

From: Richard Andrews <dick0645@yahoo.com>
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To: NRCExecSec Resource
Subject: The NRC Was Primarily Responsible for the TMI Accident

Thank God for nuclear power plant reactor operators. They are the only occupational group mentioned by the NRC, on a recent NRC Blog, that deserves every penny they make. Good reactor operators are worth their weight in gold.

Improper NRC interference in the training of these professionals resulted in the only major accident in US commercial nuclear power plant history. Of course I am talking about the accident at Three Mile Island (TMI) in 1979. Up until then the NRC overemphasized the dangers of overfilling the reactor's cooling system. Overfilling is certainly not desired but under filling the cooling system is much, much worse. Under filling means there is not enough water to cool the highly radioactive fuel in the reactor leading to a reactor core meltdown. Overfilling results in a pool of water in the containment building; however, under filling results in a major nuclear accident.

The NRC, not just Mr. Magoo, had myopia. Myopia is also known as nearsightedness, only being able to see things clearly that are close up. As you recall Mr Magoo, the cartoon character, had terrible eyesight but refused to wear eyeglasses. He, therefore, always got into trouble. The NRC had nuclear myopia before the TMI accident in 1979. They required that all US nuclear plant operators have training in recognizing and countering a reactor cooling system overflow event. The NRC not only required it for operators to get an initial license but they also required that it be covered in requalification training at least once per year thereafter. The end result in this myopic training was that reactor operators were conditioned to even override automatic safety systems to prevent an overflow event. So it was really no surprise that when the operators at TMI saw the level in the reactor cooling system going up, they inappropriately intervened to stop it. The reason though the level was going up was not just due to

makeup water being pumped in automatically, but also by actual boiling in the reactor core itself. If the operators had not intervened, the automatic filling systems would have kept the reactor core covered and cooled and no accident would have occurred. By focusing on just one training objective, the NRC lost the big nuclear safety picture. Thankfully the NRC and the industry put their glasses on after this event. Many significant changes were made to the reactor operator training programs subsequently.

Although it is a tragic way to learn, the TMI accident helped improve nuclear plant safety.