break studies’
- subclause (3)(c) by amending ‘engineering drawings’ to read ‘engineering reports’, and
- subclause (4) to add definitions of ‘operation’ and ‘alteration’.

### Transitional provisions for TSFs

As noted earlier, the Amendment Regulation commences on 1 February 2020. However, appropriate transitional provisions have been included regarding the new HRA notification requirements for TSFs to address the application of clause 33 (Notification of high risk activities) in the Regulation.

In summary, clause 33 requires a mine operator to ensure a high risk activity identified in Schedule 3 that applies to the mine is not carried out at or in relation to the mine unless:

- the operator has given notice of the activity to the regulator, and
- the waiting period has elapsed, being the waiting period specified in Schedule 3 in relation to the activity.

Clause 33 will apply fully to the establishment, alteration or decommissioning of a TSF that is commenced after 1 May 2020.

A TSF that is established or an existing TSF that is altered or decommissioned between 1 February 2020 and 1 May 2020 will be required to comply with clause 33, subject to the following arrangements:

- a notice must be given to the regulator at any time within three months of 1 February 2020 if the activity is:
  - commenced before 1 February 2020 but is not completed by that day, or
  - commences during the period commencing 1 February 2020 and ending 1 May 2020.

- the waiting period for the activity specified in clause 35 of Schedule 3 (i.e. 3 months) is taken to have elapsed in respect of a notice given under clause 33 for the circumstances outlined above.

Activities associated with existing TSFs in operation will not be required to provide notice under clause 33 unless the requirements of clause 33 of the Regulation are triggered by carrying out alteration or decommissioning of the TSF.

For an existing tailings storage facility that is not in operation at 1 February 2020, a notice under clause 33 must be provided before recommencing operations.

**Table: Circumstances when a HRA notification is triggered for TSFs**

TIMING OF HRA ACTIVITY IN RELATION TO COMMENCEMENT OF AMENDMENT	APPLICATION OF REQUIREMENT FOR HRA NOTICE IN ACCORDANCE WITH CLAUSE 33
An <u>existing TSF in operation</u> at 1 February 2020	Notice not required unless alteration or decommissioning occurs.
An <u>existing TSF</u> being altered or decommissioned or <u>new TSF</u> being established, <b>at</b> 1 February 2020 (including activities commenced before but not completed at 1 February 2020)	Notice required within 3 months of 1 February 2020. The waiting period for the activity specified in clause 35 of Schedule 3 [i.e. 3 months] is taken to have elapsed in respect of a notice given under clause 33.
An <u>existing TSF</u> being altered or decommissioned or <u>new TSF</u> being established, <b>during</b> the period commencing on 1 February 2020 and ending on 1 May 2020.	Notice required within 3 months of 1 February 2020. The waiting period for the activity specified in clause 35 of Schedule 3 [i.e. 3 months] is taken to have elapsed in respect of a notice given under clause 33.
An <u>existing TSF not in operation</u> at 1 February 2020.	Notice required <b>before</b> recommencing operations.
A <u>TSF</u> being established, altered or decommissioned <b>after</b> 1 May 2020.	Notice required <b>before</b> carrying out the activity.

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