



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

(FSME-14-063, June, Training, H-500)

June 16, 2014

ALL AGREEMENT STATES

ACCEPTANCE TO THE VISUAL SAMPLING PLAN COURSE (H-500) (FSME-14-063)

Purpose: To provide the list of students selected for the U.S. Nuclear Regulatory Commission (NRC) Visual Sampling Course (H-500).

Background: NRC provides the list of students and instructions to the States to help ensure that States with candidates on waiting lists will have an opportunity to fill vacated slots that may open up after this notification letter has been sent.

Discussion: Enclosure 1 is the list of students from the States selected to attend the August 19 - 22, 2014, Visual Sampling Course in Arlington, Texas. Please provide the list of students and the instructions (Enclosure 2) to each individual from your program that is on the list. Also enclosed, for your information, is a tentative schedule for the course (Enclosure 3). Students attending this course will be paid travel and per diem by the NRC. Please inform us of any cancellations 30 days prior to the course start date. This will allow us to ensure that States with candidates on the waiting list have an opportunity to fill vacated slots that may open up after the course acceptance letters have been transmitted.

If you have any questions regarding this correspondence, please contact me at 301-415-3340 or the individual named below.

POINT OF CONTACT: Marcia Casby
TELEPHONE: (301) 415-6525

INTERNET: AStrainingandtravel.Resource@nrc.gov

/RA KSchneider for/

Laura A. Dudes, Director
Division of Materials Safety and State Agreements
Office of Federal and State Materials
and Environmental Management Programs

Enclosures:

1. List of students
2. Instructions for students
3. Tentative Schedule

**Visual Sampling Plan
August 19-22, 2014
Arlington, Texas**

STATE	PARTICIPANT(S)
FLORIDA	Caleb Smith Alfredo Ortega
GEORGIA	David Crowley
KENTUCKY	Curt Pendergrass
LOUISIANA	Russell Clark John Babin
MISSISSIPPI	James Daniels
NORTH CAROLINA	Patrick Cox
OKLAHOMA	Keisha Cornelius
TEXAS (TCEQ)	Antonio Gonzales Hans Weger
TEXAS (TXDH)	Stephen Stoutenburg Jason Kelly
UTAH	Kevin Carney
WASHINGTON	Kristen Schwab

INSTRUCTIONS TO STUDENTS

ACCEPTANCE: This is to advise you that those individuals in Enclosure 1 have been accepted for participation in the Visual Sampling Plan Course in Arlington, Texas (H-500). This training course is scheduled for August 19-22, 2014, in Arlington, Texas at the NRC's Region IV office located at 1600 E. Lamar Boulevard, Arlington, Texas 76011. The facility is approximately 10 miles south of DFW Airport with convenient access. The facility's telephone number is (423) 855-6500.

COURSE: This course will be conducted beginning at 8:00 a.m. on Tuesday, August 19, 2014, and end at approximately 2:30 pm on Friday, August 22, 2014. Enclosed is a tentative schedule for the course (Enclosure 3). Cellular phones and similar devices with audible capability should be disabled while classes are in session. Normal business attire is appropriate for students attending NRC sponsored courses. Please check in with the guards when you enter the building. You will pass through a metal detector, your belongings will pass through an x-ray scanner, and you will be issued a visitor badge. The computer training room is adjacent to the guard desk on the first floor.

TRANSPORTATION AND LODGING: Please plan to arrive on Monday, August 18, 2014, and depart on Friday, August 22, 2014. Students must make their own lodging and travel arrangements. If traveling by air, please contact Carlson Travel at 1-800-453-8396 for airline reservations and complete the new Travel Application Form on our website and link provided here, [Travel Application Form](#). This form should be completed and submitted to Marcia Casby at AStrainingandtravel.Resource@nrc.gov. If you have any questions regarding the travel form please contact Marcia Casby at 301-415-6525. The per diem for Arlington, Texas is 140/56/196. This means that lodging/meals/not to exceed the total. Individuals should request the Federal government rate at the hotels. Rental cars will not be authorized for travel. Students will be reimbursed for transportation between the airport and hotel, and between the hotel and the training center. If you plan to drive, the Federal mileage reimbursement is 56 cents per mile. Students staying at the same hotel are encouraged to coordinate with each other to arrange transportation between the hotel and the training center. Parking spaces are open unless specifically marked. Cars should not be left over-night without prior notice to campus security on the ground floor.

DIRECT DEPOSIT: We are very pleased to be offering Direct Deposit for travel reimbursements. If you prefer this method, please complete the form located on our website and link provided here, [Direct Deposit Form](#). Follow the instructions on the form, and return to Mary Matheson at Mary.Matheson@nrc.gov. Once you have signed up for Direct Deposit, you are in the system and will not need to complete a new form unless your banking information changes. When it is time to complete your voucher for reimbursement, in the address box enter "Enrolled for Direct Deposit." If you have any questions regarding direct deposit, please contact Mary Matheson at 301-415-8748.

**VSP 4 Day Training Course
Tentative Schedule
(2 Day General Course Followed by 2 Day Advanced Course)**

[Each participant will have a laptop with VSP on it and will work through the case studies together with the instructor and individually.]

GENERAL 2-DAY VSP TRAINING SESSION

DAY 1

- 8:00-8:25 Course Expectations, Prior Training, Schedule, Feedback, Load VSP, etc.
- 8:25-9:00 VSP Overview/Demo (Executive Summary)
- 9:00-9:30 Review of Systematic Planning, DQO Process, and DQA
- 9:30-9:45 Break
- 9:45-11:15 VSP Maneuvering and Procedures (Part 1)
- 11:15-12:00 Statistical Concept Review and Intro to Sampling Design Expert Mentor
- 12:00-1:00 Lunch (on your own)
- 1:00-2:00 VSP Maneuvering and Procedures (Part 2)
- 2:00-2:45 Case Studies
- Judgment Sampling
 - Locate Hotspot Objective
 - Comparison Against a Threshold
- 2:45-3:00 Break
- 3:00-3:55 Group Case Study
- Introduce DQO/VSP Group Case Studies
 - Group Breakout on DQO/VSP Case Studies
- 3:55- 4:00 Questions, Issues, End of Day 1

Day 2

- 8:00-8:15 Questions, Quick Review
- 8:15-9:40 Case Studies
- Comparison Against Threshold (2)
 - Confidence Interval Objective
 - Comparison Against Background
- 9:40-9:55 Break
- 9:55-11:00 Case Studies (Mean Based Decisions)
- Collaborative Sampling (Instructor-Led and On Your Own)
 - Sequential Sampling (Instructor-Led and On Your Own)
- 11:00- 12:00 Case Studies (Individual Observation Based Decisions)
- Hotspot Detection with False Negative Rate (Building)
 - X%/Y% Acceptance Sampling – No Excedences Allowed
- 12:00-1:00 Lunch (on your own)
- 1:00-2:40 Case Studies
- X%/Y% NonParametric UTL
 - X%/Y% Parametric UTL
 - X%/Y% Acceptance Sampling – Excedences Allowed (Optional)
 - Trend Detection/Estimation – No Seasonality
- 2:40-2:55 Break
- 2:55-3:55 Finalize Group DQO/VSP Case Studies
- 3:55-4:00 Questions, Issues, End of Day 2.

ADVANCED VSP TRAINING SESSION

(This session has several modular sections. Depending on class make-up and interest, some training modules may be emphasized whereas others may be either skipped or covered only briefly; The order is flexible and breaks will be taken as needed)

Day 3: Advanced

- 8:00-8:30 MQO Features and Retrospective Evaluations
- 8:30-9:15 Presentations of DQO/VSP Case Studies
- 9:15-9:30 Expert Mentor and Data Analysis Tools
- 9:30-9:45 Selection and Ordering of Advanced Topic Modules
- Mean Comparison Module (2 hours)
 - Multi-Increment (Composite) Sampling Intro & Case Study
 - Stratified Sampling Presentation and Case Study
 - Adaptive Cluster Sampling
 - Use of Historical Samples
 - Handling Less-Than-Detects
 - Hotspot Delineation and Cost Estimation
 - Process Control Chart: Detecting a Change
 - Long Term Monitoring Module (3-4 hours)
 - Well Grouping Options and Case Study
 - Trend Detection/Estimation: Seasonality
 - Trend Detection- Exponential, LOWESS, <Detect
 - GeoStatistical Modeling Tutorial and Case Study
 - Spatial Redundancy Evaluation Case Study
 - Analyte Redundancy Evaluation Case Study
 - Temporal Redundancy Evaluation Case Study
 - Adding Spatial Sample Locations
 - Within Building Module (2-3 hours)
 - Strategic Zone Designation and General Approach
 - Map/Building Features, Furniture/Shelves, and Maneuvering
 - Office Building Sampling Designs Case Study
 - Combined Judgment and Probabilistic Sampling Intro & Case Study
 - Airport Case Study
 - INL Facility Simulated Bio-Release Illustration (optional)
 - Radiological Surveys and Item Sampling (1 hour)
 - Radiological Survey Design and Analysis Case Study
 - Item Sampling Case Study
 - UXO Module (2 hours)
 - Problem and Approach Overview Presentation
 - Transect Design and Analysis Case Study
 - Post Remediation Validation Case Study

9:45-10:00 Break
10:00-12:00 Advanced Topic Module 1
12:00-1:00 Lunch (on your own)
1:00-2:45 Advanced Topic Module 2
2:45-3:00 Break
3:00-4:00 Advanced Topic Module 3 (1st half)
4:30-4:45 Issues, Questions, End of Advanced Day 1

Day 4: Advanced

8:00-8:15 Questions, Issues.
8:15-9:30 Advanced Topic 3 (Continued)
9:30-9:45 Break
9:45-12:00 Advanced Topic 4
12:00-1:00 Lunch
1:00-2:15 Advanced Topic 5
2:15-2:30 Upcoming Features, Future VSP Directions, Evaluation Forms, Wrap Up.
2:30 Adjourn