

"OVERVIEW/INTRODUCTION"

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UCLA

FINESSE PROJECT MEETING  
FEBRUARY 27-28, 1984  
UCLA

## PURPOSE OF MEETING

- REGULAR PROJECT MEETING: REPORT ON PROGRESS IN ALL AREAS SINCE LAST MEETING
- INITIAL RESULTS ON ENGINEERING SCALING
- EMPHASIS ON TASK I: ISSUES AND TESTING NEEDS
  - SHARPEN SCOPE AND FOCUS
  - SUBGROUPS
- WORK ON FAILURE MODES AND ANALYSIS - FINALIZE PLANS FOR THIS DIFFICULT AND CRITICAL TASK

FINESSE PROJECT MEETING  
UCLA FACULTY CENTER, HACIENDA ROOM  
FEBRUARY 27-28, 1984

AGENDA

MONDAY, FEBRUARY 27

9:00 - 9:30	OVERVIEW	ABDOU
9:30 - 10:30	TASK I: ISSUES AND TESTING NEEDS	ABDOU
10:30 - 10:45	BREAK	
10:45 - 11:15	TASK I: NON-BLANKET NUCLEAR ISSUES	STEELE
11:15 - 11:45	TASK II: ENGINEERING SCALING - LIQUID METALS OVERVIEW, FLUID FLOW, MHD	TILLACK
11:45 - 12:15	TASK II: ENGINEERING SCALING - SOLID BREEDERS OVERVIEW, TRITIUM RECOVERY	GIERZEWSKI
12:15 - 1:15	LUNCH	
1:15 - 1:45	THERMAL ANALYSIS FOR ENGINEERING SCALING	TAGHAVI
1:45 - 2:45	TASK II: ENGINEERING AND MODULE DESIGN SCALING - LIQUID METALS (THERMOMECHANICAL)	GARNER
2:45 - 3:05	CORROSION/MASS TRANSFER IN LIQUID METALS	BJORND AHL
3:05 - 3:20	NEUTRONICS ANALYSIS FOR ENGINEERING SCALING	SHIN /YOUSSEF

MONDAY, FEBRUARY 27 (CONTD.)

3:20 - 3:35	MIRROR TEST MODULE NEUTRONICS	STEELE
3:35 - 3:45	BREAK	
3:45 - 4:30	SOLID BREEDER TRITIUM RECOVERY	LIU
4:30 - 5:00	AVAILABILITY ANALYSIS	BERWALD
5:00 - 5:30	DISCUSSIONS	

TUESDAY, FEBRUARY 28

8:30 - 10:00	FAILURE MODE ANALYSIS	DAVIS, CRAMER, POWELL
10:00 - 10:15	BREAK, DIVIDE INTO SUBGROUPS	
10:15 - 12:00	PARALLEL MEETINGS OF TASK I SUBGROUPS: SUBGROUP A: STRUCTURAL RESPONSE, MATERIALS AND FAILURE MODES SUBGROUP B: HEAT TRANSFER, FLUID FLOW, CORROSION SUBGROUP C: SOLID BREEDERS, TRITIUM TRANSPORT SUBGROUP D: SAFETY SUBGROUP E: NEUTRONICS	
12:00 - 1:00	LUNCH	
1:00 - 2:00	HEDL WORK: OVERVIEW TYPE OF MEASUREMENTS MATERIAL TEST MATRIX SOLID BREEDERS	POWELL GROVER OPPERMAN HOLLENBERG
2:00 - 2:45	TASK IV: FISSION REACTORS	DEIS

TUESDAY, FEBRUARY 28 (CONTD.)

2:45 - 3:15            TASK IV: MIRRORS PHYSICS MODELLING            FENSTENMACHER

3:15 - 4:00            REPORTS BY TASK I SUBGROUPS:

SUBGROUP A

SUBGROUP B

SUBGROUP C

SUBGROUP D

SUBGROUP E

4:00 - 5:30            GROUP DISCUSSIONS, ACTION ITEMS (LEADERS FROM EACH ORGANIZATION WILL GIVE A BRIEF SUMMARY OF: A) WORK TO BE DONE BY APRIL 1; B) INFORMATION NEEDED FROM OTHERS IN FINESSE, AND C) OTHER COMMENTS, QUESTIONS, OR PROBLEMS)

FINESSE MEETING SCHEDULE

JANUARY 10-11, 1984	KICKOFF MEETING (UCLA)
FEBRUARY 27-28, 1984	REGULAR MEETING (UCLA)
APRIL 3-4, 1984	REGULAR MEETING (LLNL)
MAY 15-16, 1984	REGULAR MEETING (UCLA)
JULY 10-12, 1984	EXPANDED REVIEW MEETING (UCLA)
*AUGUST 13-14, 1984	REGULAR MEETING (JACKSON HOLE, WYOMING)
SEPTEMBER 11-12, 1984	REGULAR MEETING (UCLA)
*OCTOBER 9-10, 1984	COMMUNITY WORKSHOP (UCLA)*

FINESSE MILESTONE SCHEDULE

JULY 12, 1984	ISSUE INTERIM REPORT OUTLINE
AUGUST 27, 1984	COMPLETE FIRST DRAFT OF INTERIM REPORT
SEPTEMBER 24, 1984	ISSUE FINAL INTERIM REPORT
JUNE 1, 1985	ISSUE FINAL REPORT OUTLINE
AUGUST 15, 1985	COMPLETE FIRST DRAFT OF FINAL REPORT
OCTOBER 1, 1985	COMPLETE FINAL DRAFT OF FINAL REPORT

\*NOTE DATE CHANGE

PLANS FOR FINESSE PROJECT MEETING  
(APRIL 3-4, 1984)

- MEETING WILL BE HELD AT LLNL
- MEETING WILL BE HELD IMMEDIATELY AFTER THE FPA ANNUAL MEETING
- FINESSE MEETING WILL BE ATTENDED BY ADVISORY COMMITTEE, DOE/OFE SPONSORS, AND OTHERS
- PRESENTATIONS NEED TO BE STRUCTURED AHEAD OF TIME

MEETING EMPHASIS

- REPORT PROGRESS IN ALL AREAS BUT MORE TIME WILL BE DEVOTED TO CERTAIN AREAS
- TASK III: EXPERIENCE FROM OTHER TECHNOLOGIES (NEAR COMPLETION BY APRIL 3)
- TASK I: ISSUES AND TESTING NEEDS (BULK OF WORK COMPLETED BY APRIL 3)
- TASK II: REPORT RESULTS ON:
  - ENGINEERING SCALING, ACT-ALIKE TEST MODULES
  - TRITIUM RECOVERY FROM SOLID BREEDERS
  - FAILURE MODES
  - MATERIAL PROPERTIES AS A FUNCTION OF FLUENCE
  - NEUTRON FLUENCE GOALS
- TASK IV: MIRRORS  
TOKAMAKS  
FISSION REACTORS

# TENTATIVE AGENDA FOR FINESSE PROJECT MEETING

APRIL 3-4, 1984 (LLNL)

## TUESDAY, APRIL 3

8:30 - 12:00	PARALLEL MEETINGS ON TASK I: SUBGROUP A SUBGROUP B SUBGROUP C SUBGROUPS D AND E	
1:00 - 2:30	EXPERIENCE FROM FISSION REACTORS	GOLDMAN, ET AL
2:30 - 3:15	EXPERIENCE FROM FISSION REACTORS	SZABO/OKRENT
3:15 - 3:45	EXPERIENCE FROM AEROSPACE INDUSTRY	DAVIS
4:00 - 5:30	TASK I: ISSUES AND TEST NEEDS SUBGROUP A (20 MIN.) SUBGROUP B (20 MIN.) SUBGROUP C (20 MIN.) SUBGROUP D (10 MIN.) SUBGROUP E (10 MIN.)	SUBGROUP LEADERS

## WEDNESDAY, APRIL 4 (TIMES TO BE ALLOCATED LATER.)

TASK II:	ENGINEERING SCALING AND TEST MODULE	TRW, UCLA
	TRITIUM RECOVERY FROM SOLID BREEDERS	ANL
	PROPERTIES OF MATERIALS AS A FUNCTION OF FLUENCE	HEDL
	NEUTRON FLUENCE GOALS	HEDL
	MEASUREMENT TYPES & INSTRUMENTATION	HEDL
TASK IV:	POINT NEUTRON SOURCES UTILIZATION	HEDL
	FISSION REACTORS AS TEST FACILITIES	EG&G
	TOKAMAKS AS TEST FACILITIES	PPPL, ANL
	MIRRORS AS TEST FACILITIES	TRW, LLNL



## GENERAL INFORMATION

- JAERI AGREED TO PARTICIPATE IN FINESSE FOR TWO YEARS. TWO EXPERTS FROM JAERI (DRS. SEKI AND OYAMA) WILL ARRIVE AT UCLA ON MARCH 20, 1984.
- DR. KLEEFELDT FROM KARLSRUHE WILL START AT UCLA THIS WEEK.
- DR. DIMELFI HAS RECENTLY STARTED AT UCLA AS A MEMBER OF THE FUSION ENGINEERING GROUP. HE WILL SUPPORT FINESSE IN THE AREA OF MATERIALS.
- FUSION SAFETY PROGRAM AT EG&G IDAHO WILL SUPPORT FINESSE IN THE SAFETY AREA. J. CROCKER HAS DELEGATED G. DEIS AS LIAISON BETWEEN FINESSE AND EG&G IDAHO.