

# NRC Dose

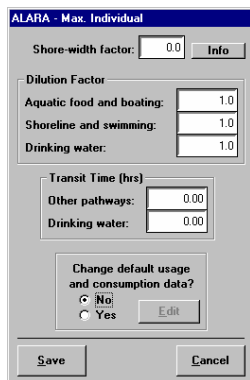
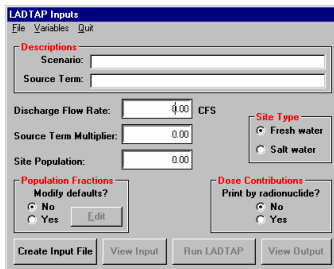
## Suite of NRC's Dose Modeling Codes for Reactor Radioactive Effluents

**NRC Dose** is WINDOWS™ versions of NRC's 10CFR50, Appendix I Implementation codes -- LADTAP, GASPAR, and XOQDOQ. These codes implement NRC's current requirements for ALARA for radioactive effluents from nuclear power plants. **LADTAP** is the liquid pathway modeling of NRC Regulatory Guide 1.109; **GASPAR** is the gaseous effluent pathway modeling; and **XOQDOQ** is the atmospheric dispersion modeling code.

### LADTAP

Liquid Pathway Dose Modeling

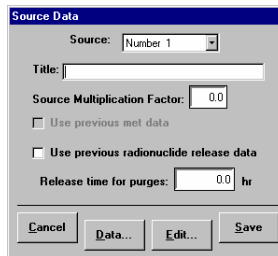
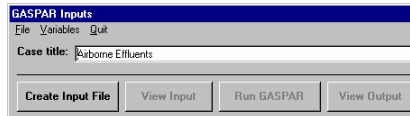
- Regulatory Guide 1.109
- Fish and Invertebrate Ingestion
- Drinking Water
- Irrigated Crops
- Shoreline and Boating
- Recreational and Population Doses
- ALARA Cost-Benefit Evaluation



### GASPAR

Gaseous Pathway Dose Modeling

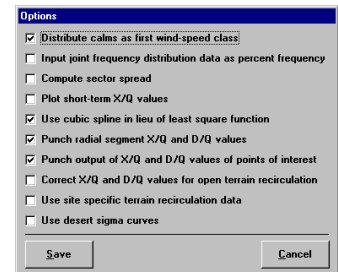
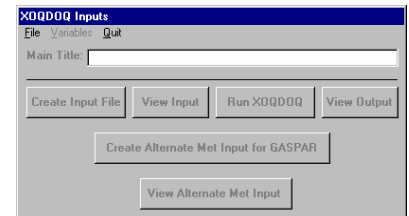
- Regulatory Guide 1.109
- Noble Gas Direct Exposure
- Inhalation Pathway
- Infant Milk Ingestion
- Deposition and Food Ingestion
- Individual and Population Doses
- ALARA Cost-Benefit Evaluation



### XOQDOQ

Atmospheric Dispersion Modeling

- Regulatory Guide 1.111
- X/Q, Annual Avg. Dispersion
- D/Q, Particulate and Radioiodine Deposition
- Intermittent releases -- containment purge, decay tank releases
- output formatted for direct use as input meteorological data set for GASPAR



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