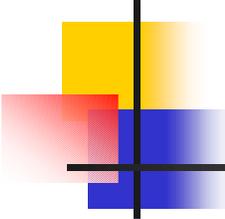


Emission Inventory Workshop  
Fall 2001

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# HARP Dispersion and Risk Modules

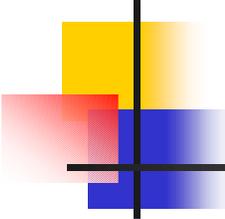
Beth Schwehr  
November 14, 2001



## HARP - Modules

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- **Emission Data Module (CEIDARS-Lite)**
  
- **Air Dispersion Module**
  - Model downwind concentrations based on emissions dispersion
  
- **Risk Assessment and Mapping Module**
  - Implements full OEHHA health risk guidelines
  - Point estimate risk and Stochastic distributions
  - Contouring and mapping tools

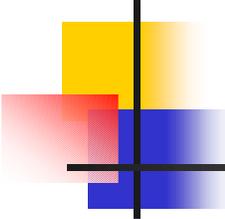


# HARP - Air Dispersion Module

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## ■ Air Dispersion Module

- Interface to ISCST3 (US EPA Gaussian plume model) and BPIP (building downwash)
- Handle multiple sources/receptors
- Seamless link to CEIDARS-Lite emissions
- Build Receptors
  - Receptor Grid
  - Property Boundary Receptors
  - Census Block Receptors

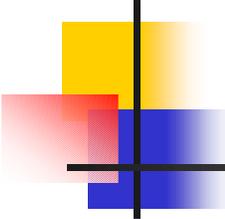


# HARP - Risk Assessment Module

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## ■ Risk Assessment Module

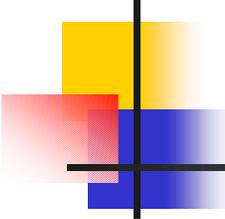
- Implements OEHHA's complete risk guidelines
  - OEHHA Health Effect values - potencies & RELs
  - OEHHA multipathway equations and uptake factors
  - OEHHA-recommended default values
- Multipathway (non-inhalation: dermal, meat...)
- Point estimate risk and Stochastic distributions



# HARP - Risk Assessment Module

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- **Risk Assessment Module** (cont'd.)
  - Can assess combined risk of multiple facilities
  - Contours of risk isopleths on maps
  - “On-ramps” and “off-ramps” for external analysis



# Conclusion

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- **HARP Provides Integrated Tool**
  - Emissions --> Air Dispersion --> Health Risk
  - Provides a user interface and visual tools
  - Local-scale analysis
  
- **Next Steps:**
  - SRP Approval of OEHHA Risk Guidelines
  - Beta Release and District Training