

Project: Utility Installation

Question. It is understood that the interconnecting (or looping) of the three hot water systems is required in the event of a break in the main line serving any one area. How critical would such a break be in the carrying out of a launch mission? If uninterrupted service is of highest priority, why was such an interconnection not included in the original design and program for the utilities for the area?

Answer. A break in the main line serving any one area could result in the loss of the environmental control in one of the launch critical facilities and could cause a cancellation of a planned test or launch. The original design provided an economical and efficient high temperature hot water system. Cross connections were not included as the possibility of a major break in a supply main was considered to be remote. Subsequent studies have been completed which dictate the need for redundancy on certain systems to reduce the possibilities of single point failures. This requirement for cross connections is considered to fall within this category.

Question. Are there any other utilities systems (e.g., electrical, communication) that may require interconnection at some time in the future to insure continuous service? If so, identify such needs and provide related cost estimates.

Answer. Currently there are no known requirements for further interconnections of existing utility systems.

MANNED SPACECRAFT CENTER

Project: Modifications to the Environmental Testing Laboratory

Question. Will this request complete all major modifications based on known technological needs? Did MSC request additional funds over and above the \$1.9 million?

Answer. The request for Modifications to the Environmental Testing Laboratory will complete all major modifications based on known technological needs. However, due to the complex and sophisticated nature of this facility it will be necessary to accomplish future modifications to incorporate technological advances and retain the operating efficiency.

The MSC budget request was for \$2,695,000 as compared to \$1,900,000.

Question. How does the \$410,000 for the conversion of the single manlock to a double manlock compare with the initial cost of the existing single manlock?

Answer. The existing manlock, with its supporting systems, was included as an integral part of the Chamber A structure. The contractor priced this work on the basis of the overall project and his bid information does not provide a basis on which the several elements of the manlock can be isolated and priced. A comparison of costs between the original work and the planned conversion would therefore not be realistic. However, the proposed modifications to provide a double manlock are in essence a duplicate of the existing installation and to this degree the costs should be comparable.

Question. About \$1.5 million is requested for the rehabilitation of the solar simulation system and it is stated that by FY 1968 this system will have been operated for about 1,500 hours which is the limit of its life expectancy. Is it to be understood that at the 1,500 level there will be a recurring need for complete rehabilitation of this system? If so, is it expected that it will involve another \$1.5 million and when is it anticipated that the next rehabilitation cycle will take place?

Answer. Although rehabilitation of the solar simulation system will provide certain improvements, it is expected that a major rehabilitation will be required after every 1,500 hours of operation. The rehabilitation costs are expected to remain in the area of \$1.5 million unless significant improvements to the carbon arc system are developed. It is anticipated that the next rehabilitation cycle will take place in 2 to 3 years after completion of the proposed work.

Project: Center Support Facilities

Question. It is stated that the local authority, the Clear Creek Basin Authority, has ruled that all sewage treatment plants in the area must be operated at the highest level of efficiency. What specific deficiencies now exist that do not meet the effluent requirements of the local authority? What are the current operating effluent levels of other sources feeding into Clear Lake? What are the relative