



AUSTRALIAN RAIL TRACK CORPORATION

Certificate No.: **S 05-1427-154**

NEW EQUIPMENT & SYSTEM APPROVAL CERTIFICATE

Approval date: 25 November 2014

Approved by: Review Panel

Report no.: TAR-05-1427-SA154

Report date: 27 June 2014

This certificate is issued to:

Supplier: SAFT

In respect of:

Manufacturer: SAFT
18/167 Prospect Highway
Seven Hills
NSW, 2147
Australia

Product description: SUNICA.PLUS NI-CAD BATTERY RANGE 45AH – 1110AH

Item identification: SEE APPROVED ITEM LIST

Application: For use in level crossings and other signalling locations

Relevant Standards: SPS 02 – 'Environmental Conditions'
ESD-03-01 – 'Level Crossing Design'
ESD-09-01 – 'Signalling Power Systems'

Conditions of Approval:

1. To be used with solar charging only.
2. Batteries only as per the approved item list.
3. Batteries capacity to be calculated as per the level crossing design standard or power supply design standard
4. Maintenance in accordance with TMP and maintenance service schedules.
5. Personnel Protective Equipment (PPE) must be worn whenever handling the batteries (gloves, glasses etc).
6. Batteries must be installed away from direct sunlight, in clean locations with ventilation.
7. Mechanical aids to be used when moving heavier battery cell packs.
8. Protective covers must be installed on all battery terminals and connector strips.
9. Only deionised or distilled water to be used for "top up" of battery electrolyte.
10. Only water to be used to clean the battery surfaces.
11. Wire brushes must not be used to clean terminals only soft non-metal brushes are allowed.
12. Batteries must be disposed of in accordance with environmental requirements,
13. SAFT Ni-Cad batteries for new installations or replacement of existing installations may only be selected in accordance with type approvals S-05-1422-154 or S05-2814-144.

A general condition of approval is that the supplier remains accredited to ISO 9001 specifically for these products and ARTC is advised on a 2 yearly basis that accreditation is current. ARTC reserves the right to conduct its own audit of the manufacture and supply of these components to AS 19011.

Any subsequent change to the design, materials or manufacturing process is not covered by this approval. The manufacturer shall notify ARTC of any modification or changes in order to obtain a valid certificate.

Note/Comments: None

Issue date: 25 November 2014

Expiry date: N/A

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Issued by:



John Furness
ARTC Manager Standards

NEW EQUIPMENT & SYSTEM APPROVAL - APPROVED ITEM LIST

Product description: **SUNICA.PLUS NI-CAD BATTERY RANGE 45AH – 1110AH**

Certificate No: **S 05-1427-154**

The following lists the individual types (by catalogue number) of Sunica.plus 45Ah-1110Ah Ni-Cad batteries manufactured by SAFT which are type approved for use in signalling circuits on ARTC infrastructure under Type Approval Certificate **S-05-1427-154** subject only to any conditions shown on that Certificate and the Conditions of Use shown against individual types.

SUN + battery Ni-Cad range

Cell Type	Amp-hour (ah)	Comment
SUN+ 45	45	Only to be used with solar charging
SUN+ 90	90	Only to be used with solar charging
SUN+ 105	105	Only to be used with solar charging
SUN+ 140	140	Only to be used with solar charging
SUN+ 185	185	Only to be used with solar charging
SUN+ 230	230	Only to be used with solar charging
SUN+ 275	275	Only to be used with solar charging
SUN+ 320	320	Only to be used with solar charging
SUN+ 370	370	Only to be used with solar charging
SUN+ 415	415	Only to be used with solar charging
SUN+ 460	460	Only to be used with solar charging
SUN+ 505	505	Only to be used with solar charging
SUN+ 555	555	Only to be used with solar charging
SUN+ 645	645	Only to be used with solar charging
SUN+ 735	735	Only to be used with solar charging
SUN+ 830	830	Only to be used with solar charging
SUN+ 920	920	Only to be used with solar charging
SUN+ 1110	1110	Only to be used with solar charging