

US EPA ARCHIVE DOCUMENT

**Corrective Action Workshop  
“BRAIN TEASERS”**

1. Achieving Environmental Indicators means a facility is done with Corrective Action. (Introduction) F
2. All Corrective Action must follow the EPA-specified process. (Introduction) F
3. The General Accounting Office (GAO) stated that applying RCRA requirements to remediation waste is an impediment to implementing cleanups. (Introduction) T
4. The ANPR principle of basing Corrective Action decisions on risk means that remediation is not necessary if there are no current unacceptable exposures. (CA Results) F
5. EPA believes that the public should be involved with significant interim measures. (CA Results) T
6. Ensuring that the dissolved plume of contaminated groundwater is not migrating above levels of concern is sufficient to justify achieving the “Migration of Contaminated Ground Water Under Control.” (CA Results) F
7. The “Migration of Contaminated Ground Water Under Control” environmental indicator has a component designed to assess protection of ecologic receptors. (CA Results) T
8. Environmental Indicators for RCRA CA were first adopted in 1999. (CA Results) F
9. Environmental Indicator decisions do not need to be revisited until a final remedy is implemented. (CA Results) F
10. The groundwater EI only addresses lateral migration. (CA Results) F
11. Owner/Operators can fill out EI forms. (CA Results) T
12. Building a conceptual site model should not be accomplished until significant investigation has occurred. (Conceptual Site Model) F
13. Fugacity is a measure of how much fungal matter is available for bioremediation. (Conceptual Site Model) F
14. Fugacity can help focus data collection. (Conceptual Site Model) T
15. A written problem statement combined with a written response equals a “decision rule.” (Conceptual Site Model) T
16. Good science eliminates uncertainty. (Managing Risk and Uncertainties) F
17. Significant uncertainty can be managed without additional data collection. (Managing Risk and Uncertainties) T

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| 18. | Risk-based Decision-making can be appropriately or inappropriately used to justify not taking a remedial action. (Managing Risk and Uncertainties)   | T |
| 19. | Mr. Johari received notoriety for developing the fugacity equations. (Communication)   | F |
| 20. | Public outreach is not required early in the RCRA Corrective Action process, as it is better to have the right answers first, prior to communicating with the public. (Communication)  | F |
| 21. | Communicating primarily through reports and letters is the most efficient means to enlarge the “Open Window.” (Communication)  | F |
| 22. | A regulatory agency and facility can work together to provide input to a Conceptual Site Model, Environmental Indicator forms, or a Dynamic Workplan. This is an acceptable and valuable form of communicating technical ideas, assumptions, and expectations. (Communication) | T |
| 23. | The human exposure EI can be achieved by institutional controls. (Environmental Indicators)  | T |
| 24. | Vapors from relatively low concentrations (<50ppb) of certain volatiles in ground water has resulted in unacceptable exposure to humans. (Environmental Indicators)  | T |
| 25. | Risk is not a consideration in the groundwater EI. (Environmental Indicators)  | F |
| 26. | Controlling the sources of contamination is not important for a monitored natural attenuation remedy provided that the ground water plume has stopped migrating. (Innovative Technologies)   | F |
| 27. | Passive Treatment Walls are limited to depths of 20 feet below surface. (Innovative Technologies)  | F |
| 28. | In situ heat technologies can successfully clean up contaminated ground water to MCLs in four months. (Innovative Technologies)  | T |
| 29. | The publically available SCEM software should only be used by trained Risk Assessors. (SCEM)   | F |
| 30. | All remediation waste generated during Corrective Action must be managed as hazardous waste. (Managing Remediation Waste)  | F |
| 31. | Contaminated media that previously contained hazardous waste must comply with Land Disposal Restriction (LDR) treatment standards. (Managing Remediation Wastes)   | T |
| 32. | Corrective Action Management Units (CAMUs) must be located in contaminated areas. (Managing Remediation Wastes)  | F |

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| 33. | “Owner/Operator Initiated or Facility-lead Corrective Action” implies less regulatory oversight. (Administrative Approaches)  | F |
| 34. | Facility-lead corrective action allows owner/operators to comply with less stringent clean-up objectives. (Administrative Approaches)                                   | F |
| 35. | An EPA order issued under the authority of Section 3013 can be used to obtain information to support an environmental indicator evaluation. (Administrative Approaches) | T |
| 36. | Institutional Controls are typically part of a final remedy when wastes are left in place at industrial cleanup levels. (Institutional Controls)                        | T |
| 37. | Institutional Controls are usually the sole corrective action remedy at a site. (Institutional Controls)  | F |
| 38. | Generally, Institutional Controls will require active uncertainty management. (Institutional Controls)  | T |
| 39. | Final remedies require an evaluation of at least two remedial alternatives. (Final Remedy Selection)  | F |
| 40. | Remedial Expectations are not binding requirements. (Final Remedy Selection)  | T |
| 41. | Corrective Action completion is always based on residential land use. (Remedy Completion)   | F |
| 42. | Corrective Action completion is a facility-wide determination. (Remedy Completion)  | F |