

## Appendix H: Piping and Instrumentation Diagram (P&ID)

Piping and Instrumentation Diagram (P&ID) P&ID must be legible and identify each segment of pipe, including new pipe being built in existing right-of-ways in the project description and piping and instrumentation diagram. The minimum requirements for P&IDs are:

- All pipelines which are part of the permit are shown, including their connections (input and output).
- All segment breaks indicated and segments labelled (by project/segment if known, otherwise by Application Determination (AD) number if known, future input or other regulator if currently no AD number or project number).
- Facility and pipeline breaks, if applicable, clearly indicated.
- Spec breaks and class location changes indicated.
- Valves, fittings, flanges, etc. shown.
- Risers indicated with locations.
- Flow direction indications/arrows.
- Any equipment or pressure control directly on the pipeline, including setpoints. (Note pressure control can be on the facility drawings, in which case a separate pressure control attachment can be provided).
- Pipeline fluid or fluids, maximum permitted H<sub>2</sub>S and MOP.
- Pipeline OD (outside diameter) and WT (wall thickness).
- Drawing cross-references. Indicate on the drawing the line continued on so it is traceable.
- Drawing number, revision number and date.

Riser locations or installations directly supporting the pipeline are considered part of the pipeline and should be included in the pipeline and instrumentation design. Installation types included on a pipeline application include:

- Pump
- Storage vessel/tank
- Regulator
- Riser
- Pressure control/pressure protection valves/devices
- Isolation valves showing the physical location.  
(If applicable, the distance between valves and relation to major water crossings is to be determined)
- Farm taps
- Line heater

- Flaring
- Generator

Anything directly supporting the pipeline is considered part of the pipeline. Installations not included in the list should be shown on the P&ID and may be included as part of the facility application.