



5.1 Responsibility in Engineering



The concept of responsibility is many-faceted. As a notion of accountability, it may be applied to individual engineers, teams of engineers, divisions or units within organizations, or even organizations themselves. It may focus primarily on legal liabilities, job-defined roles, or moral accountability

5.2 Engineering Standards



One way in which engineers can try to gain the trust of those they serve and with whom they work is to commit themselves to a code of ethics that endorses high standards of performance. Standards of responsibility expressed in engineering codes typically call for engineers to approach their work with much more than the minimalist dispositions mentioned previously



5.3 The Standard of Care



Engineers have a professional obligation to conform to the standard operating procedures and regulations that apply to their profession and to fulfill the basic responsibilities of their job as defined by the terms of their employment.



5.4 Blame- responsibility and causation

Now let us turn to negative concept of responsibility, when the Columbia accident investigation board examined the Columbia tragedy, it was focused on the physical cause and the organizational cause. The physical cause led to the broken left wing of the tank. The organizational cause were the defects in the organization and culture of NASA that led to the concern for safety.

It is also reference to the individual who were responsible for the accident. The board, however did not consider about the individual because it is not the primary mission of the board.





5.5 Liability



Engineers and their employers might try to excuse the failure to provide the safety and quality by pointing out that they have met existing regulatory standards, the courts will not necessarily agree.

5.6 Design Standard



As previously noted, most engineering codes of ethics insist that in designing products, engineer are expected to hold considerations of public safety paramount.



5.7 The Problem of many hands

Individual often attempt to evade personal responsibility for wrongdoing. Perhaps the most common way this is done., especially by individuals in large organizations is by pointing out that many individuals had a hand in causing the harm. A similar principle can apply to collective action . let us call it the principle of responsibility for action in groups. In a situation in which harm has been produced by collective action, the degree of responsibility of each member of the group depends on the extent to which the member caused the action by some action reasonably avoidable on his part. Again, the reason for the qualification is that if an action causing harm can only be avoided by extreme or heroic action on the individual part , then we may find reason for not holding the person responsible, or at least holding him less responsible.