

# ISO 15614-7:2007-06 (E)

## Specification and qualification of welding procedures for metallic materials - Welding procedure test - Part 7: Overlay welding

---

| <b>Contents</b>       |  | <b>Page</b> |
|-----------------------|--|-------------|
| Foreword .....        |  | iv          |
| Introduction .....    |  | v           |
| 1                     | Scope .....  | 1           |
| 2                     | Normative references .....                                 | 1           |
| 3                     | Terms and definitions .....                                | 2           |
| 4                     | Preliminary welding procedure specification (pWPS) .....   | 2           |
| 4.1                   | Overlay welding .....                                      | 2           |
| 4.2                   | Hardfacing .....   | 2           |
| 4.3                   | Building-up .....  | 3           |
| 4.4                   | Buttering .....  | 3           |
| 5                     | Welding procedure test .....                               | 3           |
| 6                     | Test piece .....   | 3           |
| 6.1                   | Shape and dimensions of test pieces .....                  | 3           |
| 6.2                   | Welding of test pieces .....                               | 5           |
| 7                     | Examination and testing .....                              | 6           |
| 7.1                   | Extent of testing .....                                    | 6           |
| 7.2                   | Non-destructive testing (NDT) .....                        | 6           |
| 7.3                   | Location and taking of test specimens .....                | 6           |
| 7.4                   | Destructive testing .....                                  | 8           |
| 7.5                   | Acceptance criteria .....                                  | 10          |
| 7.6                   | Retesting .....  | 11          |
| 8                     | Range of qualification .....                               | 11          |
| 8.1                   | General .....  | 11          |
| 8.2                   | Qualification related to the manufacturer .....            | 11          |
| 8.3                   | Qualification related to the material .....                | 12          |
| 8.4                   | Qualification related to the filler material/overlay ..... | 13          |
| 8.5                   | Common to welding procedures .....                         | 14          |
| 8.6                   | Specific to welding processes .....                        | 15          |
| 9                     | Welding procedure qualification record (WPQR) .....        | 17          |
| Annex A (informative) | Welding procedure qualification record form (WPQR) .....   | 18          |
| Bibliography .....    |  | 21          |