

125 POL PIPELINE

This category code is for pipelines and accessory equipment between tank farms and operating fuel storage facilities and intermediate point.

125 10 POL PIPELINE (MI)

Aboveground Pipelines. Aboveground POL pipelines will usually be limited to parts of the system which cannot be laid underground, such as fuel piers or wharves, and booster pump stations. A separate pipeline will be provided at the facility for each kind of fuel specified for storage.

Underground Pipelines. All POL pipelines shall be laid underground whenever practicable. This eliminates the thermo-solar effects and provides additional protection against fire and other damages.

Distribution Pipeline--Subaqueous. Under certain conditions of terrain, it will be necessary to run a portion of a fuel distribution line under water, as for a harbor crossing, through a marsh, etc. While the general design is somewhat analogous to that of the submarine pipeline used for offshore fueling it follows more closely the design for underground piping. The selection of pipe size, storage, and pumps will be based on the length of the pipeline, the station mission, fuel flow capacities desired, the kind of fuel to be transferred, and the sea water temperature.

Submarine Pipelines. To receive or issue fuel from offshore moorings one or more submarine pipelines are laid to the ship mooring point. The general layout of the submarine pipe lines should be set up so that the lines fan out to present connections in line with the side of a ship moored in the fueling berth. Where fuel oil, diesel oil, and gasoline lines are provided, locate the fuel oil line in the center, with the gasoline line toward the bow moorings and the diesel oil line toward the stern mooring. The selected size of pipe for each fuel facility will dependent upon the length of the pipeline, oil flow capacities desired, the kind of fuel to be transferred, and the sea water temperature. Difficulty may be encountered with submarine transfer of fuel oil where the temperature of the sea water is 28°F or lower.

General Planning Notes. The capacity and size of the pipeline will have a direct bearing on the rate of flow of the fuel being carried. In distributing fuel oil, large pipelines are generally more desirable than small ones. The rate of flow should not be less than that listed in Table 125-10.

Wherever it is necessary to run distribution pipelines over private property there will be an are, known as the maintenance area, paralleling the pipelines. This area will be not less than 16 feet in width.

125 16 MISCELLANEOUS POL PIPELINE FACILITIES (CM)

This category code includes pumping stations and associated appurtenances for moving fuels through pipes, such as controls, ventilation, gages, meter, lighting, and fire protection, Pumping stations may be established

aboveground or underground in cases where aboveground installation is objectionable for reasons of aircraft operations clearances, security, or camouflage. Buildings enclosing aboveground pumping stations will be reported under Code 125 20. Pumping rates are set forth in Table 125-10.

125 20 SHED/SHELTER FOR MISCELLANEOUS POL PIPELINE FACILITIES (SF)

This code is for buildings or structures housing pumping stations or other associated appurtenances reported under code 125 16.

TABLE 125-10
Fuel Transfer Flow Rates

Service	Fuel oils	Diesel fuel oils	Jet engine fuels	Gasoline
Between super tanker and storage (bbl/hr)	24,000	24,000	24,000	24,000
Between regular tanker and storage (bbl/hr)	8,000	8,000	8,000	8,000
Between barge and storage (bbl/hr)	2,500	2,500	2,500	2,500
To fleet oilers (gpm)	6,000 to 12,000	2,000	3,000	3,165
To carriers (except super class) (gpm)	6,000		6,000	1,585
To average cruisers (gpm)	6,000	165		
To average destroyer (gpm)	4,000	165		
Between storage tanks (bbl/hr)	2,500	2,500	2,500	2,500
Tank car unloading to storage (gpm per car)		400 to 800	400 to 800	400 to 800
Tank truck unloading to storage (gpm per truck)		400	400	400
Storage to tank truck loading (gpm per car)		1,000	1,000	1,000
Storage to tank truck loading (gpm per loading arm)		250-600	250-600	250-600
Clarifying (gpm per clarifier)		225		
Delivery from duplex refueling island (gpm)			800	
Delivery from refueler truck to airplane			As specified	
Storage tank sump pumps, 50 to 100 gpm for all fuels. At dockside, deliveries from tankers should be assumed to be at a pressure of 90 to 100 psig--to tankers to be at 60 psig. Rates to other ships are maximums based on fueling at sea capacities. Lesser rates for fueling at piers may be used if more practicable. Rates are based on 40 psig at ship connections.				