

Specification Writing

FIELD REMOVAL AND COATING OF A PIPELINE

Background

The Client had taken over the Royal Dutch Shell Ltd business in Australia and had some overlap in the specifications from the old entity & into the new entity. So in Early 2015 an engineering specification was developed to specifically address "Field Removal and Coating of Pipeline". These works relate to all the underground pipes throughout Victoria & New South Wales that is now 40+ years old and requires regular maintenance.

Task

The new specification was perfect, it hit all the necessary compliance points that an engineer would need to hold a Contractor to account however it was brief & did not assist the Project Managers or Contractors in understanding how the specification translated to real life examples. Our task was to rewrite the document to provide direction on major issues and include diagrams and inspection forms. The document was expanded from 23 pages to 40 pages.

Duration

This review was completed in approximately 80hrs but spread over 3 months to include; site visits, project inspections, manufacturer liaison and peer review.



With many years experience of field experience our strengths are;

- Our ability to understand how a project is delivered, onsite.
- How to communicate with the various intermediaries.
- Our ability to pool knowledge from a wide network of industry associates.
- Our experience in writing documents & procedures that are useable in the field.



Key Points

Location Reporting

Reporting on previous projects was not aligned with the Principals reporting preferences. Forms were created to be aligned with the Principals request for, log distances & clock positions of the pipe to be recorded for all testing & repairs.

Soil to air interfaces

We investigated and developed methods for increasing the abrasion resistance of coatings where the pipe changes from below ground to above ground.

Coating Transitions

We formalised work methodologies to ensure coating integrity where the refurbished pipe joins with the existing coating.

Chloride Salt Contamination

We formalised a procedure for initiating salt testing & the subsequent testing procedures.

Temporary Supports, Coating Termination & Repairs.

We formalised a repair procedure that also provided guidance on issues such as; overblast, over spray, micro cracking, coating overlaps, masking & protection of sound coatings.

Tape Wraps

We developed diagrams to explain the methods of dealing with the different coating transitions. IE. Liquid epoxy & tape wrap to the following existing coatings; Coal tar enamel, Fusion bonded epoxy and foam insulated pipe.

Reporting & Records

We developed detailed daily reports & an inspection & test plan (ITP) for Project Managers & Contractors to use onsite.

