Human Factors Engineering Design Guide – Human Factors Considerations Checklist

CHECKLIST. HUMAN FACTORS CONSI	CHECKLIST: HUMAN FACTORS CONSIDERATIONS					
CONSIDERATION	APPLIES	N/A	COMMENTS			
Fask Considerations						
Cognitive and physical task analysis						
2. Functions allocated to humans						
Human reliability analysis						
Process Equipment/Piping/Etc. Considerations						
1. Labeling						
2. Valve placement						
Gauge design and location						
Access for maintenance and control						
5. Physical requirements, e.g., strength, reach, etc.						
6. Communications						
7. Visual requirements						
8. Shift schedules						
9. Warning signs						
Control Room Design Considerations						
Console design and arrangement						
2. Seating						
3. Visual workspace						
4. Reach distances to controls and input devices						
5. Space provision (storage and personal)						
6. Interfaces with other areas of platform with respect to						
movement, communication and information flow						
7. Control building layout, aesthetics, and environment						
Communication protocols						
Personnel selection						
10. Alarm rationalization and emergency response						
11. Human error analysis for Process Safety Management						
12. Shiftwork effects						
13. Maintainability of the system						
14. Human-human interactions						
15. Task analysis and function allocation						
16. Physical arrangement of control suite						
17. Ancillary facilities						
18. Abnormal situation management						
19. Program architecture						
20. Other duties						
21. Function allocation						
22. Situation awareness						
23. Contextual navigation						
24. Organizational interactions						
25. Knowledge requirements						
26. Mental workload						
Human-Computer Interaction						
Control selection	T					
Input Devices and data entry						
Type of Information						
Display Method (VDT & Projected Images)						
 Display Metriod (VDT & Projected Images) Information presentation (e.g. color, size, font type, line type) 						
information presentation (e.g. color, size, font type, line type) Dialogue principles	+					



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CHECKLIST: HUMAN FACTORS CONSIDERATIONS							
	CONSIDERATION	APPLIES	N/A	COMMENTS			
7.	Operator/Maintainer Guidance						
Human Environment Interaction							
1.	Thermal (Temperature, relative humidity, air velocity)						
2.	Noise						
3.	Lighting (Luminance, reflected glare, contrast, color)						
4.	Vibration						
Other							
1.	Maintenance						
2.	Training						
	Procedures						
	Egress during emergencies						
5.	Personal protective equipment						
Proj	ect Specific Issues						
1.	Are there any project specific HFE standards?						
2.	Are there any client specific HFE standards?						
3.	Are there any regulatory requirements from the local						
	government specific to HFE?						
4.	Has a human factors report been prepared?						
5.	What are the local requirements vis-à-vis human factors?						
6.	Have there been any models (PDS or PDMS) reviewed? Are any planned?						
7.	Are HAZOP reports available for review? Do they list human activities as either mitigators or initiators?						
8.	Are specific ergonomics or HFE reviews planned?						
9.	· · · · · · · · · · · · · · · · · · ·						
10.	Is a procedure development plan in place?						
	Are vendor specification packet reviews planned and will they include HFE support?						
12	Has a task analysis been completed?						
	Are maintenance requirements in place and understood by the						
13.	project planners?						
14.	Do the business objectives include issues related to HFE (i.e., increased operability and maintainability)?						