Hurricane Katrina hit the center of the American petrochemical industry, shutting down eight refineries, hundreds of oil-drilling platforms, and numerous other industrial facilities. This paper presents the results of a reconnaissance field trip to the disaster-stricken area to document damage to industrial facilities and to investigate releases of hazardous materials and oil spills into the environment during and following Hurricane Katrina. Furthermore, the study assessed the adequacy of prevention and preparedness measures undertaken by facilities in preparation for the storm and the emergency management efforts undertaken in response to the catastrophic events that unfolded in the days after the storm.

This study is significant in that it provides first-hand data on the incidence of damage to and hazardous materials releases from industrial facilities affected by the hurricane. These results can assist policy makers, government officials, and industry owners/operators by providing lessons learned and recommendations for better response planning for chemical accidents during hurricanes and other flood events. In addition, the study results and lessons learned can be transferred to other densely populated and industrialized regions of the world through development of guidelines on prevention and preparedness of chemical accidents during tropical cyclones and flood events.