Each observer should make the evaluation independently of other observers and without influence from a panel leader. Users of subjective evaluation methods are cautioned that they only test odor and sensory responses. Some harmful contaminants will not be detected by such tests. Carbon monoxide and radon are two examples of odorless contaminants that pose significant health risks. To evaluate the acceptability of adapted persons (occupants), an observer should spend at least six minutes in the space before rendering a judgment of acceptability C-29.

REFERENCES

- C-1. ACGIH. 2005. Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices. American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, OH 45240-1634. www.acgih.org.
- C-2. Maximum Concentrations at the Workplace and Biological Tolerance Values for Working Materials 2000, Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area, Federal Republic of Germany.
- C-3. Martin, W., and A.C. Stern. 1974. The World's Air Quality Standards, Vol. II. The Air Quality Management Standards of the United States, Table 17, pp. 11–38. October 1974 (available from NTIS PB-241-876; National Technical Information Service, 4285 Port Royal Road, Springfield, VA 22161).
- C-4. U.S. Environmental Protection Agency. 2008. *Code of Federal Regulations*, Title 40, Part 50. National Ambient Air Quality Standards. www.epa.gov/air/criteria.html.
- C-5. U.S. Department of Labor, Occupational Safety and Health Administration. *Code of Federal Regulations*, Title 29, Part 1910.1000-1910.1450. www.osha.gov.
- C-6. U.S. Food and Drug Administration. 2004. *Code of Federal Regulations*, Title 21, Part 801.415 (maximum acceptable levels of ozone), April 1. www.gpo-access. gov/cfr/index.htm/.
- C-7. U.S. Environmental Protection Agency. 1992. A Citizen's Guide to Radon and Technical Support Document for the Citizen's Guide to Radon.
- C-8. Health Canada. 1995. Exposure Guidelines for Residential Indoor Air Quality: A Report of the Federal-Provincial Advisory Committee on Environmental and Occupational Health. Ottawa: Health Canada. www.hc-sc.gc.ca/hecssesc/air_quality/pdf/tr-156.pdf.
- C-9. U.S. Environmental Protection Agency. 1990. *Compendium of Methods for Determination of Air Pollutants in Indoor Air.* Document No. PB 90-200-288/AS, available from NTIS, Springfield, VA 22161.
- C-10. American Society of Testing and Materials. *Annual Book of ASTM Standards*, Section 11, Vol. 11.03 *Atmospheric Analysis; Occupational Health and Safety*. ASTM, West Conshohocken, PA.
- C-11. World Health Organization. 2000. *Air Quality Guidelines for Europe, 2nd Edition*. World Health Organization Regional Publications, European Series No.

- 91. World Health Organization, Regional Office for Europe, Copenhagen, www.euro.who.int/document/e71922.pdf.
- C-12. Commission of the European Communities. 1992. Report No. 11: Guidelines for Ventilation Requirements in Buildings. Joint Research Centre, Ispra (Varese), Italy.
- C-13.NIOSH. 2004. *NIOSH Pocket Guide to Chemical Hazards (NPG)*. National Institute for Occupational Safety and Health, February. www.cdc.gov/niosh/npg/npg.html.
- C-14. Shields, H.C., D.M. Fleischer, and C.J. Weschler. 1996. Comparisons among VOCs measured at three types of U.S. commercial buildings with different occupant densities. *Indoor Air* 6(1):2–17.
- C-15. Devos, M. F. Patte, J. Rouault, P. Laffort, and L.J. Van Gemert. 1990. *Standardized Human Olfactory Thresholds*. Oxford University Press, Oxford.
- C-16. California Air Resources Board. 2004. *Indoor Air Quality Guideline No. 1, Formaldehyde in the Home.*August. Sacramento, CA. http://www.arb.ca.gov/research/indoor/formaldGL08-04.pdf.
- C-17. American Society of Testing and Materials. 2004. Standard Practice for Conversion Units and Factors Relating to Sampling and Analysis of Atmospheres, D-1914-95(2004)e1. In Annual Book of ASTM Standards, 2004; Section Eleven, Water and Environmental Technology, Vol. 11.03. 100 Barr Harbor Drive, West Conshohocken, PA, 19428, www.astm.org.
- C-18.U.S. Environmental Protection Agency. *The Plain English Guide To The Clean Air Act*. EPA Office of Air Quality Planning and Standards. www.epa.gov/oar/oaqps/peg caa/pegcaa11.html.
- C-19.U.S. Environmental Protection Agency. 1988. *Health and Environmental Effects Profile for Formaldehyde*. EPA/600/x-85/362. Environmental Criteria and Assessment Office, Office of Health and Environmental Assessment, Office of Research and Development, Cincinnati, OH.
- C-20 U.S. Environmental Protection Agency. *Formaldehyde; Hazard Summary*. Technology Transfer Network, Air Toxics Web site, Office of Air Quality Planning and Standards. www.epa.gov/ttnatw01//hlthef/formalde.html.
- C-21 Hodgson, A.T. 1995. A review and a limited comparison of methods for measuring total volatile organic compounds in indoor air. In *Indoor Air*, Vol. 5, No. 4.
- C-22. Brown, S., M.R. Sim, M.J. Abramson, and C.N. Gray. 1994. Concentrations of volatile organic compounds in indoor air—A review, p. 123–34. In *Indoor Air*, Vol. 4.
- C-23. Daisey, J.M., A.T. Hodgson, W.J. Fisk, M.J. Mendell, and J. Ten Brinks. 1994. Volatile organic compounds in twelve california office buildings: Classes, concentrations, and sources, p. 3557–62. In *Atmospheric Environment*, Vol. 28, No. 22.
- C-24. Nielsen et al. 1998. In H. Levin (Ed.), *Indoor Air Guideline Values for Organic Acids, Phenols, and*

ANSI/ASHRAE Standard 62.1-2016

쿊