



TO Robert Fontenot DATE March 28, 1984

FROM L. A. Mason J. B. Warden SUBJECT Permanent Deviation Request For  
*LAM* *JBW* Nozzle Work On A Fluidized OHC  
Reactor

Several times in the past, a leak has developed on an OHC reactor nozzle while the reactor was running. Past practice has been to shut the reactor down, blind the reactor inlet and outlet piping, use the atmospheric valve and/or rupture disc to relieve the fluidization, and plug off the particular nozzle. After these steps are completed, the nozzle leak is repaired by welding.

In each case all inlet and outlet flows to the reactor (except the air and nitrogen which are used for fluidization) have been blinded. It is felt that a large percentage of this blinding is actually not needed.

In the process of repairing a nozzle on the #5 OHC reactor, we met with Dale Smith and you to explain why the blinding requirements, as called for in routine procedures, were felt to be excessive in this case. Via this memo, it is hoped that a permanent deviation can be established for similar future occurrences.

During fluidization of a large OHC reactor approximately 170,000 SCFH of nitrogen and 38,000 SCFH of oxygen are purged through the reactor via the air fluidization to the mixed feed header and nitrogen fluidization to the oxygen risers. The combined temperature of these flows is 250-275°F. It is our contention that the only blinding necessary should be the C<sub>2</sub>H<sub>4</sub> and recycle systems. The oxygen, HCl, and vent systems can be effectively isolated by tagging procedures for the following reasons:

1. Oxygen - There is already 38,000 SCFH of oxygen going through the reactor. If the block valves leak by any, it won't matter.
2. HCl - Any HCl leak through will not make any difference to the welding permit's safety aspect, as the HCl is an inert in this case.
3. Vent System - With the vent valves blocked and the bleed valves open, a positive flow will be maintained from the reactor through the vent valve bleeds. It will not be possible for vent header material to back into the reactor.

For these reasons it is felt that it is completely safe to weld on a nozzle of an air and nitrogen fluidized OHC reactor if:

1. The nozzle can be isolated from the vessel. This has been easily done in the past.

CONFIDENTIAL:

Subject to Protective Order  
of 14th Judicial District Court  
No. 91-1145

SL 003603

Robert Fontenot  
March 28, 1984  
Page 2

2. The  $C_2H_4$  and recycle flows are blinded off.
3. All other inlet and outlet streams are properly tagged.

Please submit this proposal into the approval system for permanent deviation.

/bb

CC: B. D. Reynolds  
D. R. Smith  
D. K. Pearson/P. Brown

SL 003604

CONFIDENTIAL:  
Subject to Protective Order  
of 14th Judicial District Court  
No. 91-1145

REQUEST FOR A PERMANENT DEVIATION TO THE  
WELDING BURNING & OPEN FLAME PERMIT/PROCEDURE

This request seeks to allow welding be performed on OHC reactor nozzles (catalyst addition and rupture disk), without total shutdown and isolation of the reactor.

Current procedure requires all inlet and outlet lines to the vessel be isolated via blinding and the reactor placed on nitrogen/air fluidization. The affected nozzle is then isolated with a plumbers plug on the vessel side and open ended to the atmosphere. The leak can then be repaired by welding.

This deviation would allow welding be performed with the following exceptions to existing procedure:

1. Oxygen line will be isolated by blocking and tagging of the valves. Oxygen is already present in the reactor by virtue of fluidization (38,000 SCFH of air).
2. HCl line will be isolated by blocking and tagging of the valves. HCl is considered an inert as far as welding is concerned.
3. Vent system will be isolated by double block and bleed and tagging. The reactor is maintained under a positive pressure (approximately 200,000 SCFH combined nitrogen/air fluidization), which will prevent back flow of the vent system beyond the open bleed point.

As is currently done, the  $C_2H_4$  and recycle lines will be blinded and tagged.

By performing the job in the manner requested, no mitigation of safety will occur, but the time and costs of performing these repairs will be significantly reduced.

REQUESTERS

Ben D. Reynolds 4/5/84  
Ben Reynolds, Operations

Dale R. Smith  
Dale Smith, Maintenance

Don Pearson  
Don Pearson, Operations

REVIEWED BY

Robert M. Fontenot  
Robert Fontenot, Safety

B. P. Byars  
Bob Byars, Production Supt.

Jim Meadows  
Jim Meadows, Maintenance Supt.

E. J. Tullier  
E. J. Tullier, Operations Supt.

APPROVED

John E. Fike  
John Fike, Plant Manager, Plant B

Ron Williams  
Ron Williams, Manager of Safety

CONFIDENTIAL:

Subject to Protective Order  
of 14th Judicial District Court  
No. 91-1145

SL 003605



TO Distribution

DATE May 15, 1984

FROM Ron Williams

SUBJECT Deviation Request

The attached deviation request to allow welding to be performed on OHC reactor nozzles without total shutdown and isolation of the reactor is approved.

The effective date is May 18, 1984.

shr

Distribution:

J. E. Fike  
R. J. Byars  
Dick Fontenot  
Jim Meadows  
Bob McCorquodale  
Don Pearson  
✓ Ben Reynolds  
Homer Smith

SL 003606

CONFIDENTIAL:  
Subject to Protective Order  
of 14th Judicial District Court  
No. 91-1145