

PART 1 - GENERAL**1.1 RELATED SECTIONS**

- .1 Section 01 33 00 - Submittal Procedures.
- .2 Section 01 61 00 - Common Product Requirements.
- .3 Section 01 74 11 - Cleaning.

1.2 REFERENCES

- .1 Canadian Gas Association (CGA).
 - .1 CSA/CGA B149.1-05, Natural Gas and Propane Installation Code.
- .2 Canadian General Standards Board (CGSB).
 - .1 CAN/CGSB-1.60-97, Interior Alkyd Gloss Enamel.
 - .2 CAN/CGSB-24.3-92, Identification of Piping Systems.
- .3 National Fire Protection Association (NFPA).
 - .1 NFPA 13-2010, Standard for the Installation of Sprinkler Systems.

1.3 SUBMITTALS

- .1 Product Data.
 - .1 Submittals: in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Product data to include paint colour chips, other products specified in this section.
- .2 Samples.
 - .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
 - .2 Samples to include nameplates, labels, tags, and lists of proposed legends.

1.4 QUALITY ASSURANCE

- .1 Quality Assurance Submittals: Submit following in accordance with Section 01 45 00 – Quality Control.

1.5 DELIVERY, STORAGE, AND HANDLING

- .1 Packing, shipping, handling, and unloading.
 - .1 Deliver, store, and handle in accordance with Section 01 61 00 - Common Product Requirements.
 - .2 Deliver, store, and handle materials in accordance with manufacturer's written instructions.

1.6 IDENTIFICATION

- .1 Mechanical and network identification must be in accordance with Client's identification system.

PART 2 - PRODUCTS**2.1 MANUFACTURER'S EQUIPMENT NAMEPLATES**

- .1 Metal or plastic laminate nameplate mechanically fastened to each piece of equipment by manufacturer.
- .2 Lettering and numbers to be raised or recessed.
- .3 Information to include, as appropriate:
 - .1 Equipment: Manufacturer's name, model, size, serial number, and capacity.
 - .2 Motor: Voltage, Hz, phase, power factor, duty, and frame size.

2.2 SYSTEM NAMEPLATES

- .1 Colours.
 - .1 Hazardous: Red letters, white background.
 - .2 Elsewhere: Black letters, white background (except where required otherwise by applicable codes).
- .2 Construction.
 - .1 3 mm thick laminated plastic or white anodized aluminum, matte finish, with square corners, letters accurately aligned and machine engraved into core.

.3 Sizes.

.1 Conform to following table:

Size # mm	Sizes (mm)	No. of Lines	Height of Letters (mm)
1	10 x 50	1	3
2	13 x 75	1	5
3	13 x 75	2	3
4	20 x 100	1	8
5	20 x 100	2	5
6	20 x 200	1	8
7	25 x 125	1	12
8	25 x 125	2	8
9	35 x 200	1	20

.2 Use maximum of 25 letters/numbers per line.

.4 Locations.

.1 Terminal cabinets, control panels: Use size # 5.

.2 Equipment in mechanical rooms: Use size # 9.

.3 Indicate the number and the type of system as well as the service and the area it serves.

.5 Identification for PWGSC Preventive Maintenance Support System (PMSS).

.1 Use arrangement of Main identifier/Source identifier/Destination identifier.

.2 Equipment in mechanical room:

.1 Main identifier: Size #9.

.2 Source and Destination identifiers: Size #6.

.3 Terminal cabinets, control panels: Size #5.

.3 Equipment elsewhere: Sizes as appropriate.

2.3 EXISTING IDENTIFICATION SYSTEMS

.1 Apply existing identification system to new Work.

- .2 Where existing identification system does not cover for new Work, use identification system specified this section.
- .3 Before starting Work, obtain written approval of identification system from Departmental Representative.

2.4 IDENTIFICATION OF PIPING SYSTEMS

- .1 Identify contents by background colour marking, pictogram (as necessary), legend; direction of flow by arrows. To CAN/CGSB 24.3 Standard, except where specified otherwise.
- .2 Pictograms.
 - .1 In accordance with Health Canada/Workplace Hazardous Materials Information System (WHMIS).
- .3 Legend.
 - .1 Block capitals to sizes and colours listed in CAN/CGSB 24.3 Standard.

Exterior pipe or insulation diameter	Letters height
(mm)	(mm)
30	13
50	19
150	32
250	63
Larger than 250	88

- .4 Arrows showing direction of flow.
 - .1 Outside diameter of pipe or insulation less than 75 mm: 100 mm long x 50 mm high.
 - .2 Outside diameter of pipe or insulation 75 mm and greater: 150 mm long x 50 mm high.
 - .3 Use double-headed arrows where flow is reversible.
- .5 Extent of background colour marking.
 - .1 Height: To full circumference of pipe or insulation.
 - .2 Length: To accommodate pictogram, full length of legend, and arrows.

- .6 Materials for background colour marking, legend, arrows.
- .1 Pipes and tubing 20 mm and smaller: Waterproof and heat-resistant pressure sensitive plastic marker tags.
 - .2 Other pipes: Pressure sensitive plastic-coated cloth or vinyl with protective overcoating, waterproof contact adhesive undercoating, suitable for ambient of 100% RH and continuous operating temperature of 150 °C (300°F) and intermittent temperature of 200 °C (390°F).
- .7 Colours and Legends.
- .1 Where not listed, obtain direction from Departmental Representative.
 - .2 Colours for legends, arrows: To following table:

Background Colour	Legend, Arrows
Yellow	BLACK
Green	WHITE
Red	WHITE

- .3 Background colour marking and legends for piping systems:

Contents	Background Colour Marking	Legend
<i>Add design temperature</i>		
<i>Add design temperature and pressure</i>		
Safety Valve	Yellow	SAFETY VALVE
Domestic Hot Water	Green	DOM. HOT WTR
Domestic Chilled Water	Green	DOM. CH. WTR
Diesel	Yellow	FUEL

2.5 VALVES, CONTROLLERS

- .1 Brass tags with 12 mm stamped identification data filled with black paint.
- .2 Include flow diagrams for each system, of approved size, showing charts and schedules with identification of each tagged item, valve type, service, function, normal position, and location of tagged item.

2.6 CONTROLS COMPONENTS IDENTIFICATION

- .1 Identify all systems, equipment, components, controls, and sensors with system nameplates specified in this section.
- .2 Inscriptions to include function and (where appropriate) fail-safe position.

2.7 LANGUAGE

- .1 Inscriptions used for system identification must be written in English.

PART 3 - EXECUTION**3.1 MANUFACTURER'S INSTRUCTIONS**

- .1 Compliance: Comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheet.

3.2 EXECUTION

- .1 Start network and equipment identification work only when painting work is done.

3.3 INSTALLATION

- .1 Perform work in accordance with CAN/CGSB-24.3 Standard, except as specified otherwise.
- .2 Provide ULC or CSA registration plates as required by respective agency.
- .3 Identify systems, equipment to conform to PWGSC PMSS.
- .4 Materials for background color, lettering and arrow markings:
 - .1 Affix the tape to dry and clean surfaces prepared for this purpose. Roll the tape around the pipe with an overlap equivalent to at least one pipe diameter.

3.4 NAMEPLATES

- .1 Locations.
 - .1 In conspicuous location to facilitate easy reading and identification from operating floor.
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- .2 Stand-offs.
 - .1 Provide for nameplates on hot and/or insulated surfaces.
- .3 Protection.
 - .1 Do not paint, insulate or cover.
- .4 Submit a nameplate list for approval before engraving.
- .5 The following systems are to be identified:
 - .1 Pumps;
 - .2 Flowmeter;
 - .3 Tanks.

3.5 VALVES, CONTROLLERS

- .1 Valves and operating controllers, except at plumbing fixtures, radiation, or where in plain sight of equipment they serve: Secure tags with non-ferrous chains or closed "S" hooks.
- .2 Install one copy of flow diagrams, valve schedules mounted in frame behind non-glare glass where directed by Departmental Representative. Provide one copy (reduced in size if required) in each operating and maintenance manual.
- .3 Number valves in each system consecutively.

3.6 CLEANING

- .1 In accordance with section 01 74 11 - Cleaning.
- .2 Upon completion and verification of performance of installation, remove surplus materials, excess materials, rubbish, tools, and equipment.

END OF SECTION
