

best plp.doc

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SPAR HRA Human Error Worksheet (Page 1 of 1) Best Case

Plant: _____ Initiating Event: _____ Sequence Number: _____ Basic Event Code: HEP-DIAG-SFPLPI

Basic Event Context: _____

Basic Event Description: _____

Does this task contain a significant amount of diagnosis activity? YES X (start with Part I, p. 1) NO (skip Part I, p. 1; start with Part II, p.

2) Why? _____

Part I. DIAGNOSIS

A. Evaluate PSFs for the diagnosis portion of the task.

PSFs PSF Levels Multiplier for Diagnosis If non-nominal PSF levels are selected, please note specific reasons in this column

| | | | |
|---------------------|------------------------------|------------------|--|
| Available Time | Inadequate time | P(failure) = 1.0 | Time expansive due to boil off and leakage ratio. |
| | Barely adequate time <20 min | 10 | |
| | Nominal time ≈ 30 min | 1 | |
| | Extra time >60 min | 0.1 | |
| | Expansive time >24 hrs | 0.01 X | |
| Stress | Extreme | 5 | Stress high due to alarms. |
| | High | 2 X | |
| | Nominal | 1 | |
| Complexity | Highly complex | 5 | |
| | Moderately complex | 2 | |
| | Nominal | 1 X | |
| | Obvious diagnosis | 0.1 | |
| Experience/Training | Low | 10 | Highly trained. |
| | Nominal | 1 | |
| | High | 0.5 X | |
| Procedures | Not available | 50 | Diagnostic procedures available |
| | Available, but poor | 5 | |
| | Nominal | 1 | |
| | Diagnostic/symptom oriented | 0.5 X | |
| Ergonomics | Missing/Misleading | 50 | Well laid out and labeled alarms that match procedures. |
| | Poor | 10 | |
| | Nominal | 1 | |
| | Good | 0.5 X | |
| Fitness for Duty | Unfit | P(failure) = 1.0 | |
| | Degraded Fitness | 5 | |
| | Nominal | 1 X | |
| Work Processes | Poor | 2 | Crew and procedures that interact well in a good facility. |
| | Nominal | 1 | |
| | Good | 0.8 X | |

H150

(1) If all PSF ratings are nominal, then the Diagnosis Failure Probability = 10E-2

| (2) Otherwise, | Time | Stress | Complexity | Experience/ Training | Procedures | Ergonomics | Fitness for Duty | Work Processes | |
|------------------------------------|-------------------|------------------|-------------------|-------------------------|--|-------------------------|---------------------|---------------------|--|
| Diagnosis: 10E-2x $\underline{01}$ | $\underline{x.2}$ | $\underline{x1}$ | $\underline{x.5}$ | $\underline{x.5}$ | $\underline{x.5}$ | $\underline{x1}$ | $\underline{x.8}$ | $\underline{=2E-5}$ | |
| | | | | | 2E-5 x .05 = 1E-6 | | | Diagnosis | |
| | | | | | Combines diagnostics with HEP for walkdown | HEP-WLKDWN-DEPEN (5e-2) | | Failure Probability | |

