




# G - Ports, Waterways

## G.1 Bridges, Tunnels, Overhead Obstructions

### G.1.9 Overhead Pipe (C)

A pipeline is a string of interconnected pipes used for the transport of matter, nowadays mainly oil or gas. (IHO Dictionary, S-32, 5th Edition, 3857)

An overhead pipeline is a pipeline supported by pylons and passing over or nearby navigable waters. (S-57 Standard)

Graphics	Encoding Instructions	Object Encoding
<p><i>Real World</i></p>  <p><i>Chart Symbol</i></p>  <p><i>IENC Symbolization</i></p> 	<p>A) Pipeline supports (PYLONS) closest to the land side of the bankline and those within the water must be coded.</p> <p>B) Pipelines should extend over COALNE onto land a short distance.</p> <p>C) An overhead pipeline over navigable water has to be encoded unless it is on a bridge, does not affect VERCLR and PRODCAT is not 1 (oil), 2 (gas) or 7 (chemicals).</p> <p>D) Overhead pipelines and cables may have significant towers that should be captured as "tower" [LNDMRK/CATLMK=17(tower)]. Lights on the towers should be captured.)</p> <p>E) Lights on the towers should be encoded.</p> <p>F) The value given as the vertical clearance (VERCLR) shall be provided in metres and indicate the vertical distance between the lowest point of the cable (over the navigable part of the waterway) and a defined high water level (e.g. highest shipping height of water) if available.</p> <p>G) The vertical clearances must refer to either the vertical datum given in the DSPM VDAT subfield or to the vertical datum given in the meta object 'm_vdat' if it is not the same as in the DSPM VDAT subfield.</p> <p>H) OBJNAM should only be used if the name is relevant for navigation; otherwise use INFORM.</p> <p>I) If there is no vertical clearance indicator at a bridge, but there is a gauge which can be used to calculate the vertical clearance of the bridge depending on the water level, it should be encoded in accordance with I.3.4.</p>	<p><b>Object Encoding</b></p> <p><b>Object Class</b> = pipohd(L)</p> <p>(M) CATPIP = [2 (outfall pipe), 3 (intake pipe), 4 (sewer), 6 (supply pipe)]</p> <p>(M) PRODCAT = [1 (oil), 2 (gas), 3 (water), 7 (chemicals), 8 (drinking water)]</p> <p>(M) VERCLR = [xx.xx] (metres), e.g., 13.27</p> <p>(O) verdat = [12 (Mean lower low water), 31 (Local low water reference level), 32 (Local high water reference level), 33 (Local mean water reference level), 34 (Equivalent height of water (German GIW)), 35 (Highest Shipping Height of Water (German HSW)), 36 (Reference low water level according to Danube Commission), 37 (Highest shipping height of water according to Danube Commission), 38 (Dutch river low water reference level (OLR)), 39 (Russian project water level), 40 (Russian normal backwater level), 41 (Ohio River Datum)]</p> <p>(O) wtwdis = [xxxx.xxx] (units defined in hunits), e.g., 2451.732</p> <p>(O) hunits = [3 (kilometres), 4 (hectometres), 5 (statute miles), 6 (nautical miles)]</p> <p>(O) OBJNAM = [name and/or operator/owner] (if relevant for navigation)</p> <p>(O) NOBJNM = (Refer to Section B, General Guidance)</p> <p>(O) INFORM = [name and/or operator/owner] (if relevant in case of accidents)</p> <p>(O) NINFOM = (Refer to Section B, General Guidance)</p> <p>(C) unocd = [ISRS code]</p> <p>(O) CONDTN = [1 (under construction), 2 (ruined), 3 (under reclamation), 5 (planned construction)]</p> <p>(M) SCAMIN = [EU: 22000; US: 90000]</p> <p>(C) SORDAT = [YYYYMMDD]</p> <p>(C) SORIND = (Refer to Section B, General Guidance)</p>

	J) This feature could be aggregated to a bridge by a C_AGGR object.	
--	---	--