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<?xml version="1.0" encoding="UTF-8"?>
<SCL xmlns="http://www.iec.ch/61850/2006/SCL" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="http://www.iec.ch/61850/2006/SCL SCL.xsd">
	<Header id="1">
		<Text>DataTypeTemplate de la parte hidráulica del regulador de velocidad</Text>
		<History>
			<Hitem when="21/10/2010" revision="1" version="1.0">
				Este ICD fue iniciado a partir de la version 1.2 revisión 3 del ICD del tanque
principal.
			</Hitem>
			<Hitem when="21/10/2010" revision="2" version="1.0">
				TODO: Falta corregir los números de instancias de cada nodo lógico.
				TODO: Falta eliminar los DataTypeTemplates que no se usan aqui.
			</Hitem>
			<Hitem when="01/11/2011" revision="3" version="1.0">
				Este es el SCL candidato para la versión final.
			</Hitem>
		</History>
	</Header>
	<Communication>
		<SubNetwork name="SN1">
			<ConnectedAP iedName="IED_MAIN_TNK" apName="AP1">
				<Address>
					<P type="IP">192.168.10.1</P>
					<P type="IP-SUBNET">0.0.0.0</P>
					<P type="IP-GATEWAY">0.0.0.0</P>
				</Address>
			</ConnectedAP>
		</SubNetwork>
	</Communication>
	<IED name="IEDairOilTNK" configVersion="1" desc="IED de los tanques de aire y aceite"
manufacturer="David">
		<Services>
			<DynAssociation/>
			<GetDataObjectDefinition/>
			<DataObjectDirectory/>
			<GetDataSetValue/>
			<SetDataSetValue/>
			<DataSetDirectory/>
			<ConfDataSet max="50" maxAttributes="250"/>
			<GetDirectory/>
			<ReadWrite/>
			<ConfReportControl max="7"/>
			<GetCBValues/>
			<ReportSettings intgPd="Dyn" trgOps="Dyn" bufTime="Dyn" optFields="Dyn"
rptID="Dyn" datSet="Fix" cbName="Fix"/>
			<GSESettings appID="Fix" cbName="Fix" dataLabel="Dyn" datSet="Fix"/>
			<GOOSE max="5"/>
			<FileHandling/>
			<ConfLNs fixLnInst="true" fixPrefix="false"/>
			<SMVSettings smpRate="Conf">
				<SmpRate>256</SmpRate>
				<SmpRate>80</SmpRate>
			</SMVSettings>
		</Services>
		<AccessPoint name="AP1">
			<Server>
				<Authentication/>
				<LDevice inst="1" ldName="LD1tank" desc="Air oil pressure-tanks">
					<LN0 lnType="LLN0_1" inst="" lnClass="LLN0"/>
					<LN lnType="KTNK_air_oil" inst="2" lnClass="KTNK"
prefix="Pa_" desc="(15) Air-oil pressure-tank"/>
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<LN lnType="KVLV_aut_contr" inst="15" lnClass="KVLV" prefix="Pa_" desc="(17) Automatic controlled isolating valve"/>
<LN lnType="TLEV_gauge" inst="2" lnClass="TLEV" prefix="Lvl_" desc="(18) Float level gauge"/>
<LN lnType="TLEV_gauge" inst="3" lnClass="TLEV" prefix="Lvl_" desc="(18) Float level gauge"/>
<LN lnType="TPOS_prs_sw" inst="11" lnClass="TPOS" prefix="Pa_" desc="(DB) Pressure-switch DB"/>
<LN lnType="TPOS_prs_sw" inst="12" lnClass="TPOS" prefix="Pa_" desc="(DC) Pressure-switch DC"/>
<LN lnType="TPOS_prs_sw" inst="13" lnClass="TPOS" prefix="Pa_" desc="(DD) Pressure-switch DD"/>
<LN lnType="TPOS_prs_sw" inst="14" lnClass="TPOS" prefix="Pa_" desc="(LE) Pressure-switch LE"/>
<LN lnType="TPOS_prs_sw" inst="15" lnClass="TPOS" prefix="Pa_" desc="(LF1) Pressure-switch LF1"/>
<LN lnType="TPOS_prs_sw" inst="16" lnClass="TPOS" prefix="Pa_" desc="(LF2) Pressure-switch LF2"/>
<LN lnType="TPRS_trans" inst="4" lnClass="TPRS" prefix="Pa_" desc="(EE) Pressure transmitter"/>
<LN lnType="KVLV_relief" inst="16" lnClass="KVLV" prefix="Pa_" desc="(20) Relief valve"/>
<LN lnType="KVLV_solenoid_operated" inst="17" lnClass="KVLV" prefix="Pa_" desc="(BE) Solenoid valve for automatic compressed air make-up"/>
<LN lnType="TPRS_gauge" inst="5" lnClass="TPRS" prefix="Pa_" desc="(21) Pressure-gauge"/>
</LDevice>
<LDevice inst="2" ldName="LD2tank" desc="Air pressure tanks">
<LN0 lnType="LLN0_1" inst="" lnClass="LLN0"/>
<LN lnType="KTNK_air_oil" inst="3" lnClass="KTNK" prefix="Pa_" desc="(15) Air-oil pressure-tank"/>
<LN lnType="KVLV_aut_contr" inst="18" lnClass="KVLV" prefix="Pa_" desc="(17) Automatic controlled isolating valve"/>
<LN lnType="TLEV_gauge" inst="4" lnClass="TLEV" prefix="Lvl_" desc="(18) Float level gauge"/>
<LN lnType="TLEV_gauge" inst="5" lnClass="TLEV" prefix="Lvl_" desc="(18) Float level gauge"/>
<LN lnType="TPOS_prs_sw" inst="17" lnClass="TPOS" prefix="Pa_" desc="(DB) Pressure-switch DB"/>
<LN lnType="TPOS_prs_sw" inst="18" lnClass="TPOS" prefix="Pa_" desc="(DC) Pressure-switch DC"/>
<LN lnType="TPOS_prs_sw" inst="19" lnClass="TPOS" prefix="Pa_" desc="(DD) Pressure-switch DD"/>
<LN lnType="TPOS_prs_sw" inst="20" lnClass="TPOS" prefix="Pa_" desc="(LE) Pressure-switch LE"/>
<LN lnType="TPOS_prs_sw" inst="21" lnClass="TPOS" prefix="Pa_" desc="(LF1) Pressure-switch LF1"/>
<LN lnType="TPOS_prs_sw" inst="22" lnClass="TPOS" prefix="Pa_" desc="(LF2) Pressure-switch LF2"/>
<LN lnType="TPRS_trans" inst="6" lnClass="TPRS" prefix="Pa_" desc="(EE) Pressure transmitter"/>
<LN lnType="KVLV_relief" inst="19" lnClass="KVLV" prefix="Pa_" desc="(20) Relief valve"/>
<LN lnType="KVLV_solenoid_operated" inst="20" lnClass="KVLV" prefix="Pa_" desc="(BE) Solenoid valve for automatic compressed air make-up"/>
<LN lnType="TPRS_gauge" inst="7" lnClass="TPRS" prefix="Pa_" desc="(21) Pressure-gauge"/>
</LDevice>
<LDevice inst="3" ldName="LD3tank" desc="Air oil pressure-tanks">
<LN0 lnType="LLN0_1" inst="" lnClass="LLN0"/>
<LN lnType="KTNK_air_oil" inst="4" lnClass="KTNK" prefix="Pa_" desc="(15) Air-oil pressure-tank"/>

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                                        <LN lnType="KVLV_aut_contr" inst="21" lnClass="KVLV"
prefix="Pa_" desc="(17) Automatic controlled isolating valve"/>
                                        <LN lnType="TLEV_gauge" inst="6" lnClass="TLEV"
prefix="Lvl_" desc="(18) Float level gauge"/>
                                        <LN lnType="TLEV_gauge" inst="7" lnClass="TLEV"
prefix="Lvl_" desc="(18) Float level gauge"/>
                                        <LN lnType="TPOS_prs_sw" inst="23" lnClass="TPOS"
prefix="Pa_" desc="(DB) Pressure-switch DB"/>
                                        <LN lnType="TPOS_prs_sw" inst="24" lnClass="TPOS"
prefix="Pa_" desc="(DC) Pressure-switch DC"/>
                                        <LN lnType="TPOS_prs_sw" inst="25" lnClass="TPOS"
prefix="Pa_" desc="(DD) Pressure-switch DD"/>
                                        <LN lnType="TPOS_prs_sw" inst="26" lnClass="TPOS"
prefix="Pa_" desc="(LE) Pressure-switch LE"/>
                                        <LN lnType="TPOS_prs_sw" inst="27" lnClass="TPOS"
prefix="Pa_" desc="(LF1) Pressure-switch LF1"/>
                                        <LN lnType="TPOS_prs_sw" inst="28" lnClass="TPOS"
prefix="Pa_" desc="(LF2) Pressure-switch LF2"/>
                                        <LN lnType="TPRS_trans" inst="8" lnClass="TPRS"
prefix="Pa_" desc="(EE) Pressure transmitter"/>
                                        <LN lnType="KVLV_relief" inst="22" lnClass="KVLV"
prefix="Pa_" desc="(20) Relief valve"/>
                                        <LN lnType="KVLV_solenoid_operated" inst="23"
lnClass="KVLV" prefix="Pa_" desc="(BE) Solenoid valve for automatic compressed air make-up"/>
                                        <LN lnType="TPRS_gauge" inst="9" lnClass="TPRS"
prefix="Pa_" desc="(21) Pressure-gauge"/>
                                </LDevice>
                        </Server>
                </AccessPoint>
        </IED>
        <DataTypeTemplates>
                <LNodeType id="LLN0_1" lnClass="LLN0">
                        <!--Common logical node information -->
                        <DO name="Mod" type="Mod_1"/>
                        <DO name="Beh" type="Beh_1"/>
                        <DO name="Health" type="Health_1"/>
                        <DO name="NamPlt" type="NamPlt_1"/>
                </LNodeType>
                <LNodeType id="KTNK_air_oil" lnClass="KTNK" desc="Air-oil pressure tank">
                        <!-- Common logical node information -->
                        <DO name="Mod" type="Mod_1"/>
                        <DO name="Beh" type="Beh_1"/>
                        <DO name="Health" type="Health_1"/>
                        <DO name="NamPlt" type="NamPlt_1"/>
                        <!-- Status information -->
                        <DO name="TnkTyp" type="TnkTyp_1"/>
                        <!-- Settings -->
                        <DO name="VlmCap" type="VlmCap_1"/>
                        <!-- Measured values -->
                        <DO name="Pres" type="Pres_1"/>
                        <DO name="LevPc" type="LevPc_1"/>
                        <DO name="Vlm" type="Vlm_1"/>
                        <DO name="Tmp" type="Tmp_1"/>
                </LNodeType>
                <LNodeType id="KVLV_solenoid_operated" lnClass="KVLV" desc="Solenoid operated valve">
                        <!-- Common logical node information -->
                        <DO name="Mod" type="Mod_1"/>
                        <DO name="Beh" type="Beh_1"/>
                        <DO name="Health" type="Health_1"/>
                        <DO name="NamPlt" type="NamPlt_1"/>
                        <DO name="Stuck" type="Stuck_1"/>
                        <!-- Status information -->
                        <DO name="ClsPos" type="ClsPos_1"/>
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                <DO name="OpnPos" type="OpnPos_1"/>
                <DO name="Mov" type="Mov_1"/>
                <!-- Controls -->
                <DO name="Opn" type="Opn_1"/>
                <DO name="Cls" type="Cls_1"/>
                <DO name="BlkOpn" type="BlkOpn_1"/>
                <DO name="BlkCls" type="BlkCls_1"/>
        </LNodeType>
        <LNodeType id="KVLV_relief" lnClass="KVLV" desc="Relief pressure valve">
                <!-- Common logical node information -->
                <DO name="Mod" type="Mod_1"/>
                <DO name="Beh" type="Beh_1"/>
                <DO name="Health" type="Health_1"/>
                <DO name="NamPlt" type="NamPlt_1"/>
                <!-- Status information -->
                <DO name="ClsPos" type="ClsPos_1"/>
                <DO name="OpnPos" type="OpnPos_1"/>
                <DO name="Mov" type="Mov_1"/>
                <!-- Controls -->
                <DO name="Opn" type="Opn_1"/>
                <DO name="Cls" type="Cls_1"/>
                <DO name="BlkOpn" type="BlkOpn_1"/>
                <DO name="BlkCls" type="BlkCls_1"/>
        </LNodeType>
        <LNodeType id="KVLV_aut_contr" lnClass="KVLV" desc="Automatic controlled isolating
valve">
                <!-- Common logical node information -->
                <DO name="Mod" type="Mod_1"/>
                <DO name="Beh" type="Beh_1"/>
                <DO name="Health" type="Health_1"/>
                <DO name="NamPlt" type="NamPlt_1"/>
                <!-- Status information -->
                <DO name="ClsPos" type="ClsPos_1"/>
                <DO name="OpnPos" type="OpnPos_1"/>
                <DO name="Mov" type="Mov_1"/>
                <!-- Controls -->
                <DO name="Opn" type="Opn_1"/>
                <DO name="Cls" type="Cls_1"/>
                <DO name="BlkOpn" type="BlkOpn_1"/>
                <DO name="BlkCls" type="BlkCls_1"/>
        </LNodeType>
        <LNodeType id="TLEV_gauge" lnClass="TLEV" desc="Level gauge">
                <!-- Common logical node information -->
                <DO name="Mod" type="Mod_1"/>
                <DO name="Beh" type="Beh_1"/>
                <DO name="Health" type="Health_1"/>
                <DO name="NamPlt" type="NamPlt_1"/>
                <!-- Measured values -->
                <DO name="LevPc" type="LevPc_2"/>
                <DO name="SmpRteSet" type="SmpRteSet_1"/>
        </LNodeType>
        <LNodeType id="TPOS_prs_sw" lnClass="TPOS" desc="Pressure switch">
                <!-- Common logical node information -->
                <DO name="Mod" type="Mod_1"/>
                <DO name="Beh" type="Beh_1"/>
                <DO name="Health" type="Health_1"/>
                <DO name="NamPlt" type="NamPlt_1"/>
                <DO name="SmpRteRng" type="SmpRteRng_1"/>
                <!-- Measured values -->
                <DO name="PosPc" type="PosPc_1"/>
                <!-- Settings -->
                <DO name="SmpRte" type="SmpRte_1"/>
        </LNodeType>
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		<LNodeType id="TPRS_trans" lnClass="TPRS" desc="Pressure transmitter">
			<!-- Common logical node information -->
			<DO name="Mod" type="Mod_1"/>
			<DO name="Beh" type="Beh_1"/>
			<DO name="Health" type="Health_1"/>
			<DO name="NamPlt" type="NamPlt_1"/>
			<DO name="SmpRteRng" type="SmpRteRng_2"/>
			<!-- Measured values -->
			<DO name="Pres" type="Pres_2"/>
			<!-- Settings -->
			<DO name="SmpRte" type="SmpRte_2"/>
		</LNodeType>
		<LNodeType id="TPRS_gauge" lnClass="TPRS" desc="Pressure-gauge">
			<!-- Common logical node information -->
			<DO name="Mod" type="Mod_1"/>
			<DO name="Beh" type="Beh_1"/>
			<DO name="Health" type="Health_1"/>
			<DO name="NamPlt" type="NamPlt_1"/>
			<DO name="SmpRteRng" type="SmpRteRng_4"/>
			<!-- Measured values -->
			<DO name="Pres" type="Pres_3"/>
			<!-- Settings -->
			<DO name="SmpRte" type="SmpRte_4"/>
		</LNodeType>
		<!--  Data Objects - IEC 61850-7-3 -->
		<DOType cdc="ASG" id="VlmCap_1" desc="Total Volume capacity"/>
		<DOType cdc="ASG" id="xLimSpt_1" desc="Hight limit set point"/>
		<DOType cdc="ASG" id="TmpAlmSpt_1" desc="Temperature alarm level reached"/>
		<DOType cdc="ASG" id="TmpTrSpt_1" desc="Temperature trip level reached"/>
		<DOType cdc="DPC" id="Operate_1" desc="Operate pump"/>
		<DOType cdc="DPC" id="ClsPos_1" desc="Closed end position reached (valve can not move
further)"/>
		<DOType cdc="DPC" id="OpnPos_1" desc="Open end position reached (valve can not move
further)"/>
		<DOType cdc="DPC" id="Opn_1" desc="Valve to full open position"/>
		<DOType cdc="DPC" id="Cls_1" desc="Valve to full closed position"/>
		<DOType cdc="ING" id="SmpRteSet_1" desc="Sampling rate setting"/>
		<DOType cdc="ING" id="SmpRte_1" desc="Sampling rate setting"/>
		<DOType cdc="ING" id="SmpRte_2" desc="Sampling rate setting"/>
		<DOType cdc="ING" id="SmpRte_3" desc="Sampling rate setting"/>
		<DOType cdc="ING" id="SmpRte_4" desc="Sampling rate setting"/>
		<DOType cdc="ING" id="SmpRteRng_1" desc="Available sampling rate range"/>
		<DOType cdc="ING" id="SmpRteRng_2" desc="Available sampling rate range"/>
		<DOType cdc="ING" id="SmpRteRng_3" desc="Available sampling rate range"/>
		<DOType cdc="ING" id="SmpRteRng_4" desc="Available sampling rate range"/>
		<DOType cdc="INC" id="Mod_1" desc="Mode"/>
		<DOType cdc="INS" id="Beh_1" desc="Behaviour"/>
		<DOType cdc="INS" id="Health_1" desc="Health"/>
		<DOType cdc="INS" id="TnkTyp_1" desc="Type of tank (pressure only, level only, both
pressure and level)"/>
		<DOType cdc="INS" id="OpCnt_1" desc="Operation counter"/>
		<DOType cdc="INS" id="OpTmh_1" desc="Operation time"/>
		<DOType cdc="LPL" id="NamPlt_1" desc="Name plate"/>
		<DOType cdc="MV" id="Pres_1" desc="Pressure in the tank"/>
		<DOType cdc="MV" id="LevPc_1" desc="Level in the tank (as percentage of full
 tank level)"/>
		<DOType cdc="MV" id="Out_1" desc="Output signal"/>
		<DOType cdc="MV" id="SptMem_1" desc="Set point in memory"/>
		<DOType cdc="MV" id="Vlm_1" desc="Volume of media in tank"/>
		<DOType cdc="MV" id="Tmp_1" desc="Temperature of the media in the tank"/>
		<DOType cdc="MV" id="Tmp_2" desc="Temperature (C)"/>
		<DOType cdc="SAV" id="LevPc_2" desc="Level (percentage)"/>
		<DOType cdc="SAV" id="PosPc_1" desc="Position given as percentage of full movement"/>
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                <DOType cdc="SAV" id="Pres_2" desc="Pressure of media [Pa]"/>
                <DOType cdc="SAV" id="Pres_3" desc="Pressure of media [Pa]"/>
                <DOType cdc="SPC" id="Blk_1" desc="Block operation"/>
                <DOType cdc="SPC" id="BlkOpn_1" desc="Block opening of the valve"/>
                <DOType cdc="SPC" id="BlkCls_1" desc="Block closing of the valve"/>
                <DOType cdc="SPC" id="DExt_1" desc="De-excitation"/>
                <DOType cdc="SPS" id="BlkSt_2" desc="The pump is blocked from operation"/>
                <DOType cdc="SPS" id="xLim_1" desc="Limit reached"/>
                <DOType cdc="SPS" id="Op_1" desc="Level of action reached"/>
                <DOType cdc="SPS" id="ACAlm_1" desc="AC supply failure (fuse or other problem)"/>
                <DOType cdc="SPS" id="ACAlm_2" desc="AC supply failure (fuse or other problem)"/>
                <DOType cdc="SPS" id="Alm_1" desc="Temperature alarm level reached"/>
                <DOType cdc="SPS" id="Trip_1" desc="Temperature trip level reached"/>
                <DOType cdc="SPS" id="MotPro_1" desc="Motor protection tripped"/>
                <DOType cdc="SPS" id="MotPro_2" desc="Motor protection tripped"/>
                <DOType cdc="SPS" id="FilAlm_1" desc="Filter alarm"/>
                <DOType cdc="SPS" id="Loc_1" desc="Local operation selected"/>
                <DOType cdc="SPS" id="Mov_1" desc="Valve is moving"/>
                <DOType cdc="SPS" id="Stuck_1" desc="Valve is blocked (can not move from present
position)"/>
        </DataTypeTemplates>
</SCL>
```