# APPENDIX A References

## **A-1. Required References**

None.

#### A-2. Related References

A-2.1. Government Publications.

A-2.1.1. *Army*.

#### ER 5-1-11

U.S. Army Corps of Engineers Business Process.

## EM 200-1-2

Technical Project Planning (TPP) Process, USACE, 31 August 1998, http://www.usace.army.mil/inet/usace-docs/eng-manuals/em200-1-2/toc.htm.

#### EM 200-1-3

Requirements for the Preparation of Sampling and Analysis Plans, USACE, 1 February 2001. http://www.usace.army.mil/inet/usace-docs/eng-manuals/em200-1-3/toc.htm.

## EM 200-1-4, Volume I

Risk Assessment Handbook: Volume I - Human Health Evaluation, USACE, 31 January 1999. http://www.usace.army.mil/inet/usace-docs/eng-manuals/em200-1-4/toc.htm.

## **EM 200-1-4, Volume II**

Risk Assessment Handbook: Volume II - Environmental Evaluation, USACE, 30 June 1996. http://www.usace.army.mil/inet/usace-docs/eng-manuals/em200-1-4vol2/toc.htm.

## EM 200-1-6

Environmental Quality—Chemical Quality Assurance for Hazardous, Toxic and Radioactive Waste (HTRW) Projects, USACE, 10 October 1997, <a href="http://www.usace.army.mil/inet/usace-docs/eng-manuals/em200-1-6/toc.htm">http://www.usace.army.mil/inet/usace-docs/eng-manuals/em200-1-6/toc.htm</a>.

#### EM 200-1-10

Guidance for Evaluating Performance-Based Chemical Data, USACE, 31 January 2003. http://www.usace.army.mil/inet/usace-docs/eng-manuals/em200-1-10/toc.htm.

# EM 1110-1-4014 31 Jan 08

#### EM 1110-1-502

USACE, 1994. (U.S. Army Corps of Engineers). Technical Guidelines for Hazardous and Toxic Waste Treatment and Cleanup Activities, EM 1110-1-502, 30 April 1994. <a href="http://www.usace.army.mil/inet/usace-docs/eng-manuals/em.htm">http://www.usace.army.mil/inet/usace-docs/eng-manuals/em.htm</a>, 21 March 2002.

A-2.1.2. Navy.

#### **UG-2049-ENV**

U.S. Navy, Guidance for Environmental Background Analysis—Volume 1: Soil. DON, Naval Facilities Engineering Command, UG-2049-ENV.

A-2.1.3. *Environmental Protection Agency*.

#### EPA 68-W0-0025

Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities: Addendum to Interim Final Guidance. USEPA, Office of Solid Waste Management Division, 68-W0-0025, June 1992.

## EPA 230-R-92-14

Methods for Evaluating the Attainment of Cleanup Standards, Vol. 2: Ground Water, USEPA, Office of Policy, Planning, and Evaluation, Washington, D.C., EPA 230-R-92-14, 1992.

## EPA 230-R-94-004

Statistical Methods for Evaluating the Attainment of Cleanup Standards, Vol. 3: Reference-Based Standards for Soils and Solid Media, USEPA, Office of Policy, Planning, and Evaluation, Washington, D.C., EPA 230-R-94-004, 1994.

#### EPA 230-R-95-005

EPA Observational Economy Series, Volume 1: Composite Sampling, Policy, Planning and Evaluation, EPA-230-R-95-005, August 1995.

#### EPA 230-R-95-006

EPA Observational Economy Series, Volume 2: Rank Set Sampling, Policy Planning and Evaluation, EPA-230-R-95-006, August 1995.

#### EPA 530-SW-89-026

Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Interim Final Guidance, USEPA, Office of Solid Waste Management Division, PB89-151047, 530-SW-89-026, February 1989.

## EPA 540-R-01-003

Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites. OSWER 9285.7-41, EPA/540-R-01-003, September 2002.

## EPA 540-R-01-007

Comprehensive Five-Year Review Guidance, Office of Emergency and Remedial Response, Washington, D.C., OSWER 9355.7-03B-P, EPA 540-R-01-007, June 2001.

## EPA 540-R-01-008

USEPA National Functional Guidelines for Inorganic Data Review, USEPA, Office of Superfund Remediation and Technology Innovation, Washington, D.C., EPA 540-R-01-008, July 2002.

#### EPA 540-R-02-002

Risk Assessment Guidance for Superfund: Volume III – Part A, Process for Conducting Probabilistic Risk Assessment. Office of Emergency and Remedial Response, Washington D.C., OSWER 9285.7-45, EPA 540-R-02-002, December 2001.

## EPA 540/R-95/140

Superfund Program, Representative Sampling Guidance, Volume 2: Air (Short-Term Monitoring), Interim Final, Office of Solid Waste and Emergency Response, Washington, D.C., OSWER 9360.4-09, EPA 540/R-95/140, December 1995.

#### EPA 540/R-95/141

Superfund Program, Representative Sampling Guidance, Volume 1: Soil. Interim Final, Office of Solid Waste and Emergency Response, Washington, D.C., OSWER 9360.4-10, EPA 540/R-95/141, December 1995.

## EPA 540-R-97-006

Ecological Risk Assessment Guidance for Superfund: Process Designing and Conducting Ecological Risk Assessments, Interim Final, USEPA, Solid Waste and Emergency Response, Washington, D.C., OSWER 9285.7-25, EPA 540-R-97-006, June 1997.

#### EPA 540-R-97-028

Superfund Method for the Determination of Releasable Asbestos in Soils and Bulk Materials, USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., EPA 540-R-97-028, 1997.

# EM 1110-1-4014 31 Jan 08

## EPA/540/S-96/500

Determination of Background Concentrations of Inorganics in Soils and Sediments at Hazardous Waste Sites by Breckenridge, R. P. and A. B. Crockett (U.S. Department of Energy). USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., EPA/540/S-96/500, December, 1995.

## EPA 600/4-82-029

Handbook for Sampling and Sample Preservation of Water and Wastewater. Environmental Monitoring and Support Laboratory, USEPA, Cincinnati, Ohio, EPA 600/4-82-029, 1982.

#### EPA 600/4-88/033

GEO-EAS. USEPA Environmental Monitoring Systems Laboratory, prepared by E. Englund and A. Sparks, EPA 600/4-88/033, 1988.

## EPA 600/4-88-/040

Evaluation of Control Chart Methodologies for RCRA Waste Sites, Office of Research and Development, USEPA, Las Vegas, NV, EPA 600/4-88-/040, 1989.

# EPA/600/P-95/002

Exposure Factors Handbook. Office of Research and Development, National Center for Environmental Assessment, Washington D.C., EPA/600/P-95/002, August 1997.

# EPA 600/R-97/006

Singh, A. K., A. Singh, and M. Engelhardt, The Lognormal Distribution in Environmental Applications, Technology Support Center Issue, Office of Research and Development, Office of Solid Waste and Emergency Response, EPA 600/R-97/006, December 1997.

#### EPA 903-F-94-001

EPA Region III, Hazardous Waste Management Division, Office of Superfund Programs, Philadelphia, PA, EPA 903-F-94-001, February 1994.

#### EPA 9285.7-09A

Guidance for Data Usability and Risk Assessment, Part A [Final]. USEPA, Office of Emergency and Remedial Response, Washington, D.C. 9285.7-09A, April 1992.

#### EPA OB92-963373

Supplemental Guidance to RAGS: Calculating the Concentration Term. USEPA, Office of Solid Waste and Emergency Response, Washington, D.C., OB92-963373, May 1992.

# EPA QA/G-1

Guidance for Developing Quality Systems for Environmental Programs, EPA QA/G-1, USEPA, Office of Environmental Information, Washington, D.C., EPA/240/R-02/008, November 2002.

# EPA QA/G-4

Guidance for the Data Quality Objectives Process, USEPA, Office of Environmental Information, EPA 600/R-96/055, QA/G-4, August 2000.

# EPA QA/G-4D

Data Quality Objectives Decision Error Feasibility Trials Software(DEFT)—User's Guide, QA/G-4D, USEPA, Office of Environmental Information, Washington, D.C, EPA/240/B-01/007, September 2001.

# EPA QA/G-4HW

Data Quality Objectives Process for Hazardous Waste Site Investigations, QA/G-4HW, USEPA, Office of Environmental Information, Washington, D.C., EPA/600/R-00/007, January 2000.

## EPA QA/G-5

Guidance for Quality Assurance Project Plans, QA/G-5. USEPA, Office of Environmental Information, Washington D.C., EPA/240/R-02/009, December 2002.

# EPA QA/G-5S

Guidance on Choosing a Sampling Design for Environmental Data Collection, QA/G-5S. USEPA, Office of Environmental Information, Washington D.C., EPA/240/R-02/005, December 2002.

## EPA OA/G-6

Guidance for Preparing Standard Operating Procedures, QA/G-6. USEPA, Office of Environmental Information, Washington D.C., EPA/240/B-01/004, March 2001.

# EPA QA/G-7

Guidance on Technical Audits and Related Assessments for Environmental Data Operations, QA/G-7. USEPA, Office of Environmental Information, Washington D.C., EPA/600/R-99/080, January 2000.

## EPA QA/G-8

Guidance on Environmental Data Verification and Data Validation, QA/G-8. USEPA, Office of Environmental Information, Washington D.C., EPA/240/R-02/004, November 2002.

## EM 1110-1-4014

31 Jan 08

## EPA QA/G-9

Guidance for Data Quality Assessment, Practical Methods for Data Analysis, QA/G-9, USEPA, Office of Environmental Information, EPA 600/R-96/084, July 2000.

# EPA QA/G-9D

The Data Quality Evaluation Statistical Toolbox (DataQUEST) Software, QA/G-9D, USEPA, Office of Research and Development, 1996.

# EPA QA/G-10

Guidance for Developing a Training Program for Quality Systems, QA/G-10. USEPA, Office of Environmental Information, Washington D.C., EPA/240/B-00/004, December 2000.

# EPA QA/G-11

Guidance on Quality Assurance for Environmental Technology Design, Construction and Operation, QA/G-11. USEPA, Office of Environmental Information, Washington D.C., EPA/240/B-05/001, January 2005.

#### EPA SOW No. 788

Contract Laboratory Program Statement of Work for Inorganics Analysis: Multi-media, Multi-concentration. Office of Emergency and Remedial Response, SOW No. 788, 1988.

#### **EPA SW-846**

On-line documentation for Test Methods for Evaluating Solid Wastes: Physical/Chemical Methods, 3rd Edition, Volume 2, Part III, Chapter 9 Sampling Plan, Rev. 0, SW-846, September 1986.

## EPA (2002)

Guidance on Surface Soil Cleanup at Superfund Sites: Applying Cleanup Levels, Draft, Prepared by Industrial Economics, Incorporated for EPA, Office of Emergency and Remedial Response, Washington, D.C., January 2002.

#### **OSWER 92-856-03**

EPA, Exposure Factors Handbook, 1991.

# OSWER 9285.7-41/EPA 540-R-01-003

EPA, Guidance for Characterizing Background Chemicals in Soil at Superfund Sites, External Review Draft, USEPA, Office of Emergency and Remedial Response, OSWER 9285.7-41, 540-R-01-003, June 2001.

## **OSWER 9285.6-10**

EPA, Calculating Upper Confidence Limits for Exposure Point Concentrations at Hazardous Waste Sites, Office of Emergency and Remedial Response, Washington, D.C., OSWER 9285.6-10, December 2002.

#### **OSWER 9360.4-16**

Superfund Program, Representative Sampling Guidance, Volume 5: Water and Sediment, Part II – Groundwater, Interim Final, USEPA, Office of Solid Waste and Emergency Response, Washington, D.C. OSWER 9360.4-16

A-2.2 Non-government Publications.

# **ANSI/ASQC E4-1994**

Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology Programs, ANSI/ASQC, Quality Press, 1994.

## **ASTM D-4210-89**

American Society for Testing and Materials, Standard Practice for Intralaboratory Quality Control Procedures and a Discussion on Reporting Low-Level Data, D-4210-89, 1996.

#### **ASTM D5549-94e1**

American Society for Testing Materials, Standard Guide for the Contents of Geostatistical Site Investigation Report, D5549-94e1.

#### **Bowers et al. (1996)**

Bowers, T. S., N. S. Shifrin, and B. L. Murphy, 1996. "Statistical Approach to Meeting Soil Cleanup Goals," *Environmental Science & Technology*, **30**(5): 1437–1444, 1996.

#### **Bohonak** (2004)

Bohonak, A. J., *RMA: Software for Reduced Major Axis Regression*. 3 September 2004. http://www.bio.sdsu.edu/pub/andy/rma.html. v.1.17.

# Carmer and Swanson (1973)

Carmer, S. G. and M. R. Swanson, "Evaluation of Ten Pairwise Multiple Comparison Procedures by Monte Carlo Methods," *Journal of the American Statistical Association*, **68**(314), 1973.

#### Clark (1979)

Clark, I., *Practical Geostatistics*, Applied Science Publishers, London, 1979.

#### EM 1110-1-4014

### 31 Jan 08

## **Conover (1999)**

Conover, W. J., Practical Nonparametric Statistics, John Wiley & Sons, NY, 1999.

## **Cressie (1991)**

Cressie, N., Statistics for spatial data, revised edition, John Wiley & Sons, NY, 1993.

## **Currie (1968)**

Currie, L. A., "Limits for Qualitative Detection and Quantitative Determination: Application to Radiochemistry," *Analytical Chemistry* **40**, 586-593, March 1968.

# **Devore (1987)**

Devore, J. L., *Probability and Statistics for Engineering and the Sciences*. Brooks/Cole Publishing Company, 1987.

# Georgian and Osborn (2003)

Georgian, T., and K. Osborn, *Quality Assurance: Good Practice, Regulation, and Law*, Volume 10, Number 1, Taylor and Francis, Inc. Philadelphia, PA, 2003.

# Gibbons and Coleman (2001)

Gibbons, R. D., and D. E. Coleman, *Statistical Methods for Detection and Quantification of Environmental Contamination*, Wiley-Interscience, July 2001.

## **Gibbons (1994)**

Gibbons, R. D., Statistical Methods for Groundwater Monitoring, John Wiley & Sons, Inc., 1994.

#### **Gilbert (1987)**

Gilbert, R. O., Statistical Methods for Environmental Pollution Monitoring. John Wiley & Sons, Inc., 1987.

## **Gnanadesikan** (1997)

Gnanadesikan, R., Methods for Statistical Data Analysis of Multivariate Observations, 2<sup>nd</sup> Edition, John Wiley & Sons, Inc., New York, 1997.

## Goovaerts (1997)

Goovaerts P., *Geostatistics for natural resource evaluation*, Oxford University Press, New York, 1997.

#### Hahn, 1970

Hahn, G. J., "Statistical Intervals for a Normal Population, Part II. Formulas, Assumptions, Some Derivations," *Journal of Quality Technology*, Vol. 2, No.4, 195 – 206, October 1970.

## Hahn and Meeker (1991)

Hahn, G. J., and W. Q. Meeker, *Statistical Intervals: A Guide for Practitioners*. John Wiley & Sons, Inc., 1991.

## Hall et al. (1975)

Hall, I. J., R. R. Prairie, and C. K. Motlagh, "Non-Parametric Prediction Intervals," *Journal of Quality Technology*, **7**(3), 1975.

# Helsel and Hirsch (1992)

Helsel, D. R., and R. M. Hirsch, *Studies in Environmental Science* 49—*Statistical Methods in Water Resources*, Amsterdam, Elsevier, 1992.

## Helsel and Hirsch (2003)

Helsel, D. R., and R. M. Hirsch, Statistical Methods in Water Resources. U.S. Geological Survey, Techniques of Water-Resources Investigations, Book 4, Chapter A3. http://water.usgs.gov/pubs/twri/twri4a3/html/pdf\_new.html, May 2003.

## Helsel (2005)

Helsel, D. R., Non-detects and Data Analysis: Statistics for Censored Environmental Data, John Wiley & Sons, N.J., 2005.

## Hoaglin et al. (1983)

Hoaglin, D. C., F. Mosteller, and J. W. Tukey, *Understanding Robust and Exploratory Data Analysis*, John Wiley and Sons, Inc., 1983.

## **Hockman and Lucas (1987)**

Hockman, K. K., and J. M. Lucas, "Variability Reduction Through Sub-vessel CUMSUM Control," *Journal of Quality Technology*, Vol. 19, pp. 113-121, 1987.

## **Kvanli et al. (1996)**

Kvanli, A.H., C.S. Guynes, and R.J. Pavur, *Introduction to Business Statistics: A Computer Integrated, Data Analysis Approach*, West Publishing Company, 1996.

#### **Lehmann** (1975)

Lehmann, E. L., Nonparametrics: Statistical Methods Based on Ranks, Holden-Day, Inc., 1975.

## **Lucas (1982)**

Lucas, J. M. "Combined Shewhart-CUMSUM Quality Control Schemes," *Journal of Quality Technology*, **14**: 51–59, 1982.

# EM 1110-1-4014

### 31 Jan 08

### **Mason et al. (1989)**

Mason, R L., R. F. Gunst, and J. L. Hess, *Statistical Design and Analysis of Experiments: With Applications to Engineering and Science*, John Wiley & Sons, Inc., 1989.

# **Meyers (1997)**

Meyers, J. C., Geostatistical Error Management: Quantifying Uncertainty for Environmental Sampling and Mapping, Van Nostrand Reinhold, New York, 1997.

# Milton and Arnold (1990)

Milton, J. S., and J. C. Arnold, *Introduction to Probability and Statistics: Principles and Applications for Engineering and the Computing Sciences*, McGraw-Hill, Inc., 1990.

# Montgomery (1997)

Montgomery D. C., *Design and Analysis of Experiments*, 4<sup>th</sup> Edition, John Wiley & Sons, 1997.

## Moore (1999)

Moore, D. S., and G. P. McCabe. *Introduction to the Practice of Statistics*, 3<sup>rd</sup> Edition, W.H. Freeman and Company, New York, 1999.

## Moser (2000)

Moser, D., Risk Analysis Program Developments. Risk Analysis For Water Resources Investments Newsletter. United States Army Corps of Engineers. Summer 2000, Issue 4.

## **Noether (1987)**

Noether, G. E., "Sample Size Determination for Some Common Nonparametric Tests," *Journal of the American Statistical Association*, **82**(398), *Theory and Methods*, 1987.

## Schulz and Griffin (2001)

Schulz, T. W., and S. Griffin, "Practical methods for meeting remediation goals at hazardous waste sites," *Risk Analysis*, **21**(1): 43–52.

#### **Snedecor and Cochran (1982)**

Snedecor, G. W., and W. G. Cochran, *Statistical Methods*, 7th Edition, Iowa State University Press, 1982.

#### **Warton (2005)**

Warton, David I., "Bivariate line fitting methods for allometry," March 17, 2005, preprint, http://www.maths.unsw.edu.au/statistics/files/preprint-2005-02.pdf