Date: 4/27/95 Plant: GLYCOL-2 PSM Representative Cary A Buckles

DOW CHEMICAL LOUISIANA DIVISION

OSHA 1910.119 PROCESS SAFETY MANAGEMENT OF HIGHLY HAZARDOUS CHEMICALS

Self Evaluation

Scoring System

0 = No Action Planned At This Time
1 = Developing Action Plan With Schedule
2 = Progress Demonstrated And On Schedule
3 = Process In Place and Documented

I. Employee Participation	0	1	2	3
A. Pre-startup reviews are well documented including who participated.				✓
B. Latest Consolidated Audit information has been circulated to all personnel in the department.				✓
C. Consolidated Audit is circulated within 90 days of the audit.				✓
D. The information includes CEI and F&EI results, as well as findings from the audit team.				✓
E. The employee review of the Consolidated Audit is documented.				✓
F. The plant has asked for comments from all Department employees on the Consolidated Audit.	✓			
G. The comments of the employees and any follow-up actions are well documented.	✓			
H. Documentation exists who was involved in any PHA activity such as CEI, F&EI, Reactive Chemical Reviews, Audits, etc.				✓

II. Process Safety Information	0	1	2	3
A. Plants have defined operating limits and consequences of deviation for "critical" unit operations where a substantial negative impact on the safety and health of plant personnel could occur.		✓		
B. P&ID's are updated/generated to reflect areas of the process directly affected by new changes.				✓
C. A plan is in place to bring P&ID's up to date so that they can be used to accurately do PHA's.			✓	
D. Plant has made a survey and identified all vessels not registered in Pressure Vessel Program.				✓

E. Documentation exists as to "why" any vessel inspections are overdue.				✓
F. Current inspection dates have been evaluated to determine if feasible or whether there is just cause to extend the inspection dates on the vessels.				✓
G. Any reduction in frequency of inspections is supported by historical data, engineering calculations, etc. This data is documented.				✓
H. A survey has been conducted to determine how many relief devices in hazardous chemical service as defined by PSM are not registered in the Relief Device Program.		✓		
I. A knowledgeable plant engineer has been assigned to work with Engineering to define: i. OSHA PSM processes and the relief devices in these processes		✓		
ii. Credible scenarios for relief device design basis		✓		
iii. Approval of final Engineering design		✓		

III. Process Hazard Analysis	0	1	2	3
A. Evaluation of documentation and follow-up systems for all PHA related programs has been done.		✓		
B. Documentation includes who participated, findings, resolution of findings, written schedule of when the actions are to be completed, and verification of communications to operations and maintenance employees who may be affected by the actions.		✓		

IV. Operating Procedures	0	1	2	3
A. Operating procedures are annually certified.				✓
B. Critical unit operations that have the potential to adversely affect safe operations of the process have been defined.		✓		
C. Critical operations procedures address the following: i. initial startup		✓		
ii. normal operations		✓		
iii. temporary operations		✓		
iv. emergency shutdowns, including conditions under which emergency shutdowns are required		✓		
v. emergency operations		✓		
vi. normal shutdown		✓		
vii. startup following a turnaround or after an emergency shutdown		✓		
viii. operating limits and consequences of deviations		✓		
ix. safety and health considerations		✓		

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V. Training	0	1	2	3
A. Refresher training has been completed.			✓	
B. Specific training required for all levels and areas of the plant for newly assigned personnel have been defined before the personnel are allowed to operate the process or make a decision concerning the process.				✓

VI. Contractors	0	1	2	3
A. Training requirements for job specific tasks, such as loading operations, have been completed.				✓
B. Documentation of contract indoctrination is returned to Gate 4.				✓

VII. Pre-Startup Safety Review	0	1	2	3
A. Level 3 changes as defined by USA-2 (LAD supplement) are required to have pre-startup safety reviews and include field audits, loop checks, system simulations, etc.				✓
B. Pre-startup audits for Level 3 changes include project manager (or designee), safety superintendent (or designee), person(s) affected by the change, others as required, such as I.H., Engineering, Tech Center, Maintenance, etc.				✓
C. Documentation for pre-startup reviews includes participants, findings, and resolution of all follow-up requirements.				✓
D. Documentation for pre-startup reviews are filed with the original MOC paperwork.				✓

VIII. Mechanical Integrity	0	1	2	3
A. The piping systems in highly hazardous service have been identified using the "Determine Highly Hazardous Process" flow sheet.		✓		
B. Determination has been made as to whether the threshold quantity of a HHC could be released in a catastrophic failure.		✓		
C. Complex piping systems have been broken down into smaller circuits.		✓		
D. Technical Support has been contacted to determine what type of inspection is required and frequency.		✓		
E. An "as built" sketch of underground and above ground piping that will have external inspections has been created.		✓		
F. A visual inspection plan has been developed.		✓		
G. Equipment files for all registered piping has been created.		✓		
H. Inspection and appropriate review cycles are initiated and include documentation.		✓		

I. A system is in place to track with documentation the inspection results and plans for corrective actions to completion.		✓		
IX. Management of Change **(Plant self evaluation completed in 1994)**	NA	NA	NA	NA
X. Incident Investigation	0	1	2	3
A. A system is in place to make certain that all follow-up actions are completed.				✓
B. Completed records are maintained in plant files for one year plus current.				✓
XI. Emergency Planning and Response	0	1	2	3
A. Required drills are held and documented. The documentation include: i. Description of drill				✓
ii. Drill critique				✓
iii. Participants				✓
iv. Action items to address each deficiency found				✓
v. Documentation of follow-up for each action item				✓
vi. Communication of follow-up to personnel				✓
B. Plants/Departments have a sign-in/sign-out system to account for all plant personnel, including permanently assigned Dow personnel, such as I&E personnel.				✓
C. There is a reliable system in place to account for all contract persons, including both operations and maintenance.				✓
D. Visitors sign-in when leaving the office areas to enter process areas as a minimum.				✓
E. PA Systems in all areas have been evaluated to ensure that the Emergency System can be heard or Department procedures have provisions for persons to "sweep" areas where the Emergency System cannot be clearly heard.				✓