



Interoffice Communication

To G. J. Fryar - Ponca City
From J. A. DeBernardi
Date January 24, 1980
Subject PPG Boiling Liquid Reactor Questions

As requested at the VCM expansion meeting held in January, attached are questions we would suggest asking PPG related to their BLR technology.

A handwritten signature in black ink, appearing to read "J. A. DeBernardi", with a long horizontal stroke extending to the right.

J. A. DeBernardi

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Enc
CC + enc:
HDG-GLF-JRH-JWW-FJE

CCR 000066784

SAFETY

- 1) How is reactor vapor space explosivity controlled?
- 2) What personnel exposure problems involved in FeCl_3 addition system?
- 3) Was the BLR system involved in the plant disaster occurring in 1969 (I think)? If so, what changes made to overcome problems leading to disaster?
- 4) Describe the emergency shutdown procedure.
- 5) What emergency situations automatically shut down the reactor? Why are these situations potentially dangerous?
- 6) If they do not presently, would they operate their reactor directly from cell gas without liquefying the Cl_2 first?
- 7) What dangers and to what extent would sudden uncontrollable surges of contaminants in chlorine present (i.e.; O_2 , CO_2 , H_2 , etc.) when putting on/ taking off cells?
- 8) Is there some type of emergency quench system required?

OPERATION

- 1) What parameters used to control and monitor reaction in reactor?
 - a) What on-stream analysis is required?
- 2) What pressure is system operated at?
- 3) Can EDC streams such as recycle EDC, low temperature reactor product, etc. be added to the BLR reactor?
- 4) Can liquid Cl_2 be added to reactor (flushed into system) or must it be vaporized and fed as gas?
- 5) If cooling H_2O used in system cooling will a leak go from process to cooling water or vice versa?
- 6) What is stream factor of unit excluding T/A downtime?
- 7) How is reactor FeCl_3 draw-off handled? Draw-off on what schedule?
- 8) How is reactant mixing accomplished?
- 9) Can oxy vent be routed to system for recovery of C_2H_4 ?
- 10) How is reactor liquid level maintained and controlled?
- 11) Describe a normal reactor start up procedure?
- 12) Describe a normal reactor shut down procedure?

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MAINTENANCE

- 1) What parts of reactor and attached equipment are spared in stock?
- 2) What parts of reactor require repetitive maintenance on T/A situations?
- 3) What sections of reactor and attached equipment require change out on fixed schedule?
- 4) What parts of system have caused unscheduled maintenance down time?
- 5) On what schedule is T/A inspection and maintenance performed on the system.
- 6) What is the maintenance experience related to the FeCl_3 addition system?
- 7) What type of alloys are used in the system?
Where and why are they required?

January 24, 1980

Congratulations on attaining a perfect record of work attendance during the 1979 calendar year. Enclosed you will find a gift selection catalogue for your use in choosing a gift to commemorate your perfect attendance accomplishment. Please make your choice as quickly as possible and return your order form to Cleo Haney. I hope the gift chosen will serve you and your family well over the coming years.

Sincerely,

J. A. DeBernardi

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