

**CROSS-REFERENCED DISCUSSION TO THE  
DRAFT CORRECTIVE ACTION RULES, DATED MARCH 15, 1994  
GEORGIA INDUSTRY ENVIRONMENTAL COALITION COMMENTS  
MARCH 22, 1994**

The following discussion items are cross-referenced below by item number and page number to the draft Corrective Action Rules, dated March 15, 1994. An GIEC annotated copy of the draft Corrective Action Rules is attached for easy reference.

<u>Item No. (Page No.)</u>	<u>Discussion</u>
1 (page 1)	<p><b>391-3-19-.05 Reporting of Releases Exceeding RQs and Listing of Sites on the HSI</b></p> <p>The Director may remove a site from the HSI if the site had not had a release exceeding a reportable quantity at the time of listing the site on the HSI (Subpart (1)(a)). Is there some mechanisms for meeting this criteria? If a site had not reported a release of an RQ does the site get deleted from the HSI? If not, is there some burden of proof required to show that there had not been a release exceeding an RQ? GIEC recommends that the language be modified as noted to allow for releases which do not exceed a reportable quantity to be removed from the HSI. GIEC also requests that RQSM reevaluation be used as a general risk reduction standard.</p>
2 (page 8)	<p>Section 391-3-19-.06(6)(c) indicates that the director <i>shall</i> reclassify a site on the HSI from Class II to Class I and designate the site as having a known release needing corrective action if 1.) the responsible party fails to submit the compliance status report within the time frame specified by the Director, or 2.) the compliance report is deficient with respect to the rules.</p> <p>This is not appropriate as the Director may have underestimated the time required to fulfill all of the requirements of the compliance status report for a particular site, and "deficiencies" are often in the eye of the beholder. It is not appropriate to require deed notices, a Consent/Unilateral Order, a Corrective Action Plan (CAP) and CAP implementation at a site that might already meet Risk Reduction Standards, simply because a report is late, or considered "deficient" by the Director.</p>

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2 (page 8) con't

The rule should be changed to read that if the compliance status report cannot be submitted within the specified time frame, the responsible party shall notify the Director of the reason(s) for the delay and suggest an alternative time frame. If the Director approves the request, and the compliance status report is still late, penalties per day late can be assessed (similar to the daily penalty for non-notification). If the Director does not approve the request, daily penalties are still more appropriate than subjecting the responsible party to the requirements of a Class I site.

GIEC believes that if the compliance status report is considered "deficient" by the Director, a Notice of Deficiency should be issued, with a time frame assigned for correcting the deficiencies. This will allow the responsible party to discuss the alleged "deficiencies" with EPD personnel, and/or correct actual deficiencies and allow the EPD to make a proper classification of the site.

3 (page 11)

391-3-19-.07(4)(e) states that corrective action shall, at a minimum, provide for the removal of nonaqueous phase liquids from the ground-water zones to the extent practical. However, Type 1 risk-reduction standards in -.07(6)(b) and Type 2 risk-reduction standards in -.07(7)(b) state that non-aqueous phase liquids (NAPLs) shall not exist at all points within any ground water that has been affected.

This is neither practical, nor in most cases, achievable. A growing body of project experience, environmental literature and policy is recognizing the fact that in the late Twentieth Century, the technology for complete removal of all NAPLs does not exist. This is especially true in the case of fractured bedrock.

GIEC strongly recommends that Type 1 and 2 risk-reduction standards should be changed in the draft rules to require that NAPLs be removed only to the extent practical, so as to not unnecessarily waste remedial money on an effort that cannot be achieved.

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5 (pages 12,13 and 14)

Type 1, 2 and 4 risk-reduction standards in 391-3-19-.07(6), -.07(7) and -.07(9) describe criteria for soil "at all points above the water table." These criteria do not recognize the existence of a capillary-fringe zone above the water table where "soil" is fully (100%) saturated. In fine grained Piedmont residuum, or clayey Coastal Plain sediment, the thickness of this zone can be significant (greater than five feet). Contaminant migration can occur within the capillary-fringe zone. Soil criteria for Type 1, 2 and 4 risk-reduction standards should apply only to *unsaturated* soils.



4 (page 11)

391-3-19-.07 Risk Reduction Standards

(6) Criteria for Type 1 Standards

GIEC is strongly opposed to the approach that point of compliance for groundwater be set at "all points that have been affected by the release" and for soil "all points above the water table that have been affected by the release." This approach gives no consideration for current or potential future receptors or exposure pathways. Points of compliance must be established to be protective of human health and the environment, taking into consideration site conditions and receptors.

(b) Criteria for groundwater. The requirement stating that, "if more than one regulated organic compound is present in groundwater, their sum shall not exceed 10 mg/L." is not based on good science. First, how to sum the groundwater concentrations is not addressed in the draft rule. A site could have negligible and discrete areas of groundwater contamination that when summed across a property could exceed 10 mg/L but present no adverse risk. Second, regardless of how the 10 mg/L is totaled, it is not based on a risk approach.

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(c) Criteria for soil.

(1)(ii) Reword. "Demonstration through use of an approved analytical leaching procedure, such as the Toxicity Characteristic Leaching Procedure, SW-846 Method 1311 or other method approved by the EPD...."

6 (page 12)

(3) The target risk of 10E-06 is inappropriate (see general comment number 5 to GIEC transmittal letter)

Detailed comments on Table 2 in Appendix III will be supplied during the public comment period. The allowable Type 1 concentrations may actually be HIGHER than the other standards using the RAGS equations for some of the listed inorganics. (arsenic and beryllium examples).

7 (page 12)

(7) Criteria for Type 2 Standards

As previously stated in response to setting the points of compliance for the Type 1 standards, GIEC strongly opposes the approach than the point of compliance for groundwater be set at "all points that have been affected by the release" and for soil "all points above the water table that have been affected by the release." GIEC will provide EPD with alternative language to this criteria that gives consideration to complete exposure pathways. Points of compliance must be established to be protective of human health and the environment taking into consideration site conditions and receptors.

However, GIEC commends EPD on recognizing the importance of setting soil cleanup goals that are protective of groundwater cleanup goals and suggests rewording the point of compliance for soils is as follows:

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(c)(1)" ..... at the point of exposure defined as **the point at which groundwater could reasonably be used as a drinking water source, considering aquifer and land use.**"

(c)(3) same comment as 6(c)(3) above on target risk.

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9 (page 13)

(8) Criteria for Type 3 Standards

(d)(1) The 1,000 ppm sum of volatilization (soil-to-air) standard is not based on good science. Henry's Law provides the theoretical equilibrium air-water interfacial concentration which in no way is meant to represent ambient air concentrations. Mechanisms such as diffusion, dispersion and advection have been ignored.

10 (page 14)

(9) Criteria for Type 4 Standards

Criteria for groundwater. Additional sentence after "Within the property.....:" **Alternatively, it must be demonstrated that Type 1 standards will not be exceeded at the property boundary through: fate and transport modeling, source control or source removal, or some combination thereof.**

For both the Type 3 and 4 standards, GIEC will provide comments on the point of compliance issue, as also noted for the Type 1 and 2 standards.

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(10) General Considerations of Type 5 Standards

(h) Ground Water - EPD's conceptual approach to Type 5 ground water considerations is not based on the principles of risk assessment. The requirement under section (h)(1) that, "cleanup levels shall be achieved throughout the plume of contaminated ground water..." should be deleted. Also "as long as vertical migration is eliminated" may be an impossibility -- especially in fractured bedrock.

Regarding section (h)(2), even if contaminated groundwater is hydraulically connected to a groundwater aquifer or surface water used for drinking water, the actual impact to potential receptors must be considered as part of the risk assessment process. This effort could be achieved through the data collection, fate and transport modeling or a combination of each.

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391-3-19-.08 Property Notices

(1) Notices to Private Property Instruments.

The notice as written is not appropriate for facilities that have met the Type 3 or 4 risk reduction standards.