Five separate spot measurements shall be spaced evenly over each 9 square meter (100 square feet) of area to be measured. These measurements shall be taken on flanges, webs, cross bracing, stiffeners, etc. Three gage readings shall be made for each spot measurement of either the substrate or the paint. The probe shall be moved a distance of 25 to 75 mm (1" to 3") for each new gage reading. Any unusually high or low gage reading that cannot be repeated consistently shall be discarded. The average (mean) of the 3 gage readings shall be used as the spot measurement. The average of 5 spot measurements for each such 9 square meter (100 square foot) area shall not be less than the specified thickness. No single spot measurement in any 9 square meter (100 square foot) area shall be less than 80% of the specified minimum thickness nor greater than 150% of the maximum specified thickness.

Any one of three readings which are averaged to produce each spot measurement may under-run by a greater amount. The 5 spot measurements shall be made for each 9 square meter (100 square foot) of area as follows:

1. For structures not exceeding 27 square meters (300 square feet) in area, each 9 square meter (100 square foot) area shall be measured.

2. For structures not exceeding 90 square meter (1,000 square feet) in area, three 9 square meter (100 square foot) areas shall be randomly selected and measured.

3. For structures exceeding 90 square meters (1,000 square feet) in area, the first 90 square meter (1,000 square feet) shall be measured as stated in section 2 and for each additional 90 square meter (1,000 square feet), or increment thereof, one 9 square meter (100 square foot) area shall be randomly selected and measured.

4. If the dry film thickness for any 9 square meter (100 square foot) area (sections 2 & 3) is not in compliance with the requirements of paragraph 1 of this section, then each 9 square meter (100 square foot) area shall be measured.

5. Other size areas, or number of spot measurements, may be specified in the contract plans or as appropriate for the size and shape of the structure.

Each coat of paint shall have the following mil thickness measured above the peaks:

	Min. Spec. Thickness	Max. Spec. Thickness	Min. Spot	Max. Spot
Prime	75 mm (3.0 mil)	125 mm (5.0 mil)		
Intermediate	125 mm (5.0 mil)	175 mm (7.0 mil)	100 mm (4.0 mil)	263 mm (10.5 mil)
Sub Total	200 mm (8.0 mil)	300 mm (12.0 mil)	160 mm (6.4 mil)	450 mm (18.0 mil)
Finish	50 mm (2.0 mil)	100 mm (4.0 mil)	40 mm (1.6 mil)	150 mm (6.0 mil)
Total	250 mm (10.0 mil)	400 mm (16.0 mil)	200 mm (8.0 mil)	600 mm (24.0 mil)

Film thickness greater than the maximum specified thickness that do not exhibit defects (such as runs, sags, bubbles, mudcracking, etc.) and for which the Contractor has received a written statement from the coating manufacturer stating that this excessive thickness is not detrimental, may remain in place at the discretion of the Director.

For any spot or maximum average thickness over 600 mm (24 mils), it will be necessary for the Contractor to prove to the Department that the excess thickness will not be detrimental to the coating system. This shall be accomplished by providing the Director, for approval, certified test data proving that the excessive thickness will adequately bond to the steel when subjected to thermal expansion and contraction. This thermal expansion and contraction test shall take place over five cycles of a temperature ranges from -29° C to 49° C (-20° F to 120° F). After the thermal contraction and expansion cycles have taken place, the tested system shall be subjected to pull off tests and the results compacted to the results of pull off tests which have been performed on a paint system with the proper thicknesses. In additional to the certified test results, it will also be necessary for the Contractor to provide the Director a written statement from the paint manufacturer stating that this excessive thickness is not detrimental.

If the Director does not approve the excessive coating thicknesses or the Contractor elects not to provide the required written statement from the paint manufacturer and the certified test results when required, the Contractor, at his own expense, shall remove and replace the coating. The removal and replacement of the coating shall be done as specified in 816.08 G Repair Procedures.

816.09 SAFETY REQUIREMENTS AND PRECAUTIONS

The contractor shall meet the applicable safety requirements of the Ohio Industrial Commission in addition to the scaffolding requirements specified below.

Material Safety Data Sheets (MSDS) shall be provided at the preconstruction meeting for all paints and thinners used on this project. No work shall start until the MSDS have been submitted.

816.10 INSPECTION ACCESS

In addition to the requirements of 105.11, the Contractor shall furnish, erect, and move scaffolding and other appropriate equipment, to permit the Inspector the opportunity to closely observe all affected surfaces. This opportunity shall be provided to the Inspector during all phases of the work and continue for a period of at least 10 working days after each structure has been completely painted.

When scaffolding, or the hangers attached to the scaffolding are supported by horizontal wire ropes, or when scaffolding is placed directly under the surface to be painted, the following requirements shall be complied with: