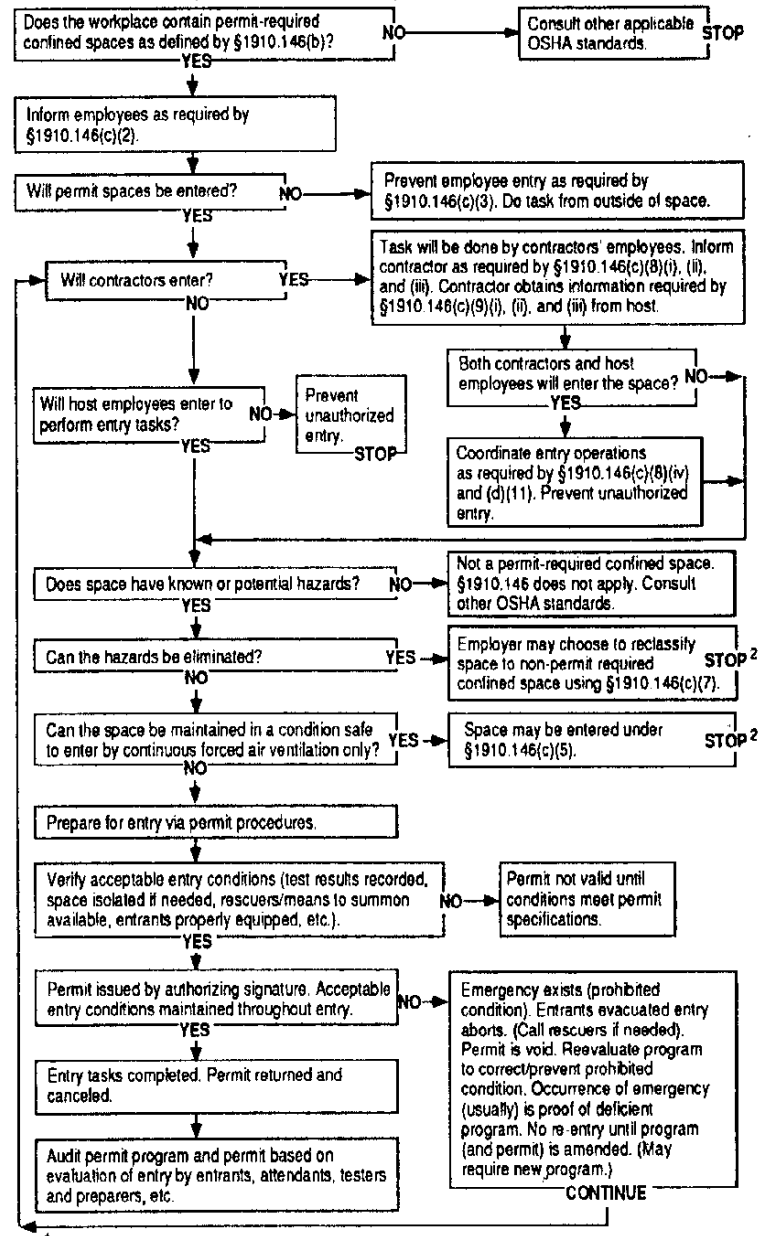


### Permit-Required Confined Space Decision Flow Chart



<sup>1</sup>Title 29 Code of Federal Regulations 1910.146, Appendix A  
<sup>2</sup>Spaces may have to be evacuated and re-evaluated if hazards arise during entry.

## Procedures for Atmospheric Testing In Confined Spaces<sup>1</sup>

Atmospheric testing is required for two distinct purposes: evaluation of the hazards of the permit space and verification that acceptable conditions exist for entry into that space.

(1) *Evaluation testing.* The atmosphere of a confined space should be analyzed using equipment of sufficient sensitivity and specificity to identify and evaluate any hazardous atmospheres that may exist or arise, so that appropriate permit entry procedures can be developed and acceptable entry conditions stipulated for that space. Evaluation and interpretation of these data and development of the entry procedure should be done by, or reviewed by, a technically qualified professional (e.g., OSHA consultation service, or certified industrial hygienist, registered safety engineer, certified safety professional) based on evaluation of all serious hazards.

(2) *Verification testing.* The atmosphere of a permit space which may contain a hazardous atmosphere should be tested for residues of all contaminants identified by evaluation testing using permit specified equipment to determine that residual concentrations at the time of testing and entry are within the range of acceptable entry conditions. Testing order should be oxygen, flammables, and then toxics.<sup>2</sup> Results of testing (i.e., actual concentration) should be recorded on the permit in the space provided adjacent to the stipulated acceptable entry condition.

(3) *Duration of testing.* Measurement of values for each atmospheric parameter should be made for at least the minimum response time of the test instrument specified by the manufacturer.

(4) *Testing stratified atmospheres.* When monitoring for entries involving a descent into atmospheres which may be stratified, the atmospheric envelope should be tested a distance of approximately four (4) feet (1.22 meters) in the direction of travel and to each side. If a sampling probe is used, the entrant's rate of progress should be slowed to accommodate the sampling speed and detector response.

(5) Periodically retest to verify that the atmosphere remains within acceptable entry conditions.<sup>3</sup>

<sup>1</sup>Title 29 Code of Federal Regulations 1910.146, Appendix B.

<sup>2</sup>29 CFR 1910.146 (c)(5)(II)(C) and (d)(5)(ii).

<sup>3</sup>29 CFR 1910.146 (c)(5)(II)(F) and (d)(5)(ii).