

Pasadena Citizens' Advisory Council

www.pasadenacac.org

Summary of Wednesday, April 25, 2018 Joint Meeting with Bay Area Community Advisory Panel

RANKING OF CHEMICAL FACILITIES BASED ON POTENTIAL TO CAUSE HARM TO THE PUBLIC:

DATA USED BY HOUSTON CHRONICLE IN PERIODIC ARTICLES ON CHEMICAL RISK

Pasadena Citizens' Advisory Council (PCAC) and Bay Area Community Advisory Panel (BAYCAP) met jointly on April 25, 2018 to hear Dr. Sam Mannan of the Mary Kay O'Connor Process Safety Center at Texas A&M University in College Station describe a project to rank chemical facilities based on the potential to cause harm to the public. Mannan said we all must live with hazards but can control risk. He said kitchen knives and gas are hazardous, but the solution is not to get rid of them. Instead, we take steps to reduce the risk from those hazards. He hopes that his rankings will help emergency responders and communities reduce the risk from hazards in chemical facilities.

Mannan said the idea for the study came after explosions in West, Texas and China involving the same chemical, ammonium nitrate. Mannan observed that its hazards were well known but simple steps had not been taken to handle it properly. First responders should have had the best information available about what they were fighting, but they did not. Sensitive populations, including a school and nursing home, were located very close to the ammonium nitrate. In one case, community members did not know to avoid running into the cloud. He became interested in looking at Houston area facilities but found it challenging to obtain data. Two *Houston Chronicle* reporters who heard Mannan speak at a conference offered to obtain data for him using right-to-know and Freedom of Information Act (FOIA) requests. The Chronicle chose the focus area. Texas A&M controlled the study process and wrote the report. The Chronicle wrote stories based partly on Mannan's report.

Mannan's group developed a rating system to assess hazards of 2,601 different facilities in the greater Houston area. These included East Harris County Manufacturers Association (EHCMA) plants, of which there are 130, as well as many small facilities handling chemicals. The information came primarily from Tier II chemical inventories. The potential to cause harm to the public (PCHP) index considers the inherent hazards of the chemical, the quantity of the chemical stored at a facility and the population density surrounding the facility. Mannan was interested in including information on the rate of incidents at a facility but did not because that information was not readily available.

The PCHP Index may be used to engage in a dialogue for better risk management, emergency response planning, and sharing information with the public and emergency responders.

Based on the PCHP formula, of the 2,601 facilities rated in the greater Houston area: 1,941 were in the low range; 605 were in the medium range; and 55 were in the high range. More detailed information on the 55 facilities in the high range may be found in Section 6.0 - Appendix in the attached PCHP Final Report.

Mannan's final report is attached, as are his slides. To access both the eight-part series of the *Houston Chronicle* on Chemical risk and the methodology of the study, please click on the following link. <https://www.houstonchronicle.com/chemical-breakdown/1/>. The links to the other parts of the series are found at the top right corner of the webpage.

###