

Each of the following excerpts has an ambiguity, which is a word or phrase with more than one meaning. While poets make their living off ambiguities, engineers and scientists are often sued for ambiguities. For each excerpt, identify the source of the ambiguity: (1) improper syntax (word order), (2) missing comma, (3) unclear pronoun reference, or (4) grouping of conflicting words. For more information on ambiguities, see pages 90-96 in *The Craft of Scientific Writing*. You do not need to correct ambiguities because it isn't always possible to figure out what meaning was intended.

- 1) With the lid off the reactor core was exposed, allowing radioactive isotopes to escape.
- 2) We propose to provide the above engineering services hourly based on the following estimates.
- 3) Compared with the pollution of the average coal-fired plant, the thermal pollution of a nuclear power plant is less than 2 percent more.
- 4) Reductions up to 80% in heat and mass transfer coefficients were measured due to outgassing.
- 5) As airplane designs change the anti-ice systems also have to change.
- 6) Most people are diagnosed with phenylketonuria at birth.
- 7) The use of the thermal storage unit is limited to supplying low-pressure auxiliary steam because of insufficient excess energy from the undersized collector.
- 8) At this time, the Department of Energy is only considering Yucca Mountain as a possible storage site for nuclear waste. Other possible sites are excluded from discussion.
- 9) If the airplane waits too long to take off the de-ice fluid can dissipate.
- 10) The Lunar Module was only designed to hold two astronauts and to have a lifetime of forty-five hours.
- 11) The beams are positioned with respect to the chopper blade so that while one beam passes the output of the opposite beam is completely blocked.
- 12) The Hindenburg was filled with hydrogen because it is lighter than air...The report claimed that a hull wire could have ruptured a gas cell if it fractured.
- 13) Avoiding complicated multi-ordered calculations, the equations come from fundamental definitions of mass flow, work, and efficiency.
- 14) To provide spill protection, all tanks were equipped with basins and automatic shutoff devices or overflow alarms or ball float valves.
- 15) Being the first step in introducing CFD, Jones had to set up conservative assumptions.
- 16) As with any system errors occur in localization.
- 17) Having a model would help designers predict the effects of engine operation over all speeds.