

**Two Killed in Barge/Tour Boat Collision  
Delaware River near Philadelphia, PA  
July 7, 2010**

**Outline**

**What  
When**

Problem(s)  
Date  
Time  
Different, unusual, unique

Problem(s)	Barge, tour boat collision
Date	July 7, 2010
Time	2:37 p.m.
Different, unusual, unique	Barge propelled by tug boat; tug boat lookout on cellphone; mechanical problem on tour boat; Tug boat Master off-duty, below deck
State, city	Near Philadelphia, PA
Facility, site	Delaware River
Unit, area, equipment	Tour boat, barge
Task being performed	Barge propelled by tug boat; tour boat

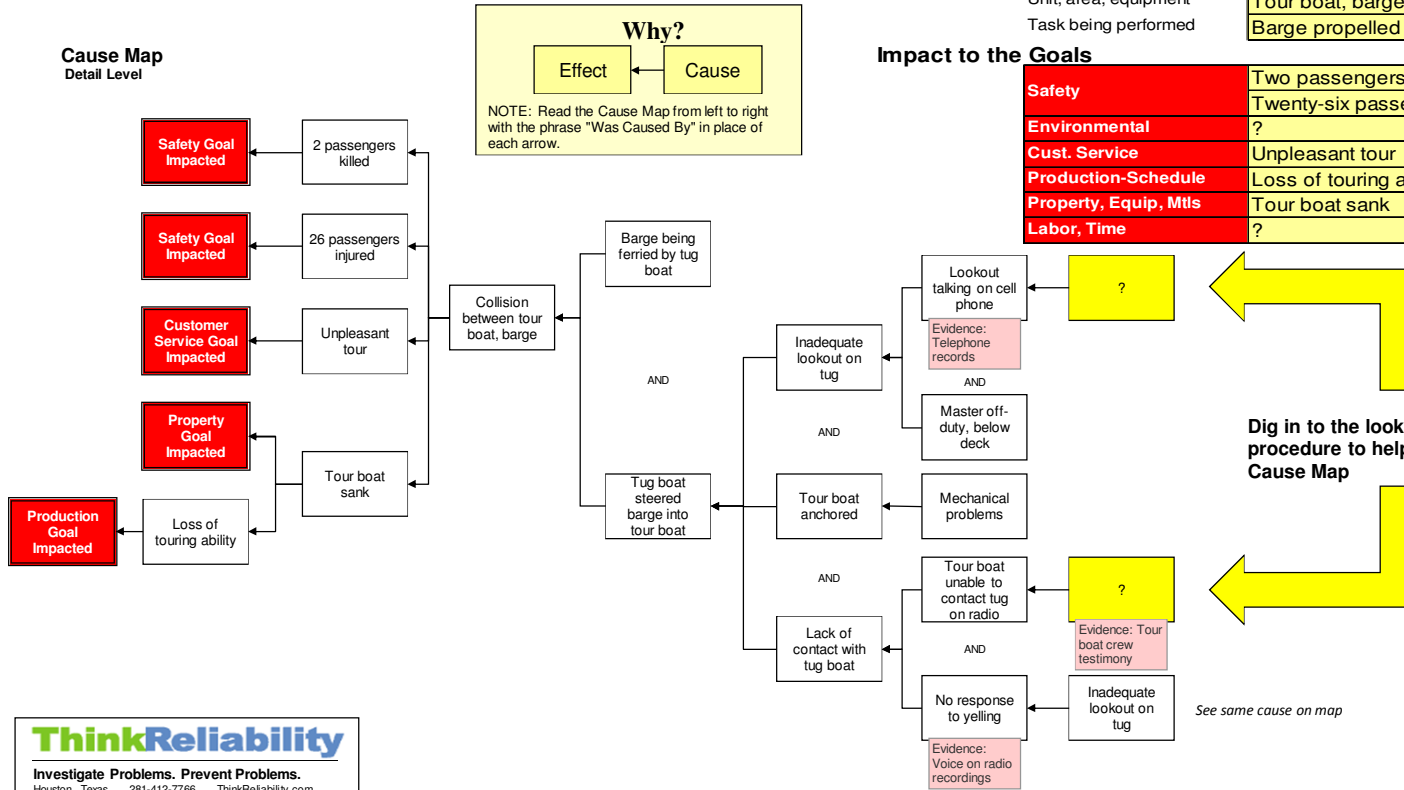
**Where**

State, city  
Facility, site  
Unit, area, equipment  
Task being performed

**Impact to the Goals**

<b>Safety</b>	Two passengers died
	Twenty-six passengers injured
<b>Environmental</b>	?
<b>Cust. Service</b>	Unpleasant tour
<b>Production-Schedule</b>	Loss of touring ability
<b>Property, Equip, Mtls</b>	Tour boat sank
<b>Labor, Time</b>	?

**Cause Map  
Detail Level**



**Dig in to the lookout & radio procedure to help finish the Cause Map**

*See same cause on map*

