



PROJECT SHEET

KURANDA STATION TURNTABLE

PROJECT SUMMARY

Client: Queensland Rail

Location: Kuranda

Duration: 1 Months (2022)

Major Challenges Overcome:

- High lead content in paint
- High usage
- High traffic (tourist area)
- Difficult to access components

The Project

Queensland Rail engaged Dynaciv provide a solution to coat the turntable at the Kuranda Station. The turntable is located at Kuranda Station at the top of the range. The turntable is an integral part of the railway as it is only means locomotives have to turn around.

The Kuranda scenic railway (www.ksr.com.au) is a very popular tourist destination where many enjoy the wonderful scenery that the range has to offer.

The existing coating on the turntable was done many years ago and was done in paint that had a high lead content.

Dynaciv's scope of work comprised of testing the existing coating for lead content, the development of management plans, coating specification and later the application of a new coating.

The project was completed successfully, however not without challenges. The lead tests showed extraordinarily high levels of lead (>33%) which resulted in the development of a lead management plan by a specialist

The project was challenging as it was located in a busy area frequently visited by locals and tourists and the turntable has to be used a minimum of once a day to turn the locomotives. Management activities included: daily air monitoring, water sampling, soil sampling and hourly visual checks.



Locomotive moving onto the turntable

Completed Works

The following works were successfully carried out:

Lead Testing

Samples of the original paint were taken and tested. This was taken at three random locations. When the high results were received a lead management plan was developed by a lead expert.

Management Plans

The following plans were developed specific to this project:

1. Project Management Plan
2. Safety Management Plan

3. Risk Management Plan
4. Environmental Management Plan
5. Lead Management Plan

Site work

Due to the location of the job and high levels of lead in the coating, a 6,000 CFM dust extractor was used to extract dust from the encapsulated area.



6000 cfm Dust collector and encapsulation

A containment area with shower was erected to ensure that no contamination left the area.



Enclosed change area and shower

Air monitoring was critical and thus a sensitive air flow monitor was strategically setup near the work area.



High flow air monitor

The contaminated coating was fully removed, and all hazardous waste correctly disposed of. A three-coat epoxy system was successfully applied to extend the life of this heritage listed asset. See testing photos below:



Blast Profile Testing



Wet Film Testing



Salt Testing