

Ethics for the Occupational Health and Safety Professional

Case Study Number Two

In 1970 Ford introduced the Pinto. The Pinto was brought from inception to production in the record time of approximately 25 months (compared to the industry average of 43 months). In addition to the time pressure, the final design was not to exceed either \$2000 in cost or 2000 pounds in weight.

Under normal conditions design, styling, product planning, engineering, etc., were completed prior to production tooling. Because of the foreshortened time frame, however, some of these usually sequential processes were executed in parallel. As a consequence, tooling was already well under way (thus freezing the basic design) when routine crash testing revealed that the Pinto's fuel tank often ruptured when struck from the rear at a relatively low speed (31 mph in crash tests).

There were several possibilities for fixing the problem, including the option of redesigning the tank and its location, which would have produced tank integrity in a high-speed crash. That solution, however, was not only time consuming and expensive, but also consumed trunk space, which was seen as a critical competitive sales factor.

In addition, Ford used a cost-benefit analysis to support the decision. The National Highway Traffic Safety Association (NHTSA, a federal agency) had approved the use of cost-benefit analysis as an appropriate means for establishing automotive safety design standards.

The cost-benefit analysis stated the following:

Costs: \$137,000,000 (Estimated as the costs of a production fix to all similarly designed cars and trucks with the gas tank aft of the axle (12,500,000 vehicles X \$11/vehicle))

Benefits: \$49,530,000 (Estimated as the savings from preventing (180 projected deaths X \$200,000/ death) + (180 projected burn injuries X \$67,000/injury) + (2100 burned cars X \$700/car)).

Was the use of a cost-benefit analysis ethical in the Ford Pinto case? Why or why not?
