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

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

Basic Event Context: _____

Basic Event Description:_____

Does this task contain a significant amount of diagnosis activity? YES (start with Part I, p. 1) NO X (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		**Expansive time 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	X	**Stress extreme due to severe weather.**
	High	2		
	Nominal	1		
Complexity	Highly complex	5		**Complexity increased due to severe weather.**
	Moderately complex	2	X	
	Nominal	1		
	Obvious diagnosis	0.1		
Experience/Training	Low	10		
	Nominal	1	X	
	High	0.5		
Procedures	Not available	50		**Diagnostic procedures available.**
	Available, but poor	5		
	Nominal	1		
	Diagnostic/symptom oriented	0.5	X	
Ergonomics	Missing/Misleading	50		
	Poor	10		
	Nominal	1	X	
	Good	0.5		
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	

B. Calculate the Diagnosis Failure Probability

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(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	**.01**	x**5**	x**2**	x**1**	x**.5**	x**1**	x**1**	x**.8**	=**4E-4**

4E-4 x .05 = 2E-5

Combines diagnostics with HEP for walkdown HEP-WLKDWN-DEPEN (5e-2)

Diagnosis Failure Probability