

RFCA Stakeholder Focus Group Meeting Agenda

When: October 17, 2001 3:30 - 6:30 p.m.

Where: Broomfield Municipal Hall, Bal Swan and Zang's
Spur Rooms

- 3:30-3:40 Agenda Review, 8/22/01 Meeting Minutes Review, Objectives for this Meeting
- 3:40-4:00 Task 3 Peer Review and Wind Tunnel Technical Review - update
- 4:00-4:20 Final results from the RSAL Modeling – Resident Rancher Scenario – RESRAD results, key parameters, and comparison to historical results
- 4:20–5:00 Task 3 Report – Briefing and Discussion
- 5:00-5:10 Break
- 5:10–6:00 Task 3 Report – Briefing and Discussion (cont.)
- 6:00-6:25 Task 3 Peer Review – Framing the Questions for the Reviewers
- 6:25-6:30 Review Meeting
- 6:30 Adjourn

1/35

October 11, 2001

Dear Stakeholder:

The Rocky Flats Cleanup Agreement (RFCA) Stakeholder Focus Group will meet at the Broomfield Municipal Center at One DesCombes Drive on October 17, 2001 from 3:30 to 6:30 p.m.

The agenda for the October 17, 2001 meeting is enclosed (Attachment A). We will discuss the following topics:

- RSALs Task 3 Peer Review and Wind Tunnel Technical Review - update
- Final results from the RSAL Modeling – Resident Rancher Scenario – RESRAD results, key parameters, and comparison to historical results
- Task 3 Report – Briefing and Discussion
- Task 3 Peer Review – Framing the Questions for the Reviewers

The presentations from the October 3, 2001 RFCA Focus Group meeting are enclosed as Attachment B, including:

- 09/27/01 RSALs Working Group notes,
- *Comparison of Permissible Body Burden of Plutonium and Soil Action Levels*, Joe Goldfield, September 20, 2001,
- Presentation by Joe Legare: Approach to Cleanup using RSALs, and
- Presentation by Reed Hodgkin: Wind Tunnel Technical Review – Status.

The Rocky Flats Coalition of Local Governments sponsored a meeting on Health Effects of Low-level Radiation on October 1, 2001. The meeting agenda and presentations are enclosed as Attachment C.

If you need additional information to prepare you for the Focus Group discussion on October 17, 2001, please contact Christine Bennett of AlphaTRAC, Inc. at 303 428-5670 (cbennett@alphatrac.com). Christine will help to find the appropriate resource for you.

You may call either Christine or me if you have any questions, comments, or suggestions concerning the RFCA Stakeholder Focus Group or the upcoming meeting.

Sincerely,

RFCA Stakeholder Focus Group
October 11, 2001
Page 2 of 2

C. Reed Hodgkin, CCM
Facilitator / Process Manager

RFCA Stakeholder Focus Group
October 17, 2001
Meeting Minutes

INTRODUCTION & ADMINISTRATIVE

A participants list for the October 17, 2001 Rocky Flats Cleanup Agreement (RFCA) Stakeholder Focus Group meeting is included in this report as Appendix A.

Reed Hodgins of AlphaTRAC, Inc., meeting facilitator, reviewed the purpose of the RFCA Focus Group and the meeting rules. Introductions were made.

AGENDA

Reed reviewed the agenda:

- Task 3 Peer Review and Wind Tunnel Technical Review Update;
- Task 3 Report – Briefing and Discussion;
- Final results from the RSAL Modeling – Resident Rancher Scenario – RESRAD results, key parameters, and comparison to historical results;
- Task 3 Peer Review – Framing the Questions for the Reviewers.

Technical Review Update: Wind Tunnel-Based Characterization of Wind Resuspension for Development of Radioactive Soil Action Levels at RFETS

Reed provided background information regarding the development of the wind tunnel technical review. The scope was defined involving primary and supplementary questions posed to national experts in the field. AlphaTRAC, Inc. is working on firming up the contractual aspects of the technical review and has gathered all materials to support the technical review.

The approach involves national experts reviewing the study and responding to primary questions and supplementary questions related to the wind tunnel technology and results.

The objectives of the technical review include:

1. To evaluate the appropriateness of the wind tunnel technology used in studies at Rocky Flats Environmental Technology Site (RFETS) for developing wind resuspension values related to soil particles. These values are proposed in establishing Radioactive Soil Action Levels (RSALs) at RFETS for the purpose of determining cleanup levels.
2. To evaluate if the wind resuspension values are adequate for developing input parameters for use in the dose (RESRAD) and risk (RAGS) models used for establishing RSALs at RFETS.

Reed reviewed the *Wind Tunnel-Based Characterization of Wind Resuspension for Development of Radioactive Soil Action Levels at Rocky Flats* document with the Focus Group.

The two primary questions are stated above and the supplementary questions, raised by the Focus Group are listed below. The technical reviewers should, where possible, consider the supplemental questions while conducting their primary evaluations.

1. Has the equipment been thoroughly tested for operations like those for which it is being used as Rocky Flats? Is the review of sufficient quality and thoroughness to evaluate the applicability of the approach to the problem at Rocky Flats? Does the review show that the wind tunnel approach is appropriate and adequate for this purpose?
2. Is the pitot tube methodology employed in the wind tunnel adequate for characterizing the wind profile in the wind tunnel while it is operating?
3. Is the wind tunnel working section long enough so that the desired wind conditions can develop and remain stable for characterizing resuspension?
4. Does the wind tunnel methodology adequately account for the effects of small-scale variations in surface cover and surface roughness, including turbulence variations on a small scale?
5. Is it true that roughness of the surface may act to dam or retard rather than to release surface particles in unidirectional wind flow? If so, how can this equipment accurately account for this reality?
6. Is the sampling period appropriate for wind resuspension at Rocky Flats? Is the supply of suspendable material being depleted well before a test is over? Does this artificially affect the results of the experiments (e.g., fictitiously low average resuspension rate because some sampling was performed when there was no material left to resuspend)?
7. How well does the wind tunnel reproduce actual meteorological conditions expected during high winds at Rocky Flats? Are there any field validation data to demonstrate this?
8. Does the wind tunnel realistically and adequately account for vertical wind velocity and variations in it?
9. High winds at Rocky Flats involve rapid fluctuations in wind speed, wind direction, and turbulence. How important are these effects to resuspension? Does

- the wind tunnel reproduce these effects adequately for meeting the goals of the project.
10. How effective is the wind tunnel at resuspending particulates of different sizes? Does the wind tunnel have a high efficiency for particles of small, medium, and large size? Here "efficiency" means how well the equipment mimics actual conditions in the external environment.
 11. If the effectiveness of the wind tunnel at reproducing resuspension is good at various particle sizes, it is good at different wind speeds? Since particles of different sizes have their own specific thresholds for resuspension and transport, does the equipment detect the thresholds accurately?
 12. Is the particulate sampling being performed to appropriately capture the dust that is resuspended during the wind tunnel tests (to include isokineticity and the design of sampling inlets)?
 13. Is the recurring process of deposition and resuspension being adequately treated by the wind tunnel? If the process is not fully treated, does this mean that the wind tunnel results will tend to over-predict or under-predict resuspension rates?
 14. What method has been used or should be used to verify the sampling efficiency of the wind tunnel?
 15. While the wind tunnel results show increases in airborne dust release rates as wind speed increases, intake of air by humans is activity-dependent, not wind-speed dependent. How can this be taken into account in using data from the wind tunnel?
 16. Are the increases in air concentrations associated with increasing wind speeds as determined by the wind tunnel realistic and reasonable?

Task 3 Report – Briefing and Discussion

The agencies are proposing new Radionuclide Soil Action Levels (RSALs) for surface soil for plutonium and americium to guide the cleanup at Rocky Flats. These RSALs will replace those levels established in 1996. The RSALs are the activity concentrations of radionuclides, if exceeded cause either an evaluation, a remedial action, or a management action. Existing RSALs are under review and new RSALs are being proposed based on many factors, such as new scientific information and the fact that unpromulgated rules regarding site cleanup were never formalized.

Draft Task 3 Report discussed the exposure scenarios that the agencies are using for the calculation of new RSALs, as well as methods of calculation, input parameters and results. Five exposure scenarios were addressed, which include wildlife refuge worker, rural resident, open space user, office worker, and resident rancher. The office worker and open-space user were evaluated to provide a comparison to 1996 RSALs.

The primary regulatory basis for the RSALs comes from the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). This regulatory basis established a protective risk range. Further considered by the State of Colorado was the Nuclear Regulatory Commission (NRC) decommissioning rule. This NRC decommissioning rule was found relevant to and appropriate for clean up, so RSALs were further evaluated based on a dose of 25 mrem/year (millirem/year) found in the NRC rule. RESRAD was the model used for dose assessment. Where the 25-mrem/year dose limit exceeds the protective risk range prescribed by the Environmental Protection Agency (EPA) in CERCLA of one in ten thousand to one in a million cancer incidences (10^{-4} to 10^{-6}), the agencies developed RSAL values based on the primary regulatory basis established by CERCLA for risk.

Changes in methodology between the 1996 RSAL values and the current values reflect the use of probabilistic methodologies instead of deterministic methods used in 1996. A discussion of differences between probabilistic and deterministic methodologies can be found in the Draft Task 3 Report. Additionally, new scientific methods have resulted in revised dose conversion and cancer slope factors.

Reed requested that the agencies provide an overview of key results of the Draft Task 3 Report, with a discussion session immediately following the overview.

EPA referred the Focus Group to pages 49, 51 and 53 of the Draft Task 3 report. These pages discuss the use of cancer slope and dose conversion factors, with results reported on page 53. Table V-1 *Dose and Risk Calculations for Plutonium in Surface Soil Adjusted by Sum-of-Ratio Method (pCi/g)*, Table V-2 *Dose and Risk Calculations for Americium in Surface Soil Adjusted by Sum-of-Ratios Method (pCi/g)* were reviewed. Located on page 50 is the discussion and calculation for dose for each scenario and the formula to derive a sum-of-ratios adjusted action level for plutonium and americium.

Tables V-3, V-4, V-5 and V-6 contain radionuclide data for americium and plutonium for risk based probabilistic or deterministic values for the rural resident, the wildlife refuge worker, the office worker and the open space user scenarios. The values in these charts consider only one radioisotope and that there is no contribution from the other isotope. EPA further clarified that when a probabilistic approach is used, the 90-99th percentiles of risk distribution are the recommended maximum exposure range, with the 95th percentile as the point for making risk decisions. For a deterministic approach, or point estimate, that which is considered protective is the reasonably maximally exposed individual. Since RESRAD calculations have an inverse relationship to risk calculations, risk calculations results correspond to the 1st-10th percentiles, with the 5th percentile as the recommended point for decision-making. Similar to the point estimate approach are the target cancer risk levels of 10^{-4} to 10^{-6} , with a recommended starting point of the 5th percentile as the reasonably maximally exposed resident, with exposure over a lifetime.

Page 59 of the Draft Task 3 Report speaks to variability and uncertainty, with discussion of the terms, and a qualitative discussion on page 63 of each parameter used for modeling

purposes and estimates of conservatism. Appendix A of the report contains further information about parameters. Appendix C contains information related to the risk runs. Appendix D provides information about parameters specific to RESRAD runs. Appendix E will contain RESRAD output reports, which can also be made available on CD, and Appendix F contains air data specific to Rocky Flats and statewide PM-10 air data. Appendix G will contain the discussion on the RAC report.

A member of the Focus Group commented that the report seems to be well done, but the policy discussion still takes precedence in terms of importance.

Reed requested that any comments on the report should be forwarded to Christine Bennett of AlphaTRAC no later than October 26, 2001. Reed speculated that the peer review of the Draft Task 3 Report would take longer, since comments from the Focus Group have a turn around of longer than one week.

EPA responded to a member of the Focus Group who wanted to know about the incorporation of results from the Wind Tunnel Technical Review by stating that related comments and major concerns would be addressed in the Task 3 Report. The planned process for the Task 3 Report involves the informal review conducted by the Focus Group, the peer review, the wind tunnel review, and then the formal public comment period. It is anticipated that this process will not conclude until early 2002.

Reed added that if the mass loading calculations change significantly based on the wind tunnel review that the report be reissued for review, but until then, all reviewers should assume that the mass loading calculations are final.

A member of the Focus Group requested a meeting with the principals to discuss policy issues prior to the formal public meeting. There existed a concern that the Focus Group policy discussion with the principals would be diluted due to the number of people that would potentially attend the public meeting.

Reed suggested that the Focus Group decide when the Task 3 Report discussion would occur. It was decided that this discussion would be scheduled for November 14, 2001.

Final Results From the RSAL Modeling – Resident Rancher Scenario – RESRAD Results, Key Parameters, and Comparison to Historical

Results

The RSAL Working Group wanted to compare computational methods used by the Risk Assessment Corporation (RAC), in its previous analysis, against the methods used by the RSAL Working Group. The RSAL Working Group quickly discovered that the RAC's calculation for air mass loading involved methods that were beyond the ability of the RSAL Working Group to recreate. In response to this issue, the RSAL Working Group attempted to formulate a value for the mass loading parameter that was consistent with RAC's work.

EPA presented data contained in Appendix G of the Draft Task 3 Report. It was noted that due to mass loading calculation differences between RAC results and RESRAD, duplication for that parameter was unachievable. All other parameters were exactly duplicated where possible. All active pathways and all input parameters for this scenario are identical to those found in the RAC Task 3 Report (RAC, 1999) except for substitutions of fixed values for uptake parameters and distribution coefficients, and the use of two fixed values of mass loading taken from a distribution of RAC calculated values. To respond to the mass loading difference, an approximation of distribution of mass loading was determined. Single values for annual average mass loading for inhalation (3,180 and 8,920 micrograms per cubic meter for the 90th and 95th percentile respectively) were used. These were derived by using the RAC mass loading subroutine to calculate a distribution of 1000 points, followed by the selection of the 90th and 95th percentile for this distribution. The results of this approximation served as a benchmark or point of comparison between the RAC results and the RSAL Working Group results.

CDPHE commented on Table G-1, which describes the RSALs (pCi/g) for the resident rancher at the 90th percentile value of RAC-calculated mass loading (3180 ug/m³). It was noted that the most comparable RSAL Working Group value to the RAC Task 5 Report value was the Pu RSAL for an Adult (15 mrem/yr). The RSAL Working Group value was 27 pCi/g and the RAC value was 35 pCi/g.

EPA added that when calculating dose, the RAC and RSAL Working Group methodologies seemed to be generally consistent, but the risk calculations used by the RAC and the RSAL Working Group applied different methodologies. The RAC did not calculate risk directly. The RAC calculated a dose value and then used a conversion coefficient for risk. EPA risk equations calculate risk directly instead of assigning a dose per unit intake; EPA assigned a unit of risk per unit intake.

A member of the Focus Group asked whether or not there was a way to compare the RAC results to the current results. If there were any parallels or points of departure between the methods, how might comparisons be conducted? The basis for this question is that the RAC was an independent scientific technical body, and one that used sophisticated approaches to evaluating dose and risk, yet the results are mistrusted. How can the Focus Group be sure that the new results are any better if there is no comparative analysis? How can the Focus Group be sure that the current methodology and results are reasonable and accurate?

The City of Westminster added that in the Draft Task 3 Report, there is little mention of the RAC process, so peer reviewers of the Draft Task 3 Report would not be able to make correlations to the RAC results against the RSAL Working Group results. The City of Westminster also stated that the agencies provided an outstanding analysis as described in the Draft Task 3 Report, yet there was a need to expose, in further detail, RAC's results.

Reed stated that AlphaTRAC would send a copy of RAC report for inclusion in the peer review of the Draft Task 3 Report.

EPA made an additional criticism regarding Appendix G and the inclusion of the RAC report. EPA disagreed with the air mass loading value used by the RAC in that the RAC's mass loading values were two orders of magnitude higher than any actual values that have been scientifically validated.

CDPHE concurred with EPA and further added that the current study conducted by the RSAL Working Group resulted in a much better product due to the increased knowledge base regarding the process. The issue of mass loading surfaced when the RAC investigated non-routine events of fire.

A member of the Focus Group defended the RAC's air mass loading values and felt that the values were, in fact, too low. The member also described the reason why the RAC reviewed a fire scenario, which was in response to the peer review process. Peer reviewers wanted consideration of a fire event. Upon review of the fire scenario, the RAC discovered big increases in mass loading when there is a fire.

Reed clarified the point of the discussion. The point the agencies were trying to make was that *annual* average mass loading values were not as large as perhaps might be seen directly after a fire. Large increases in mass loading probably occur directly after a fire, but will not dramatically affect *annual* average mass loading values.

The group segued to a discussion about the October 30, 2001 public meeting. The Focus Group expressed concern that a dialog strictly between the Focus Group and the principals was needed. CDPHE responded by describing the format of the meeting, though a formal agenda has not been published yet. The key stakeholder groups will have an opportunity to present their concerns, views and issues with ample time for the principals to respond. After that, an invitation for public comments would be extended.

Additional comments were made regarding the process, which include:

- Even though major resources are being allocated to homeland security, the clean up budget remains very strong;
- Having an increased awareness that clean up issues may very well be sidetracked due to an announcement issued by the Assistant Secretary of Energy putting Rocky Flats on notice that because of September 11 events, cleanup milestones may be jeopardized.
- A level of precision is necessary for effective communication at the public meeting on October 30, 2001.

Task 3 Peer Review – Framing the Questions for the Reviewers

The Focus Group agreed to review the Draft Task 3 Report and form discussion questions for the peer review process. A decision was made by the Focus Group to continue policy discussions, if appropriate, after the public meeting of October 30, 2001 with the principals.

Colorado Department of Health & Environment (CDPHE) stated that once the Task 3 Report peer review and the Focus Group review of Task 3 Report have been completed - a final report will be developed. Similar to the RAC report process, all five tasks will be documented, with final comments on the proposed RSAL framework and rationale. From there, the final report will be released for public review and comment.

Adjourn

The meeting adjourned at 6:30 p.m.

**RFCA Stakeholder Focus Group
Attachment A**

Title: Agenda for November 14, 2001 Focus Group Meeting

Date: November 9, 2001

Author: C. Reed Hodgins
AlphaTRAC, Inc.

Phone Number: (303) 428-5670

Email Address: cbennett@alphatrac.com

RFCA Stakeholder Focus Group Attachment B

Title: October 3, 2001 RFCA Stakeholder Focus Group Meeting Handouts, including:

- 09/27/01 RSALs Working Group notes,
- *Comparison of Permissible Body Burden of Plutonium and Soil Action Levels, Joe Goldfield, September 20, 2001,*
- Presentation by Joe Legare: Approach to Cleanup using RSALs, and
- Presentation by Reed Hodgkin: Wind Tunnel Technical Review – Status

Date: October 11, 2001

Phone Number: (303) 428-5670

Email Address: cbennett@alphatrac.com

**RFCA Stakeholder Focus Group
Attachment C**

Title: October 1, 2001 Health Effects of Low-level
Radiation meeting materials

Date: October 11, 2001

Phone Number: (303) 412-1200

Email Address: coalition@rfclog.org

**Dose and Risk Calculations for Plutonium in Surface Soil
Adjusted by Sum-of-Ratios Method (pCi/g)**

Land Use Scenario	Risk Levels			25- mrem ^c annual dose
	10 ⁻⁴	10 ⁻⁵	10 ⁻⁶	
Wildlife refuge worker ^a	490	49	5	862
Rural Resident – adult ^a	173	18	2	209
Rural Resident/sp– child ^a				244
Open Space User – adult _b	1047	105	10	11797
Open Space User – child _b				4842
Office Worker ^b	596	60	6	2289
Resident Rancher				45

^a Probabilistic (95th percentile)

^b Deterministic

	Adult 25 mrem/yr	Child (10) 25 mrem/yr	Adult 15 mrem/yr	Child (10) 15 mrem/yr
Pu RSAL	45	49	27 ***	30
Am RSAL	7	8	4	5

Table 1:
RSALs (pCi/g) for Resident Rancher at 90th percentile value of RAC calculated mass loading (3180 ug/m3). Inhalation pathway contributions range from 64-70% of total dose. For comparative purposes only.

	Adult 25 mrem/yr	Child (10) 25 mrem/yr	Adult 15 mrem/yr	Child (10) 15 mrem/yr
Pu RSAL	20	22	12	13
Am RSAL	3	3	2	2

Table 2:
RSALs (pCi/g) for Resident Rancher at 95th percentile value of RAC calculated mass loading (8920 ug/m3). Inhalation pathway contributions range from 81-85% of total dose. For comparative purposes only.

*** most comparable RSAL value to RAC Task 5 Report value.

APPROACH TO CLEANUP USING RSALS

- Get the best cleanup possible with a fixed set of resources
- Apply effort where the greatest risk reduction can be achieved
- Increase the likelihood that accelerated actions will meet final standards

RISK-BASED RSAL APPROACH

- 〈 More surface removal particularly in areas of diffuse contamination such as the 903 lip area.
- 〈 Subsurface remediation is commensurate with risk. Less subsurface removal for similar contaminant levels.

ACTION AND CLEANUP LEVELS

- Establish action levels within the CERCLA risk range and ARARs
- Apply ALARA and Stewardship analysis to evaluate alternatives for soils between Tier I and Tier II.
- Actions are RFCA accelerated actions but approach as if final actions
- Use scenario RSAL matrix to establish conservative land use with tier II as surface soil ALARA goal

ACTION LEVELS

Surface Soil

- Tier I protective of USFWS Worker
- Tier II protective of rural resident
- Apply ALARA and Stewardship analysis to evaluate actions between tier I and tier II (note this is not practically different than the current approach)

ACTION LEVELS

Sub-surface Soil

- Tier I levels similar to surface soil but use as cleanup versus action levels
- As a practical matter, subsurface soil poses extremely low risk unless a pathway to surface water
- Use decision flow chart to trigger actions
- Apply ALARA and Stewardship analysis to soils between tier I and tier II

SUMMARY OF RFCA ATTACHMENT 5 TIERED APPROACH FOR SURFACE AND SUBSURFACE SOIL REMEDIATION

Subsurface Soil	Organics	Inorganics	Radionuclides	Action
Tier I	100 x MCLs	Carcinogenic risk = 10^{-4} or HI = 1	15 mrem to anticipated future user or 85 mrem to hypothetical future resident	Removal of soil by CERCLA/RFCA accelerated action
Tier II	MCLs	Carcinogenic risk = 10^{-4} or HI = 1	15 mrem/yr to hypothetical future resident	Subsurface soil presenting unacceptable ecological risks [HI > or = 1] identified using the Ecological Risk Assessment Methodology will be evaluated for remediation or management. Implement efficient, cost-effective and feasible remediation or management actions. May be removal, treatment, disposal or in-place stabilization.
Surface Soil				
Tier I	Carcinogenic risk = 10^{-4} or HI = 1	Carcinogenic risk = 10^{-4} or HI = 1	15 mrem to anticipated future user or 85 mrem to hypothetical future resident	Identify, evaluate and implement efficient, cost-effective and feasible remediation or management actions. May include removal, treatment, disposal or in-place stabilization of contaminated surface soils
Tier II	Carcinogenic risk = 10^{-4} or HI = 1	Carcinogenic risk = 10^{-4} or HI = 1	15 mrem/yr to hypothetical future resident	Surface soils will be managed. May include hotspot removal, capping, or institutional controls

**SUBSURFACE SOIL ACTION LEVEL TIERED APPROACH
CURRENT ATTACHMENT 5 VERSUS PROPOSED APPROACH**

Subsurface Soil	Organics	Inorganics	Radionuclides	Action
Tier I Current	100 x MCLs	Carcinogenic risk = 10^{-4} or HI = 1	15 mrem to anticipated future user or 85 mrem to hypothetical future resident	Removal of soil by CERCLA/RFCA accelerated action
Proposed	Unchanged	Unchanged	$10^{-4} - 10^{-6}$ to anticipated future land user (USFWS worker) Action triggered by flow chart analysis.	Unchanged
Tier II Current	MCLs	Carcinogenic risk = 10^{-4} or HI = 1	15 mrem/yr to hypothetical future resident	Subsurface soil presenting unacceptable ecological risks [HI > or = 1] identified using the Ecological Risk Assessment Methodology will be evaluated for remediation or management. Implement efficient, cost-effective and feasible remediation or management actions. May be removal, treatment, disposal or in-place stabilization.
Proposed	Unchanged	Unchanged	$10^{-4} - 10^{-6}$ to anticipated future land user (USFWS worker). Action triggered by flow chart analysis.	Apply ALARA and stewardship analysis to determine appropriate management action for soils between Tier I and Tier II. If there is no pathway to groundwater, then risk would only be associated with IC failure and digging.

**SURFACE SOIL ACTION LEVEL APPROACH
CURRENT ATTACHMENT 5 VERSUS PROPOSED APPROACH**

<p>Tier I Current</p>	<p>Carcinogenic risk = 10^{-4} or HI = 1</p>	<p>Carcinogenic risk = 10^{-4} or HI = 1</p>	<p>15 mrem to anticipated future user or 85 mrem to hypothetical future resident</p>	<p>Identify, evaluate and implement efficient, cost-effective and feasible remediation or management actions. May include removal, treatment, disposal or in-place stabilization of contaminated surface soils.</p>
<p>Proposed</p>	<p>Unchanged</p>	<p>Unchanged</p>	<p>10^{-4} – 10^{-6} to anticipated future land user (USFWS worker)</p>	<p>Unchanged</p>
<p>Tier II Current</p>	<p>Carcinogenic risk = 10^{-4} or HI = 1</p>	<p>Carcinogenic risk = 10^{-4} or HI = 1</p>	<p>15 mrem/yr to hypothetical future resident</p>	<p>Surface soils will be managed. May include hotspot removal, capping, or institutional controls.</p>
<p>Proposed</p>	<p>Unchanged</p>	<p>Unchanged</p>	<p>10^{-4} – 10^{-6} to rural resident</p>	<p>Apply ALARA and stewardship analysis to determine appropriate management action for soils between Tier I and Tier II.</p>

WIND TUNNEL TECHNICAL
REVIEW -
STATUS

Reed Hodgin

October 3, 2001

RFCA Stakeholder Focus Group

Objectives for the Wind Tunnel **Technical Review**

- Evaluate the appropriateness of the wind tunnel technology used in studies at Rocky Flats for developing wind resuspension values for use in establishing Radioactive Soil Action Levels at Rocky Flats.

Objectives for the Wind Tunnel **Technical Review**

- Evaluate if the wind tunnel results are being properly used in developing input values for use in the selected dose (RESRAD) and risk (RAGS) models for establishing Radioactive Soil Action Levels at Rocky Flats.

NOT Just Another Peer Review

- Will involve examining the technical basis for the wind tunnel methodology and its application
- Thus a technical review of a methodology rather than a peer review of a report

RFCA Stakeholder Focus Group

Approach

- Reviewers will use documents and information provided by Rocky Flats Cleanup Agreement (RFCA) agencies
- Reviewers will use additional information they may have or obtain
- Reviewers will apply this information along with their professional judgment in conducting the evaluations

RFCA Stakeholder Focus Group

Deliverable

- Each reviewer will develop and submit a written report containing his evaluation and justification

RFCA Stakeholder Focus Group

Level of Effort and Schedule

- An “expert opinion” analysis rather than original research
- Expected level of effort = around 3 days (24 person-hours) per reviewer
- Schedule = 5 weeks, might be shortened to four weeks

Status

- 3 primary reviewers and 3 alternates identified by subgroup of Focus Group
- Budget has been established and funding provided
- 3 primary reviewers have agreed to perform evaluations

RFCA Stakeholder Focus Group

Status (Cont.)

- Most of materials are compiled
- Materials and contract information will go out this week
- Review period will formally begin 10/8/01

RFCA Stakeholder Focus Group

November 9, 2001

Dear Stakeholder:

The Rocky Flats Cleanup Agreement (RFCA) Stakeholder Focus Group will meet at the Broomfield Municipal Center at One DesCombes Drive on November 14, 2001 from 3:30 to 6:30 p.m.

The agenda for the November 14, 2001 meeting is enclosed (Attachment A). We will discuss the following topics:

- Task 3 Peer Review and Wind Tunnel Technical Review – update
- October 30, 2001 Meeting With the Principals
 - Feedback From the Principals
 - How the Meeting is Affecting the RSALs Project
- Feedback From the Focus Group members
- Path Forward and Schedule for the RSALs Project
- Task 3 Report – Q&A on Draft Report
- Continuing the Policy Discussion – Topics and Schedule

Attachment B is a letter from Joe Legare, U.S. Department of Energy, regarding the disruption of milestones which might occur in normal agency / DOE processes.

The Rocky Flats Coalition of Local Governments sponsored a meeting on Health Effects of Low-level Radiation on October 1, 2001. A summary page for that workshop is Attachment C.

Reed supplied a paper (Attachment D) of stakeholders questions for the Wind Tunnel reports technical review.

If you need additional information to prepare you for the Focus Group discussion on November 14, 2001, please contact Christine Bennett of AlphaTRAC, Inc. at 303 428-5670 (cbennett@alphatrac.com). Christine will help to find the appropriate resource for you.

You may call either Christine or me if you have any questions, comments, or suggestions concerning the RFCA Stakeholder Focus Group or the upcoming meeting.

Sincerely,

RFCA Stakeholder Focus Group

October 11, 2001

Page 2 of 2

C. Reed Hodgkin, CCM

Facilitator / Process Manager