SECTION 6
CONCLUSIONS AND RECOMMENDATIONS

DSRP is an efficient regeneration off-gas treatment process for sorbent based treatment processes that remove H_2S and COS from coal gasifier gas. In this project, the process has been developed to a small pilot-scale. Sulfur conversions as high as 98% have been demonstrated with a single-stage reactor with simulated and actual coal gases in both fixed-bed and fluidized-bed modes. Catalyst durability has been verified by canister exposure tests of over 1,000 hours.

As DSRP is a tail-end process, its further scale-up and demonstration needs to be carried out in parallel to the development of the front-end hot-gas desulfurization process. To this end, discussions are currently ongoing with ChevronTexaco to demonstrate the DSRP in conjunction with their gasifier-quench system that is to be coupled to a hot-gas desulfurization process at 250°C (482°F).