In general, in an industrial process requires a lot of parameters - parameters that need monitoring and control. In this mini-plant flow level using the system so that the basic process control system for safety systems that can provide security when the process occurs that causes the failure or disruption of its set point is not in accordance with prescribed. So to provide safe conditions at the flow level mini plant safety systems required (safety system). Mini plant-level flow has several important systems and therefore the need for an integrated safety system on a personal computer (PC) in order to facilitate the operator to control the process in order to return to a normal state or condition in accordance with the set point manually in the event of a failure in the process. Objectives achieved final project this time is to design and build an integrated safety system than the mini-plant level flow with Siemens PLC and PC to create a logic that can control the flow inside the mini-plant level. Mini plant safety systems at the level of flow is the presence of a marker that alarms and conditions one dead pump.