

December 10, 1984

VISTA

Mr. Jerry B. Banks, P. E., Coordinator
North Air Emissions Section
Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Banks:

This letter will inform you that Vista Polymers Inc. in Aberdeen, Mississippi will revise the current policy regarding rupture disc replacement frequency for PVC reactors. The current policy is to change out reactor rupture discs every six months. The revised policy will be to change out the rupture discs every year. The revised policy will go into effect on January 1, 1985.

The current policy was selected in 1979 after a vinyl chloride release resulted from a premature rupture disc failure. At that time, we were uncertain if fatigue due to cycling was a problem with the discs failing below the rated pressure, so the six month change out procedure was started in case cycling was a problem. In the past five years, extensive study has been done on the problem of premature rupture disc failures. No information has been brought forward to suggest the rupture discs fail due to fatigue. The manufacturer, BS & B Safety Systems of Tulsa, Oklahoma, states in their rupture disc literature that "the S-90 disc exhibits no premature failures or fatigue cracks after 100,000 pressure cycles of 0-90% of the disc rating." In all the extensive study done over the years, nothing has been brought forward to indicate that this is not correct. Changing our rupture disc changeout period from six months to one year will increase the cycles our reactor rupture discs experience from the current 500 cycle range to about the 1000 cycles range. Also, the normal reactor cycle is only about 60-80% of the rated disc rating.

Although premature failure of rupture discs is not understood, it is believed that the discs do not fail prematurely due to fatigue. Therefore, the policy is being changed to reflect this evidence.

If you have any questions, please call me at 601-369-8111, extension 2331.



Veldon E. Messick
Senior Process Engineer

bc: JF, RAF, JWW, CRS, DWH, CWT, JLH, JCL, WLM, HDG, JPW, JHM, CSZ

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