



EPA's Integrated Risk Information System (IRIS) Program

Subcommittee for Consequence Assessment and Protective Actions (SCAPA) Meeting

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Presented by

Marcus Weseman, Director

Health, Safety, and Emergency Management Programs

Oak Ridge Institute for Science and Education





Introduction

- Over 560 chemical substance records
- Compiled by the EPA Office of Research and Development
- Represents EPA's consensus on carcinogen classifications, unit risks, slope factors, oral reference doses, and inhalation reference concentrations
- Focuses on human health risk assessment data
- Records consist of analysis and evaluation of toxicological studies compiled from literature searches
- Peer-reviewed

ORISE is lead EPA contractor for IRIS Assessments



IRIS Content

- Chronic Health Hazard Assessment for Noncarcinogenic Effects
- Carcinogenicity Assessment for Lifetime Exposure
- Bibliography



IRIS Overview

- IRIS toxicity values are used in assessing risks from hazardous substances at sites
- Risk assessments are used in making risk management decisions, such as
 - ▶ Deciding how much of a chemical a company may discharge into a river
 - ▶ Deciding which substances may be stored at a hazardous waste disposal facility
 - ▶ Deciding to what extent a hazardous waste site must be cleaned up
 - ▶ Setting proper permit levels for discharge, storage, or transport of chemicals
 - ▶ Establishing appropriate levels of air emissions
 - ▶ Determining allowable levels of contamination in drinking water



SCAPA Use of IRIS Data

- Source of consensus standards on human health risk
- IRIS toxicity values useful in setting protective exposure levels
- Toxicological Reviews provide detailed summaries of primary toxicological studies in support of derived values.



Carcinogenic IRIS Data

- EPA weight-of-evidence judgment on whether the chemical is a carcinogen
- Quantitative estimates of risk from oral and/or inhalation exposure (slope factors, unit risks, and tables of drinking water and air concentrations that result in particular risk levels)



Non-Carcinogenic IRIS Data

- Addresses toxic effects, other than carcinogenicity, of chemicals
- Assumes a “threshold” toxic dose
- Provides oral reference doses (RfDs) and/or inhalation reference concentrations (RfCs) for lifetime exposure



For More Information on IRIS

- U.S. EPA Risk Information Hotline
Tel: (202) 566-1676
Fax: (202) 566-1749
- E-mail: hotline.iris@epa.gov
- Web: www.epa.gov/iris