

“Rule 1.3 shall work in conformity with recognized engineering standards so as not to jeopardize the health, safety and welfare of the public” (IESL, 2013)

“Rule 1.5 shall, in the event of their judgment being over-ruled in matters pertaining to health, safety and welfare of the community, inform their clients or employers of the possible consequences and bring to the clients' / employers' notice their obligations as professionals to inform the relevant authority.” (IESL, 2013)

Which elaborate on the exact ethical practice the engineers must practice to minimize such calibrations. The IESL code of ethics are very much objective and keep Engineer, Client and Public in the safe side and meanwhile encouraging safe engineering practice.

1.2 THE BOSTON MOLASSES DISASTER (1919)

This was well known disaster which named as “A sticky tragedy”. The rupture of a giant molasses tank in Boston which caused devastation and led to the longest legal case in the city’s history. A huge molasses tank 50 ft. (15 m) tall, 90-ft (27 m) which contained 2,300,000 US gal (8,700,000 L) and collapsed suddenly. Witnesses had stated that it collapsed with loud rumbling sound like a machine gun as the rivets failed and the ground had shaken as if a train were passing by. The collapse unleashed a gigantic wave of molasses between 8 and 15 ft. (2.5 to 4.5 m) high, moving at 35 mph (56 km/h). The molasses wave had generated a sufficient force to destroy the girders of the Boston Elevated Railway’s near Atlantic Avenue where a train had lifted off the tracks. Nearby, buildings were swept off their foundations and crushed. And there were casualties too and reports reveal that 21 were killed along with 150 injured. Tanks were never restored. Now it is a public park in bocce (Italian bowls) courts and fields of Little League Baseball, slide and swings. A small plaque at the entrance to the entertainment complex remembers the terrible incident which happened 90 years ago. Here we can see that the engineers who designed this tank have failed to think of the reverse effect and the sudden failures that can be occurred.

“Rule 8.1 shall carefully evaluate adverse environmental impacts and incorporate practical remedial measures to minimize them.” (IESL, 2013)

“Rule 8.2 shall consider theoretical, legislative, regulatory and policy aspects of environmental protection and sustainable management of the available resources” (IESL, 2013)