Condition of crossing between the pipes currently is difficult to avoid by the industry. This condition will also risks for both the experienced pipe crossing conditions. Each company usually has its own rules in determining the clearance of their pipe with others. This study case of crossing occurred in SSWJ Offshore Gas Pipeline Phase II Project, owned by PT. Perusahaan Gas Negara (Persero) Tbk with other gas pipe owned by PT. British Petroleum. Clearance applied in the project is at least 1.5 meters. Something must be considerable is the condition of soil at the installation site with crossing condition. Deflection at the pipe PT.PGN (Persero) Tbk, which is supported by support structure may attack with force or load on the pipe that causes stress on the pipe. In the process pipeline has three conditions, such as installation condition, hydrotest condition and operating condition. Based on modeling results PT.PGN (Persero) Tbk pipe at Caesar 5.1 software can be seen that occur with +Y direction deflection of 3.065 inch on the installation conditions, 1.727 inch at the hydrotest conditions and 1.731 inch at the operating conditions. There are load attack to the pipe are environmental load, fluid flow and heavy concrete pipe. The type soil at crossing point is clay and there is a concrete structure for support are concrete mattress and sleeper. From the results of calculations use Terzaghi’s Bearing Capacity Theory on Foundation Design Cernica, total consolidation soil at crossing point is 952.057 mm during the installation until lifetime of pipe.

Keywords: Crossing Pipeline, SSWJ Phase II, Deflection, Settlement