



<b>CHECKLIST: CONTROLS</b>				
<b>CRITERIA</b>	<b>YES</b>	<b>NO</b>	<b>N/A</b>	<b>COMMENTS</b>
1. Are controls selected and distributed so that none of the operator's limbs will be overburdened?				
2. Are stops provided at the beginning and end of the range of control positions if the control is not required to be operated beyond the indicated end positions or specified limits?				
3. Is the direction of control movement consistent with the related movement of an associated display, equipment component, or vehicle?				
4. Do rotary and hand wheel valve controls open the valve with a counterclockwise motion and is labeling provided with double-ended arrows showing direction and function?				
5. Are all controls that function in sequential operation necessary to a particular task or that operate together grouped together along with their associated displays?				
6. When several steps of a sequence are selected by one control are the steps arranged by order of occurrence and is cycling through the control's ON/OFF position avoided?				
7. Where sequential operations follow a fixed pattern are controls arranged to facilitate operation?				
8. Do the most important and frequently used controls have the most favorable position with respect to ease of reaching and grasping?				
9. Is the arrangement of functionally similar or identical controls consistent from panel to panel throughout the system, equipment, or vehicle?				
10. Where controls are operated at a position remote from the display, equipment, or controlled vehicle are they arranged to facilitate direction-of-movement consistency?				
11. Are controls used solely for maintenance and adjustment covered during normal operation and readily accessible and visible to the maintenance technician when required?				
12. Is the minimum spacing between controls increased for operation with gloves, mittens, or protective hand wear when such operation is a system requirement?				
13. When coding is used to differentiate among controls is the application of the code uniform throughout the system and where possible is redundant coding provided?				
14. Are controls associated with similar functions in the same relative location from operator workstation to work station and from panel to panel?				
15. Are no more than three different sizes of controls used in coding controls for discrimination by absolute size?				
16. Are controls used for performing the same function on different items of equipment the same size?				
17. When knob diameter is used as the coding parameter is the difference between diameters not less than 0.5 in. (13 mm) and for thickness as a coding parameter that is the difference in thickness at least 0.39 in. (10 mm)?				
18. When shape coding is used are the shapes identifiable both visually and tactually?				
19. Shape coding does not effect the ease of control manipulation?				



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20. Can shapes used for coding be identified by hand regardless of the position and orientation of the control knob or handle?				
21. Can the shapes be tactually identified by an operator wearing gloves?				
22. Are a sufficient number of identifiable shapes provided to cover the expected number of controls that require tactual identification?				
23. Are shape coded knobs and handles positively and non-reversibly attached to their shafts to preclude incorrect attachment when replacement is required?				
24. Are shapes associated with or resemble control function and not alternate functions?				
25. Is color coding used only as a redundant method of coding?				
26. When color coding must be used to relate a control to its corresponding display is the same color used for both?				
27. Does the color of the control provide contrast between the panel background and the control?				
28. Is the color-coding compatible with anticipated ambient lighting?				
29. Are controls compatible with hand wear to be utilized in the anticipated environment?				
30. When "blind" operation is necessary are hand controls shape-coded or separated from adjacent controls by at least 5.0 in. (125 mm)?				
31. Are controls designed and located so that they are not susceptible to being moved accidentally?				
32. Are internal or hidden controls protected from accidental movement?				
33. Are controls free to operate within the time required to satisfy system requirement without regard to the method of protecting a control from inadvertent operation?				
34. Wherever operator incapacity can produce a critical system condition are dead man controls, which will result in system shutdown to a non-critical operating state, used?				