Gas Field Policy 11: Low Molecular Weight Application

The following guidelines must be met before a Siemens Energy Compressor can be offered for Lubricated Hydrogen or other Low Molecular Weight Applications:

1. All sizing and performance must be reviewed and approved by Siemens Energy HSRC Group prior to quoting.

2. Maximum discharge pressure limitation is normally 2000 PSIG. Refer any higher pressure applications to Siemens Energy HSRC Group for review.

3. Water-cooled cylinders are required where there is end unloading and/or predicted discharge temperatures above 225°F.

4. MOS cylinders require a distance piece. HOS and HOSS will require an extra long distance piece. All distance pieces must be sealed and purged.

5. All applications must be reviewed at stage relief valve setting conditions to ensure they are within allowable rod loads.

6. Piston rod packing material and piston ring material must be Durawear DW173 material or equivalent.

7. Compressor cylinder oil may be crankcase oil if it is clean and dry. Otherwise, a separate oil system and day tank are required - see compressor instruction book.

8. Compressor valves need to be reviewed by Siemens Energy HSRC and the lift and flow area will likely be reduced to promote reliable operation.

9. No manual unloading systems such as VVCP's. Acceptable unloading systems are FVCP's and pneumatically operated valve unloaders.

10. The maximum period that the compressor can be run without a load is 3-5 minutes.

11. Helium test on compressor cylinders is required.

12. Actual predicted discharge temperatures should be 275°F or less at normal operating performance point.

13. Special attention should be paid to sealing the process gas system. No fiber gaskets are allowed.

14. HOS and HOSS 26.00-28.00" "clamshell type" cylinder cannot be used.