ARTC | SAFETY & ENVIRONMENT BULLETIN

ARTC No. B0015

TITLE/SUBJECT:

Demarcation Fencing Procedure

Type: Document Release

PURPOSE

EHS-PR-002 Demarcation Fencing Procedure is now available for use as an important control to ensure safety of our workers. This Procedure applies to all workers and parties carrying out work at ARTC workplaces where demarcation fencing is required. It also complements ETM-17-02 Boundary Fencing.

OTHERS

The Procedure provides guidance on the assessment, selection and maintenance of demarcation fencing for the following applications:

- Adjacent track protection
- Working in the Rail Corridor
- Working in the Danger Zone
- General WHS applications including construction hazards.

Demarcation Fencing Guidance Matrix in the Procedure includes various forms of demarcation fencing and suggested usage cases.

ACTION REQUIRED

Relevant staff should be briefed. Contact your Safety Advisors if you have any queries.

This document is effective from the date of publication. It can be accessed via the SMS and ARTC website Adjacent Line Protection FAQs.

Approved by: Cath Bowlzer, GM Safety Systems, Risk and Assurance

Applicability: All ARTC staff & contractors

Issued by: Corporate Safety

HSE Category Rail Safety

Date Published: 16/12/2022

Demarcation Fencing Procedure – Speaking Note for Leaders

What is this Procedure about?

The Procedure is developed to provide guidance on the assessment, selection and maintenance of demarcation fencing.

It becomes effective from December 2022 across ARTC.

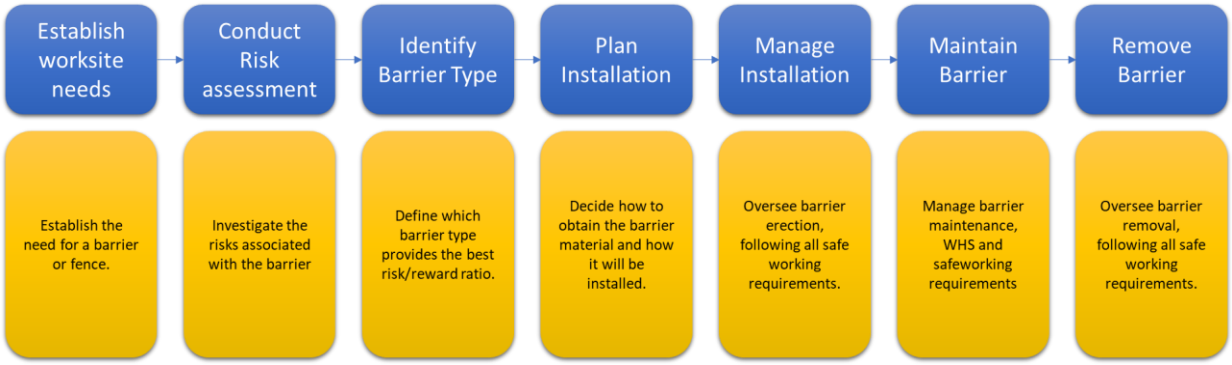
What is the scope?

It applies to all workers and parties carrying out work at ARTC workplaces where demarcation fencing is required for:

- Adjacent track protection
- Working in the Rail Corridor
- Working in the Danger Zone
- General WHS applications including construction hazards.

How to choose a proper barrier / demarcation fencing?

Follow below workflow and refer Appendix A of the Procedure for Demarcation Fencing Guidance Matrix.

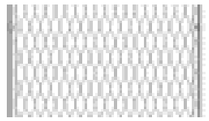
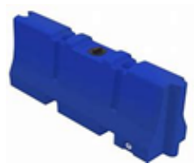


Where can I find further information or require assistance?

Details can be referred to EHS-PR-002 Demarcation Fencing Procedure.

If you have any queries, please speak to your Safety Adviser for guidance.

EHS-PR-002 Demarcation Fencing Procedure – Appendix A Demarcation Fencing Guidance Matrix

Type of demarcation fencing	Concrete or steel jersey barriers (optional mesh fencing panels)	Post and chain wire mesh fencing	Steel post and rail fencing	Interlocked Fence Panels	Water-filled plastic barriers	Rail-fixed barrier fencing	Para webbing / barrier mesh	Rope and flag (bunting) or barrier tape with star pickets or bollards	T-top bollards with rails (tiger tails)
Utility	**Heavy Duty**			**Medium Duty**				**Light Duty**	
Typical Photos							 		
Relevant Standard	AS 3972 AS 1379-2007	AS 1725.1 ARTC Track & Civil Code of Practice Section 7 Clearances.	AS 1657 ARTC Track & Civil Code of Practice Section 7 Clearances.	Complies with SCU Engineering Temporary Fence Standard	AS 1742.3	EN13374 – Class A	Australian Standards AS1742.3	No standard	AS1742.3
Usage guidance:	• Short and long term temporary applications that need to be durable and low maintenance. • Good vandalism resistance • Firm and reasonably level ground conditions. • Adjacent track protection, preventing plant and workers from fouling the Danger Zone. • Allows the provision of Safety Zone/Emergency Access/Egress. • Protection of infrastructure above and underground assets • Separation of hazards from plant and workers. • Quickly and easily reconfigured.	• Permanent or long term applications with low maintenance requirements. • Good vandalism resistance • Variable ground conditions and unlevel ground • Adjacent track protection, preventing plant and workers from fouling the Danger Zone. • Allows the provision of Safety Zone/Emergency Access/Egress. • Protection of infrastructure above and underground assets • Separation of hazards from plant and workers.	• Permanent applications with low maintenance requirements. • Excellent vandalism resistance • Well prepared ground conditions. • Adjacent track protection, preventing plant and workers from fouling the Danger Zone. • Allows the provision of Safety Zone/Emergency Access/Egress. • Protection of infrastructure above and underground assets. • Pedestrian walkways and edge protection (e.g. culverts).	• Short and medium term temporary applications that need to be durable and low maintenance. • Fair vandalism resistance • Variable ground conditions, reasonably level. • Adjacent track protection, preventing plant and workers from fouling the Danger Zone. • Allows the provision of Safety Zone/Emergency Access/Egress. • Protection of infrastructure above and underground assets • Separation of hazards from plant and workers. • Quickly and easily reconfigured.	• Short and medium term temporary applications that need to be durable and low maintenance. • Fair vandalism resistance • Variable ground conditions, reasonably level. • Allows the provision of Safety Zone/Emergency Access/Egress. • Protection of infrastructure above and underground assets • Separation of hazards from plant and workers. • Quickly and easily reconfigured. • Must be water filled to provide protection against low-speed vehicles. • Stability when empty or if water leaks out of barriers. Controls to ensure water levels are maintained if this is critical to barrier stability.	• Short term temporary applications. • Must use type approved barriers only – refer ARTC Standards for current type approved proprietary solutions. • Suitable for temporary protection for workers against live adjacent track rail traffic. • Not suitable for plant and equipment separation. • Quickly and easily reconfigured.	• Adjacent track and Danger Zone demarcation when supported by 3 strands of wire. • Short and medium term temporary applications. • Can be high maintenance. • Low vandalism resistance • Variable ground conditions. • Allows the provision of Safety Zone/Emergency Access/Egress. • Protection of infrastructure above and underground assets • Separation of hazards from plant and workers. • Quickly and easily reconfigured. • Blue can be preferred due to the 'sea of orange' effect which can be disconcerting to train drivers.	• Short term temporary applications. • High maintenance and prone to damage in high winds. • Excellent for use on uneven and soft ground. • Environmental protection and demarcation of sensitive areas. • Demarcation of stored material. • Temporary car park areas • Pedestrian access. • Separation of hazards from plant and workers. • Quickly and easily reconfigured.	• Short term temporary applications. • High maintenance and prone to being blown over in high winds. • Excellent for use on uneven and soft ground. • Environmental protection and demarcation of sensitive areas. • Does not penetrate or disturb the ground. • Demarcation of stored material. • Temporary car park areas • Pedestrian access and crossing points. • Separation of hazards from plant and workers. • Quickly and easily reconfigured.
Additional risk elements to consider	• Shade cloth should not be affixed on the inside of the gawk screen as it may foul the danger zone in the event of high winds.	• Ground disturbance during installation.	• Ground disturbance during installation. • Required design and detailing.	• Stability of ground conditions. • Routine maintenance and inspection. • Wind loading and stability.	• Limited impact resistance from plant and vehicles. • Speed restrictions. • Water leakages. • tine maintenance and inspection.	• Potential interference with signalling, train detection or trackside equipment. • Limited protection, may give a false sense of security.	• Ground disturbance during installation if using star pickets • Worker's entrapment in the Danger Zone. • Routine maintenance and inspection.	• Ground disturbance during installation if using star pickets • Susceptible to damage in high winds. • Routine maintenance and inspection.	• Susceptible to damage in high winds. • Routine maintenance and inspection.