RNLI Scotland Division - Regional Licence Application
General Method Statement for Category 4 (b) Works

Regional Method Statement - Scope of Activities

The RNLI's maintenance activities in this application are split into six categories:

1. Maintenance to moorings (including replacement of fittings)
2. Maintenance to pontoon berths (and associated pilings, link-spans, quay walls and approach structures)
3. Minor beach re-profiling works (and launch route clearance works or minor re-charge works)
4. Maintenance to lifeboat station boathouses (and associated slipways, quay walls, pilings, etc.) of the following form:
    a) Boathouses seaward of MHWS
    b) Boathouses where only a slipway or launch ramp is seaward of MHWS
5. Miscellaneous infrastructure, and maintenance activities associated with safety of lifeboat launch and recovery
6. Installation, removal and maintenance of beach lifeguard units of the following form:
    a) Standard RNLI lifeguard beach units
    b) Non-standard RNLI lifeguard beach units

This Method Statement covers Category 4 (b) Works and supports the Divisional Licence application:

Category 4 (b) Works – Maintenance Works To Boathouse Slipways, Launch Ramps where only the slipway or ramp is below or seaward of MHWS

The RNLI has a range of different infrastructure and slipways may be of varying form and construction, and include adjacent associated structures i.e. quay walls, sheet pile works, approach platforms, etc.

Category 4 (b) activities generally comprise:

- Maintenance, refurbishment or replacement of slipway fittings or minor alterations (deck panels, rollers, keelway linings, power & water supplies, railings, signs, lighting, safety equipment, etc.)
- Repair, replacement and maintenance works to concrete elements of slipway or launch ramp structure (pre-cast or insitu concrete) including joint repairs, line marking, slip resistance surfacing, etc.
- Repair, replacement and maintenance works to steel elements of structure
- Repair, replacement and maintenance works of timber elements of structure (including rubbing strakes, fenders, etc.)
- Repair works to masonry elements of structure
- Re-coating works to steel elements of structure
- Re-coating works to piles
- Works to anodes
- Works to slipway toe (below water marine grade concrete repairs), including minor extensions

- Provision of scour protection
- Inspections of infrastructure generally (including diving and rope access) and other inspections of the underside of the structure (including cleaning for the purposes of the inspection)
- Maintenance and repair of bank-seat structures (concrete or masonry walling)
- Maintenance and repair of steel or timber approach structures (including railings, deck replacement, etc.)
- Scaffolding and access towers (including rope access technology) associated with any of the above works
- Slipway cleaning (and other access structures) for safety purposes

The lifeboat launching and retrieval generates wear on the slipway requiring maintenance to ensure operational effectiveness and the safety of crew members operating on the slipway.

Some maintenance actions are required on predictable cycles, whereas others are reactive.

The frequency of these maintenance works is influenced by environmental and operational degradation but anticipated / predicted cycles of works are summarised in Table 1 below:

Table 1 – Predicted Activity Schedule

Activity	**Predicted Scale of Activity and Frequency**	**Comment**
General maintenance of slipway – fittings and fixtures	Every 3 years and reactive and reactive	Minor fixtures and fittings require regular maintenance, repair or renewal due to general degradation
Slipway - Painting of bilge beams	Every 3 years and reactive and reactive	The bilge keel of the lifeboat travels over and abrades the slipway bilge beams and these require regular re-coating to prevent corrosion
Slipway - Grid replacement / repair (steel deck panels)	6 -12 years and reactive replacement	The deck panels have a life of around 10 -15 years to full renewal but they are subject to impact damage from the lifeboat and therefore require reactive replacement when severely damaged for safety reasons.
Slipway - Roller replacement / repair	Replacement every 4 – 8 years but removal and servicing more frequently (2 – 4 years) and reactive	The rollers need to be removed and serviced, and replaced when worn
Slipway - Feroform Keelway replacement of panels	Replacement every 18 months to 3 years and reactive	The Feroform panels protect the lower keelway beams as the lifeboat is launched and are low friction materials that absorb the high heat generated. The panel wear on a predictable basis.
Slipway - Pile Cleaning and Re-coating	Every 5 – 15 years and reactive	This is targeted at combatting the onset of corrosion to ensure the long-term integrity of the structure and consequently is a critical maintenance activity.

		Generally the re-coating works comprises marine paint, but can include scour protection at the base (sheathing in HDPE membranes or similar, or concrete encasement)
Works to anodes	Reactive but likely every 3 – 5 years	Required to prevent corrosion of main elements of structure (may include diving operations)
Slipway - Concrete repair to elements of structure (above and below MLWS)	Every 5 years or reactive	To respond to damage or age related deterioration and including minor extensions where scour or undermining has taken place, including bag work and other remedial activities
Slipway - steel repair to elements of structure (above and below MLWS)	Every 5 years or reactive	To respond to damage or age related deterioration (including re-coating works as needed)
Slipway - Works to slipway toe (due to scour or other degradation)	Every 5 years or reactive	To respond to wave action and bed movement
Slipway – inspections (including diving and rope access)	Every 3 years or reactive	Required for asset management. The boathouse piling (where below MLWS) may also be included in this inspection work
Works to bank-seat structures	Every 3 – 5 years or reactive	The shoreside bank-seat is usually formed by concrete or masonry walling, which is effectively is a form of sea wall and which may support the landward end of the boathouse. Concrete repairs or masonry repairs (local re-building or re-pointing of joints) may be required from time to time due to the aggressive environment (wave action or storm damage)
Scaffolding (access towers)	As required	

The timing of the maintenance activities varies. The works are all limited in scope and generally carried out within a short programme of 1 - 2 weeks, but sometimes completed within a single days visit.

The slipway remains fully operational during these maintenance activities and therefore all works are generally carried out with small hand tools, with 2-4 person teams, and with limited materials.

Generally access from the beach or foreshore is not required (and is generally avoided where possible) and materials are brought by hand directly to the slipway if required.

Scaffolding erection may require direct access to the beach and foreshore, but this is limited to the installation of the scaffolding falsework only, and is kept in place for the minimum amount of time. Scaffolding may also be required for access for pile works, bank-seat works, etc. (or alternatively by cherry picker or similar, where pile base is above MLWS)

Generally, replacement is on a ‘like for like’ basis, and carried out in small batches to avoid conflict with launching.

Pile Cleaning/Coating works; pile cleaning is carried out with hand tools (scraping) and high-pressure water only. Specialist marine coatings are applied with brush and/or roller. Access is via small workboats 'chasing the tide', or by foot onto the foreshore to carry out painting at the base of the piles that are above MLWS and when they are exposed at low water. Paint debris will be caught and removed from site. The base of the piles may require exposing (local removal of beach material to gain access to the scour zone) by hand digging or the use of excavators (to pull back beach material), where necessary. Any beach material removed from the base of the piles is replaced. The piles may also be encased at the scour zone, and this might also require repair or replacement.

Works to the slipway might require buttressing with marine grade concrete and/or void or joint filling where scoured, and this might include the use of concrete bagwork (marine use) and/or tremied marine grade concrete. This work will generally be carried out from the slipway but with diver support (including safety/work boats). This may also require the use of small lifting / transporting equipment such as carts, mini-diggers, tele-handlers, etc. Marine grade concrete is usually pre-mixed, but some repairs might involve larger volumes and require the use of a mixer insitu.

All works will be subject to Environment Agency guideline PPG5.

The Station Specific Information in table 2 below contains details of any particular variations from this General Method Statement.

Table 2 - Station specific Information – Annex to General Method Statement

Lifeboat Station & Works	**Predicted Scale of Activity and Frequency**	**Additional Comments**
Largs – works to recovery eye bolts	As noted in table 1	The slipway contains recovery eyebolts/rings and these may require repair or replacement
Tighnabruaich – works to eye bolts	As noted in table 1	The slipway contains recovery eyebolts/rings and these may require repair or replacement
Arbroath – works to walkway	As noted in table 1	The slipway has a walkway to the side constructed in steel, with steel decking and handrails, which may require access to the beach/foreshore for scaffolding
Anstruther – works to barriers and eyebolts	As noted in table 1	The slipway has an Armco type barrier and recovery eyebolts/rings, which may require repair/replacement and access to the beach/foreshore for scaffolding
North Berwick – works to stone facings and hand-railing	As noted in table 1	The slipway has facing stonework which may require access to the beach/foreshore for scaffolding, and hand-railing requiring similar