

EC52 - Pre-Instructional Survey

Name: _____ Date: _____

1. List the different SIL determination techniques and the general pros and cons of each.

EC52 – Pre-Instructional Survey Answer Sheet

1. **3-Dimensional Risk Matrix:**

A relatively simple, quick, qualitative technique. Requires clear boundaries between frequency and severity choices in order to be repeatable. May produce conservative answers (depending upon how it is calibrated).

Risk Graph:

Another relatively simple, quick, qualitative technique. As with the risk matrix, requires clear boundaries between frequency and severity choices in order to be repeatable. May also produce conservative answers (depending upon how it is calibrated).

Explicit LOPA (Layer of Protection Analysis):

A more detailed, semi-quantitative technique. Takes more time, but often produces more reasonable (i.e., lower) answers. Requires much more up front effort generating all the numbers that are required (e.g., initiating event frequencies, performance of various layers, tolerable risk levels), but may easily save money in the long run.

Implicit) LOPA:

Similar to explicit LOPA, but does not specify numerical tolerable risk targets, although they are actually embedded in the technique.