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Mr. James A. Saric, Remedial Project Manager
U.S. Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Mr. Tom Schneider, Project Manager
Ohio Environmental Protection Agency
401 East 5th Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

TRANSMITTAL OF RESPONSES TO THE U.S. ENVIRONMENTAL PROTECTION AGENCY TECHNICAL REVIEW COMMENTS ON THE REVISED RADIATION TRACKING VEHICLE APPLICABILITY STUDY

The purpose of this letter is to transmit responses to comments received from the U.S. Environmental Protection Agency (U.S. EPA) on Radiation Tracking Vehicle (RTRAK) Applicability Study, Revision 1. These responses entail correction of typographical errors and revisions to text and tables to provide clarification and expansion of some topics. The revisions will be incorporated into the final version of RTRAK Applicability Study upon U.S. EPA approval of the enclosed comment responses.

If you have any questions or concerns regarding this document, please contact Robert Janke at (513) 648-3124.

Sincerely,

Johnny Reising

Johnny W. Reising
Fernald Remedial Action
Project Manager

FEMP:RJ Janke

Enclosure: As Stated

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RESPONSES TO THE U.S. EPA's TECHNICAL REVIEW COMMENTS ON THE RTRAK APPLICABILITY STUDY, REVISION 1

GENERAL COMMENTS

Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: Not Applicable (NA) Pg. #: NA Line #: NA
Original General Comment # 1

Comment: The most significant uncertainty in the applicability of the radiation tracking system (RTRAK) at the site is the upper end of the concentration range for total uranium. Only 4 of the 18 data points used for calibration of the RTRAK system exceed the highest final remediation level (FRL) of 82 milligrams per kilogram (mg/kg), and none of these 4 points exceed 600 mg/kg. Therefore, the calibration for RTRAK measurements above the FRL is relatively uncertain. All calibrations for points near the On-Site Disposal Facility waste acceptance criterion (WAC) of 1,030 mg/kg for total uranium are extrapolations rather than interpolations; therefore, these calibrations contain additional, undefinable uncertainty. Because the WAC is a "not to exceed" limit and the primary use of the RTRAK is to determine compliance with the WAC, the U.S. Department of Energy (DOE) must use trigger levels for WAC exceedance that have a generous allowance for this uncertainty. If additional calibration points can be added in the range of 500 to 1,500 mg/kg of total uranium, these uncertainties would decrease or be better defined. A similar but less significant problem exists for the radium-226 measurements. The text should be revised to address these issues.

Response: DOE agrees that it is desirable to have additional calibration points at higher concentrations to demonstrate linearity. However, it has been difficult to obtain meaningful calibration data at high concentrations. As a part of the most recent study, past data were used to identify locations with high concentrations of the analytes of interest. Unfortunately for purposes of the calibration, such locations are not common at the FEMP and none were found with uranium concentrations in excess of WAC. It should be noted that there are two calibration points for which uranium concentrations are approximately 600 ppm, which is close to the trigger level of 721 ppm. Three locations for radium-226 had concentrations greater than the 3xFRL (5.1 pCi/g) hot spot criterion. The radium calibration covers an acceptably wide range, although could be improved by adding points at concentrations between 5 and 15 pCi/g. However, despite the unfortunate lack of data exceeding 1,030 ppm for uranium and the limited number of midrange points for radium-226, DOE's position is that the calibrations are adequate in light of the known linearity of sodium iodide systems and the intended use of the RTRAK as a screening instrument that is used in conjunction with the HPGe measurements for definitive results.

Sodium iodide detectors have been used in the nuclear science community for decades and it is known that they are inherently linear except at extremely high activity levels. Because linearity of both sodium iodide and germanium detectors has been so well established, the practice throughout the radiochemistry community has been to calibrate at a single concentration. This differs from the practice for many more conventional (organic and inorganic) laboratory methods where calibration curves must cover the full range of

concentrations expected in samples to be analyzed. The only meaningful difference, affecting linearity of response, between the in situ and laboratory gamma spectrometry methods is the geometrical relationship between the detector and the "sample." Consequently, it would be expected that RTRAK measurements would also be linear with changing concentrations. The data presented in Figure 3-3 support this expectation. There are departures from accurate linearity, but these are likely to be attributable to interferences and analyte heterogeneity. These effects are accounted for by the terms included in the estimation of total uncertainty.

Because the RTRAK is intended to be used as a screening tool with HPGe measurements providing definitive data, it is not necessary to obtain an exact calibration but rather to be able to estimate the upper bound of the uncertainty of the data generated. The total uncertainty estimates discussed in Section 4.3 of the Applicability Study set the upper boundary of the uncertainty. The uncertainty contribution assigned to the regression is considered to be particularly conservative at higher concentrations where the percent residuals are smaller than those at lower concentrations. For uranium-238, the estimate of total uncertainty assumes that the regression uncertainty is a constant 24 percent of the measurement value. In reality, near 600 ppm, the average residual was only about 8 percent. This indicates that the regression uncertainty is conservatively overestimated by nearly a factor of three. For the radium, the residuals at the higher concentrations are comparable to the average, so the estimated uncertainties do not have a large conservative factor; however, the use of the average residual is representative.

It is DOE's position that the current RTRAK calibration is sufficient for use at present. Estimates of the uncertainty associated with the calibration provide the "generous allowance" in establishing trigger levels, as suggested by the commentor.

As locations with uranium concentrations near the WAC and midrange radium concentrations are identified, additional calibration data will be obtained, if feasible. Because of the RTRAK's size and other access limitations, it may not be practical to obtain RTRAK measurements in areas with high analyte concentrations, particularly for those in which the uranium concentrations may exceed WAC. As an example, such locations may be present in the sewage treatment plant area where it is physically difficult to accommodate the RTRAK. However, it is likely that measurements can be obtained using the RSS. While there are physical differences between the RTRAK and RSS, they have identical detectors which determines their response across a range of analyte concentrations. Any additional data obtained will be used to verify or further refine RTRAK and RSS calibrations. Additionally, the estimate of total uncertainty will be refined as new data are obtained or as ongoing data evaluations reveal new information.

Action: No specific actions will be taken at present. However, as locations with uranium concentrations near the WAC are identified, additional data will be obtained, as feasible, and the calibrations refined. If elevated concentrations are identified in locations inaccessible to the RTRAK, RSS measurements will be collected and related to both RTRAK and RSS characteristics. Uncertainty estimates will also be refined as new data are obtained or as a consequence of continuing evaluations of existing data.

Commenting Organization: U.S. EPA | Commentor: Jablonowski
Section #: Not Applicable (NA) | Pg. #: NA | Line #: NA
Original General Comment # 2

Comment: Part of the applicability study discusses efficiency calibration. The RTRAK efficiency calibration was performed by taking comparable RTRAK and high-purity germanium (HPGe) measurements at different soil locations containing "known" concentrations of radionuclides and performing linear regression analysis on the data. Although RTRAK and HPGe measurements were taken at a 1-foot detector height, the instruments' total field of views may not be comparable. According to the user guidelines for in situ gamma spectrometry dated April 1998, at a 1-foot height, the HPGe system has a total field of view of 19.6 square meters (m2). However, the RTRAK instrument has a field of view of only 4.5 m2. Although the difference between RTRAK and HPGe measurements is not appreciable in areas that exhibit uniform homogeneous contamination, the difference could be substantial when measurements are taken at radiologically heterogeneous locations. For the efficiency calibrations in the original applicability study, these measurements were taken in areas indicative of homogeneous contamination. In this version of the applicability study, an additional eight measurements were made at locations corresponding to the Drum Baling Area, South Field, and the Uranium in Soils Identification Demonstration (USID) Areas. However, heterogeneous radiological contamination appears to exist in these areas. The document should be revised to include additional information about the areas in which the RTRAK and HPGe measurements were made, including a general idea of heterogeneity in the total field of view of the RTRAK and HPGe systems.

Response: The difference between the fields of view of the RTRAK and the HPGe certainly complicates the issue of calibration when calibration data are collected from highly heterogeneous areas. As the commentor noted, the extended-range calibration included data from the Drum Baling Area which is known to have a heterogeneous analyte distribution. As a part of the calibration process, HPGe data were collected at 0.15, 0.31, and 1.0 m detector heights and regressions were performed on all three sets of data to determine which set yielded the best calibration correlations. The data at 0.31 m resulted in the best correlations and it was consequently concluded that the 31 cm data provided the best match of fields of view. This will be explained in the final version of the RTRAK Applicability Study. In areas of high heterogeneity, a mismatch between fields of view would have the effect of introducing additional uncertainty into the calibration. The calibration should not be biased by this effect, but calculated results based on the calibration equations will be more uncertain. This increased uncertainty is accounted for in the estimation of the total uncertainty by the inclusion of the regression systematic uncertainty term. The total uncertainty is considered in evaluating any RTRAK results.

Action: The calibration section of the final version of the RTRAK Applicability Study will include a section discussing the fact that data were collected at 3 detector heights and the 31 cm data provided the best calibration.

Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: Not Applicable (NA) Pg. #: NA Line #: NA
Original General Comment # 3

Comment: Review of HPGe and RTRAK measurements data in Table 4-7 suggests that HPGe and RTRAK measurements for uranium-238 may not be comparable. In previous comparability reports, the term "relative percent difference" is used to describe the assessment of the overall comparability of data. Based on relative percent differences, roughly 17 percent of RTRAK measurements at 0.5 miles per hour (MPH) with an 8-second acquisition time should be considered not comparable (for example, greater than 35 percent relative percent difference) to HPGe measurements. Furthermore, over 50 percent of the RTRAK measurements taken at 2 mph with a 2-second acquisition time are not comparable to HPGe measurements. Because some of these discrepancies may be a result of low uranium levels, the average uranium concentration is apparently about 50 parts per million. Therefore, comparability should be demonstrated in areas that approach or exceed uranium FRL and WAC levels.

Response: Applying the 20% or 35% comparability criteria to these data is not entirely appropriate. There are inherent differences between the data sets that make an exact comparison unlikely. Over a large area, the effect of these differences would be diluted and agreement would be expected to improve. First, it is important to note that Table 4-7 presents moving RTRAK measurements and static HPGe measurements. The data were in the table were generated by averaging the concentrations of all RTRAK measurements for which the GPS coordinates were within the field of view of each HPGe measurement. Consequently, the overall field of view of the aggregate RTRAK measurements would not correspond exactly with that of the HPGe. Secondly, the individual RTRAK measurements were not weighted on the basis of their locations within the field of view as is done when comparing HPGe measurements with laboratory data; this could contribute to differences between the data for individual HPGe measurements. Finally, the number of RTRAK measurements contributing to an average for comparison with a given HPGe measurement was typically less than 30. This means that the uncertainties for the average concentrations were on the order of 15-20 ppm for uranium-238. Because of the very low concentrations observed in the USID Area, this means that approximately 40 percent of the measurements would be expected to differ by at least 35 percent simply because of the measurement uncertainty. When the field of view differences are also considered, it is not surprising that 50% of the comparisons differed by more than 50%. Given these facts, the agreement can be considered to be quite good. In the final version of the RTRAK Applicability, Table 4-7 will be revised to include standard deviations for the RTRAK averages and HPGe measurements. This will allow reviewers to consider measurement uncertainty when making independent comparisons.

DOE does consider it instructive to make comparisons of RTRAK averages with individual HPGe measurements or areas other than the complete-covered area. Initial plans had been to make such comparisons for the Drum Baling area. However, because of terrain limitations, the correspondence between HPGE and RTRAK coverage was insufficient to allow meaningful comparisons. Collection of such data will be considered as a part of future studies.

Because of the issues discussed above, it may be argued that a more valid comparison is over a larger area such as the full-area averages presented in Tables 4-6 and 4-8. For these comparisons, the large number of RTRAK data points reduces the overall effect of the measurement uncertainty and the field-of-view effects are also minimized. Comparability for full-area averages within the Drum Baling Area was evaluated at 1 mph/4 sec. The column labels in Table 4-8 are in error. The columns labeled 0.5 mph/8 sec should be labeled 1 mph/4 sec. It can be seen by inspection of the table that agreement is excellent. For all analytes and both combinations of RTRAK operating conditions, HPGe and RTRAK averages agree within one standard deviation. The RPDs for uranium and radium were much less than 20% and the RPD for thorium was 20.6%.

Action: In the final version of the report, the column labels in Table 4-8 will be corrected and standard deviations will be added to Table 4-7. In planning future studies, consideration will be given to collecting data in areas of higher analyte concentrations to allow comparisons of RTRAK averages with individual HPGe measurements.

Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: Not Applicable (NA) Pg. #: NA Line #: NA
Original General Comment # 4

Comment: The efficiency calibration uses multiple linear regression analysis. Although the results of this analysis show good correlation for RTRAK and HPGe thorium-232 results (for example, data close to the slope of 1 as shown in Table 3-1), radium-226 and uranium-238 results shown in Tables 3-2 and 3-3, respectively, do not show good correlation. In these tables, only a few critical data points are used at the high end of the operating range for deciding efficiency algorithms. Additional measurements should be taken to further calibrate the efficiency of the RTRAK system at elevated levels of radium-226 and uranium-238.

Response: (a) The commentor's conclusion that the Ra-226 and U-238 results, shown in Tables 3-2 and 3-3 respectively, do not show good correlation, appears to be based on a qualitative inspection of the plots in Figures 3-2 and 3-3. In fact there is a sound mathematical basis for saying that the RTRAK and HPGe Ra-226 and U-238 data are well correlated. The square of the correlation coefficient (R^2) for the Ra-226 multiple linear regression analysis was 0.9627, and the corresponding R^2 for the U-238 analysis was 0.9555. As a quantitative means of assessing the calibration for each isotope, residuals (HPGe measured value minus the value calculated from the calibration equation) were calculated for each data point. These residuals were also expressed as a percentage of the HPGe value. In the case of Ra-226, the largest percent residual was 44.6%, but the average value was 14.8%. When considering the U-238 calibration data, it must be recognized that points near the low concentration end of the calibration curve (i.e., HPGe readings less than 10 pCi/g U-238) will not agree well with calculated values because of the relatively large intercept in the calibration equation; this is driven in part by the large uncertainty associated with low concentration uranium measurements. For example, a rather small residual value such as 5 pCi/g could well have a percent residual of 100% or more. Considering only U-238 values greater than 10 pCi/g, the largest percent residual was 41.4% and the average percent residual was 16.2%. DOE believes that the values quoted above demonstrate in a

quantitative manner that there is acceptable correlation between RTRAK and HPGe results for all three isotopes.

(b) See response to General Comment #1 for a discussion related to the inclusion of additional calibration data at higher analyte concentrations.

Action: (a) None.
(b) See action for General Comment #1 related to additional calibration data at higher analyte concentrations.

Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: Not Applicable (NA) Pg. #: NA Line #: NA
Original General Comment # 5
Comment: The text contains many reorganized section, which has resulted in the renumbering of several tables and figures. In some cases, the text incorrectly cites a supporting figure or table. Examples include "Figures 4-5 through 4-7" on Line 24 of Page 4-23, which should be Figures 4-4 through 4-6; and "Table 5-2" on Line 6 of Page 5-5, which should be Table 5-3. Similarly, Sections 4.1.3.1, 4.1.4.1, 4.1.5.1, and 4.1.6.1 refer to tables and figures in "Appendix C" which is now Appendix B. The text should be revised to correct these citation errors.

Response: This comment is valid, some of the citations are incorrect. These errors occurred as tables and figures were deleted, added or moved in response to internal review comments and some citations were not properly changed.

Action: The final version of the Applicability Study will be carefully reviewed and citations corrected.

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: 3.3 Pg. #: 3-2 Line #: NA
Original Specific Comment # 1
Comment: It is not possible to perform independent verification of the calibration algorithm because the net counts per second for each radionuclide are not provided. Some of this data should be provided in future submittals in order to make independent verification possible.

Response: The net counts per second data are included in Table A-2 of Rev. 1.0 of the RTRAK Applicability Study, along with the HPGe measured concentrations of uranium-238, thorium-232, and radium-226. From the data in Table A-2, independent verification of the calibration equations is possible.

Action: None.

Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: 4.1.1 Pg. #: 4-1 Line #: 22
Original Specific Comment # 2

Comment: As noted in Original General Comment #2, the fields of view of the RTRAK and HPGe systems are different at the 1-foot detector height. Therefore, heterogeneity can influence uncertainties associated with replicate measurements between the two systems. The document should be revised to either include data from comparable measurements then with the same field of view or discuss uncertainties associated with measurements of different fields of view in heterogeneous areas.

Response: Because of the differences in geometries and shielding by equipment and instrumentation around the detectors, it is difficult to exactly match the fields of view of the RTRAK and HPGe systems. The commentor is correct that with the differing fields of view, heterogeneities will affect the agreement of replicate measurements between the two systems. These differences are analogous to sampling uncertainties rather than analytical uncertainties. While it is necessary that RTRAK and HPGe provide comparable results for an identical area, direct comparisons between RTRAK and HPGe measurements are not routinely made as a part of the normal measurement strategy for the RTRAK and HPGe systems, so it is not necessary that the fields of view match exactly. As described in "User Guidelines, Measurement Strategies, and Operational Factors for Deployment of *In-Situ* Gamma Spectrometry at the Fernald Site, April 1998" (User's Manual), the RTRAK is used as a scanning tool to identify locations potentially requiring remediation. When used in conjunction with the HPGe, the RTRAK measurements primarily serve as a general guide for the HPGe. Locations with potential FRL, hot spot, or WAC exceedances are to be confirmed and delineated using the HPGe system. The HPGe is used for definitive measurements for defining excavation boundaries and making WAC-exceedance decisions. The effects of the heterogeneity on the RTRAK measurements are accounted for in the two systematic uncertainty terms associated with the calibration (see response to Specific Comment #5). The heterogeneity issue is further discussed in Section 5.5 of the User's Manual and Section 4.1.1.3 of the RTRAK Applicability Study.

Action: None.

Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: 4.2.3 Pg. #: 4-18 Line #: 11
Original Specific Comment # 3

Comment: The text refers to Table 4-8 for a comparison of HPGe and RTRAK measurements covering the same area. Although Table 4-8 shows relatively good agreement between HPGe and RTRAK measurements using the extended calibration algorithm, this agreement applies only to gross averages. In order to make a comprehensible evaluation of this extended calibration lgorithm possible, individual comparisons of measurements taken in areas within the Drum Baling Area should be displayed similar to measurements presented for the USID Area in Table 4-7.

Response: DOE agrees that RTRAK/HPGe comparisons for the Drum Baling Area over smaller areas or with individual HPGe measurements, such as was done for the USID Area, might be

instructive. Initial plans for the studies described in the RTRAK Applicability Study called for such measurements in the Drum Baling Area. However, the terrain limited the coverage of the RTRAK in a dynamic mode. Consequently, the RTRAK coverage of locations measured by HPGe was not sufficient to allow meaningful comparisons to be made. Measurements of this sort will be considered in the planning process for future studies. See also the response to General Comment #3.

Action: Measurements to allow comparisons of average RTRAK measurements with individual HPGe measurements will be considered for future studies.

Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: 4.3 Pg. #: 4-18 Line #: 21
Original Specific Comment # 4

Comment: The text discusses the total uncertainty of RTRAK measurements. However, it does not mention the fact that most of the points used in the calibration curve for uranium are below the FRL value of 82 mg/kg and that none of the points exceed 600 mg/kg. The text should be revised to note the uncertainty associated with measurements of high concentrations of uranium caused by the few calibration points and necessary extrapolation for points near the WAC.

Response: DOE agrees that the data set is limited, but as discussed in the response to General Comment #1, high activity concentration data is difficult to obtain and the calibration is considered adequate for the intended use of the RTRAK. Total uncertainty estimates have been made to account for the uncertainties associated with the calibration. It is important to note that the most relevant concentration range for WAC evaluations is near the trigger level of 721 ppm. The calibration includes two points near 600 ppm, which provides some confidence that the calibration is valid at the WAC trigger level. The approach to estimating the total uncertainty is being re-evaluated; any changes will be reflected in the final version of the RTRAK Applicability Study. DOE proposes using the present calibration and refining it as appropriate when additional data are obtained.

Action: The approach to estimating total uncertainty is being re-evaluated and any resulting changes will be reflected in the final version of the RTRAK Applicability Study. Also, see action for General Comment #1.

Commenting Organization: U.S. EPA Commentor: Jablonowski
Section #: 4.3 Pg. #: 4-20 Line #: 19
Original Specific Comment # 5

Comment: The text states that previous comparability documents demonstrate that in situ HPGe measurements and laboratory results agree within 20 percent. However, it is not clear whether the same conclusion can be drawn with regard to RTRAK measurements. If RTRAK data duplicate HPGe system data and the HPGe data agree with the laboratory data to within 20 percent, then the 20 percent assumption may be valid for RTRAK data also. The text should be revised to include an assessment of the comparability of RTRAK

data to laboratory results. Without this assessment of RTRAK data, the assumed 20 percent systematic uncertainties may not be valid.

Response: Currently, there is insufficient data to allow the use of laboratory data over the full range of concentrations used for calibration of the RTRAK. Further, because the RTRAK is intended to provide guidance for the HPGe and both systems provide a measure of the average concentration over an area rather than concentrations in small discrete locations, it is considered appropriate to calibrate the RTRAK against the HPGe system. The estimated total uncertainty for the RTRAK contains two systematic uncertainty terms related to the calibration. The first term, labeled $\delta_{comparability}$ accounts for differences between laboratory measurements and HPGe measurements. The second term, labeled $\delta_{regression}$, accounts for the uncertainty associated with the calibration of the RTRAK against HPGe data. This latter term provides the additional assessment of the uncertainty requested by the commentor. The inclusion of these two uncertainty terms is the propagation of error to which DOE committed in response to EPA comments on Rev. 0 of the RTRAK Applicability Study. DOE is continuing to evaluate the estimate of total uncertainty; refinements will be reflected in the final version of the RTRAK Applicability.

Action: The text will be revised to more clearly explain the significance of the two systematic uncertainty terms. The estimate of total uncertainty will continue to be evaluated and refinements will be reflected in the final version of the RTRAK Applicability Study.

Commenting Organization: U.S. EPA Commentor: Jablonowski
Table #: 4-13 Pg. #: NA Line #: NA
Original Specific Comment # 6

Comment: This table presents estimated minimal detectable concentrations (MDC) for various combinations of RTRAK system speed and acquisition time. However, the primary recommended combination of 1 mph and 4 seconds is not included. MDCs for all target radionuclides under these operating conditions should be estimated and included in the table.

Response: The last column of Table 4-13 presents the estimated MDC for the 1 mph/4 sec combination. The column label is in error.

Action: The column label will be corrected in the final version of the RTRAK Applicability Study.

Commenting Organization: U.S. EPA — Commentor: Jablonowski
Section #: A.3.2 Pg. #: A-6 — Line #: 28
Original Specific Comment # 7
Comment: The text here and on following pages presents original and revised regression equations used for calibration of the RTRAK system. The text should be revised to include correlation coefficients for these equations to show how the additional calibration data used to create the revised equations have affected the apparent precision of the calibration.

Response: DOE agrees with the comment. A comparison of correlation coefficients will be provided in the final version of the RTRAK Applicability Study.

Action: The text of section as A.3.2 will be revised in the final version of the RTRAK Applicability Study to show the correlation coefficients for the old and new calibration relationships.

Commenting Organization: U.S. EPA — Commentor: Jablonowski
Section #: A.5 Pg. #: A-9 — Line #: 23
Original Specific Comment # 8
Comment: The text states that standard mobile operating parameters for the RTRAK system are 2 mph over ground with a 2-second acquisition time. However, the text from line 20 on page ES-1 specifies preferred operating conditions of 1 mph and a 4-second acquisition time. The text should be amended to consistently discuss RTRAK system operation at the preferred conditions.

Response: The commentor is correct, there is a discrepancy in the text. The Executive Summary is correct, the preferred operating condition is 1 mph travel speed and 4 sec acquisition time.

Action: The text in Appendix A.3.2 will be revised to reflect the currently preferred operating conditions of 1.0 mph travel speed and 4-second data acquisition time.

Commenting Organization: U.S. EPA — Commentor: Jablonowski
Figure #: B-1 Pg. #: NA — Line #: NA
Original Specific Comment # 9
Comment: This figure omits mean data for the 0.5 mph, 8 sec runs, although standard deviations for these data appear in Figure B-2. Figure B-1 should be revised to present the mean data for these runs. The same comment applies to Figures B-3, B-10, and B-12.

Response: The data for the 0.5 mph, 8 sec runs were included in the original figures prepared for the report. However, a change from the default printer resulted in the lines for these data being printed as a light shade of gray rather than the intended black and so are apparently not visible on all copies of the report. The graphics file will be modified to change the line color to black for the final version of the RTRAK Applicability Study.

Action: The graphics file for the figures will be revised to ensure that all lines on the figures in Appendix A are visible in the final version of the RTRAK Applicability Study.