Bhopal Plant Disaster
Ten Approaches to Teaching Ethics with the Bhopal Case

The IDEESE Bhopal Plant Disaster case includes seven appendices so that instructors may use the case for a variety of purposes. The following list describes the more popular approaches for using the case and recommends the best appendices for each approach.

1.) Workplace Ethics in Transnational Contexts

Professional codes of ethics are not consistent across countries. Scientists and engineers increasingly work in cross-cultural environments that necessitate skills to negotiate changes in ethical standards in a single, transnational workplace. This case can be used to discuss transnational aspects and applications of professional codes of ethics.

Recommended Appendices:

- Appendix A: Chronology
- Appendix D: Union Carbide Corporation

2.) International Accountability

International-level mechanisms that hold researchers, research institutes, firms, or others accountable to society are often misunderstood or ignored in current science and engineering curricula. This case can be used to discuss accountability in terms of innovation, self-regulation, scientific unions, corporate pressures, public and private standards, and corporation-specific campaigns and social movements.

Recommended Appendices:

- Appendix A: Chronology
- Appendix C: Economic/industrial climate of India
- Appendix D: Union Carbide Corporation
- Appendix E: Issues in Chemical Processing

3.) Transnational Diffusion of Ideas and Practices

Understanding the processes by which ideas and debates diffuse across countries is an important precursor to understanding several concepts and issues in international ethics.

Recommended Appendices:

- Appendix A: Chronology
- Appendix E: Issues in Chemical Processing
- Appendix F: Assessing Responsibility: The Legal/Regulatory System

This case was created by the International Dimensions of Ethics Education in Science and Engineering (IDEESE) Project at the University of Massachusetts Amherst with support from the National Science Foundation under grant number 0734887. Any opinions, findings, conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation. More information about the IDEESE and copies of its modules can be found at http://www.umass.edu/sts/ethics.

4.) Transnational Conduct

Effective participation in cross-border scientific cooperation requires sensitivity to the implications of differences in national ethics and standards. This case can be used to investigate the problems associated with political pressures and corporate efforts to control access to basic science information.

Recommended Appendices:

- Appendix A: Chronology
- Appendix D: Union Carbide Corporation
- Appendix E: Issues in Chemical Processing
- Appendix F: Assessing Responsibility: The Legal/Regulatory System

5.) Variation in International Regulatory Processes

The essence of international ethics is that variation exists among regulatory processes. This case may be used to examine variation in multilateral intergovernmental organizations such as United Nations Conferences, United Nations specialized agencies, regional conferences or commissions, and other international bodies including private industry standards-setting bodies.

Recommended Appendices:

- Appendix A: Chronology
- Appendix E: Issues in Chemical Processing
- Appendix F: Assessing Responsibility: The Legal/Regulatory System

6.) Responsible Participation

Scientists and engineers participate in international regulatory processes in a variety of ways. This case may be used to better define participation, particularly *responsible* participation, by delineating several categories of participation: epistemic communities, professional associations, scientists as citizen-advocates, scientists as employees of private organizations, and scientists as government officials. It can also be used to examine the various channels of influence open to each type of participation.

Recommended Appendices:

- Appendix A: Chronology
- Appendix B: Stakeholders and Level of Responsibility
- Appendix D: Union Carbide Corporation
- Appendix F: Assessing Responsibility: The Legal/Regulatory System
- Appendix H: Assessing Responsibility: Technical Expertise and Managers

7.) Ethical Conflicts Between Nations

Developing effective international level regulatory responses is particularly difficult when national ethical preferences collide. This case can be used to develop sensitivity to these difficulties.

Recommended Appendices:

- Appendix A: Chronology
- Appendix C: Economic/industrial climate of India
- Appendix E: Issues in Chemical Processing
- Appendix F: Assessing Responsibility: The Legal/Regulatory System

8.) Stakeholder Inclusion

The social context of science and engineering includes many actors. This case can be used to define and identify stakeholders in various contexts and explain a model of social mobilization.

Recommended Appendices:

- Appendix A: Chronology
- Appendix B: Stakeholders and Level of Responsibility
- Appendix D: Union Carbide Corporation

9.) Social Equity

Transnational scientific and engineering activity has effects on social equity. This case can be used to examine international-level mechanisms for raising social equity concerns including global multilateral organizations, regional multilateral organizations, transnational policy advocacy, transnational social mobilizations, and elite interchange.

Recommended Appendices:

- Appendix A: Chronology
- Appendix F: Assessing Responsibility: The Legal/Regulatory System

10.) Other Approaches

If you are interested in using this case for a series of class sessions and using more than one of the approaches above, the following sequence of approaches, starting with either Track 1 or Track 2, is recommended: