
III. PROPOSED PILOT PLANT

Bench-scale experimentation has proceeded far enough to show that the Kellogg Coal Gasification Process may be operated within economic ranges of the major process variables and that the molten salt system can be contained, circulated, and controlled in equipment of economically attractive cost.

It is now felt that the most significant and critical areas of the process have been carried as far as is technically and economically feasible on the bench-scale and should now be investigated in the pilot plant. The general objectives of this pilot plant program will be as follows:

- A. To demonstrate feasibility of the chemistry involved on a sufficiently large scale to permit scale up to commercial sizes;
- B. To demonstrate operability and control of the equipment needed for the process;
- C. To confirm the economic projections of the process.

The specific objectives of the pilot plant program together with a brief outline of the various steps in the program are presented in Appendix B, Section V and will not be repeated here. However, it is worth mentioning at this time that the pilot plant program will be divided into three consecutive phases. First, there will be a shakedown period during which the operating crew will be trained. This will be followed by the necessary study of the variables which will provide final data for selection of the preferred operating conditions for each coal considered. Finally, there will be a sustained operating period to demonstrate the stability and economics of the process.

A detailed proposal for this pilot plant, dated June 1, 1967, has been written and submitted to the Office of Coal Research. This document specifies the specific facilities as well as a cost estimate and schedule for the design, procurement, and construction of the molten salt pilot plant.