APPENDIX H

PRESENTATION MATERIALS

United States Environmental Protection Agency

RAF Workshop on Selecting Input Distributions for Probabilistic Risk Assessment

RISK ASSESSMENT FORUM

Forum Background

- Formed from Recommendations in "Risk Assessment in the Federal Government: Managing the Process" -NAS (1983)
- Members Include Senior Scientists from EPA Laboratories, Regions, and Program Offices
- Products Include Guidance Documents and Technical Reports on Difficult Risk Assessment Issues

Forces Affecting EPA's Use of Probabilistic Risk Assessment

- EPA Policy and Guidelines
- SAB and NAS Recommendations
- Risk-Based Legislation (e.g., Food Quality Protection Act of 1996)

Past Forum Involvement

- 1993 *ad hoc* Technical Panel on Monte Carlo Analysis
- 1996 Workshop on Monte Carlo Analysis
- 1997 Policy for Use of Probabilistic Analysis in Risk Assessment at the U. S. Environmental Protection Agency

EPA United States Environmental Protection Agency

RISK ASSESSMENT FORUM

Policy for Use of Probabilistic Analysis in Risk Assessment

- Policy Issued May 15, 1997
  - **"...Such Probabilistic Analysis Techniques as Monte Carlo Analysis...can be Viable Statistical Tools for Analyzing Variability and Uncertainty in Risk Assessment**
- Eight Conditions for Acceptance
- Policy Implementation Activities

Conditions for Acceptance

5. Information for each input and output distribution is to be provided in the report. This includes tabular and graphical representations of the distributions (e.g., PDF and CDF plots) that indicate the location of any point estimates of interest (e.g., mean, median, 95th percentile). *The selection of distributions is to be explained and justified.* For both the input and output distributions, variability and uncertainty are to be differentiated where possible.

Implementation Activities

- Immediate Activities
  - "Summary Report for Workshop on Monte Carlo Analysis" (EPA/630/R-96/010)
  - "Guiding Principles for Monte Carlo Analysis (EPA/630/R-97/001)

- Follow-Up Activities
  - *Distributions for Selected Exposure Factors*
  - Agency Training on Probabilistic Analysis Methods
  - Detailed Technical Guidance on Quantitative Uncertainty Analysis

Implementation Activities Cont'd

- Longer Term Activities
  - Development or Revision of Guidelines and Models
  - Update of Exposure Factors Handbook
  - Modeling Support Group
  - Dose-Response Applications of Probabilistic Assessment