Southwest Indianapolis Air Toxics Study
Technical Advisory Group
Meeting Notes
Oct. 21, 2008

*Monitoring Seasoning ended end of Sept. 2008, currently compiling data

I. Modeling Update
  a. Where data is not available use permit's potential to emit -When will results be available?
  b. Data needs to be QA'd
  c. Will take a while to run (WI took 100 hrs) -Modeling sources
  d. Background: how estimate?
  e. Open ended request for chemicals-did you get other information

II. Public Advisory Group Update
  a. 2 meetings
  b. Concerns noted - not interested in what EPA is interested in
  c. Try to meet 1/month
  d. Reps: school 46, SW Wayne Twp., resident, nurse, West Indy Dev. Corp.
  e. What has group done for direction? how compare to others, how handle news media

III. Toxics Information
  a. Hierarchy - 1st Tier: IRIS, CAL-EPA; 2nd Tier: HEAST, Health Canada, OLQ -Got 50% tox information -Need Tier 2 info: route extrapolation or ACGIH
  b. Recommendation: see how much mass emissions gap -How much of 50% are for chemicals not detected -Looked at recent NADA?
  c. Find out what chemicals we need tox info for how feasible for structure comparison - New EPA program "Compu-Tox"
  d. Can EPA run chemicals through a Quasar
  e. Screening vs. "drilling down"
  f. 30% info on carcinogens-of those you know?
  g. Are there specific routes that the compounds are carcinogenic for?
  h. Can't do all those carcinogens - what about those that are most toxic?
  i. Additivity might make it more complex
  j. Keep track of uncertainities
  k. Table suggests a single number - IRIS says not to use it - Go back and look at supporting studies - Bring along the range -IDEM defaults to IRIS -Put the range in as the numbers are used for a wide variety of purposes -Slope factors & IUR given as single numbers in IRIS but some compounds have ranges -IUR are intended to be high end estimates -Used for community risk -Suggestion - give public more than a single number m. Provide assumptions -Rfdi only -Will come out as risk 0 to 10^-x - *Do this for those compounds with the most toxicity & concentrations* -Why did HEAST stop in 1997? Replaced with NCEA & provisionals -Methyline chloride dropped off? Name change?

l. No acute tox data? Only OAQPS has limited info on this -Acute assessment w/modifying yearly data
m. Acetone: peak to mean ratio?
n. Acute values available from OSHA?
o. Hourly concentration in the model?
p. Modeling looks area-wide
q. Odor problems
r. Not doing asthma? MCHD?
s. PM2.5 not part of this study
t. Suggestion for public - mention PM as monitoring data available -from other sources

IV. Critical Effects & Target Organs
a. 100% additivity=total hazard index
b. 1st cut by Rfc
c. Dependent on concentratons in air - independent of mass?
d. Add together, then break it down
e. Abbreviation explanation in the table (footnotes) -Critical effects from different sources - good -Additivity complicated when trying to define critical effects -Tox information may provide info especially if compound is highly toxic -Do not have to go to Mode of Action -Modeling data expressed as hourly average not close to exposure limits -What about continuous data?
f. Continuous data more for other types of compounds (O3) -Acute info will be hard - Addressed cumulative risk? No only inhalation effects - smoking is a confounding factor g. Compare data from the 2 monitors - hesitated to do acute assessment from model

V. Methods to Fill Gaps - ACGIH
a. Convert ACGIH TLVs to RfCs
b. Back calculation from TLV is difficult and conservative -Good for basic screening - Tell public about conservatism/uncertainties -Proposed ACGIH conversion take into account children?
c. Do what School 21 study did for children (age adjusted mutagen) -This is different: This is conservative enough for children -Increased sensitivity fro children -IRIS takes children into account -Include caveats on using TLV values -Are there other human health studies that could resolve TLV substitution issue?
d. In TLV process, equivalents MCL-G
e. Don't know yet how ths method will play w/modeling data -Caution in mixing health-based standards w/numbers derived for some other purpose -Communicate the limitations g. Any have pesticide characteristics? (FIFRA) -Units? ug/m3

VI. Mode of Action
a. How to add carcinogens?
b. EPAs approach is add carcinogens no matter the route -Consider tissue response -Dr. Klaunig agrees it is worth looking at this approach -Concern about focusing on inhalation causing cancer -Cheaper than exposure reduction -Keep uncertainties in forefront -WOE for carcinogenic? Class A, B, C...?

c. Wait for "heavy-hitter" list
d. Ds are unclassified - potency information -Save for screening -Tell public what is the risk -What is a "heavy-hitter"? Based on concentration and/or toxicity
e. Ex: sulfuric acid - not carcinogenic
f. Recommendation: concern about A, B, C only to determine IUR

VII. Background Ambient Air Concentrations
a. use all Washington Park data - do not limit it to study time -Washington Park is not considered upgradient monitor to the study area -Add another area to the model -Add background to model -Washington Park model compared with School 21 model - Comparison vs. absolute risk

VIII. Miscellaneous
a. Next meeting - Jan. 2009
b. post 2-year data
c. need met data for every sample