



U. S. Chemical Safety and Hazard Investigation Board

RECOMMENDATIONS STATUS CHANGE

SUMMARY

Report:	ExxonMobil Torrance Refinery Electrostatic Precipitator Explosion
Recommendation Number(s):	2015-02-I-CA-R9
Date Issued:	May 3, 2017
Recipient:	Torrance Refining Company LLC
New Status:	Open - Acceptable Response or Alternate Response
Date of Status Change:	May 29, 2018

Recommendation Text(s):

At the Torrance refinery, require a siting risk analysis be performed of the FCC unit electrostatic precipitator and implement appropriate safeguards to minimize the consequences of an electrostatic precipitator explosion.

Board Status Change Decision:

A. Rationale for Recommendation

On February 18, 2015, an explosion occurred in the ExxonMobil Torrance, California refinery's Electrostatic Precipitator (ESP); a pollution control device in the fluid catalytic cracking (FCC) unit that removes catalyst particles using charged plates that produce sparks during normal operation. The incident occurred when ExxonMobil was attempting to isolate equipment for maintenance while the unit was in an idle mode of operation. Preparations for the maintenance activity caused a pressure deviation that allowed hydrocarbons to backflow through the process and ignite in the ESP.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) identified several process safety design weaknesses in the Torrance refinery FCC unit at the time of the incident. As a result, the CSB made four recommendations to Torrance Refining Company LLC. This recommendation is specific to requiring a siting risk analysis be performed of all ESPs and the implementation of appropriate safeguards.

B. Response to the Recommendation

Torrance Refining Company LLC (TORC) stated that it is currently evaluating if there are feasible and cost-effective ESP over-pressurization measures that could be implemented to reduce the severity of damage to the ESP and surrounding equipment in the event of a similar ESP incident. TORC stated that it expects to complete this evaluation within the next 90 days and will report back to CSB with the results of this evaluation.

C. Board Analysis and Decision

Based upon the information above, the Board voted to designate the status of CSB Recommendation No. 2015-02-I-CA-R9 as **“Open-Acceptable Response or Alternate Response.”**