
Momentive

Momentive Performance Materials: Ohta Facility *Ohta, Japan*

RAN Fire Protection Engineering started with a preliminary evaluation to identify issues that may be associated with the remaining life span of existing fire protection systems, necessary upgrades to address the insurance company recommendations, general compliance with NFPA standards, and the identification of system performance modifications if needed.



Support for Momentive included preparing and reviewing documentation for submission to the Insurance Company; evaluation of Insurance Company's recommended upgrades; and coordination with the fire brigade to verify implementation of fire protection changes and installations to ensure the systems meet the fire brigade's requirements conditions in fire detection, suppression, and control systems. Assessment of risks caused by nonconforming conditions in fire detection, suppression, and control systems was conducted. In order to overcome the language barrier, RAN engaged the services of a fire protection company based in Japan that was fluent in both English and Japanese. This provided seamless communication despite the language barrier.



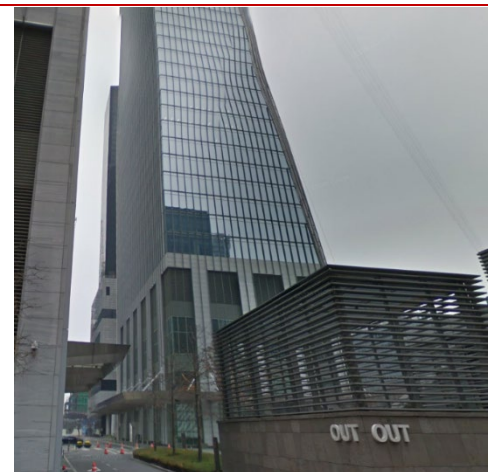
Momentive Performance Materials, Rayong Facility *Rayong, Thailand*

RAN Fire Protection Engineering provided fire protection engineering support, fire protection facility evaluation, risk assessment, and identification of ancillary facility infrastructure upgrades associated with the proposed fixed fire protection system installations.

Support activities included the review of the FM Global Risk Report, identifying cost reduction options that may be available as alternatives, coordinating with the FM inspector, and preparing and reviewing documentation for submission to the Insurance Company. Services to evaluate the Insurance Company's recommended upgrades and arbitration were provided as needed to ensure the proposed design criteria met their regulations.

Momentive Performance Materials, Korea Facility *Seoul, Korea*

RAN Fire Protection Engineering provided fire protection engineering services on an as needed basis. These include supportive services to ensure the Insurance Company's requirements were met. To do this, RAN reviewed the proposed fire protection system compliance with the Insurance Company and NFPA standards and requirements and preparing and reviewing documentation for submission to the Insurance Company in relation to risk management mitigation efforts. RAN also reviewed compliance with internal and external standards for designs of the new fire protection systems and provided options to identify and achieve fire protection goals based on the review of the project. Lastly, RAN reviewed drawings and specifications of the proposed fire protection system installations.



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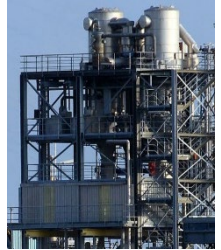
Momentive Norco Fire Pumps

RAN Fire Protection Engineering provided consulting services for the Momentive Norco Facility. RAN observed the existing fire protection systems, which included the fixed fire system, fire alarm, and fire department operations. RAN also documented all the existing conditions with the water supply, and then provided a final report on the existing conditions for insurance requirements.

MPM Toluene Tank

Waterford, NY

RAN Fire Protection Engineering provided consulting services for the fire protection design of the toluene storage tank at Momentive Waterford, NY. RAN provided the design criteria information and development of construction documents. RAN Fire Protection engineering also provided working drawings to provide to the fire protection contractor for installation.



Consulting for MPM Texas City Facility

Texas City, TX

To begin our work at this facility, RAN performed a facility evaluation for the existing fire protection systems. This involved reviewing all pertinent documentation of the fire protection systems in the facility, reviewing procedures, developing a needed fire flow for the existing conditions of the fire protection systems, and providing a report and provide recommendations. RAN also supported Momentive in assessment of risks caused by non-conforming conditions in fire detection, suppression,

and control systems. RAN also provided an evaluation of the Insurance Company's recommended upgrades, supporting Momentive in preparing and reviewing documentation for submission to the insurance company, and identification of any ancillary facility infrastructure upgrades.

MPM Facility Fire Alarm Design

Texas City, TX

RAN Fire Protection Engineering provided a variety of services throughout the design and construction process. Scope items include site documentation and develop AutoCAD documents. Additionally, RAN developed schematic layout of system coverage and function before the design of construction documents. RAN provided construction documents for the design of a fire alarm system and initiating device layouts that properly interfaced with the existing fire protection systems. RAN also provided services during the bid phase and construction administration. Services in these scopes include answering questions throughout the RFI process, issuing addendum, and processing shop drawings. RAN Fire Protection Engineering documented the existing site conditions by walking through the site and interviewing site personnel to develop documents of the structures in AutoCAD.





MPM Fire Alarm *Fayetteville, NC*

RAN developed a schematic layout of system coverage and function. In order to finalize the design, a site visit was conducted to ensure success. Following the design development, RAN designed a wireless fire alarm system and fire alarm notification appliance. These were accompanied by device layouts with appropriate interfaces to existing fire protection systems. Each fire alarm system was also designed in compliance with the North Carolina Building Code.

MPM Fire Pumps *Friendly, WV*

RAN Fire Protection Engineering worked with Momentive to assess and fix their pre-existing fire pumps at their Friendly Facility. RAN assessed the fire hazards and water demand requirements at the site, as well as interviewed facility personnel in order to gather more information. Existing documents and procedures were also discussed and looked at to better assess the situation. The last step in assessing the fire pumps, was investigating and understanding the fire pumps in question. After analyzing the fire pumps efficiently and effectively, a list of options and recommendations were created in order to address the fire pump deficiencies. RAN consulted with Momentive about the list and discussed the best course of action to take.



MPM Bldg 80 FA Evaluation *Waterford, NY*

RAN Fire Protection Engineering offers the following proposal for fire protection engineering consulting services for Building 80 fire alarm system at the Momentive Waterford facility. The scope of services included a site visit, code analysis, development of design criteria, and a memo report outlining the current fire protection systems and comparing that to what is required by code.

MPM B12 224-226 Lab *Waterford, NY*

RAN Fire Protection Engineering performed fire protection engineering design services for the renovations to the existing fire sprinkler system within the Building 12 224/226 Labs at Momentive Performance Materials.

Scope of services included developing fire sprinkler Construction Drawings in accordance with NFPA-13 and applicable FM Global requirements, performed NFPA-13 code analysis to determine applicable sprinkler system design criteria, hydraulic calculations and an installation site visit.



Momentive



MPM WV T-824-U

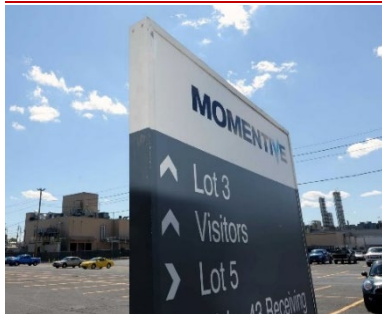
Sistersville, WV

A new 8,000 gallon RCRA hazardous waste tank was installed in the Momentive site at Sistersville, WV. The tank has its own secondary containment diking and fire spray protection for the tank was determined to be necessary. RAN was tasked with reviewing and providing feedback to the design prior for approval and installation of the sprinkler system.

Momentive Performance Material ICN Expansion project

Friendly, WV

RAN Fire Protection Engineering offered a proposal for fire protection engineering consulting services for the ICN Expansion project. This proposal included: Reviewing drawings and specifications of the proposed ICN Expansion to determine the design criteria of the fire protection systems, reviewing compliance with internal and external standards for designs of new or modification of existing fire protection systems, and a memo report outlining the findings.



MPM Bldg 30 WP Expansion

Waterford, NY

RAN Fire Protection Engineering provided consulting services to Momentive's Waterford facility. RAN reviewed the existing building documentations to determine the extent of existing fire protection systems, which helps determine viable options for fire detection and notification systems. Finally, RAN reviewed Building Codes, Fire Codes, and NFPA-72 standard, in order to confirm that the sprinklers are in compliance with the codes and standards.

MPM WV Silanes CEU 3 Truck Spots

Friendly, WV

RAN Fire Protection Engineering provided consulting services to Momentive's Friendly facility. RAN reviewed drawings and specifications of proposed work to determine the design criteria of fire protection systems. They also reviewed internal and external standards, in order to confirm that the sprinklers are in compliance with the codes and standards. RAN provided additional services to the project as needed.



MPM Newark FM Recommendations

Hebron, OH

RAN Fire Protection Engineering provided consulting services to Momentive's Ohio facility. RAN provided fire protection engineering support to address the FM Global Risk Report for the facility. They also supported Momentive in assessing risks and preparing and reviewing documentation for submission.

MPM Thailand FM Recommendations

Thailand

RAN Fire Protection Engineering provided consulting services to Momentive's Rayong facility. RAN provided fire protection engineering support to address the FM Global Risk Report for the facility. They also supported Momentive in assessing risks and preparing and reviewing documentation for submission.



MPM Bldg 30 WP Wet Room

Waterford, NY

RAN was retained by Momentive's Waterford facility to perform fire protection system evaluations. The evaluation consisted of analyzing the current fire protection systems located in building 30, as well as providing drawings as needed.

MPM New Smyrna Beach Fire

New Smyrna Beach, FL

RAN was retained by Momentive to provide fire protection system designs for their New Smyrna Beach Facility in Florida. The scope of services included the design of a new sprinkler system in the warehouse, new fire pump and pump house structure to address the existing and proposed fixed fire system demands at the facility.



Momentive B12 Office Renovations

Pittsfield, MA

RAN Fire Protection Engineering provided fire protection engineering design service for Momentive Building 12 office space renovations at their Pittsfield Facility. The first phase of RAN's scope of services included reviewing, developing, and implementing the investigative study parameters and further investigate the system code issues, and site utilities. The second phase included the creation of design drawings for sprinkler and fire alarm systems. Additional services were provided as needed.

MPM WV FP Facility Analysis

Friendly, WV

RAN Fire Protection Engineering provided an extensive fire protection evaluation at Momentive's West Virginia Facility. The evaluation included the following systems: warehouse sprinkler system, underground fire water line replacement master plan, and design criteria for replacement of Heat Actuating Devices on deluge system.

