Resources for Cryogenic Safety

Books & Monographs

1. Safety in the Handling of Cryogenic Fluids, Edeskuty, F.J. & Stewart, W.F., Springer (1996)
2. Safety with Cryogenic Fluids, Zabetakis, M.G., Plenum Press (1967)
3. Oxygen Deficient Atmospheres, Compressed Gas Association Bulletin CGA SB-2, Compressed Gas Association (2014)
4. "Safety", Edeskuty, F.J. & Daugherty, M. in The Handbook of Cryogenic Engineering, Weisend II, J. G. (ed), Taylor & Francis (1998)
5. "Safety with Cryogenic Systems", Chapter 10 in Cryogenic Engineering, Flynn, T.M., Marcel Dekker (1997)
6. Cryogenic Safety Manual: A Guide to Good Practices, British Cryogenics Council (1991)
7. Cryogenic Safety: A Guide to Best Practices in the Lab and Workplace, F. Haug, T.J. Peterson, J.G. Weisend II Springer (2019)

Associations & Societies

1. Compressed Gas Association: A technical society covering all aspects of industrial gas production and use. They produce many useful safety guides including ones on oxygen use, design of pressure relief systems and Oxygen Deficiency Hazards http://www.cganet.com
2. American Society of Mechanical Engineers: Producer of pressure vessel and other pressure safety codes and standards https://www.asme.org
3. Cryogenic Societies: A number of technical societies exist covering aspects of cryogenics. All are dedicated to supporting the safe use of cryogenics and have a variety safety references and resources. Examples include:
   Cryogenic Society of America : http://www.cryogenicsociety.org
   British Cryogenics Council: http://bcryo.org.uk
   The Cryogenics Society of Europe: http://www.cryosoceurope.org
   The Cryogenics & Superconductivity of Japan: http://www.csj.or.jp/en/

Conferences

1. Cryogenic Operations Workshop - A biennial meeting (Even Years) concerning all aspects of cryogenic operations including safety. The link to the most recent meeting is given here: https://www.cockcroft.ac.uk/events/cryo-ops/
2. International Technical Safety Forum – A periodic workshop covering safety (including cryogenic safety) at high energy physics and synchrotron light facilities. The link to the most recent meeting is given here: https://indico.fnal.gov/conferenceDisplay.py?confId=8010
3. Cryogenic Engineering Conference - A biennial (Odd Years) meeting concerning all aspects of cryogenics including safety. Papers are published in Advances in Cryogenic Engineering. The link to the most recent meeting is given here: http://www.cec-icmc.org

4. International Cryogenic Engineering Conference - A biennial (Even Years) meeting concerning all aspects of cryogenics including safety. The link to the most recent meeting is given here: http://www.icec25-icmc2014.org

Laboratory Safety Chapters

A number of institutions have developed on-line safety manuals that describe their safety policies and requirements. Some of these are accessible to the public and may provide useful guidance. There are a few cautions when using this information. The first is the policies and processes are subject to change so one should be careful to use the most recent version. Also, the availability of these to the public is subject to change. Given these issues, the information in the links below is best used as an illustration of an approach rather than used verbatim.

1. Cryogenic and ODH safety at the SLAC National Accelerator Laboratory: http://www-group.slac.stanford.edu/esh/hazardous_substances/cryogenic/
2. Fermilab ESH&Q Manual: http://esh.fnal.gov/xms/ESHQ-Manuals/FESHM
3. "ESS Guideline for Oxygen Deficiency Hazard", ESS-0038692

Classes

1. "Cryogenic Engineering and Safety Course" by Cryoco LLC : info@cryocourses.com
2. "USPAS 2017 Cryogenics Course". On line course materials found at: http://uspas.fnal.gov/materials/17UCDavis/cryoeng.shtml