**AGENDA & NARRATIVES**

Introductory Studies Of Forensic Science and Professional Standards of Practice for Environmental Compliance and Assurance Personnel

| **Day 1: The Introductions and Foundations** |
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| A thriving community has been growing in leaps and bounds after a long stretch of a bad economy. A producer of carbon black has doubled its business creating more jobs and pouring lots of tax revenues into the community. Residents living within a five mile radius of the plant are complaining about the plant’s daily visual emissions and are saying…the plant is generating late-evening odors and particulate matter. The facility is located in a low-income, minority neighborhood. Your immediate supervisor assigns you to conduct an inspection/evaluation of the plant. After amassing a company profile and conducting a walk-through survey of the plant, you confirm that modifications to the facility were made without obtaining a Prevention of Significant Deterioration (PSD) permit. Move over law enforcement crime scene investigators (CSIs), forensic science is not just for homicide scenes. Environmental investigations also address systematically uncovering “root causes” and answering who did what, when, where, how, why, and what economic advantage was derived (gained). |
| Time | Topic |
| 8:00 – 8:30 a.m. | Introductions & Pre-assessment (test) |
| 8:30 – 9:00 a.m. | Course scope; instructor and participants’ roles, duties, and responsibilities |
| 9:00 – 10:00 a.m. | **Knowledge for the 21st Century Toolbox**[ ]  Total Quality Management (TQM) – and incorporation into EPA’s Quality Management Plan [ ]  ISO 14000 [ ]  Leadership studies in the 21st century; The “how to be” leader knows, pg. 122.) [ ]  Lean & Six Sigma [ ]  Best Management Practices (BMPs) [ ]  Awareness-level victory fingers [ ]  Designated Person [ ]  Profile of the environmental scientist [ ]  Qualified & Competent & Competency Modeling [ ]  Liability issues related to omissions and commissions [ ]  Work eco-system: work-task, function-specific, job, career, employee and professional development [ ]  KSATs (knowledge, skills abilities, and talent) [ ] “The Art of War” |
| 10:00 – 10:15 a.m. | Break |
| 10:15 – 11:00 A.M. | **History of forensic science and its modern-day relationship to environmental compliance**[ ]  EPA Office of Criminal Enforcement, Forensics and Training (CEFT)[ ]  What are risk management, property damage, death management, & stress management in environmental forensic science? [ ]  Defining environmental law [ ]  Defining the different roles of compliance and assurance personnel [ ]  Concepts of zero and one and TMDL [ ]  Environmental Crime [ ]  Contamination [ ]  Pollution [ ]  Sustainability (EPA pillars) [ ]  Critical Infrastructures [ ]  Brownfields [ ]  Environmental Management Systems [ ]  International Network for Environmental Compliance and Enforcement [ ]  ISO standards [ ]  U.S. Department of Justice [ ]  Release defined [ ]  EPA’s enforcement corporate responsible party, collective knowledge doctrine, ignorance of the law, and RCRA’s once yours always yours/cradle to grave [ ]  Blast Facts |
| 11:00 – Noon | **Regulatory Ecosystem**[ ]  Agencies (and primacy) [ ]  EPA [ ]  OSHA [ ]  DOT [ ]  Coast Guard [ ]  FEMA [ ]  BSEE[ ]  NEPA and air [ ]  CAA [ ]  RCRA (USTs) [ ]  CERCLA [ ]  TSCA [ ]  FIFRA [ ]  OPA of 1990[ ] Environmental Justice [ ]  HAZWOPER and ICS/IMS [ ]  HESTQ [ ]  EPA and State Compliance Assistance Centers [ ]  Chemical Safety Board (CSB) [ ]  EPA Terms of the Environment |
| Noon – 1:00 p.m. | Lunch |
| 1:00 – 2:00 p.m. | **Evaluation/Investigation Strategy**[ ]  Company profile [ ]  Walk-through survey [ ]  Previous history [ ]  Resources [ ]  Team members (KSAT assessment) [ ]  Protocol |
| 2:00 – 2:30 p.m. | Report Writing |   |
| 2:30 – 2:45 p.m. | Break  |
| 2:45 – 4:15 p.m. | [ ]  Professional Standards and KSATs. |
| 4:15 – 4:30 p.m. | [ ]  Day 1 summaries by participant’s of day’s events [competency: *Mental agility]* |

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| **Day 2: The Technical Aspects**  |
| The thriving community continues growing in leaps and bounds. Recently the area’s lone carbon black company has doubled its business creating more jobs and pouring lots of tax revenues into the community. A preliminary record review indicates that the company is out of compliance…no permit. The walk-through survey shows the plant was modified from its earlier configuration and the plant’s manager says, “Opacity monitoring is important to plant operations.” You, the “environmental scientist” are thrust into the role of inspector, investigator, or auditor. As the consummate professional, you must always be mindful of your professional credibility throughout all phases of your work.  |
| 8:00 – 9:30 a.m. | **Basic Elements**[ ]  What is an Environmental Crime? [ ]  Scene types [ ]  EPA sampling methods [ ]  Collecting & preserving physical evidence [ ]  Digital Photography [ ]  Note Taking [ ]  Sketching |
| 9:30 – 9:45 a.m. | Break |
| 9:45 – 11:45 a.m. | **Interviewing and Interrogation**[ ]  Strategy & Tactics [ ]  Interview [ ]  Interrogation [ ]  Polygraph [ ]  Verbal Judo and Conversational PaGua |
| 11:45 – Noon | Wrap-up of a.m. |
| Noon – 1:00 p.m. | Lunch |
| 1:00 – 2:45 p.m. | **Basic Elements (continued)**[ ]  Detention & Arrest Powers (EPA’s OCEA) [ ]  States with enforcement personnel [ ]  Search & Seizure [ ]  Cease & Desist Orders [ ]  Field Notes vs. Recordkeeping [ ]  Follow-up Investigations [ ]  Papers vs. actual environmental violations |
| 2:45 – 3:00 p.m. | Break |
| 3:00 – 4:15 p.m. | **Basic Elements (continued)**[ ]  Federal rules of evidence [ ]  Proactively preparing for litigation (Your credibility.)[ ]  Presenting evidence in court |
| 4:15 – 4:30 p.m. | [ ]  Day 2 summaries by participant’s of day’s events [competency: *Mental agility]* |

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| **Day 3: Managerial Aspects** |
| The community continues thriving. The carbon black plant leadership is responding to teachings from proactive minded regulatory authorities known to follow the “how to be leader” philosophy. Community leaders are zeroing in on sustainability, global competition, environmental justice, and workforce development. Beneficial Environmental Projects (BEPs) are being used for community outreach. The previously wayward carbon black plant is hosting the outreach initiatives. Whereas environmental investigations look for who did what, when, where, how, why, how much damaged was caused, etc.; the “spirit of the law” is practiced in modern-day.  |
| 8:00 – 9:00 a.m. | [ ]  Overview of Compliance and Enforcement Programs:[ ]  Environmental Management Cycle[ ]  How Laws are Made[ ]  Federal Register |
| 9:00 – 10:00 a.m. | [ ]  Principle concepts of successful enforcement and compliance programs |
| 10:00 – 10:15 a.m. | Break |
| 10:15 – 11:00 a.m. | [ ]  Evidence |
| 11:00 – 11:45 a.m. | [ ]  Capturing visual images – environmental monitoring |
| 11:45 – Noon | Wrap-Up of a.m. |
| Noon – 1:00 p.m. | Lunch |
| 1:00 – 1:30 p.m. | Customer Service and Stakeholders[ ]  Customer Service in the 21st Century (The intersection between an organization and stakeholders. Pg 22) |
| 1:30 – 2:00 p.m. | [ ]  Environmental Management Systems  |
| 2:00 – 2:30 p.m. | [ ]  Introduction of new scenario or survey of technical resources |
| 2:30 – 2:45 p.m. | Break |
| 2:45 – 3:15 p.m. | [ ]  Scenario (continued) or other alternatives |
| 3:15 – 4:00 p.m. | [ ]  Post-Test and Wrap-Up |

**Narratives**