

REPORT OF THE ECOLOGICAL RISK FOCUS GROUP
TO THE CONTAMINATED SOILS FORUM

28 September 1998

The Ecological Risk (EcoRisk) Focus Group held a conference call on 2 September and met face-to-face in Gainesville on 22 September 1998. Ten members attended the Gainesville meeting; however, a total of 18 have asked to participate in the focus group but several were unable to attend the first meeting due to the short notice and prior commitments. Nevertheless, this report was circulated to all members for their comments. All substantive comments were incorporated; thus, the recommendations provided below represent a consensus of all contacted members.

The group recognizes that ecological risk must be considered in any regulatory decision involving a contaminated site. The mandate for this is contained in several Florida statutes including the following examples (*italics added*):

In: Environmental Regulation Commission; powers and duties: "The Commission, in exercising its (standard setting) authority, shall consider scientific and technical validity, economic impacts, and relative risks and benefits to the public and the environment." Section 403.804(1), F.S. (1997)

In: Drycleaning facility restoration, site selection and rehabilitation criteria: "The effect of the contamination on the environment." Section 376.3078(4)(a)4, F.S. (1997)

In: Inland Protection Trust Fund (for response to contamination by petroleum and petroleum products), intent and purpose: "...in order to protect the public health, safety, and welfare and to minimize environmental damage." Section 376.3071(2)(a), F.S. (1997)

In: Brownfields Redevelopment Act: "...the department shall incorporate, to the maximum extent feasible, risk-based corrective action principles to achieve protection of human health and safety and the environment..." Section 376.81(1), F.S. (1997)

The group also recognizes that there currently is no consistent regulatory procedure for evaluating potential ecological risk within the State of Florida.

To facilitate a consistent approach to the consideration of ecological risk that may result from contaminated soils, whether these risks may occur on a contaminated site or through off-site pathways, the EcoRisk Focus Group makes the following recommendation:

1. Develop Florida-specific ecological risk assessment guidelines for contaminated soils that use, as a framework or point of departure, the USEPA Guidelines for Ecological Risk Assessment.

If FDEP decides to create ecological risk assessment guidelines for contaminated soils, the EcoRisk Focus Group makes the following additional recommendations:

2. Develop criteria for contaminated sites that would trigger the performance of an ecological risk assessment.
3. Develop the guidelines in a 3-tiered approach, with the first tier being a screening level that uses look-up tables. The second tier would involve more site-specific information to develop an Ecological Exposure Quotient using calculated or actual exposure data and selective use of bioassays. The third tier would involve original research to define contaminant levels on site that could adversely affect populations or ecosystems at risk at points of co-occurrence of the contaminant, or stressor, and a receptor. This research could include single species bioassays, mesocosm studies, biodegradation studies, transport and fate models, etc.
4. Review available screening values triggered by ecological safety, and assess their applicability to Florida and selection for use in Tier 1 tables of the Florida-specific guidelines.
5. Develop criteria for selection of assessment species relevant to Florida ecosystems (e.g., species of high ecological and/or economic value or acceptable surrogates).

6. Develop criteria for selection of ecological/toxicological endpoints applicable to Florida ecosystems.

7. Establish a guidelines development committee with members having specific technical experience relevant to ecological risk assessment. (Members of the EcoRisk Focus Group would offer their input as needed in the establishment of a guidelines development committee and in the context of review or participation in discussions during guidelines development.)