

## Appendix II

# Steps in the Case-Study Procedure

### 1. Identifying Ethical Issues

Ethics concerns actions that have the potential to seriously impact the lives of others, either directly or indirectly. List at least three ethical issues, posed in the form of questions.

### 2. Narrowing the Focus

Completeness in analysis is preferable to superficiality. Choose one of the above issues on which to focus, giving a short justification for the importance of the issue chosen.

### 3. Determining Relevant Facts

Facts related to case studies on engineering can be grouped into the following three categories: (1) material facts, (2) facts regarding individuals, and (3) facts regarding organization(s).

### 4. Making Reasonable Assumptions

Facts will always be missing, although one can make reasonable assumptions. List any relevant missing facts and reasonable assumptions one can make regarding these facts.

### 5. Undertaking Definitional Clarification

Go back through the previous steps, providing clarification regarding the use of terms and concepts that might be unclear, in relation to both issues and facts. Pay special attention to those that have “value connotations.”

### 6. Conducting Ethical Analysis

First, referring to principles for engineering, organizations, employees, and public involvement, list principles relevant to resolving the issue under consideration. Next, if conflicts exist between these principles, then decide which principles should take precedence. Is this hierarchy always applicable or only in this case? Finally, list any additional principles that would be relevant to resolving this issue.

### 7. Reviewing the Process

As case study analysis is an iterative process, go back through the previous steps, seeing if there are other issues or facts that have been overlooked, terms/concepts that can be clarified, or principles that apply.

**8. Resolving the Issue**

Based on the previous steps, resolve the issue under consideration, answering the question you identified in step 2. Additionally, give a brief justification for your answer.

**9. Identifying Practical Constraints**

Although the answer given previously is ideal, do practical constraints exist that could reasonably be said to excuse either individuals or organizations from the answer given? If so, then list what these excusing conditions would be.

**10. Avoiding Ethical Problems**

Finally, based on the previous steps of the case study analysis, how might ethical problems have been avoided in the first place?