

What Makes a Good Activity?

Work Planning and Control (WPC) activities have several purposes. Activities describe work in sufficient detail to allow for an analysis of hazards associated with the work. Activities also communicate to the worker what work activities they are authorized to perform, what hazards are associated with that work, and what controls are necessary to protect the worker.

Work Process D in Chapter 6, Work Planning and Control (<http://www2.lbl.gov/ehs/pub3000/CH06-quickstart.html>) contains guidance on writing a quality description of work and customizing hazards and controls, but writing a quality activity isn't as easy as it seems. When creating or editing an activity, keep the following questions in mind:

- Will workers understand what work they are authorized to do after reading the description of work?
- Are the materials, tools, equipment and machinery authorized to be used under the activity described and clear to the worker?
- Are tasks or processes that require specific instruction described and clear to workers?
- Is there ambiguity in the description of work such that different workers reading the description of work may have different understandings of what they are authorized to do?
- Are important limits or boundaries of the activity clear to the worker? (e.g., when using a pressure vessel, the maximum operation pressure is xyz)
- Are critical "hold" points communicated? (e.g., when performing activity X, stop and get a hot work permit before proceeding)
- Is it clear to workers what hazards they are exposed to when performing the various tasks within the activity?
- Is it clear to workers what controls they must use/follow to protect themselves when performing the various tasks within the activity?
- Is the spirit of Integrated Safety Management (ISM) integrated into the activity? (e.g., are workers reminded to think through ISM before performing work or to talk to a PI if they are uncertain about a particular task)

Examples:

A November 2015 audit by DOE reviewed multiple activities, and DOE highlighted several examples they believed were well written activities. These were CH-0126, CH-0140, MS-0129, MS-0148 and MS-0187. Some of the attributes of these activities include:

1. Documenting important limits
 - a. ...The study of permeability will be conducted over a range of pressures *with a maximum operating pressure (MOP) of 220 psig.* (MS-0187)
 - b. ...Syringe transfers are used to transfer small quantities (*no more than 20 mL*) of a pyrophoric solution. (CH-0126)
2. Description of minimum on-the-job training requirements
 - a. ...On the Job Training (OJT) is a mixture of instruction, observation, and supervised activities... OJT should at a minimum include the following: (goes on to list 7 topics) (MS-0187)
3. Inclusion of bench-level Integrated Safety Management (ISM) needed before work can proceed
 - a. ...The use of pyrophoric reagents and potential problems that may arise *must be discussed* with both the new user's PI and the Activity Lead. (CH-0126)

4. Detailed information in the Description of Work on the most hazardous aspects of the activity and critical controls
 - a. **CH-0126** JCAP Catalyst Lab (Pyrophorics) describes the work in general and then lists specific information for syringe transfers, cannula transfers and glovebox work.
5. Detailed customization of hazards and controls
 - a. **MS-0129** has a modest description of work but adds critical details in the customization of the hazards and controls.
6. Use of pictures to clarify the activity
 - a. **MS-0148** describes the steps of the activity and uses pictures to show each step.
7. Breakdown of activities into distinct sections
 - a. **MS-0187** describes 1) description of work, 2) processes employed, 3) equipment used, 4) materials used, 5) training, 6) limitations, 7) hazardous waste handling, 8) emergency procedures, 9) inspection/maintenance, and 10) attachments.
 - b. **MS-0148** describes 1) description of work, 2) processes employed, 3) equipment used, 4) training, 5) hazardous waste handling, and 6) attachments.

While not necessary for all activities, inclusion of these types of attributes in activity descriptions may be useful. Remember, activities are key documents that inform workers about what work they are authorized to perform, the hazards of that work, and what controls they need to use or follow to minimize their risk of injury. Descriptions of work and any customization of hazards and controls in activities should ultimately be written with the worker in mind.

Finally, keep in mind that workers typically think in terms of specific tasks that need to be performed. One option is to describe the work in a way that is more likely to make sense to workers. This can be in the first person. "Under this activity, I do x, y and z." Also, use common vocabulary and grammar, and avoid use of specialized acronyms to help workers understand the scope of the activity.