PT Alstom Energy Systems Surabaya involved in supplying energy to industrial customers with technology solution required. The establishment of this industry can have a variety can of negative impacts and positive impact. Positive impact of this industry can help create good opportunities and assist in the advancement of technology. But the hand other industries can also cause negative impacts to workers or the environment surrounding the industry, namely the negative impact of safety hazard posed to workers from their jobs due process. Environmental impact could be in the form of industrial waste liquid such as chemical, while the solid form of unused materials such as scrap metal.

Mapping Risk research was conducted using HIRARC. HIRARC is a method of hazard identification, risk assessment and risk control that is usually used because this method is considered more appropriate and more accurately described the dangers arising from any work activities. In this method also provides an appropriate control measure for each hazard. Control needs to be done to prevent accident and work due to illnesses PAK, which could hurt the company.

From the results of identification and risk assessment has been carried using carried using HIRARC. Factors that may cause potential hazards in workshop bay 7 such as mechanical hazards such as crushing, collapse, slip, fall from height and falling objects. The danger of an electrical fire source. Chemical hazards include flammable hazards. Job hazards include the convenience of work, stress, fatigue and discomfort. While physical hazards including noise, lighting. Based on the results of risk assessment on each machine that is used in Workshop Bay 7 based on risk mapping showed that the machines are at risk include: Bliss Drill, Radial Drill, CNC Okuma, Bug'O, Gemini Machine, CNC Lathe and Band Saw. While the machine that has a low risk is PUNCH machine.

**Keywords:** Risk mapping, PAK (Diseases caused by work), HIRARC (Hazard Identification And Risk Assessment Control).