

SRRC Review

Reviewer: R.-A. Walk

Proposal by: E. M. Starling, Theodor D. Sterling and Associates Ltd.

Title: Critical review of indoor air quality exposure prediction models.

Date: March 19, 1997

Business purpose of the investigation:
Acquiring technical knowledge related to IAQ

Research plan:
Provided.

Budget:
78,000 USD for 4 months (accumulated).

Reporting plan:
Not provided.

Objective(s) of research:

Identify and review the 3 most widely used computer models for predicting building occupants' exposure to indoor air constituents, identify the critical problems associated with the practical application of the models for the design of new buildings and for predicting exposure in operating buildings.

Strengths:

- Importance of scientific testing of computer models before they are included in regulatory requirements.
- The project is claimed to be completed within 4 months.

Weaknesses:

- The limitations of the US EPA RISK/EXPOSURE model has been published already (Sterling et al., HPAC 1996; attached by the author of the research proposal).
- The author apparently already assumes that all models to be selected for review cannot be relied upon (see "Objective 3", page 2 of the proposal).
- It is not clear, which and how many indoor air constituents are being included in the test of the 3 models. Therefore the amount data to be expected is not clear.
- Details of the "validation test" for the models as well as the criteria for whether a model is "suitable" or not have not been stated.

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Overall evaluation:

CRITERION	REVIEWER'S OPINION
Consistency with PM business objectives:	Yes
Conformity to applicable legal and regulatory requirements:	Yes
Meeting scientific, ethical and legal standards for quality control and experimentation:	QC and application of scientific principles must be ensured
Not duplicative of other research conducted or funded by the company:	not known

Recommendation:

A more detailed proposal providing information regarding the scientific criteria for "suitability" and how the validation tests will be performed should be requested, before a final recommendation can be given.