Summary of Substantive Changes in Edition 1.1.0

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| Change Summary | Clauses Affected |
| Feature **Buoy New Danger Marking** renamed to **Buoy Emergency Wreck Marking**. | 2.2; 2.4.3; 2.5.9; 18.1; 18.3; 18.3.1.1; 20.5.1; **20.6** |
| Removed curve as an allowable geometric primitive for feature **Crane**. | 2.2, 2.5.9, **8.12** |
| Removed curve as an allowable geometric primitive for feature **Foul Ground**. | 2.2, 2.5.9, **13.7** |
| Added surface as an allowable geometric primitive for feature **Two-Way Route**. Remove “no geometry” as allowable geometric primitive. Amended encoding guidance accordingly. | 2.2, **15.11**, **15.11.1** |
| Added new guidance to allow the system attribute **flare angle** to be populated so as to align with associated transits or leading lines. | **2.4.5.1**, 30.2 |
| Amended guidance for the encoding of date ranges as being “inclusive”; and amended the encoding guidance for indicating the “last in February” as the end date of a date range so as to take into account leap years accordingly. | **2.4.8**, **2.4.8.1** |
| Removed attributes **quality of vertical measurement**, **technique of vertical measurement**, **value of sounding** and complex attribute **vertical uncertainty** as allowable attributes for feature **Foul Ground**. Added attribute **vertical length** as allowable attribute. Amended encoding guidance accordingly. | 2.5.9, **13.7**, **13.7.1** |
| Clarification of Remarks 15th bullet to better describe the relationship between the uncertainty attributes (**horizontal position uncertainty** and **quality of horizontal measurement**) for **Quality of Bathymetric Surface** and **Spatial Quality** features. | **3.7.1** |
| Added complex attribute **information** as an allowable attribute for the Meta feature **Update Information**. | **3.11** |
| Added new Remarks bullet including guidance that where an update is related to an Information type, the **Update Information** should be associated with the Geo feature(s) to which the updated Information type is associated. | **3.11.1**, 25.19 |
| Amended multiplicity for attribute **product** on feature **Conveyor** from [0..1] to [0..\*] to be consistent with S-57. | **6.8** |
| Added new guidance for the encoding of overhead pipeline supports (pylons). | **6.10.1** |
| Added new **category of pylon** value *6* (overhead pipeline pylon). | 6.11, **27.48** |
| Replaced attribute **depth range minimum value** with new attribute **minimum berth depth**. Amended associated encoding guidance. | **8.13**, 8.13.1 |
| Amended first paragraph to provide a more generalized statement as to the types of real-world features that may constitute an obstruction. | **13.6.1** |
| New Remarks bullet added specifying that reported anchorages (**category of anchorage** = *15*) must be encoded, where required, as point primitive. | **16.3.1** |
| Revised encoding guidance for encoding spoil grounds (feature **Dumping Ground**). | **16.6.2** |
| Amended multiplicity for attribute **product** on feature **Buoy Installation** from [0..1] to [0..\*] to be consistent with S-57. | **20.7** |
| Removed attribute **colour**, value *2* (black) as an allowable value for feature **Retroreflector**. | **20.16** |
| New Boolean type attribute **synthetic AIS aid to navigation** added to indicate that the transmission of the AIS signal for a physical aid to navigation is from a remote location. | 21.2, 21.2.1, **27.165** |
| Attribute **virtual AIS aid to navigation type**, enumerate value *12* (new danger marking) renamed to emergency wreck marking. | 21.3; **27.189** |
| Attribute **text justification** removed as an allowable attribute for the cartographic feature **Text Placement**. | **23.1** |
| Clarification of Remarks 1st bullet to identify the requirement for the values populated for the sub-complex attributes **vertical uncertainty** and **horizontal position uncertainty** for the information type **Spatial Quality** to relate to the associated **Quality of Bathymetric Data** meta feature. | **24.5.1** |
| Feature **Radar Transponder Beacon** added to Consists of role for the **Range System Aggregation** association. | **25.13** |
| Feature **Silo/Tank** removed from Supports role for the **Structure/Equipment** composition (**Silo/Tank** is not an equipment feature). | **25.15** |
| Removed periodic date range formats from attribute **date disused**. | **27.76** |
| Clarified examples for attribute **date end** to describe the inclusive condition of the attribute. | **27.77** |
| Clarified examples for attribute **date end** to describe the inclusive condition of the attribute. | **27.79** |
| Added new attribute **minimum berth depth**. | **27.124** |

**Bold** references in the Clauses Effected column indicate the principle sections/clauses that are impacted by the described change.