

# Human Health Risk Assessment (HHRA) - Flin Flon / Creighton Technical Advisory Committee (TAC)

November 1, 2007 - Teleconference

## Attendance

Technical Advisory Committee (TAC) Membership					
Dr. Marcia Anderson MB Health		Dave Green MB Water Stewardship	X	Doina Priscu MB STEM	
Dave Bezak MB Conservation	X	Dr. James Irvine SK Health	X	Dr. Susan Roberecki MB Health	X
George Bihun SK Environment	X	Geoff Jones MB Conservation	X	Audrey Romanchuk MB Conservation	X
Mike Gilbertson MB Conservation	X	Dean Kasur MB Conservation	X	Lindsay Smith Health Canada	X

HBMS/Intrinsic					
Ian Cooper HBMS	X	Adam Sarfuk Intrinsic Environmental	X	Stephen West HBMS	X
Alan Hair HBMS	X	Elliot Sigal Intrinsic Environmental	X		

Guests / Other		
Sheldon McLeod (Facilitator) S.L. McLeod Consulting	Joel Nilsen (Secretary) HBMS	Dr. Lisa Richards (Guest) MB Health

## Introduction

- A review of the draft notes of the previous meeting was conducted. The following comments were received:
  - The second action item #7 is actually action item #8.
  - Any changes or comments are to be forwarded to Sheldon McLeod by November 6, 2007.
- A review of action items from the previous meeting was conducted:

### Action Item #1:

- An outline of the residential soil sampling program was provided to the Community Advisory Committee (CAC) at their October 15, 2007 meeting.
- There was good volunteer participation by the community. Some “knocking on doors” was conducted to fill in gaps in the survey coverage area.
- 200 sets samples were collected (66 homes west of Ross Lake, 62 homes on the east side, 30 homes in Creighton, 10 homes in Channing, 12 QA/QC samples, and 20 native or specific targets).
- Samples from the west side of Ross Lake were submitted for “rush” analysis.
- 40 randomly selected homes will be selected to participate in the indoor dust sampling program along with daycares and schools. It was noted that the lack of carpeting in schools may reduce the availability of dust samples.

Question: Of the 40 home sampled, will this include a mix of HBMS workers and non-HBMS households?

Response: Yes. A questionnaire will be circulated to all participants regarding activities and lifestyles that might affect the study (e.g. presence of children, pets, smokers).

Question: Would it be possible to receive a sample of the questionnaire?

Response: Yes. Elliot Sigal will distribute a copy to the TAC.

Question: Were any background samples collected during the soil sampling.

Response: Yes. Denare Beach and other locations were sampled.

Question: Is it appropriate to collect dust samples at this time when overall dust loadings are lower? Perhaps the spring would be a better time?

Response: At this time, the study is concerned more with identifying the concentration of metals present in indoor dust. Since samples are being collected from carpeted surfaces, which act as dust sinks, samples should still be representative. Waiting much longer will likely result in missing this window of opportunity

- There was some discussion as to whether loadings as opposed to concentrations were of more importance. It was recommended that this discussion be conducted off-line between Intrinsic and Manitoba Conservation.

Question: Will carpets be the only dust sources monitored, or will surface swipes be collected as well?

Response: Yes, swipes will be collected. However, other than comparison against lead guidelines, these results may be of limited use.

Question: Will the selection of homes be completely random?

Response: The number of samples desired in each section of the community will be identified beforehand, following which the actual homes sampled in each area will be randomly selected.

Action Item #2: Complete

Action Item #3: The correlation between Provincial Building TSP and PM10 data will be incorporated into the assessment.

Action Item #4: Complete

Action Items #5 - #8: Incomplete, assigned to the CAC

Question: What are the protocols related to fish data collection?

Response: These have not been decided yet. A questionnaire (Creel survey) will be distributed to get information on fish consumption.

- It was noted that predator species should be sampled to collect information on peak metal loadings. A wide size distribution of samples should be collected.

Action Item #9: Yes, the maximum upper bound limits will be addressed.

Action Items #10 - #11:

- The CAC Terms of Reference are with the group. A few minor changes are expected and the document will be reviewed at the November 1 CAC meeting.
- The TAC Terms of Reference will be discussed later in the meeting.

Question: Will the TAC have an opportunity to see the CAC Terms of Reference?

Response: Yes.

Action Item #12:

- The governance model applies to HBMS, Manitoba and Saskatchewan.
- Some finalization of agreements on the working model remains.
- This will be reviewed at the November 1 CAC meeting and shared with the TAC afterwards.

Action Item #13: The TAC representative list is complete.  
 Question: Who are the official HBMS representatives?  
 Response: Alan Hair and Ian Cooper. Stephen West will be present as an observer.

Action Item #14: The HHRA Terms of Reference will be circulated.

- Any comments on the previous notes should be submitted by November 6. Notes will be finalized and distributed on November 7 and will be placed on the website as a public document.

#	Action	Responsibility	Target Date	Status
015	Circulate the indoor dust sampling questionnaire to the TAC.	Elliot Sigal	2007-11-15	2007-11-01, new
016	Off-line discussion regarding indoor dust loading versus concentration issue.	Elliot Sigal, Dave Bezak	2007-11-15	2007-11-01, new

**Human Health Risk Assessment – Terms of Reference (TOR)**

Question: How long can TAC Members continue to provide comments on the TOR?  
 Response: Revisit this question until there's a sense of how many comprehensive comments remain.

Question: How does Intrinsic propose dealing with comments?  
 Response: A master list of all comments will be created which will include the response and a summary of the location and reason for any changes to the TOR.

- It was noted that all comments will become a matter of public record. In light of this, all comments should be submitted under the name of a TAC member. Consideration should be given to the appearance, substance, and tone of comments.

Question: Would it be better for comments to be submitted on behalf of an organization / government department rather than an individual?  
 Response: Agreed.

Question: Health Canada is not comfortable with being portrayed as a regulator, as this is a provincial concern.  
 Response: All Health Canada comments will be provided as advice to Manitoba, who can then incorporate them into the provincial comments.

- A review of comments submitted by Saskatchewan Health was conducted:

Comments #1 - #3: Covered in earlier discussion, no more information required.

Comment #4:

- Receptor characteristics prepared by Health Canada will be used where possible.
- When no Health Canada information is available, other regulatory agency characteristics will be used.

Comment #5:

- Indoor inhalation will be considered.
- Literature review of past HHRAs has indicated that indoor concentrations are generally 75% - 80% of outdoor concentrations.
- It is proposed to use outdoor air concentrations for indoor exposure rather than conducting a separate survey of indoor concentrations.

- Indoor settled dust will be treated comparable to soil, i.e. considered via a dermal / ingestion pathways.

Comment #6: Snow consumption had not been considered, but will be looked at in further detail.

Comment #7:

- In winter it is considered that there is generally less exposure to soil, but more exposure to dust.
- There is no good reference as to seasonal breakdowns of exposure routes, and more discussion with the TAC will be required.
- It was noted that snowfall data could be obtained from Environment Canada.
- It was noted that the 80 mg exposure figure for soil would likely still be applicable, but the apportioning between soil and dust will require work.

Comment #8: Editorial, no response required.

Comment #9:

- It was suggested that drinking water from more than one site from Creighton should be considered.
- There was some discussion about collecting samples at the Town water treatment plant. However, it was also suggested that this would not represent actual exposure as the water distribution system could influence exposure concentrations.

Comment #10:

- A discussion on the value of bio-monitoring was held.
- The general consensus was that the time of peak seasonal exposures for blood lead or urinary arsenic has passed.
- It was generally agreed that this issue requires further discussion and consideration, as future bio-monitoring studies may be required.
- It was suggested that the TAC should prepare a statement on this issue in light of public and media interest.

Comment #11:

- A discussion was held regarding life spans and hazard quotients for use in the HHRA.
- It was agreed that 75 years would be used in place of 70 for the average life span.
- Input from regulators on hazard quotients is necessary, although the intent had been to use a figure of 1.0. There may be some issues with consumer product exposure that could require adjustments to the hazard quotient.

Comment #12: Addressed in earlier discussion.

- A review of comments submitted by Manitoba Conservation was conducted:

Comment #1: Wording issue, will be reviewed.

Comment #2:

- The HHRA will not evaluate historical exposures. The intent of the process is to ensure that the exposure level going forward is safe.
- The issue of whether there will be a predisposition to future exposure as a result of past exposure has to be addressed.

Comment #3: Addressed in an off-line discussion with Intrinsic Environmental.

Comment #4: Wording issue, will be reviewed.

Comment #5: Addressed in earlier discussion.

- It was suggested that a citable reference regarding indoor air concentrations being lower than outdoor concentrations should be provided.

Comment #6: Suggested change will be included in the TOR revision.

Comment #7:

- There was a discussion on how to account for short-term, acute airborne exposures, primarily arsenic.
- It was stated that short-term exposures have a negligible effect on long-term cancer rates.

Comment #8: Complete agreement.

- A bioavailability assessment will have to be conducted, but off-line discussions with Health Canada will be required on this issue to ensure their satisfaction.
  - Manitoba requested to be included in the discussion.
- Saskatchewan Environment, Manitoba Health, and Manitoba Water Stewardship indicated that their comments were forthcoming.
  - Health Canada indicated that they would provide comments via Manitoba Health and / or Manitoba Conservation.
  - All groups were asked to finalize their comments for submission by November 9, 2007 at the latest.
  - All members were asked to submit comments in MS Word or e-mail format as opposed to PDF.
  - Intrinsic will prepare a table of comments / response by November 23, 2007.

#	Action	Responsibility	Target Date	Status
017	Final comments on the HHRA TOR to be submitted.	All	2007-11-09	2007-11-01, new
018	Prepare a table of comments / responses related to the HHRA TOR.	Elliot Sigal	2007-11-23	2007-11-01, new

### **Technical Advisory Committee – Terms of Reference (TOR)**

- Three minor changes were made to the TOR:
  - 3.1.8 - HBMS introduction removed.
  - 3.8 - Identification of CAC observers.

Question: Are the CAC observers the same as the CAC delegate? Will the observer change from meeting to meeting?

Response: The intention is to ask the CAC to identify regular observers on their behalf.

- 5.4 - Complete revision after the first sentence. Opinions and dissenting opinions will be recorded, although there will be an effort made to achieve consensus.
- A discussion was held on holding meetings open to the public.
    - It was suggested that face-to-face meetings in Flin Flon should be made open.

Question: Regarding quorums of 50% plus one vote, will votes be cast as individuals or as organizations?

Response: Only one vote will be cast for each organization.

## Other Issues

- Format of the next meeting:
  - It was decided that the next meeting should be a face-to-face meeting held in conjunction with the CAC.
  - It is important that the TAC Members have an opportunity to meet with the CAC Members and address any concerns the CAC may have regarding the expertise on the TAC.
  
- Status of the website:
  - Gartner-Lee has been working on the HHRA website and are ready to launch a password-protected version for the TAC to review and comment.
  - Alan Hair is to provide the access information to the TAC Members.
  - Once comments have been addressed, the website will be made available to the general public.
  
- Approval of meeting notes:
  - All TAC Members were requested to review the previous TAC meeting notes and provide any comments.
  - Meeting notes and comments will be made public on the website once approved by the TAC.

Question: How will factual errors (if any) in the notes be addressed?

Response: If this situation arises, then the issue should be placed on the next agenda for review and discussion.

- TAC Members who may wish to resubmit comments on previous meeting notes written with the TAC in mind as an audience rather than the public were requested to submit revisions.
  
- Bio-monitoring strategy:
  - A plan around bio-monitoring should be developed as soon as possible.
  - Input from the CAC on this topic should be obtained at the next meeting.
  
- Joint TAC / CAC meeting plan:
  - To be an informal meeting, closed to the two groups in order to facilitate unimpeded discussion.
  - Sheldon McLeod will prepare a meeting program by November 11, 2007.

#	Action	Responsibility	Target Date	Status
019	Distribute password to access the draft HHRA website.	Alan Hair	2007-11-08	2007-11-01, new
020	Review and resubmit comments / notes in light of public viewing.	All	2007-11-15	2007-11-01, new
021	Prepare meeting program for the joint TAC / CAC meeting.	Sheldon McLeod	2007-11-11	2007-11-01, new

**NEXT MEETING: Thursday, December 6<sup>st</sup>, 3:00 pm**  
**Venue to be confirmed**