

**SPECIFICATION FOR COLD REDUCED STEEL WIRE FOR  
THE REINFORCEMENT OF CONCRETE AND THE MANUFACTURE OF WELDED FABRIC  
PART 2: STEEL GRADE 485**

**AMENDMENT NO. 3**

August 2000

*Insert* the following Appendix B after Appendix A:

**Appendix B**

(Informative)

**Specification to limit ionising radiation**

**B.1 References**

International Atomic Energy Agency (IAEA) Safety Series No. 115-I (International Basic Safety Standards for Protection against Ionising Radiation and for the Safety of Radiation Sources - 1994).

International Atomic Energy Agency (IAEA) Safety Series No. 111-G-1.5 (Draft).

**B.2 Radioactivity concentration**

Where a high degree of assurance is required that the dose to any member of the public will not exceed 10 Sv in a year, irrespective of the use or application of the material including incineration, recycling or reuse, the steel shall not contain quantities of given radionuclides emitting radiation higher than those specified in Table B.1.

**Table B.1 – Radioactivity - Maximum activity concentration**

Radionuclide	Maximum activity concentration in Bequerel per gramme (Bq/g)
Cobalt-60	0.3 <sup>1)</sup>

NOTE – <sup>1)</sup>The value of 0.3 applies for both cast and product analysis. At the time this standard is being prepared, the above value is a proposed interim requirement by IAEA and is intended to replace the existing requirement of 10 Bq/g.

**B.3 Testing**

**B.3.1 Sample**

The rebar should be in the form of dry fine granulated chippings.

### **B.3.2 Test method**

Gamma-ray spectroscopic method is recommended. The spectroscopy system should comprise a high purity germanium (HPGe) or lithium-drifted germanium (Ge(Li)) detector. The detector should have an efficiency of 18-20%. The detector should be appropriately shielded and connected to the necessary power supplies, pre-amplifiers, amplifiers and a multichannel analyser. Sample counting geometry should be reproducible. The Marinelli beaker geometry is recommended.

### **B.4 Certification and inspection**

As specified in the standard or as agreed between the manufacturer and user.