

TO: Ron McCready (Dow)
FROM: Alan Olson
DATE: November 5, 1992
SUBJECT: NBS Cone Corrosimeter

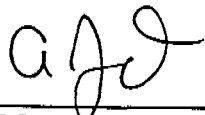
Battelle, Columbus, OH
Rich Markham (Polymers)
Ian Wright (Corrosion)

I explained to Wright the structure and purpose of the NBS Cone Calorimeter/corrosimeter apparatus. (Markham had seen our apparatus at ALTC in July.) I also showed several PC board targets and reviewed recent SPI Polyelfin-sponsored work at UL on polymeric w/c materials. I stated that VI is interested in making the statement "All polymers that burn cause corrosion," and that some science (perhaps provided by Battelle) would strengthen the statement, along with the active SPI\UL data.

Wright noted that Bill Abbott at Battelle is the country's expert on corrosion of PC boards and electrical contacts. We visited Abbott's lab (he was out), and saw three large (walk-in) plexiglass environmental chambers to simulate a clean room, an office and a factory floor. Free Cl_2 , SO_2 , NO_2 and H_2S are introduced at ppb levels. Corrosion of contacts and copper on the boards occurs. Major manufacturers (IBM, AT&T, AMP, Rogers, etc.) are supporting this project.

Wright offered to help develop techniques for specifying corrosion products via ESCA and SEM (Battelle's techniques) for the above project.

I will invite Abbott and Wright to ALTC to observe the apparatus and discuss putting a proposal together for the next VI technical committee meeting in January.



Alan J. Olson

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