



## Investigation and Corrective Action

### Standard Investigation Report

#### Incident ID: 122279 (Supervisor Report)

#### **Incident Information**

Incident Details		
<b>Incident Title:</b> Parylene C Vapour Release Aug 10/18 in EME0207		
<b>Date:</b> Aug 10, 2018	<b>Time:</b> 2:40 PM	<b>Building:</b> OK - EME - Engineering /Management/Education
<b>Description of Incident Location:</b> Ground Floor Lab, EME0207, Parylene C leak originated from room housing Parylene C Deposition Machine.		
<b>Accident Type:</b> Spills or Gas Leaks	<b>Injury Type:</b> No Injuries	
<b>Describe fully what happened before, during, and after the incident (please do not include names or personal information):</b> Undergraduate student was operating Parylene C Deposition Machine with improper/incomplete operating procedure documentation. At the time of the incident, people present in the lab included one volunteering high school student, one graduate student, and two undergraduate students. One undergraduate student allowed furnace to vaporize Parylene C, then proceeded to switch on the Parylene C Deposition Machine Vacuum pump. Student had been previously told to monitor gauges and ensure vacuum began to develop quickly. Undergraduate student and high school student left room for approximately 5 minutes, and returned to find white smoke in room containing Parylene C Deposition Machine. Student 'Emergency Stopped' process, reported situation to graduate student in the same lab. Grad student observed the Deposition Machine status, and questioned the undergraduate student on the steps they followed. Second undergraduate student went to alert the appropriate authorities. Remaining people in lab began to gather belongings, and left the lab within 5 minutes. One lab technician came to check on the situation. Undergraduate student (who had been operating machine) and lab technician entered lab and discussed occurrence beside Parylene C Deposition Machine for approximately 5 minutes. A second graduate student also arrived and participated in the conversation. Afterward, lab technician advised everyone to wait outside the lab until an appropriate SDS sheet could be consulted. Shortly thereafter, the assumed airborne concentration was deemed potentially hazardous, and the lab was sealed off until Aug 11 2018 8:00AM.		

#### **Accident Investigation**

##### Task Related Causes



<input checked="" type="checkbox"/> <b>Procedures Not Followed</b>	
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<b>Environment Related Causes</b>	
<input checked="" type="checkbox"/> <b>No "Environment" causes</b>	

<b>Equipment Related Causes</b>	
<input checked="" type="checkbox"/> <b>No "Equipment" causes</b>	

<b>Organizational Related Root Causes</b>	
<input checked="" type="checkbox"/> <b>Standard Operating Procedures not available/inadequate</b>	

<b>Human Related Root Causes</b>	
<input checked="" type="checkbox"/> <b>No "Human" related causes</b>	

<b>Root cause</b>
<p><b>Incorporating the above factors, determine and describe the root cause of the incident or accident:</b> The SOP for the Parylene C machine in the lab folder was out of date - missing the step to attach vacuum pump to heating compartment before turning on the heat. The updated version was available as a digital copy on the lab shared drive but the student was following the paper copy in the outdated lab folder.</p>

## **Corrective Actions**

<b>Corrective Action to prevent recurrence of similar incidents (1)</b>		
<b>Corrective Action Identified:</b> Update the SOP in the lab folder and ensure all students operating the machine in the future are following the updated SOP and are aware of the safety precautions needed to work with Parylene C		
<b>Assigned to (name):</b> Nishat Tasnim	<b>Job title:</b> Lab Technician and Manager	
<b>Final Actions Taken:</b> All students operating the Parylene C machine will have to be supervised by Nishat Tasnim to ensure safety and proper usage of machine.		
<b>Date to be Completed:</b> 2018-08-17	<b>Date Completed:</b> 2018-08-17	