1. **Test Dataset: AA500004**

**S‐58 Recommended ENC Validation Checks covered in this section:**

|  |  |
| --- | --- |
| **S‐58 Check** | **Description** |
| 3 | For each record where the record identifier NAME (concatenation of the RCNM & RCID subfields) is not unique within the file. |
| 23 | For each coordinate which is not a SG2D or SG3D field. |
| 86 | For each feature object of geometric primitive point which references more than one vector record. |

**Secondary Errors**

Critical – 12, 20b, 34

Error – 28

Warnings – 1670

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Dataset Name** | AA500004 | | | **S‐58 Check** | | 3 | | | **Type** | | C |
| **S-58 Description** | For each record where the record identifier NAME (concatenation of the RCNM & RCID subfields) is not unique within the file. | | | | | | | | | | |
| **Message** | Record identifier NAME is not unique. | | | | | | | | | | |
| **Solution** | Amend Record identifier NAME to be unique. | | | | | **Conformity** | | Part 3 (2.2) | | | |
| **Test Case No. 1** | Captured BUISGL (L) and (P) features and revised record identifier NAME is not unique according to S-58 description. | | | | | | | | | | |
| **Location** | | **Feature** | **Attributes** | | **FRID** | | **FOID** | | | **VRID** | |
| 32°30'46.27"S 60°57'44.58"E | | BUISGL(P) | FUNCTN=20 | | FE-134 | | AA 0000000647 00001 | | | VI-24 | |
| 32°30'46.33"S 60°57'55.59"E | | BUISGL(P) | FUNCTN=2 | | FE-134 | | AA 0000000648 00001 | | | VI-25 | |
| **ASCII** |  | | | | | | | | | | |
| **Expected Test Results** | 3: error “record identifier NAME is not unique” must be triggered. | | | | | | | | | | |
| **Secondary Critical Errors** | ~~23: Error “Coordinate is not a SG2D or SG3D field” must be triggered~~ None | | | | | | | | | | |
|  | | | | | | | | | | | |
| **Dataset Name** | AA500004 | | | **S‐58 Check** | | 23 | | | **Type** | | C |
| **S-58 Description** | For each coordinate which is not a SG2D or SG3D field. | | | | | | | | | | |
| **Message** | Coordinate is not a SG2D or SG3D field. | | | | | | | | | | |
| **Solution** | Amend coordinate to valid field. | | | | | **Conformity** | | Part 3 (5.1.4) | | | |
| **Test Case No. 1** | Captured BUISGL (P) with coordinate is not a SG2D and SG3D field according to S-58 description. | | | | | | | | | | |
| **Location** | | **Feature** | **Attributes** | | **FRID** | | **FOID** | | | **VRID** | |
| 32°30'46.33"S 60°57'55.59"E | | BUISGL (P) | FUNCTN= 2 | | FE-134 | | AA 0000000647 00001 | | | VI-25 | |
| **Screen Capture** |  | | | | | | | | | | |
| **Expected Test Results** | 23: An error “coordinate is not a SG2D or SG3D field’ must be triggered. | | | | | | | | | | |
| **Secondary Critical Errors** | ~~3: error “record identifier NAME is not unique” must be triggered~~.  12: Feature object without geometry.  34: Update pointer index does not refer to a valid record NAME for FSPT | | | | | | | | | | |
|  | | | | | | | | | | | |
| **Dataset Name** | AA500004 | | | **S‐58 Check** | | 86 | | | **Type** | | C |
| **S-58 Description** | For each feature object of geometric primitive point which references more than one vector record. | | | | | | | | | | |
| **Message** | Point feature references more than one vector record. | | | | | | | | | | |
| **Solution** | Remove references to additional vector records. | | | | | **Conformity** | | Part 3 ( 4.7.1 ) | | | |
| **Test Case No. 1** | Captured UWTROC features which has references more than one vector record. | | | | | | | | | | |
| **Location** | | **Feature** | **Attributes** | | **FRID** | | **FOID** | | | **VRID** | |
| 32°30'48.93"S 60°57'13.10"E | | UWTROC (P) | EXPSOU=2; NATSUR=9; QUASOU=2; VALSOU=-1; WATLEV=4; FUNCTN= 2 | | FE-32 | | AA 0000000778 00001 | | | VI-14 | |
| 32°30'46.33"S 60°57'55.61"E | | VI-127 | |
| **ASCII** |  | | | | | | | | | | |
| **Expected Test Results** | 86: An error “point feature references more than one vector record” must be triggered. | | | | | | | | | | |
| **Secondary Critical Errors** | ~~21: An additional error “orphan which is the edge is dose not point to end node” must be triggered~~.  20b: Orphaned geometry | | | | | | | | | | |