

APPENDIX 1 INSPECTION MOMENT (SEE FORM D.109): INSPECTION OF PAINTING /RUBBER COATING

Detailed requirements for the inspection as described below are set out in Chapters 3, 4 and 7.

1 Extent of inspection

- 1.1 The Supplier's painting contractor shall have been authorised by the Swedish Authorisation Board for Anti corrosion Painting for Type F and Type V work, depending on the item/equipment/part to be painted. This (or equivalent) authorisation shall be checked as follows.

The painting contractor's personnel who are actively involved in the work of applying anti rust painting shall have taken the diploma training course for anti rust painters. In Sweden, this training is provided by, for example, NIFAB part of STF Ingenjörsutbildning AB, Stockholm, and in Finland by Turun Ammattiopistosäätiö. If requested by the Purchaser, personnel must be prepared to confirm receipt of such training. Any departures from these requirements shall be approved by the respective nuclear power station's authorised person(s) responsible for surface treatment.

Prior to selection of the painting contractor, the respective licensee/plant owner's authorised expert(s) shall check and, **in writing**, confirm that the presumptive painting contractor has the necessary resources and skills to perform the work, and that the contractor is familiar with the regulations associated with TBY. The contractor's resources, procedures and qualifications for performing its own inspection and verification of the quality of the painting work shall also be determined and confirmed. A suitable procedure for this assessment is to use templates from the Swedish Authorisation Board for Anti Corrosion Painting. See requirements (www.rotskyddsmalning.se).

Before the final choice of rubber coating company, the presumptive company must present the internal regulations for rubber coating that are considered to be applicable.

It is the responsibility of the contractor to verify, and to confirm to the respective licensee/plant owner, that any subcontractors whose services the main contractor proposes/intends to use possess qualifications and resources at least equal to those required of the main contractor.

The respective licensee/plant owner's approval of presumptive subcontractors must be obtained before the services of the subcontractors are engaged.

- 1.2 Inspection to ensure that surfaces to be treated are free of flash, burrs, sharp edges, pores, slag residues and/or other contamination that could adversely affect the surface treatment. (This inspection to be carried out by the steelwork manufacturer before the object is sent for surface treatment.)

- 1.3 Visual inspection of blasted and cleaned surfaces in order to ensure that the required degree of preparation has been achieved, and that there are no sharp edges, flash, burrs etc. Surfaces that are not accessible for inspection on the item, object etc. when delivered shall be constantly inspected during manufacture.
- 1.4 Inspection to ensure that environmental conditions in the surface treatment area, such as relative humidity, temperature and dew point, are satisfactory. Check the conditions on the item/object etc. itself, and that surface treatment is applied before new rust starts to form.
- 1.5 Inspect to ensure that the correct surface treatment regulations are available.
- 1.6 Ensure that the surface treatment is carried out in accordance with the paint manufacturer's instructions for the surface treatment system concerned, and that the requirements in the instructions are fulfilled.
- 1.7 Check that approved products are being used.
- 1.8 Check that form D.117, Test Report from Paint Manufacture, is available.
- 1.9 Ensure that the finished painted surface fulfils the specified requirements in respect of colour, gloss, hiding power, pores, running, blistering etc. Rubber coated surfaces shall fulfil the requirements set regarding the placing of joints, lack of loosening and pores as well as the coating's hardness
- 1.10 Ensure that the final film thickness is within the prescribed limits.
- 1.11 Perform pore tests of the finished surface of treatment types S2, S13a, S13b and S13d when applied to objects in Painting Class IV. In addition, pore tests must always be carried out on treatment types S13a, S13b and S13d. Rubber coated surfaces must always be tested in accordance with TBY section 7.5.4.2.

2 Test pieces

- 2.1 If specifically requested, two test pieces (about 100 x 200 mm in size) of the same material as that of the object concerned shall be supplied with the delivery, if possible. Material for test pieces is to be delivered by the purchaser if nothing else is agreed, and they must always be enclosed when the treatment types S13a and S13b are specified.

The test pieces shall be given the same preparation and surface treatment as the main item/object etc., and shall be given this treatment at the same time and at the same place as the treatment of the main item/object etc.
- 2.2 Inspection of test pieces treated as in 2.1 above.
- 2.3 Testing of adhesion of the completed and cured/vulcanised surface of the test pieces as in 2.1, above.
- 2.4 The results from controlled adhesion testing as in 2.3 shall be presented, in writing.

3 Non-compliance reports

If applicable requirements cannot be complied with, a non compliance report shall be prepared by the surface treatment contractor, using form D.104, Non conformity Report. It shall be submitted to the respective licensee/plant owner's authorised representative for approval.

4 Handling, transport and storage

Inspection to ensure that each object is handled, loaded, unloaded and stored in a satisfactory manner in order to minimise the risk of damage. NB: It is important that paint is fully cured before objects are transported.

5 Receiving inspection and documentation

Identify any damage to the surface protection of the object, and ensure that all specified documentation is available.

The original documentation shall consist of the necessary forms and reports in accordance with Form D.109, Inspection Moments 1.8, 3 and 5.11 or 5.12.

5.1 The following reports shall be filled in and approved by the surface treatment contractor's inspector. In addition, the reception inspection inspector shall sign them in the appropriate boxes.

5.11 Form Form no D.100, Report for Anti-Corrosion Painting or D.108 Report for Rubber Coating.

- a) All objects belonging to Painting Classes I or IV, or Environmental Classes R1, R2, N2b or V.
- b) Cisterns/tanks (for all corrosive media concerned).
- c) Cranes in the reactor halls and turbine halls, as well as in CLAB rooms M1.01, F91.01 and F91.05.
- d) The charging machines in the reactor halls and corresponding lifting equipment in CLAB rooms M00.02, F91.01, F91.05 and M2.35.
- e) Turbine condensers.
- f) Main circulation pumps.
- g) Heat exchangers.
- h) Form D.100 can also be used for other objects, if so agreed.

5.12 Form D.101, Painting Inspection Report, Anti-corrosive painting.

This report form shall be used for all objects in Painting Classes II, III, V and VI.

6 Miscellaneous

The respective licensee/plant owner reserves the right to inspect the work of the painting contractor to the extent necessary, either by itself or with the help of a third party.