FIN A1165 Total for Case 1183.000 May 1990

THIS IS AN ESTIMATE ONLY AND MAY NOT MATCH THE INVOICES SENT TO NRC BY SANDIA'S ACCOUNTING DEPARTMENT.

| | | Current Month | Year -to- Date |
|-----|--|------------------|----------------------|
| I. | Direct Manpower (man-months of charged effort) | <u> </u> | 2.8 |
| II. | Direct Loaded Labor Costs | 0 | 26 |
| | Materials and Services | 0 | 0 |
| | ADP Support (computer) | 0 | 0 |
| | Subcontracts | 0 | 21 |
| | Travel | 0 | 1 |
| | General and Administrative | 0 | 5 |
| | Other (computer round-off) | 0 | 0 |
| | TOTAL COSTS | 0 | 53 |

| Prior FY | FY 90 Projected Funding Level | FY 90 Funds | FY 90 Funding |
|-----------|-------------------------------|------------------|----------------|
| Carryover | | Received to Date | Balance Needed |
| \$57K | \$57K | \$0K | None |

FIN A1165, Task I - Licensing Methodology Assistance Subcase 1183.010 May 1990

THIS IS AN ESTIMATE ONLY AND MAY NOT MATCH THE INVOICES SENT TO NRC BY SANDIA'S ACCOUNTING DEPARTMENT.

| | | Current Month | Year -to- Date |
|-----|-----------------------------|------------------|----------------------|
| I. | Direct Manpower (man-months | 0.1 | 0.6 |
| | of charged effort) | | |
| II. | Direct Loaded Labor Costs | 0 | 4 |
| | Materials and Services | 0 | 0 |
| | ADP Support (computer) | 0 | 0 |
| | Subcontracts | -1 | 1 |
| | Travel | 0 | 0 |
| | General and Administrative | 0 | 1 |
| | Other (computer roundoff) | 0 | 0 |
| | TOTAL COSTS | -1 | 6 |

| Prior FY | | FY 90 Funds | FY 90 Funding |
|-----------|-------------|------------------|----------------|
| Carryover | | Received to Date | Balance Needed |
| \$1K | \$1K | None | None |

FIN A1165, Task II - Identification and Analysis of Uncertainties Subcase 1183.020 May 1990

THIS IS AN ESTIMATE ONLY AND MAY NOT MATCH THE INVOICES SENT TO NRC BY SANDIA'S ACCOUNTING DEPARTMENT.

| | | Current Month | Year -to- Date |
|-----|---|----------------------------|------------------------------|
| ı. | Direct Manpower (man-months of charged effort) | <u> </u> | 1.3 |
| II. | Direct Loaded Labor Costs Materials and Services ADP Support (computer) Subcontracts Travel General and Administrative Other (computer round-off) | 0 0 0 0 0 0 | 15 0 0 -1 0 1 |
| | TOTAL COSTS | <u> </u> | 15 |

| Prior FY | • | FY 90 Funds | FY 90 Funding |
|-----------|-------|------------------|----------------|
| Carryover | | Received to Date | Balance Needed |
| \$37K | \$37K | None | None |

FIN A1165, Task III - Probability Techniques Subcase 1183.030 May 1990

THIS IS AN ESTIMATE ONLY AND MAY NOT MATCH THE INVOICES SENT TO NRC BY SANDIA'S ACCOUNTING DEPARTMENT.

| | | Current Month | Year -to- Date |
|-----|--|------------------|----------------------|
| | | | |
| ı. | Direct Manpower (man-months of charged effort) | 0.0 | 0.9 |
| | • | | 7 |
| II. | Direct Loaded Labor Costs Materials and Services | 0 | 0 |
| | ADP Support (computer) | Ö | ŏ |
| | Subcontracts | 0 | 21 |
| | Travel | 0 | 1 |
| | General and Administrative | 0 | 3 |
| | Other (computer round-off) | 0 | 0 |
| | TOTAL COSTS | | 32 |

| Prior FY Carryover | FY 90 Projected Funding Level | FY 90 Funds Received to Date | FY 90 Funding Balance Needed |
|-----------------------|----------------------------------|---------------------------------|---------------------------------|
| | | | |
| \$16K | \$16K | None | None |

FIN A1165, Task VI - Short Term Technical Assistance Subcase 1183.060 May 1990

THIS IS AN ESTIMATE ONLY AND MAY NOT MATCH THE INVOICES SENT TO NRC BY SANDIA'S ACCOUNTING DEPARTMENT.

| | Current Month | Year -to- Date |
|--------------------------------|------------------|----------------------|
| I. Direct Manpower (man-months | 0.0 | 0.0 |
| of charged effort) | | |
| II. Direct Loaded Labor Costs | 0 | 0 |
| Materials and Services | 0 | . 0 |
| ADP Support (computer) | 0 | 0 |
| Subcontracts | 0 | 0 |
| Travel | 0 | 0 |
| General and Administrative | 0 | 0 |
| Other (computer round-off) | 0 | 0 |
| TOTAL COSTS | 0 | |

| Prior FY | FY 90 Projected | FY 90 Funds | |
|-----------|-----------------|------------------|------|
| Carryover | Funding Level | Received to Date | |
| \$3K | \$3K | None | None |

Deliverables and Due Dates FIN A1165

Task 1

Subtask 1.1 - Components of an Overall Performance Assessment Methodology

Submitted - 1/31/90 Status - Completed

Subtask 1.3e - Technical Basis for Review of HLW Modeling Programs (Includes Subtasks 1.3b, 1.3c, and 1.3d)

Submitted - 2/8/90 Status - Completed

Task 2

Subtask 2.1 - Recommended Techniques for Assessing Compliance with the EPA's HLW Repository Containment Requirement

Submitted - 1/16/90 Key Individuals - E. Bonano, K. Wahi
Estimated Cost - \$1K Status - Proofreading and preparation of final.

Subtask 2.2/2.6c - Uncertainties Associated with Performance Assessment of High-Level Radioactive Waste Repositories: A Summary Report

Submitted - 4/2/90 Key Individuals - E. Bonano and P. Davis
Estimated Cost - \$14K Status - Waiting for NRC comments.

Subtask 2.3 - Elicitation and Use of Expert Judgment in HLW PA (Includes a portion of subtask 2.6e)

Submitted - 3/23/90 Status - Completed

* - All costs are as of January 1, 1990
** - Lead individual for a given report is in bold letters

Subtask 2.4a - Treating Uncertainties in PA Models

Submitted - 2/7/90

Key Individuals - P. Davis, M. Goodrich

Estimated Cost - \$2K

Status - Waiting for NRC comments

Subtask 2.5a - Scenario Development Methodology

Submitted - 3/26/90

Status - Completed

Subtask 2.6a - Methodologies for Data and Parameter Uncertainty

Submitted -2/15/90

Status - Completed

Subtask 2.6d - Comparison of Uncertainty and Sensitivity Analysis
Techniques (Includes Subtask 2.6e)

Submitted - 2/27/90

Key Individuals - P. Davis and

T. Zimmerman

Estimated Cost - \$2K

Status - Addressing NRC comments

Task 3

Subtask 3.2 - Estimating Probabilities for Initiating Events and Processes

Submitted - 2/21/90

Key Individuals - G. Apostolakis,

R. Bras, L. Price,

K. Wahi

Estimated Cost - \$3K

Status - Waiting for NRC comments

Task 6

Short Term Technical Assistance

Funds Remaining - \$3K

DELIVERABLES SUBMITTED DURING THE CURRENT REPORTING PERIOD

SUBTASK NUMBER

DELIVERABLE TITLE

- 1

DATE

STATUS

None

SCHEDULE OF MILESTONES AND DELIVERABLES

| DELIVERABLE TITLE | DRAFT_DUE | FINAL DUE | STATUS | |
|---|--|---|---|---|
| Components of an Overall Performance Assessment Methodology | Submitted Dec. 1, 1988 | Submitted Jan. 31, 1990 | Completed | 1 |
| Technical Basis for NRC Review of HLW Repository Modeling | Submitted June 14, 1989 | Submitted Feb. 8, 1990 | Completed | (|
| Techniques for Assessing Compliance with the EPA's HLW Repository Containment Requirement | Submitted Jan. 16, 1990 | No due date. | Preparation of final report. | |
| Uncertainties Associated with Performance Assessment of High-level Radioactive Waste Repositories: A Summary Report | Submitted April 2, 1990 | No due date. | Waiting for NRC comments. | |
| Elicitation and Use of Expert Judgment in Performance Assessments for HLW Repositories | Submitted July 26, 1990 | Submitted Apr. 23, 1990 | Completed. | |
| Guidelines for Judging the Validity of Models for Performance Assess- ment of HLW Repositories | Submitted Feb. 7, 1990 | No due date. | Waiting for NRC comments. | |
| | Performance Assessment Methodology Technical Basis for NRC Review of HLW Repository Modeling Techniques for Assessing Compliance with the EPA's HLW Repository Containment Requirement Uncertainties Associated with Performance Assessment of High-level Radioactive Waste Repositories: A Summary Report Elicitation and Use of Expert Judgment in Performance Assessments for HLW Repositories Guidelines for Judging the Validity of Models for Performance Assess- | Components of an Overall Performance Assessment Methodology Technical Basis for NRC Review of HLW Repository Modeling Techniques for Assessing Compliance with the EPA's HLW Repository Containment Requirement Uncertainties Associated with Performance Assessment of High-level Radioactive Waste Repositories: A Summary Report Elicitation and Use of Expert Judgment in Performance Assessments for HLW Repositories Guidelines for Judging the Validity of Models for Performance Assess- | Components of an Overall Performance Assessment Dec. 1, 1988 Jan. 31, 1990 Methodology Technical Basis for NRC Review of HLW Repository Modeling Techniques for Assessing Compliance with the EPA's HLW Repository Containment Requirement Uncertainties Associated with Performance Assessment of High-level Radioactive Waste Repositories: A Summary Report Elicitation and Use of Expert Judgment in Performance Assessments for HLW Repositories Guidelines for Judging the Validity of Models for Performance Assess- | Components of an Overall Performance Assessment Methodology Technical Basis for NRC Review of HLW Repository Modeling Techniques for Assessing Compliance with the EPA's HLW Repository Containment Requirement Uncertainties Associated With Performance Assessment of High-level Radioactive Waste Repositories: A Summary Report Elicitation and Use of Expert Judgment in Performance Assessments for HLW Repositories Guidelines for Judging the Validity of Models for Performance Assess- |

| 2.5 | Risk Methodology for Geologic Disposal of Radioactive Waste: Scenario Selection Procedure | Submitted June 27, 1989 | Submitted Mar. 26, 1990 | Completed. |
|------|--|----------------------------|----------------------------|---------------------------|
| 2.6a | A Review of Techniques for Propagating Data and Parameter Uncertainty in High-Level Radioactive Waste Repository Performance Assessment Models | Submitted May 31, 1989 | Submitted Feb. 15, 1990 | Completed. |
| 2.6d | A Comparison of Parameter Estimation and Sensitivity Analysis Techniques for Ground-Water Flow Models and Their Impact on the Uncertainty in Model Performance Predictions | Submitted Feb. 27, 1990 | No due date. | Addressing NRC comments. |
| 3.2 | Techniques for Determin- ing Probabilities of Events and Processes Affecting the Perfor- mance of Geologic Repositories: Volume II Suggested Approaches | Submitted Feb. 21, 1990 | No due date. | Waiting for NRC comments. |