



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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NRC POR

MAY 30 1979

NOTE TO: V. Stello, Director, Division of Operating Reactors
THRU: G. Lainas, ^{Chief} Chief, Plant Systems Branch, Division of
Operating Reactors
FROM: D. Tondi, Section Leader, Plant Systems Branch, Division
of Operating Reactors
SUBJECT: TECHNICAL ASSISTANCE PROGRAM - REQUEST FOR ADDITIONAL
FUNDING

The following is in response to T. Telford's request to identify additional potential tasks related to current operating reactor concerns that are suitable for incorporation into current DOR technical assistance activities. The tasks identified in the enclosure are considered important to operating reactors and are recommended for consideration by the Plant Systems Branch, Section "A" (P. Shemanski is the technical contact). The total estimated manpower for the 6 identified tasks is 5.0 man-years or \$400K. I recommend we meet with those involved to discuss this matter further.

D. Tondi

D. Tondi, Section Leader
Plant Systems Branch
Division of Operating Reactors

Contact:
P. Shemanski, X28077

Enclosure:
As stated

cc w/enclosure:
D. Eisenhut
R. Vollmer
G. Lainas
T. Teldord
V. Panciera
PSB Section A

7907050368

Bus-9-20

TASK IEnvironmental Qualification of Electrical EquipmentSCOPE

IE Bulletin 79-01 requires all the licensees of operating reactors to review the environmental qualification of electrical equipment and identify the type of qualification method used (e.g. test, analysis, combination). The licensee's responses are due by June 15, 1979.

The contractors task will be asked to assist the NRC staff in developing guidelines to be used in evaluating the licensee's responses and to perform the technical evaluations of qualification and analysis documentation using the guidelines developed.

Lead Engineer: E. Butcher

TASK IIPost Accident/Incident Monitoring (Proposed New Work - No TAC)SCOPE

To enable the nuclear power plant operator to correctly diagnose the plant status following an accident or incident. Pertinent information from various systems should be presented to the operator. The contractor is to undertake a study of operating plants to identify the plant monitors that are available that can be used for imparting the necessary information to the operator. Where sufficient information is lacking, the study should point out the necessary revisions or alternate means of obtaining the required information. Licensing actions resulting from this task will be in the form of modifications to existing PAM instrumentation.

Lead Engineer: M. Chiramai

TASK IIIElectrical Bypass of Safety Actuation Signals to Containment Purge Valves -- Abnormal Occurrence Followup Action Item - (TAC 10778)SCOPE

This abnormal occurrence involves the inadvertent blocking of the automatic safety injection actuation signal from closing containment purge isolation valves during a postulated LOCA. This blocking was caused by design deficiencies of manual override circuitry, which was operated during a "high" radiation condition inside containment. The scope of the task for the contractor is to provide technical assistance for the review of ESF actuation signal circuits which have manual override (bypass) capability. The acceptance criteria are given in IEEE 279 and in the DOR generic letter to all licensees dated November 28, 1978. Written technical evaluations for each subtask as defined by NRC. This task involves the

licensing action review of over 50 operating reactors. This effort must be started in FY 1979, with completion in early FY 1980. Several plant visits by NRC and contractor personnel are planned.

Lead Engineer: J. T. Beard

TASK IV

BWR Reactor Protection System Power Supplies (New Work Under TAC 7768)

SCOPE

The reactor protection system must be protected from being exposed to electric power that is of such poor quality that system-level failure of the RPS could occur. The scope of the task for the contractor is to assist the staff and provide technical assistance for the review of licensee-proposed modifications. Written evaluations are required.

This effort involves license actions regarding GDC-2 and GDC-21 on all BWR plants.

Lead Engineer: J. T. Beard

TASK V

End-of-Cycle Recirculation Pump Trip Circuitry (New Work Under TAC 11664)

SCOPE

BWR licensees have requested safety credit for a recirculation pump trip (RPT) feature needed to recover a loss of thermal margin (and operating power level) which occurs at the end of fuel cycles. Due to certain turbine-generator transients a core-wide pressurization event can at end-of-cycle add positive reactivity to the reactor system at a rate faster than the control rods can insert negative scram reactivity. As an essential supplement to the scram system, the RPT feature provides the additional negative reactivity. The scope of the task for the contractor is to assist the staff and to provide technical assistance in the review of proposed RPT circuit designs against the criteria of IEEE 279. Written technical evaluations are required and involve licensing actions for all BWR's.

Lead Engineer: J. T. Beard

TASK VI

Plant - Operator Interface (Proposed New Work - No TAC)

SCOPE

During and following an accident or incident at a nuclear power plant,

an avalanche of information is imparted to be operated by the various means available at the main control room (annunciators, monitors, recorders, indicators, etc.). The contractor is to undertake a study to determine the sets of alarms controls, recorders, indicators, etc. on which the operators are to concentrate following various possible plant accidents/incidents to enable the operators to diagnose the situation and to correctly predict the effects of possible actions. Plant visits by NRC and contractor personnel are planned.

Lead Engineer: M. Chiramal