

Engineering Ethics

Lecture 6



Engineers in Organizations

- ☐ Engineers do often experience a conflict between loyalty to their employer and loyalty to their profession.
- ☐ Many engineering codes, they want to be “faithful agents” of their employers.
- ☐ At the same time, as engineers they are also obligated to hold paramount the health, safety, and welfare of the public.
- ☐ Many managers are not engineers and do not have engineering expertise, so communication is often difficult.



Organizational Culture

- ❑ Engineers must first have some understanding of the organization in which they are employed. This knowledge helps engineers to understand
 - (1) how they and their managers tend to frame issues under the influence of the organization and
 - (2) how one can act in the organization effectively, safely, and in a morally responsible way.
- ❑ **Engineer-Oriented Companies:** In these firms, there is general agreement that *quality takes priority* over other considerations, except safety. In the words of one manager, “We have overdesigned our products and would rather lose money than diminish our reputation.”
- ❑ **Customer-Oriented Companies:** Decision making is similar to that of engineer-oriented firms, but with four significant differences. First, managers must focus on such business factors as timing and cost, engineers should focus on quality and safety. Second, *more emphasis is placed on business* considerations than in engineer-oriented companies. Third, Sometimes *quality can be sacrificed* to get the product out the door. Finally, communication between engineers and managers may be somewhat more difficult than in engineer-oriented firms.
- ❑ **Finance-Oriented Companies:** These firms are more centralized and that this has important consequences. For example, engineers may receive less information for making decisions and consequently their decisions are given less weight by managers.



Organizational Culture

- ☐ Suggestions that should make acting ethically easier and less harmful to the employee:
 - ☐ Engineers and other employees should be encouraged to report bad news.
 - ☐ Companies and their employees should adopt a position of “critical” loyalty rather than uncritical or blind loyalty. **Uncritical loyalty** to the employer is placing the interests of the employer, as the employer defines those interests, above every other consideration. **Critical loyalty** is giving due regard to the interests of the employer but only insofar as this is possible within the constraints of the employee’s personal and professional ethics.
 - ☐ Employees should focus on issues rather than personalities when making criticisms and suggestions.
 - ☐ Written records should be kept of suggestions and especially of complaints.
 - ☐ Complaints should be kept as confidential as possible for the protection of both the individuals involved and the firm.
 - ☐ Explicit provision for protection from retaliation should be made, with mechanisms for complaint if an employee believes he or she has experienced retaliation.
- ☐ Next to the **fear of immediate dismissal**, probably the greatest fear of an employee who is in disagreement with a superior is that he or she will **suffer discrimination** in promotion and job assignment, even long after the controversy is resolved.
- ☐ Protection from this fear is one of the most important of employee rights, although it is one of the most difficult to provide.



Functions of Engineers and Managers

- ❑ **Proper Engineering Decision (PED):** a decision that should be made by engineers or at least governed by professional engineering standards because it either
 - (1) involves technical matters that require engineering expertise or
 - (2) falls within the ethical standards embodied in engineering codes, especially those that require engineers to protect the health and safety of the public.
- ❑ **Proper Management Decision (PMD):** a decision that should be made by managers or at least governed by management considerations because
 - (1) it involves factors relating to the well-being of the organization, such as cost, scheduling, and marketing, and employee morale or welfare; and
 - (2) the decision does not force engineers (or other professionals) to make unacceptable compromises with their own technical or ethical standards.



Organizational Disobedience

- ❑ There are at least three distinct areas in which responsible engineers might be involved in organizational disobedience:
 1. **Disobedience by contrary action**, which is engaging in activities contrary to the interests of the company, as perceived by management.
 2. **Disobedience by nonparticipation**, which is refusing to carry out an assignment because of moral or professional objections.
 3. **Disobedience by protest**, which is actively and openly protesting a policy or action of an organization.
- ❑ In some situations, engineers find the actions of the employer to be so objectionable that they believe mere nonparticipation in the objectionable activity is insufficient. Rather, some form of protest, or “whistleblowing,” is required.



Whistle-blowing

- ❑ Whistle-blowing occurs when an employee or former employee conveys information about a significant moral problem to someone in a position to take action on the problem, and does so outside approved organizational channels (or against strong pressure).
- ❑ The definition has four main parts.
 - ❑ **Disclosure:** Information is intentionally conveyed outside approved organizational (workplace) channels or in situations where the person conveying it is under pressure from supervisors or others not to do so.
 - ❑ **Topic:** The information concerns what the person believes is a significant moral problem for the organization (or an organization with which the company does business). Examples of significant problems are serious threats to public or employee safety and well-being, criminal behavior, unethical policies or practices, and injustices to workers within the organization.
 - ❑ **Agent:** The person disclosing the information is an employee or former employee, or someone else closely associated with the organization (as distinct, say, from a journalist reporting what the whistle-blower says).
 - ❑ **Recipient:** The information is conveyed to a person or organization that is in a position to act on the problem (as distinct, for example, to telling it to a family member or friend who is in no position to do anything). The desired response or action might consist in remedying the problem or merely alerting affected parties.



Whistle-blowing

- ❑ **External whistleblowing** when the information is passed outside the organization.
- ❑ **Internal whistleblowing** when the information is conveyed to someone within the organization (but outside approved channels or against pressures to remain silent).
- ❑ **Open whistleblowing**, in which individuals openly reveal their identity as they convey the information.
- ❑ **Anonymous whistleblowing**, which involves concealing one's identity.



❑ Under what conditions are engineers justified in whistle-blowing?

1. The actual or potential harm reported is serious.
2. The harm has been adequately documented.
3. The concerns have been reported to immediate superiors.
4. After not getting satisfaction from immediate superiors, regular channels within the organization have been used to reach up to the highest levels of management.
5. There is reasonable hope that whistle-blowing can help prevent or remedy the harm.



Common Sense Procedures

- ❑ There are several rules of practical advice and common sense that should be heeded before taking this action
 1. Except for extremely rare emergencies, always try working **first through normal organizational channels**. Get to know both the formal and informal (unwritten) rules for making appeals within the organization.
 2. **Be prompt in expressing objections**. Waiting too long may create the appearance of plotting for your advantage and seeking to embarrass a supervisor.
 3. **Proceed in a tactful, low-key manner**. Be considerate of the feelings of others involved. Always keep focused on the issues themselves, **avoiding any personal criticisms** that might create antagonism and deflect attention from solving those issues.
 4. As much as possible, **keep supervisors informed of your actions**, both through informal discussion and formal memorandums.
 5. **Be accurate in your observations and claims, and keep formal records documenting relevant events**.
 6. Consult trusted colleagues for advice—**avoid isolation**.
 7. Before going outside the organization, **consult the ethics committee of your professional society**.
 8. **Consult a lawyer concerning potential legal liabilities**.

