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EXTENDED SUMMARY

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YUCCA MOUNTAIN EXPLORATORY STUDIES
FACILITY

DE93 005704

CONSTRUCTION STATUS

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YUCCA MOUNTAIN EXPLORATORY STUDIES FACILITIES CONSTRUCTION STATUS

INTRODUCTION

This paper discusses the progress to date on the construction planning development of the Yucca Mountain Site Characterization Project Exploratory Studies Facilities (ESF).

The purpose of the ESF is to determine early site suitability and to characterize the subsurface of the Yucca Mountain Site to assess its suitability for a potential high-level nuclear waste repository. The present ESF configuration concept is for two main ramps to be excavated by Tunnel Boring Machines (TBM) from the surface to the Topopah Spring Member of the Paintbrush Tuff Formation. From the main ramps, slightly above Topopah Spring level, supplemental ramps will then be driven down to the Calico Hills Formation below the potential repository. There will be exploratory development drifts driven on both levels with the Main Test Area being located on the Topopah Spring level, which is the same level as the proposed repository. The Calico Hills Formation lies below the Topopah Spring member and is expected to provide the main geohydrologic barrier between the potential repository and the underlying saturated zones in the Crater Flat Tuff.

CONSTRUCTION ORGANIZATION

The Department of Energy (DOE) Yucca Mountain Construction Management Office (CMO) is responsible for the technical direction and implementation of all ESF construction, including supporting infrastructure and facilities. The CMO is staffed jointly by DOE and supporting personnel from TRW M&O Contractor Organization.

Construction will be performed and/or subcontracted as appropriate, by Reynolds Electrical & Engineering Co., Inc. (REECo), the existing Constructor for all work performed at the Nevada Test Site (NTS). REECo, accordingly, has access to available resources from the NTS, including staffing, equipment, and personnel and support services.

ADVANCED PLANNING

Substantial construction planning has been accomplished during the current year. A baseline schedule to support potential Repository License Application in the year 2001 was developed. To accomplish this date, all subsurface construction is to be completed by mid-1997 to allow required time for characterization and license preparation. Under this scenario, maximum resources would be applied to all activities to support the overall schedule.

Also, many alternative comparative construction cost and schedule analyses were made to determine potential impacts of varying budget forecasts for the out years. The level of testing requirements to support License Application is also under continuing review.

Planning for support facilities for both construction and scientific studies were further refined. Material sources and requirements are being identified, along with long-lead equipment requirements. Infrastructure design to support the remote site location is in process.

CONSTRUCTION ACTIVITY

Construction activity has increased within the limits of budgetary constraints during the past year. Construction Operations to accommodate several surface-based drilling and trenching operations have been completed or are currently in progress.

Construction of the North Tunnel Access Pad and TBM launch chamber will begin in November 1992, including some support facilities. REECo is currently evaluating bid proposals for a subcontractor to perform underground construction. Advance notices have been posted in the Commerce Business Daily to begin the procurement process for the first TBM. These activities are all consistent to support or exceed the current baseline schedule for 2001 License Application of the potential Repository.

CONCLUSION

The necessary Management and Construction elements are being implemented, planning accomplished, and prosecution of work begun to support the aggressive schedule for the construction completion of the Yucca Mountain Site Characterization Exploratory Studies Facilities. This organization will be expanded as required over the next several years to support the increasing levels of construction activities and ultimately, the potential Repository License Application in 2001.

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