

# Delaware refinery blamed by board for fatal blast

*Inspectors said Motiva could have prevented the explosion in which a Bucks man died. Motiva denied wrongdoing.*

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By Tom Avril

Inquirer Staff Writer Federal safety inspectors blame the owner of a Delaware City, Del., refinery for a July 2001 tank explosion that killed a Bucks County man and injured eight others. Motiva Enterprises failed to fix holes in the tank of sulfuric acid and ignored its own employees' warnings that the tank needed a thorough inspection, the government investigators said in a report to be issued today.

The explosion might have been prevented had Motiva heeded the warnings, including one just three weeks before the blast, according to the U.S. Chemical Safety and Hazard Investigation Board.

The safety board is to vote on the report today; The Inquirer obtained a copy of the executive summary in advance.

It is one of several federal and state investigations into the blast, which killed Jeffrey Davis, 50, a boilermaker and father of five from Fairless Hills. His remains were never found, believed to have been consumed in the 1.1 million gallons of sulfuric acid that spilled from the exploded tank and other nearby tanks that were damaged in the explosion.

Motiva, a joint venture of Shell Oil Co. U.S. and Saudi Refining Inc., both of Houston, has denied any negligence or wrongdoing.

Motiva officials declined to comment in detail on the case yesterday, citing pending litigation, but said they had acted properly.

"We disagree with any characterization that the inspection reports were not acted upon," said Spiros Mantzavinos, a refinery spokesman. "We will carefully review their report and recommendations. Safety and environmental performance is our top priority."

In a separate report issued on Monday, a team of company management and union officials suggested that some blame lay with the contractor that was hired to repair catwalks around the tank.

That report acknowledged the presence of holes in the tank and the absence of certain safety measures, but it said the contractor's workers were using "arc gouging" torches that Motiva had not authorized and that generated lots of sparks, igniting vapors and causing the tank to lift off the ground.

The contractor, Washington Group International, did not return a request for comment yesterday.

The chemical-safety board blamed Motiva, saying the company never should have allowed the use of torches - or "hot work" - to occur before inspecting and repairing the tank.

"Hot work should not have been authorized," the report states. "Motiva was aware of the condition of the tanks and the fact that they contained flammables."

Some of the findings in the board's report had been aired previously.

Among the new elements were recommendations to prevent such accidents in the future. The company maintains its sulfuric-acid tanks are not governed by certain U.S.

occupational Safety and Health Administration rules.

The new report urges OSHA to revise the rules so that there would be no question that Motiva is covered.

Had they been followed, the rules would have required Motiva to conduct a safety review before converting the tank from one that held "fresh" sulfuric acid to one that contained "spent" acid, the board found. Spent acid often contains flammable hydrocarbons, which are believed to have been ignited by sparks from the torches.

The chemical-safety board also said Motiva failed to install an adequate "inerting" system - which would have pumped in sufficient carbon dioxide to prevent any gases from igniting. The refinery did have an inerting system on the tank that blew up, but it consisted of an ineffective rubber hose, the board found.

The safety board does not issue fines or citations or apportion responsibility for accidents. Its mission is to prevent future accidents through investigations.

Other investigations into the Motiva explosion have been conducted by OSHA, Delaware officials, and the U.S. Environmental Protection Agency, which filed a lawsuit last month seeking damages of more than \$55 million.

An attorney for Davis' widow, Mary, who has filed a federal suit against Motiva, said he was encouraged by the various findings.

"These governmental agencies have come down in the harshest of terms against Motiva," said attorney [Thomas R. Kline](#). "It just speaks volumes as to the character and nature of the misconduct that the various investigating agencies found."

Kline said he had not seen the complete report from the chemical-safety board yet but had seen a summary.