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DRAFTED BY: OES/NTS: ABURNKART
APPROVED BY: OES/NTS: TWILKINSON
S/NP: JSHIPLEY

EAP/RA/TC: DBROWN AIT/V: JKYLE
ACDA/MVC/NST: JHEMZEL
S/S-B: RGOLSON

DOE/NE: CWEBER (TFFO)

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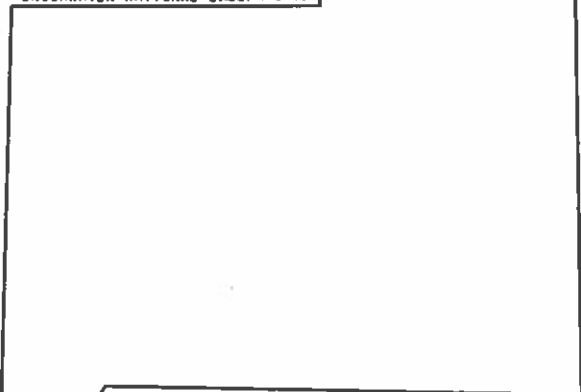
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E.O. 12356: DECL: OADR
TAGS: NMNP, TRGY, ENRG, TV, []
SUBJECT: MEETING AT BROOKHAVEN ON TRR IMPROVEMENT

1. ISI SUMMARY: REPRESENTATIVES FROM INER MET WITH THE
US PROJECT MANAGER FOR THE TAIWAN RESEARCH REACTOR (TRR)
IMPROVEMENT PROJECT DURING THE WEEK NOVEMBER 2-6 AT
BROOKHAVEN NATIONAL LABORATORY.

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END SUMMARY.

2. ISI REPRESENTATIVES FROM INER MET WITH DAVID DIAMOND
THE US PROJECT MANAGER FOR THE TAIWAN RESEARCH REACTOR
(TRR) IMPROVEMENT PROJECT DURING THE WEEK NOVEMBER 2-6 AT
BROOKHAVEN NATIONAL LABORATORY. THE INER DELEGATION WAS
LED BY SEN-I CHANG, INER DEPUTY DIRECTOR, AND INCLUDED
YI-BIN CHEN, MA-TU HUANG, AND JHY-JEN SHYR. THEY WERE
JOINED ON NOVEMBER 5 AND 6 BY []

[] JOERG MENZEL FROM ACDA
AND ALEX BURKART FROM OES/NTS. PARA 3 CONTAINS THE
REPORT OF THE MEETING AND PARA FOUR CONTAINS MINUTES OF A
SIDE MEETING BETWEEN INER DEPUTY CHANG AND BURKART,
MENZEL AND DIAMOND. THE REPORTS []

[] MAY BE TREATED AS
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Box 35 1987 Subject
and Country Files

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3. (U) BEGIN TEXT OF MEETING SUMMARY

TRR IMPROVEMENT PROJECT

SUMMARY OF MEETING NOVEMBER 2-6, 1987 BETWEEN INER AND
AIT CONSULTANTS AT BNL.

GENERAL. THE MEETING WAS TO DISCUSS PROGRESS ON THE
ABOVE PROJECT AND WAYS IN WHICH AIT CAN CONTINUE TO
ASSIST INER. IN SUMMARY, PROGRESS HAS BEEN MADE ON
SEVERAL TASKS AND IN PROJECT PLANNING. THIS PROGRESS AND
THE PROBLEMS BEING PURSUED IS SUMMARIZED IN EACH OF FIVE
MAJOR CATEGORIES BELOW.

FOR THE FUTURE, MORE ASSISTANCE FROM BNL IS EXPECTED BY
INER. THIS WILL INVOLVE DIRECT TECHNICAL HELP UNDER
CONTRACT IN ONE OR MORE OF THE FOLLOWING SUBJECTS:

- ASSESSMENT OF FLOW DISTRIBUTION UNDER ACCIDENT CONDITIONS
- MODERATOR AND BOTTOM THERMAL SHIELD ENERGY DEPOSITION
- CORE DESIGN AND FUELING SCHEME PROCEDURES
- DEVELOPMENT OF A TRANSIENT FUEL TEST FACILITY
- APPLICATIONS OF RESEARCH REACTORS

DIRECT ASSISTANCE IN OTHER AREAS AND INDIRECT ASSISTANCE
BY OBTAINING TECHNICAL INFORMATION FROM OTHER AIT
CONSULTANTS IS ALSO EXPECTED. A NEXT MEETING IN THE TIME
FRAME OF JANUARY OR FEBRUARY, 1988 WAS ALSO DISCUSSED.

PROJECT MANAGEMENT. THE PLAN DEVELOPED BY INER SINCE
APRIL, 1987 WAS PRESENTED AND REVIEWED. THE PLAN
CONSISTS OF 6 PRIMARY TASKS AND REPRESENTS A GOOD OUTLINE
OF WORK TO BE COMPLETED. A SCHEDULE WAS GIVEN FOR 3 OF
THESE AND FOR ONE TASK (CORE DESIGN AND SAFETY ANALYSIS),
A MORE DETAILED WORK BREAKDOWN STRUCTURE WAS GIVEN AS WAS
A SCHEDULE BASED ON MONTHLY INTERVALS. SUGGESTIONS WERE
MADE FOR IMPROVING THE PLAN. THESE INCLUDED ADDING MORE
DETAIL ON MILESTONE CHARTS TO BETTER DEFINE SUBTASKS AND
TO EXPEDITE REVIEWING PROGRESS; ADDING CONNECTIONS WHICH
SHOW THE DEPENDENCY OF ONE SUBTASK ON ANOTHER;
IDENTIFYING RESOURCES THAT WILL BE COMMITTED TO EACH
TASK; AND INDICATING ALTERNATIVE DIRECTIONS THAT MIGHT BE
TAKEN AT A PARTICULAR DECISION POINT. IT WAS AGREED THAT
INER WOULD CONTINUE TO IMPROVE THE PROJECT PLAN AND WOULD
WORK OUT THE PLAN FOR TASK 2 WITH A MONTHLY SCHEDULE (AS
ONE FOR TASK 1).

CORE DESIGN AND SAFETY ANALYSIS. A REVIEW OF PAST
PROGRESS WAS PRESENTED. SINCE APRIL, 1987 WORK HAS
PROCEEDED IN SETTING UP WIMS-D AS THE LATTICE PHYSICS
CODE AND SOME DETAILED PLANNING HAS TAKEN PLACE. SOME OF
THE PROBLEMS WHICH NEED TO BE RESOLVED WERE DISCUSSED
(INCLUDING OBTAINING DIRECT OR SYNTHESIZED
THREE-DIMENSIONAL CORE CALCULATIONS AND DEVELOPING
OPTIMUM REFUELLING SCHEMES) AND IT IS ANTICIPATED THAT
MORE TECHNICAL ASSISTANCE CAN BE SUPPLIED FROM BNL.

MODERATOR AND BOTTOM THERMAL SHIELD NUCLEAR HEAT
ANALYSIS. THE PROGRESS THAT HAS BEEN MADE ON THIS
SUBJECT HAS REVIEWED. INER IS CLOSE TO HAVING A CONTRACT
WITH A CONSULTANT (GRC OF JAPAN) WHICH WILL HELP DEVELOP
AN IMPROVED CALCULATIONAL CAPABILITY. IT WAS NOTED THAT
INER MIGHT STILL HAVE PROBLEMS IN RUNNING CALCULATIONS
THAT TOOK EXCESSIVE COMPUTER TIME AFTER THIS METHODOLOGY
WAS IN PLACE. THIS QUESTION SHOULD BE RESOLVED BETWEEN
INER AND ITS CONSULTANT. NO DETAILED WORK BREAKDOWN
STRUCTURE WAS GIVEN FOR THIS SUBJECT AREA.

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THERMAL-HYDRAULIC SAFETY ANALYSIS. SEVERAL NEW CALCULATIONS FOR LOCA, LOF AND LOIA EVENTS WERE PRESENTED. THESE CALCULATIONS ARE PRELIMINARY BUT INDICATE THAT SAFETY LIMITS MAY BE A PROBLEM WITH THE CURRENTLY PROPOSED DESIGN. PLANNING IN THE AREA OF CODE VALIDATION, EXPERIMENTAL INVESTIGATION OF FLOW DISTRIBUTIONS, ADDITIONAL ACCIDENT ANALYSIS AND POTENTIAL REDESIGN EFFORTS WAS DISCUSSED. IT WAS NOTED THAT ASSISTANCE IN USING RELAPS, ORIGINALLY EXPECTED FROM INEL THIS FALL, HAS BEEN INDEFINITELY POSTPONED. THE

ASSISTANCE WOULD HAVE BEEN PART OF A VISIT TO INER PRIMARILY FOR LVR APPLICATIONS.

FUEL TESTING. A REVIEW OF PAST EFFORTS WAS PRESENTED AS WAS THE RATIONALE FOR NEEDING A NEW TRANSIENT TEST FACILITY. WORK IS CURRENTLY UNDERWAY ON MANY ASPECTS OF FUEL DEVELOPMENT. THE PLAN FOR FUTURE WORK WAS REVIEWED AND IT WAS AGREED THAT MORE DETAIL WAS NEEDED FOR 1988 ACTIVITIES. IT WAS AGREED THAT THE VISIT OF AN AIT EXPERT IN JANUARY OR FEBRUARY TO DISCUSS QA/QC FOR THE FUEL FABRICATION FACILITY SHOULD BE SCHEDULED.

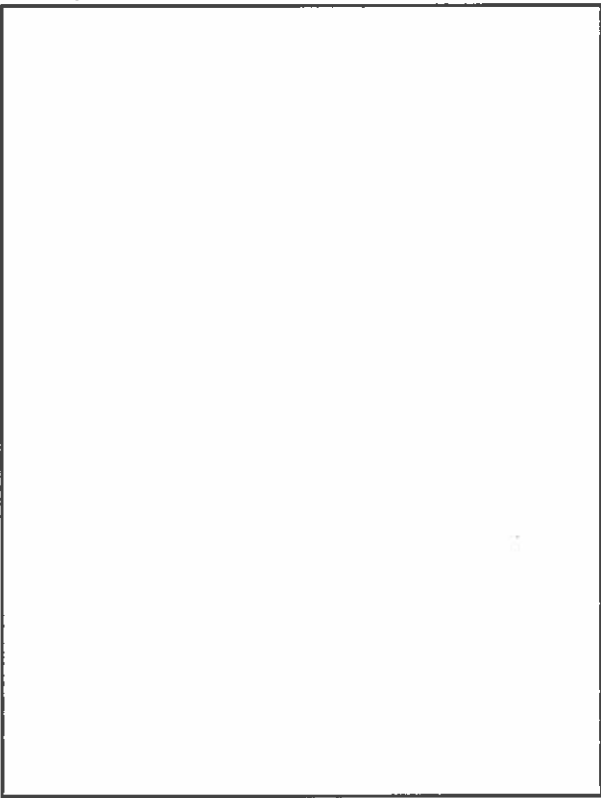
END TEXT OF MEETING SUMMARY.

4. (U) BEGIN TEXT OF MINUTES OF MEETING.

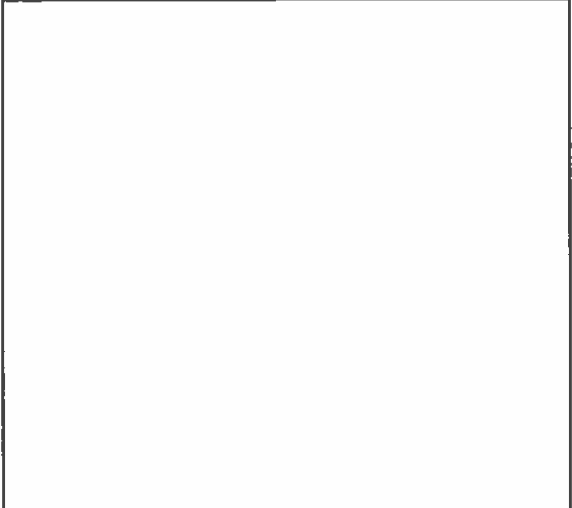
MINUTES OF MEETING OF INER WITH AIT REPRESENTATIVES

DURING A SEPARATE MEETING BETWEEN AIT REPRESENTATIVES AND INER, AIT REPS EXPRESSED SATISFACTION WITH THE COMMITMENT TO THE PROJECT EXPRESSED BY INER DEPUTY DIRECTOR CHANG AND REITERATED THE IMPORTANCE AIT GIVES TO SEEING THIS PROJECT COMPLETED. AIT REPS SUGGESTED THAT THE WORK PLAN PRESENTED REPRESENTED A GOOD OUTLINE AND INDICATED THE BENEFITS OF GREATER SPECIFICITY AND IDENTIFICATION OF RESOURCES THAT WOULD MAKE THE PLAN A MORE USEFUL TOOL IN IMPLEMENTING INER'S COMMITMENT TO PROJECT COMPLETION. THE SPECIFICITY INDICATED FOR FY 88 IN THE SEPRATE PAPER ON TASK 1 (CORE DESIGN AND SAFETY ANALYSIS) IS A GOOD MODEL IN THIS REGARD. DR. CHANG ACCEPTED AIT'S POINTS ON THE NEED FOR GREATER DEFINITION AND EXPRESSED HIS APPRECIATION OF THE POTENTIAL FOR AN IMPROVED PLAN TO BENEFIT HIM AS A "PROJECT MANAGER" IMPLEMENTING INER SENIOR MANAGEMENT'S EXISTING COMMITMENTS TO THIS PROJECT. AIT EMPHASIZED, AND INER AGREED, THAT THIRD PARTY EXPERT ASSISTANCE SHOULD BE ARRANGED THROUGH BNL TO ENSURE PROPER COORDINATION.

END TEXT OF MINUTES OF MEETING.



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