

What's new in RISC5 v.1?

New Features in RISC5

- Food web screening models for terrestrial and aquatic ecological risk assessments
- Output tables and charts are now created directly in Excel
- Particulate emission model added
- New plant uptake model (Trapp and Matthies, 1995)
- RISC5 model chemical database has been expanded to ~120 chemicals (from 80)
- User can choose to use either reference concentrations and unit risk factors, or, inhalation reference doses and inhalation slope factors
- All chemical toxicity values updated to be current with USEPA values
- Chemical database is much easier to edit and generate summary tables of chemical properties
- Mass balanced, depleting source, indoor and outdoor air models
- References provided (on-line and in Excel tables) for all chemical and receptor parameters
- New databases:
- Ecological receptors and receptor-specific information
- Mammalian and avian toxicity values
- Worm and plant toxicity values
- Soil and plant screening values
- New human receptor profiles added (including ones for additive receptor cases)
- User can add new receptor and soil profiles and/or may customize default values
- Sediment was added as a media of concern for human health risk (dermal contact and ingestion exposure pathways)

Surface Water Criteria Datasets (expanded)

- United States Environment Protection Agency National Recommended Water Quality Criteria (2004)
- United Kingdom Environmental Quality Standards (statutory and proposed)
- Australia and New Zealand Environment and Conservation Council, Guidelines for Fresh & Marine Water Quality (October 2000)
- European Commission Water Quality Objective
- Canadian Council of Ministers for the Environment Canadian Environmental Quality Guidelines (December 2003)
- TCEQ (Texas Commission on Environmental Quality) Guidance for Conducting Ecological Risk Assessment at Remediation Sites in Texas (December 2001)
- MDEQ (Michigan Department of Environmental Quality) Rule 57 Water Quality Values (February 1, 2005)
- GLWQI (Great Lakes Water Quality Initiative), Water Quality Guidance for the Great Lakes System 40 CFR 132 - Table 2 (March 23, 1997)

- NYSDEC (New York State Department of Environmental Conservation) Ambient Water Quality Standards and Guidance Values - Table 1 (June 1998, updated January 1999, April 2000, & June 2004)
- NCDENR (North Carolina Department of Environment & Natural Resources) 15A NCAC 2B or National Criteria per EPA (October 31, 2004)
- ODEQ (Oregon Department of Environmental Quality) Guidance for Ecological Risk Assessment Level II Screening Level Values (12/2001)
- WA Ecology (Washington State Department of Ecology), WAC 173-201A Water Quality Standards for Surface Waters of the State of Washington (Updated 7/1/03)

Sediment Criteria Datasets (expanded)

- ANZECC - Australia and New Zealand Environment and Conservation Council, Guidelines for Fresh & Marine Water Quality (October 2000)
- ARCS - Assessment and Remediation of Contaminated Sediments Programme
- CCME - Canadian Council of Ministers of the Environment
- FDEP - Florida Department of Environmental Protection
- MDEP - Massachusetts Department of Environmental Protection, Technical Update: Freshwater Sediment Screening Benchmarks for Use Under the Massachusetts Contingency Plan (May 2002)
- NOAA - National Oceanic and Atmospheric Administration
- ODEQ - Oregon Department of Environmental Quality Guidance for Ecological Risk Assessment Level II Screening Level Values (12/2001)
- ORNL - Oak Ridge National Laboratory, Tennessee
- OSWER - Office of Solid Waste and Emergency Response
- RIZA - Netherlands Institute for Inland Water Management and Waste Water Treatment
- NAWQC - Derived by Equilibrium Partitioning from US EPA National Ambient Water Quality Criterion
- WA Ecology - Washington State Department of Ecology, WAC 173-204-320 Table 1 (Standards apply to marine sediments located within Puget Sound as defined in WAC 173-204-200(19))

Soil and Pland Criteria (mew):

- Oregon - Oregon Department of Environmental Quality Guidance for Ecological Risk Assessment Level II Screening Level Values (12/2001)
- Texas - TCEQ (Texas Commission on Environmental Quality) Guidance for Conducting Ecological Risk Assessment at Remediation Sites in Texas (12/2001)
- Washington State - Washington State Department of Ecology Terrestrial Ecological Evaluation Process