

GEORGIA INDUSTRY ENVIRONMENTAL COALITION

March 22, 1994

Mr. Harold Reheis
Georgia Environmental Protection Division
Georgia Department of Natural Resources
205 Butler Street, S.E.
Floyd Towers East, Suite 1152
Atlanta, GA 30334

RE: **Preliminary Comments to Draft Corrective Action Rules
Hazardous Site Response Act**

Dear Mr. Reheis:

The Georgia Industry Environmental Coalition (GIEC) is please to have been asked to provide preliminary comments on the Draft Corrective Action Rules, dated March 15, 1994. GIEC is a non-profit, technically-based industry coalition with the basic purpose of addressing environmental issues and regulatory proposals of interest to Georgia industry. Membership in GIEC is open to those industrial companies that are responsible for their own environmental compliance in Georgia. GIEC and its member companies believe these HSRA regulations will have a far reaching impact on existing business in Georgia, and on new businesses that may consider relocating to Georgia.

The GIEC appreciated the opportunity to attend the March 15, 1994 Advisory Committee Meeting and to participate in the discussions regarding the classification of sites on the Hazardous Site Inventory (HSI), compliance status reports, definition and certification of compliance with the risk reduction standards at Class II sites, public participation, determination of essential features for corrective action, and the Type I soil and Type I and Type II ground water criteria. GIEC is encouraged that EPD has taken an initial reasonable approach in the draft Corrective Action Rules. Based on this initial draft, GIEC has the following major concerns:

- In keeping with the Act, the Corrective Action Rule must be constructed and applied in such a manner that only those releases that pose a **danger to human health or the environment** are required to undergo corrective action. At the time the Director initially determines that a release requires corrective action, the responsible party must be given a reasonable opportunity to demonstrate that the release does not pose a **danger to human health or the environment**.

Furthermore to the extent a site actually does pose a danger to human health or the environment, the required corrective actions must be no more stringent than necessary, with the end result being a site that no longer poses a **danger to human health or the environment**. As presently drafted, the rule overreaches the Act and will waste limited resources.

- The corrective action rule needs a workable petition and variance provision such that requirements for reporting, investigation and corrective action can be properly matched to each site situation. Without such a provision, the draft rule will overreach the Act and waste limited resources.
- The Director lists sites on the HSI as Class II *unless or until* he determines that the site should be classified as Class I, II or IV (Subpart (2)). According to this statement, it is possible that all sites on the HSI could be simultaneously classified as Class II. Such approach to classification includes no mechanism for prioritization. Unless the EPD has unlimited resources, it is imperative that at some point in the process, the risky sites be separated for more immediate and possible more intensive investigation than non-risky sites.

By doing so, greater protection of human health and the environment will be provided more quickly. GIEC recommends that the sites be classified at the front end of the flow chart as opposed to later on through the process.

- EPD contends that the HSRA regulatory program does not make provisions for responsible parties to appeal EPD decisions until the Director has made a determination that corrective action is required at a site. Based on the proposed Corrective Action Rules, it is apparent that a responsible party could spend much effort and expense in demonstrating to the EPD through the development of a compliance status report that corrective action or even HSI listing is not necessary. GIEC believes that the inability of a responsible party to appeal the EPD's decision in placing a site on the HSI before any additional determinations are made, is too restrictive and will be unnecessarily costly to many individuals.
- From a risk communication standpoint, it is essential that the results of any compliance report or risk assessment be presented clearly and in plain language along with a determination for corrective action based on set criteria. This approach would serve to ease public fear rather than arouse it. The public should and needs to be involved in the process. However, the determination of whether remediation is necessary based on human health or environmental impacts should not be left for a public meeting in an arena where participants may not have all the facts or may be misinformed.

- The Corrective Action section contains provisions for public participation (Subpart (6)). Under these provisions, the responsible party is required to publish a notice in the paper. A minor comment is the possibility that there may be more than one responsible party and a mechanism to avoid duplication of responsibility of notification is necessary.

Also in this section is a requirement that the responsible party notify city and county governments within the county where the site is located. Perhaps there is a less burdensome way of achieving this notification. It would seem more straightforward for the EPD to coordinate this type of multi-government notification. Without an organized mechanism for reporting, local governments will be getting reports from various responsible parties for different sites at different times.

- Setting Different Standards Based on Land Use
Land use is an important concept in any risk assessment and used to evaluate current and future exposures. Realistic future land use scenarios should provide the basis for selection of controlling exposure scenarios/pathways. Development of cleanup criteria, whether generic or site specific values, should be based on future land use. Deed restrictions, as EPD has proposed, is one mechanism to ensure a site's continued land use designation. If a site can meet the Type 3 or 4 (non-residential use standards), no further action except for a deed notice is reasonable; however, the site should be removed from the HSI and not remain a Class IV site. If there is no adverse risk to human health or the environment based on site-specific conditions, including land use, then removal from the HSI is warranted.
- Need for Technical Infeasibility Provisions to allow a site to petition for technical infeasibility from the risk reduction standards has not been provided. GIEC supports EPD's goal of establishing cleanup standards based on health impact, chemical mobility, and environmental fate. It is important, however, that the final standards be applied in a manner that considers site-specific circumstances and limitations to the greatest extent possible, including technical feasibility, practicability and cost. For example, in requiring that non-aqueous phase liquids shall not exist (type 1) or that continued vertical migration be eliminated (type 5), the above factors are not being recognized.
- Sources of Toxicity Data GIEC would like to propose that facilities rely on (1) standard toxicological databases such as the Integrated Risk Information System (IRIS) and the Health Effects Summary Tables (HEAST); and (2) current, peer reviewed toxicological studies. The reliance on databases alone (as indicated in the footnote of Table 3 of Appendix III) is questionable. First, the carcinogenicity assessment and reference doses contained in IRIS are often not based on the most current information and are not subject to peer review. Second, there is no external peer review of the methodologies used to derive the carcinogenicity assessments and reference doses. Finally, the expression of uncertainty inherent in the data included in IRIS is not sufficient.

GIEC commends EPD for recognizing that the slope factors and reference doses reflect an absorption factor of 1. Actual absorption factors based on the specific form of the regulated substance should be incorporated into the risk equations for all risk reduction standards and not only Type 2 and 4 as proposed.

- Use of a Site-Specific Risk Assessment - Although Type 2, and 4 (and 5) allow a departure from EPA "standard" exposure factors, there is essentially no provision in this rule for a site-specific risk assessment. A site-specific risk assessment entails much more than just being given the opportunity to adjust exposure factors. GIEC strongly urges the EPD to revise the language in the Type 2 and 4 cleanup goals from site-specific exposure factors to site-specific risk assessment.

While site-specific risk assessments are tailored to accommodate differing factors and assumptions, all risk assessments have certain standard features in common. The elements of a risk assessment include: hazard identification, toxicity assessment, exposure assessment and risk characterization (i.e., risk quantification and uncertainty analyses). Notably, a considerable amount of expertise is currently available in the area of exposure assessment such as the use of: probabilistic exposure assumption methods, fate and transport modeling; bioavailability, pharmacokinetics; etc.

The risk reduction standards also need to address the concept of "risk management", i.e., what does the risk estimate(s) actually mean in the overall remedial strategy, considering all factors.

- Setting Target Risk and HI Levels Section 319-3-19-.07 (10) defines the cumulative target risks for carcinogens and hazard indices for systemic carcinogens. This language should apply to the Type 1 through 5 standards. Setting the level for cleanup goals at 10E-06 for Types 1-4 standards in continuing current Superfund guidance.

The reliance upon a 10E-06 or 10E-05 risk target level for establishment of cleanup levels is contrary to current policy on risk assessment. In the 1990 National Contingency Plan, EPA rejected the 10E-06 risk target for carcinogens in favor of a risk range between 10E-04 and 10E-06. EPA guidance (OSWER Dir. 9355.0-30, April 22, 1991) further clarifies the EPA's general policy on risk levels as follows:

For sites where the cumulative site risk to an individual based on reasonable maximum exposure for both current and future land use is less than 10E-04, action generally is not warranted.....Records of Decision for remedial actions taken at sites posing risks with the 10E-04 and 10E-06 risk range must explain why remedial action is warranted.

- Use of Single-Point, Highly Conservative Exposure Factors
The use of single-point, highly conservative exposure factors to assess potential intakes is not reflective of sound science; nor is it consistent with state-of-the-art exposure evaluations. Default point estimate exposure factors create a worst-case scenario that is more extreme than any reasonable maximum exposure intended. The proposed standards should recognize that it is an upper-bound risk estimate and not a likely maximum estimate. GIEC recommends

that appropriate distributions of all relevant exposure factors be combined in the best scientific manner to determine specific combinations of percentile concentration values, (e.g., 50th, 90th, or 95th percentile). Probabilistic determinations for example, "Monte Carlo" simulations ,can provide this type of analysis.

- Use of the RAGS, Part B Equations GIEC requests that EPD give some more thought to the use of these equations in setting risk reduction standards. GIEC has specific concerns with the equations for residential versus non-residential soils and the combination of more than one exposure pathway (e.g., inhalation and ingestion) into one equation. Notably, EPD has chosen to apply RAGS equations 6 and 7 (combining inhalation and ingestion pathways) to residential scenarios which were originally intended for commercial/industrial standards. The RAGS equations 4 and 5 for residential soils look only at ingestion as the plausible exposure route. Also, EPA has proposed modifications to the RAGS, Part B 1991 equations in the *Draft Soil Screening Level Guidance* (September, 1993). GIEC would like to consider the technical merit of these modifications as well as examine other risk equations in place of those referenced in RAGS.
- Use of Table 1, Appendix III (Groundwater Standards.) The reliance upon applicable, relevant, or appropriate requirements (ARARs) such as maximum contaminant levels (MCLs) for setting ground water medium-specific concentrations is inappropriate. MCLs are calculated maximum levels of contaminants for receptors that directly ingest water. However, groundwater must travel through the subsurface before contact with receptors and may be significantly attenuated by this process, thus making the use of the MCL overprotective.
- Groundwater and soil criteria have been proposed to meet selected risk reduction standards. The groundwater criteria, presented in Table 1 of Appendix III, are applicable to meet Type I and Type II risk reduction standards. The soil criteria, presented in Table 2 of Appendix III, are applicable to meet Type I risk reduction standards. GIEC questions the technical basis for the soil and groundwater criteria. For the majority of the proposed groundwater concentrations and all of the proposed soil concentrations, with the exception of arsenic and barium, when applied under the appropriate standard Type, are less than the notification concentrations required under the Release Notification and Reporting Rules. GIEC believes that it is overly burdensome to require sites subject to corrective action to meet standards more stringent than the notification concentrations. In many instances then, sites for which property owners did not need to notify EPD of a notifiable release may have concentrations in soil and ground water which exceed the Type I risk reduction standards.

All corrective action or risk reduction numerical criteria must be no more stringent than the notification criteria. The present draft rule results in some cleanup criteria being more stringent than the notification concentrations.

Mr. Harold Reheis
March 22, 1994
Page 6

- GIEC, in general, agrees with the EPD's conceptual approach to the corrective action rules. However, based on our review of the corrective action rule flow chart provided during the March 15, 1994 meeting, GIEC strongly believes that the risk reduction standards should be expanded. Responsible parties should be given the opportunity to readdress reportable releases for soil and ground water which exceeded the RQSM thresholds and resulted in the site being placed on the HSI. Additional site-specific information may be obtained during the preparation of the compliance status report which may reduce the original RQSM threshold scores. In addition, GIEC believes that risk reduction standards should allow responsible parties of industrial sites the option to meet alternate Type 5 standards. Industrial sites, which are typically zoned industrial, should not be held to meet risk reduction standards appropriate for residential and commercial settings.

At any time that it is determined that a release does not exceed release notification or reporting criteria, the site should be removed from the HSI unless the site is otherwise specifically known to pose a danger to human health or the environment.

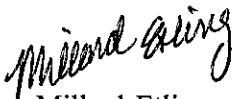
- There is no provision for voluntary cleanup action in the draft regulation. This approach to cleanup is being pursued by many state agencies to save state resources. Is this approach under consideration by EPD.

The GIEC has prepared preliminary comments regarding the subject document that we hope the EPD will seriously consider before issuing the proposed rules for public notice tentatively scheduled for April 1, 1994. Considering the significance of these HSRA regulations, it is important that they be well researched, scientifically founded, and carefully constructed to get the job done in the most effective manner. For those portions of the proposed rule that have not been reviewed in detail, additional GIEC comments may be provided by this Friday and will be provided during the public comment period.

GIEC is willing and available at any time to discuss these draft regulations in detail. GIEC appreciates the opportunity to provide comments to the draft rules. Attached are GIEC's preliminary comments to the Draft Corrective Action Rules.

Sincerely,

GEORGIA INDUSTRY ENVIRONMENTAL COALITION



Millard Etling
HWTF Advisory Committee Member

Enclosures: GIEC Annotated Copy of the Draft Corrective Action Rules
with Cross-Referenced Discussion
Amended Flow Chart for the Corrective Action Rule Process

cc: Mr. David Word
Ms. Jennifer Kaduck
Mr. Tim Cash
Mr. Steve Woodall