RCRA Corrective Action -Environmental Indicators (EI)

(Draft 1/7/00)

1. What are the RCRA Corrective Action (CA) Environmental Indicators (EI)?

The RCRA Corrective Action Environmental Indicators (EI) are:

A means of evaluating and reporting on the acceptability of current site conditions
(i.e., they are interim milestones and not final remedy or site closure goals).

An opportunity for facilities and regulators to show meaningful progress that is achievable in the
near future.

A high priority within EPA and the #1 priority for the RCRA program.

Adopted by ECOS and equivalent to ASTSWMO cleanup measures

2. How many RCRA CA EI are there?

There are two.

Current Human Exposures Under Control   (a.k.a. "Human Exposure EI")

Migration of Contaminated Groundwater Under Control   (a.k.a. "Groundwater EI")

3. What are the possible results (determinations) for the EI?

YES, conditions are "Under Control"

NO, conditions are NOT "Under Control"

IN, Insufficient information is available to determine if conditions are "Under Control"

4. What are the RCRA CA EI used for?

These EI are used to summarize and report on the site-wide environmental conditions at the RCRA CA
Program's highest priority sites (i.e., those on RCRA CA Cleanup (GPRA) Baseline, 135 DOD
facilities).

These EI are being used to track the RCRA program's progress on getting our highest priority
contaminated sites under control and report to the Office of Management and Budget (OMB), U.S.

Congress, and the public (via a public web site).

5. How are sites evaluated to see if they meet the RCRA CA EI?

Known and suspected site (-wide) conditions are evaluated using a series of simple (as possible) questions and flow-chart logic to arrive at a reasonably defensible determination (YE, NO, or IN). These questions (EI forms) were issued as Interim Final Guidance for the RCRA CA EI on Feb. 5, 1999 and are available on the Internet at the OSW web site "www.epa.gov/osw/cleanup/."

6. Who makes the EI determinations (and fills out the EI forms)?

The lead regulators for the site (Authorized State or EPA) make the EI determination. However, facilities or their consultants may assist EPA in the evaluation by providing information on the current environmental conditions (and may even assist by filling out the EI forms and making recommendations for the determination).

7. How does the Human Exposures EI relate to traditional Risk Assessments?

The Human Exposure EI is an assessment of (actual current) human risks and, would typically take the form of a qualitative assessment of the completeness of exposure pathways, but necessary, may include a traditional Quantitative Risk Assessment.

8. How does the Groundwater EI differ from the Human Exposures EI?

The Groundwater EI is strictly a resource protection measure and not a direct measure of human risk, and may include the assessment of the impacts of groundwater discharges to surface waters and surface water ecosystems.

9. Will EI require additional investigations (beyond that typically required for CA)?

No, since the EI are small components of typical site corrective action final remedies, the EI should not require any additional investigations to be conducted. Although, the timing of when investigations, or stabilization actions, occur may be altered in order to demonstrate that site conditions are "Under Control" as soon a possible.

10. Is it necessary to complete an entire site investigation to show that human exposures are under control?

No, human exposures can be considered "under control" if adequately protective controls are in place to prevent unacceptable exposures (i.e., cut pathways between humans and contamination) for the reasonably-expected worst-case conditions (in the un-investigated areas).

11. Are EI determinations a point-in-time determination, or do they have to be maintained to

ensure they remain true through time?

Yes, they are made in a point in time, and Yes, we are responsible (together) to ensure that the EI determinations accurately report site conditions through time.