

## ***Annex A Specification Templates List***

**TABLE 1 - Operating Parameter Device Categories and Form Titles**

<b>Form Number</b>	<b>Form Title</b>	<b>Rev</b>
A1001	Analysis Device	0
A1002	Analysis Device with Composition or Property	0
C1001	Valve or Regulator Device	0
C1002	Isolation Valve or Shutoff Device	0
C1003	Desuperheating Control Valve Device	0
C1004	Recirculation Valve device	0
F1001	Flow Device	0
F1002	Gas Flow Device with Composition Parameters	0
F1003	Bulk Solids Flow Device	0
F1101	Line	0
L1001	Level Device	0
P1001	Differential Pressure Device	0
P1002	Pressure Relief or Safety Relief Device	0
P1003	Pressure Device	0
P1004	Tank or Line Venting Device	0
T1001	Temperature Device	0
T1002	Non-contact Temperature Measurement Device	0
W1001	Weight or Force Device	0

**TABLE 2 - Device Specification Categories and Form Titles**

<b>Form Number</b>	<b>Form Title</b>	<b>Rev</b>
<b>Analysis Devices</b>		
A2111	Fixed Point Gas Transmitter Monitor/Control Unit	0
A2131	Open Path Gas Detector	0
A2141	Semi-continuous Analyzer	0
A2143	Online Catalytic Combustion Based TOC Analyzer	0
A2151	Insitu Gas Analyzer	0
A2161	Continuous Extractive Gas Analyzer	0
A2171	Opacity or Dust Monitor w/wo Integral Transmitter	0
A2172	Opacity or Dust Transmitter or Interface Unit	0
A2181	Online Colorimetric Based Wet-chemical Analyzer	0
A2183	Online ISE Based Wet-chemical Analyzer	0
A2185	Online Respirometry Based BOD or Toxicity Analyzer	0
A2187	Online Thermal Digestion Based COD or Analyzer	0
A2189	Online Chemical Oxidation Based TOC, TIC and TC Analyzer	0
A2191	Dissolved Gas Sensor w/wo Mounting Assembly	0
A2192	Dissolved Gas Transmitter/Analyzer/Monitor	0
A2201	Online Liquid Particle Counter Sensor w/wo Analyzer	0

A2203	Remote or Portable Airborne Particle counter w/wo Pump	0
A2205	Online or Handheld Particle Counter or Monitor	0
A2207	Remote or Handheld Condensation Particle Counter	0
A2301	Ion Selective Sensor w/wo Insertion Assembly	0
A2311	Liquid Density or Specific Gravity Transmitter	0
A2321	Nuclear Type Density Transmitter w/wo Switches	0
A2331	Continuous Extractive Oil in Water Monitor w/wo Switches	0
A2332	Insitu Oil in Water Sensor w/wo Insertion Assembly	0
A2333	Oil in Water Monitor/Controller w/wo Switches	0
A2341	pH/ORP Sensor w/wo Insertion Assembly	0
A2342	pH/ORP/Conductivity/Resistivity Transmitter/Analyzer/Monitor	0
A2345	Continuous TOC Sensor w/wo Transmitter or Analyzer	0
A2349	Continuous UV-VIS Sensor w/wo Controller	0
A2351	Turbidity or Photometric Sensor w/wo Transmitter	0
A2352	Turbidity or Photometric Transmitter or Controller	0
A2361	Viscosity and Density Sensor w/wo Integral Transmitter	0
A2363	Gas Density Meter w/wo Calculated Variables	0
A2371	Moisture Analyzer or Dew Point Xmtr w/wo Sample Sys	0
A2372	Single Channel Moisture Analyzer or Dew Point Xmtr	0
A2373	Humidity or Dew Point w/wo Temperature Transmitter	0
A2381	Conductivity Sensor w/wo Insertion Assembly	0
A2391	Entrained/Holdup Gas Monitor	0
A2411	Smoke and/or Carbon Monoxide Alarm	0
A2511	Smoke Detector	0
A2512	Beam Smoke or Open-Air Smoke Imaging Detector	0
A2611	Soil Moisture or Water Potential Sensor with Probe	0
A2612	Soil Moisture and Temperature and Salinity Profiling Probe	0
A2901	Sample Gas Conditioning System w/wo Phase Separation	0
A2902	Sample Probe or Extractor	0
A2903	Steam and Water Grab Sample and Conditioning System	0
A2904	Grab Sample or Bottle Sampling System	0
A2905	Steam and Water Grab Sampling System	0
A2906	Automated Steam and Water Sample Conditioning System	0
A2910	Analyzer Controller	0
<b>Burner or Combustion Devices</b>		
B2001	Flame Scanner w/wo Flame Relay or Amplifier	0
B2002	Optical Flame Detector w/wo Video Camera	0
<b>Valve or Regulator Devices</b>		
C2001	Linear Motion Type Control Valve Assembly	0
C2002	Linear Motion Type Control Valve Assembly with Auxiliaries	0
C2011	Rotary Motion Type Control Valve Assembly	0
C2012	Rotary Motion Type Control Valve Assembly with Auxiliaries	0
C2021	Severe Service Isolation Valve Assembly	0
C2022	Severe Service Control Valve Assembly w/Auxiliaries	0

C2023	Cryogenic Service Isolation Valve Assembly with Auxiliaries	0
C2024	Cryogenic Service Control Valve Assembly w/Auxiliaries	0
C2031	Desuperheater Device/Control Valve Assembly	0
C2041	Linear Motion Type Motor Operated Valve Assembly	0
C2042	Rotary Motion Type Motor Operated Valve Assembly	0
C2043	Electric Actuator and Auxiliaries	0
C2051	Linear Motion Type Isolation Valve Assembly	0
C2052	Rotary Motion Type Isolation Valve Assembly	0
C2061	Linear Motion Type Emergency Valve Assembly	0
C2062	Rotary Motion Type Emergency Valve Assembly	0
C2101	Automatic Recirculation Valve w/wo Back Pressure Regulator	0
C2105	Check Valve or Automatic Control Valve	0
C2111	Pressure Regulator w/wo Pilot Valve	0
C2131	Self-Acting Temperature Regulator Valve	0
C2141	Air-Release or Air/Vacuum and Combination Air Valves	0
C2211	Solenoid Valve or Manifold Assembly	0
<b>Flow Devices</b>		
F2001	Air Flow Traverse Probe w/wo Flow Straightener	0
F2011	Elbow Flow Meter	0
F2021	Flow Nozzle w/wo Meter Tube	0
F2031	Orifice Plate (with Sizing Data)	0
F2032	Orifice or Restriction Orifice Plate	0
F2041	Orifice Plate Assembly w/wo Meter Tube	0
F2061	Paddle Flow Switch or Transmitter	0
F2062	Waterflow Detector w/wo Retard	0
F2071	Pitot Tube w/wo Insertion Assembly	0
F2081	Segmental Wedge Flow Element	0
F2091	Target Flowmeter/Switch w/wo Insertion Assembly	0
F2101	V-Shaped Cone Flowmeter	0
F2111	Venturi or Flow Tube w/wo Meter Tube	0
F2121	Laminar Flow element w/wo Transmitter	0
F2211	Flume Flowmeter	0
F2231	Rotameter/Variable Area Flowmeter-Direct Reading Type	0
F2251	Variable Area Flowmeter or Transmitter w/wo Switches	0
F2261	Weir Flowmeter Assembly	0
F2271	Piston or Shuttle Flow Switch	0
F2301	Coriolis Solids Mass Flowmeter w/wo Switches	0
F2311	Free-Falling or Conveyed Bulk Solids Flowmeter	0
F2312	Belt Scale System	0
F2313	Impact or Solid-Particle Mass Flowmeter	0
F2314	Microwave Solids Flow or Velocity Transmitter	0
F2315	Microwave Solids Flow or Blocked Chute Switch	0
F2321	Magnetic Flowmeter w/wo Integral Totalizer Indicator	0
F2322	Insertion Type Magnetic Flowmeter w/wo Transmitter	0
F2331	Radiation-Based Bulk Solids Flowmeter	0
F2341	Ultrasonic Flowmeter w/wo Switches	0

F2342	Ultrasonic Flare Gas Sensor w/wo Insertion Assembly	0
F2343	Clamp-on Ultrasonic Flowmeter	0
F2351	Thermal Mass Flowmeter w/wo Switches	0
F2361	Thermal Mass Flow Switch	0
F2371	Turbine Flowmeter Direct-Reading Type	0
F2372	Turbine Flowmeter w/wo Switches	0
F2375	Paddlewheel Flowmeter w/wo Switches	0
F2381	Vortex or Swirl Flowmeter w/wo Totalizer Indicator	0
F2382	Insertion Type Vortex Flowmeter w/wo Transmitter	0
F2391	Sonar Flowmeter w/wo Entrained Gas Monitor	0
F2411	Positive Displacement Flowmeter Direct-Reading Type	0
F2431	Gear-Type PD Flowmeter w/wo Transmitter	0
F2432	Helical Gear PD Flowmeter w/wo Transmitter	0
F2441	Rotary-Type Gas PD Meter w/wo Transmitter	0
F2451	Sliding/Rotary Vane Type PD Flowmeter	0
F2461	Piston-Type PD Flowmeter w/wo Transmitter	0
F2471	Nutating Disc PD Meter w/wo Transmitter	0
F2511	Multi-Gas Flowmeter w/wo Controller	0
F2521	Coriolis Mass Flowmeter w/wo Totalizer Indicator	0
F2611	Sight Flow Indicator w/wo Illuminator	0
F2711	Meter Tube w/wo Flow Straightener	0
<b>Hand Control Devices</b>		
H2021	Manual Sampling Valve	
H2031	Manual Pull Station	0
<b>Level Devices</b>		
L2101	Capacitance or RF Admittance Level Transmitter	0
L2111	Diff Pressure Level Transmitter-Flange Mounted	0
L2112	Diff Pressure Level Transmitter with Remote Sensor	0
L2113	Diff Pressure Level Transmitter with Seals	0
L2114	Submersible Level Transmitter w/wo Data Logger	0
L2121	Displacer-Type Level or Density Transmitter or Controller	0
L2122	Displacer-Type Level Indicator w/wo Switches	0
L2131	Tank Level Gauge or Transmitter w/wo Switches	0
L2141	Nuclear Radiation-Based Level Transmitter w/wo Switches	0
L2151	Resistance-Tape Level Transmitter w/wo Switches	0
L2161	Non-contact Radar Level Transmitter For Liquid	0
L2162	Guided Wave Radar Level or Interface Transmitter	0
L2163	Non-contact Radar Level Transmitter For Solids	0
L2171	Non-contact Ultrasonic Level Transmitter w/wo Switches	0
L2181	Magnetostrictive Level or Interface Transmitter or Switch	0
L2191	Laser Level Transmitter w/wo Switches	0
L2201	Non-contact Volumetric Level Scanner w/wo Visualization	0
L2211	Professional Precipitation Sensor or Rain Gauge	0
L2212	Snow Depth Sensor or Gauge	0
L2301	Capacitance or RF Admittance Level Switch	0
L2302	Conductivity Level Probe or Switch	0
L2303	Capacitive or Proximity Level Switch	0

L2305	Thermal Dispersion Level Switch	0
L2311	Float or Displacer Level Switch w/wo External Cage	0
L2312	Tank Level Gauge or Indicator w/wo Switches	0
L2313	Tilt Level Switch	0
L2314	Single Level Float Sensor or Switch	0
L2315	Multi-level Float Sensor or Switch w/wo Temp Sensor	0
L2321	Nuclear Radiation-Based Level Switch	0
L2351	Ultrasonic Contact-Type Level Switch	0
L2361	Vibrating Element Level Switch	0
L2371	Rotary Level Switch	0
L2381	Optical Level Switch w/wo Remote Controller	0
L2391	Diaphragm Level Switch	0
L2501	Liquid Level Gauge Glass w/wo Illuminator	0
L2511	Magnetic Liquid Level Gauge or Indicator w/wo Switches	0
L2521	Electromechanical Servo/Plumb Bob Level Transmitter	0
<b>Pressure or Differential Pressure Devices</b>		
P2001	Pressure Gauge	0
P2002	Digital Press or Diff Press Gauge w/wo Output Signal	0
P2011	Pressure Gauge with Diaphragm Seal	0
P2101	Differential Pressure Gauge	0
P2201	Pressure Transmitter w/wo Integral Isolating Diaphragm	0
P2202	Pressure Sensor/Transducer or Transmitter w/wo Switches	0
P2211	Pressure Transmitter with Remote Diaphragm Seal	0
P2301	Differential Pressure Transmitter	0
P2311	Differential Pressure Transmitter with Seals	0
P2312	Diff Pressure Transmitter with Remote Sensor	0
P2401	Mechanical Pressure Switch	0
P2402	Electronic Pressure Switch w/wo Transmitter	0
P2501	Mechanical Differential Pressure Switch	0
P2502	Electronic Differential Pressure Switch w/wo Transmitter	0
<b>Pressure Safety Devices</b>		
P2901	Rupture Disk Assembly w/wo Burst Sensor	0
P2902	Explosion or Pressure Relief Vent	0
P2911	Pressure Relief Tank Vent w/wo Integral Flame Arrester	0
P2912	Emergency Pressure or Vacuum Vent	0
P2913	Pilot Operated Pressure Vacuum Relief Valve	0
P2921	Pressure Relief Valve	0
P2923	Safety Relief Valve	0
P2924	Pilot Operated Pressure Relief or Safety Relief Valve	0
P2925	Hydraulic Pilot Operated Relief Valve w/wo Unloader	0
P2931	Flame or Detonation Arrester w/wo Temperature Sensor	0
<b>Receiver Devices</b>		
R2221	Field Signal Indicator w/wo Switches	0
<b>Speed Devices</b>		
S2001	Wind Speed and Direction Sensor	0
S2011	Magnetic Rotation Speed and Direction Sensor	0
S2013	Magnetic Rotation Speed or Angular Position Encoder	0

S2014	Optical Rotation Speed or Angular Position Encoder	0
S2021	Rotation or Zero Speed Switch	0
S2022	Rotation or Zero Speed Switch with Integral Sensor	0
S2023	Rotation Speed Switch or Monitor-Rail Mount	0
S2025	Rotation Speed Switch with Transmitter	0
S2402	Handheld Tachometer or Surface Speed Meter	0
S2411	Panel Mount Tachometer w/wo Transmitter	0
<b>Temperature Devices</b>		
T2001	Bimetallic Thermometer w/wo Thermowell	0
T2101	Filled-System Thermometer w/wo Thermowell	0
T2111	Filled-System Temperature Switch w/wo Thermowell	0
T2121	Filled-System Temperature Transmitter w/wo Thermowell	0
T2201	RTD Assembly w/wo Thermowell	0
T2211	Thermistor Assembly	0
T2221	RTD/Thermocouple Temperature Transmitter-Field Mount	0
T2222	RTD/Thermocouple Temperature Transmitter-Head Mount	0
T2223	Temperature Transmitter or Switch-Rail Mount	0
T2224	Temperature Transmitter Assembly with Integral Sensor	0
T2301	Thermocouple Assembly w/wo Thermowell	0
T2302	Multipoint RTD/Thermocouple Assembly w/wo Thermowell	0
T2401	Radiation or Infrared Thermometer or Pyrometer	0
T2402	Handheld IR Thermometer w/wo Secondary Measurement	0
T2501	Thermowell or Protecting Tube Assembly	0
<b>Multivariable Devices</b>		
U2001	Professional or Military Grade Weather Station	0
U2002	Multivariable Data Logger or Remote Monitoring Station	0
U2005	Flood Warning System or Sensor	0
U2011	Annunciator w/wo Event Recording	0
U2012	Annunciator Lamp Cabinet or Indicator	0
U2013	Fire Alarm Control Panel w/wo Integral Annunciator	0
U2014	Fire Panel Remote Annunciator or Indicator	0
U2015	Pressure Relief Device Monitor or Annunciator	0
U2051	Multivariable Flow Transmitter w/wo Calculation	0
U2347	Insitu Water Multi-parameter Probe w/wo Transmitter	0
U2348	Insitu Water Multi-parameter Multiprobe with Transmitter	0
U2402	Thermal or Hot-wire Anemometer with Probe	0
U2910	Flow Computer or Totalizer or Transmitter	0
U2911	Tank Data Integration or Monitor or Calculator w/wo Switches	0
U2912	Multi-Tank or Multi-Channel On-Off Level Controller	0
U2913	Tank or Leak/Point Level Alarm or Control	0
<b>Vibration or Mechanical Analysis Devices</b>		
V2101	Vibration Sensor/Transducer or Transmitter	0
V2201	Vibration Transmitter/Alarm or Conditioner Module	0
V2301	Vibration Switch	0
V2311	Machinery Monitoring or Protection System	0
<b>Machinery Analysis Safety Devices</b>		
VZ2013	Safety Rotary Encoder w/wo Integrated Safety Functions	0

VZ2015	Safety Linear Encoder w/wo Integrated Safety Functions	0
<b>Weight Devices</b>		
W2011	Precision Scale or Balance	0
W2015	Bench or Floor or Platform Scale	0
W2017	Truck or Vehicle Scale	0
W2018	Railroad Track or Combo Truck Scale	0
W2111	Hanging Weight Indicator or Crane Scale	0
W2211	Load Cell or Weighing Module	0
W2221	Weight Indicator or Remote Display	0
W2910	Weighing or Batch Indicator or Controller	0
<b>Relay or Compute or Converter Devices</b>		
Y2211	Signal Conditioner or Converter or Transmitter	0
Y2511	Fieldbus Junction Component	0
Y2611	Audible Signal Device	0
Y2612	Visual Signal Device	0
<b>Position Devices</b>		
Z2011	Electromechanical Limit Switch	0
Z2012	Proximity Sensor or Switch	0
Z2015	Magnetic or Optical Linear Position or Length Encoder	0
Z2021	Photoelectric or Distance Sensor or Switch	0
Z2111	Position Sensor or Transducer or Transmitter	0
Z2121	Industrial Inclination or Tilt Sensor or Inclinator	0

Total Operating Parameter Forms      18  
Total Device Specification Forms      253