

# A BALANCED OUTLOOK ON LAW

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The 'balanced outlook on law' in engineering practice stresses

- the necessity of laws and regulations
- their limitations in directing and controlling the engineering practice

Laws are necessary because

- people are not fully responsible by themselves
- of the competitive nature of the free enterprise, which does not encourage moral initiatives
- they are needed to provide a minimum level of compliance.

# 1. CODE FOR BUILDERS BY HAMMURABI

Hammurabi the king of Babylon in 1758 framed the following code for the builders:

“If a builder has built a house for a man and has not made his work sound and the house which he has built has fallen down and caused the death of the householder, that builder shall be put to death.

If it causes the death of the householder’s son, they shall put that builder’s son to death.

If it causes the death of the householder’s slave, he shall give slave for slave to the householder.

If it destroys property, he shall replace anything it has destroyed; and because he has not made the house sound which he has built and it has fallen down, he shall rebuild the house which has fallen down from his own property.

If a builder has built a house for a man and does not make his work perfect and the wall bulges, that builder shall put that wall in sound condition at his own cost”

This code was expected to put in self-regulation seriously in those years.

## 2. The United States Steamboat Code: (1852 AD)

- Steam engines in the past were very large and heavy.
- James Watt, Oliver Evans and Richard Trevethik modified them by removing condensers and made them compact.
- It led to an explosion due to high speed of boat.
- The safety valves were unable to keep the pressure up.
- More than 2000 people were killed.
- Due to this ruling Congress passed a law which provided for inspection of the safety aspect of the ships.
- But it became ineffective due to inadequate training, regarding safety checking, given to inspectors.
- Alfred Guthiro inspected the boats and found the reason for the explosions and made a report.
- With its help, another law was passed.
- Now the standards formulated by the American Society of Mechanical Engineers are followed

### **3. Proper Role Of Laws**

- Good laws when enforced effectively produce benefits.
- They establish minimal standards of professional conduct and provide a motivation to people.
- They serve as moral support and defense for the people who are willing to act ethically.



## 4. CONCLUSIONS

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- The rules which govern engineering practice should be construed as of responsible experimentation
- precise rules and sanctions are suitable in case of ethical misconduct that involves the violation of established engineering procedures
- they should not compel the engineers to follow rigid courses of action
- The regulation should be broad, but make engineers accountable for their decisions