CONTAMINATED SOILS FORUM
POLICY SUBCOMMITTEE
CLEANUP FOCUS GROUP

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Draft Report:

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A. POLICY CONSIDERATIONS FOR WASTE CLEANUP IN FLORIDA - PROTECTION OF THE PUBLIC HEALTH AND ENVIRONMENT THROUGH ADOPTION OF STANDARDS AND/OR TARGET LEVELS.

- The policy of the state of Florida, as stated with many words in various legislation, is "to protect human health and the environment." Authority for administration of that public policy is provided to the various executive branch agencies primarily the Florida Department of Environmental Protection. ("DEP" or "Department")

- The legislatively adopted public policy of protecting human health and the environment may be implemented by the DEP through adoption of "standards."

- A standard is a rule of the Department adopted to carry out public policy as adopted by the legislature.

- A "standard" is defined in Section 403.803(13), Florida Statutes as follows: "Standard" means any rule of the Department of Environmental Protection relating to air and water quality, noise, solid-waste management, and electric and magnetic fields associated with electrical transmission and distribution lines and substation facilities. The term "standard" does not include rules of the department which relate exclusively to the internal management of the department, the procedural processing of applications, the administration of rulemaking or adjudicatory proceedings, the publication of notices, the conduct of hearings, or other procedural matters.

- Numerical standards for groundwater and for surface water have been adopted to carry out policy. See, Chapters 62-520 and 62-302, Florida Administrative Code, respectively.

- Some participants in the Contaminated Soils Forum ("Forum") believe that there is a significant difference between a "standard" and a "target level." These commentors note that "target levels" are ***program specific standards*** adopted to carry out policy and thus far have been adopted in only two program areas – petroleum contamination cleanup and Brownfields site cleanup. (The Dry-cleaning solvent cleanup program will also have target levels pursuant to the draft proposed Chapter 62-782, F.A.C. establishing dry-cleaning solvent site cleanup criteria.)

- Sections 376.3071(5)(b) and 376.81, Florida Statues expressly provide for establishment of target levels for groundwater and surface water cleanup in the petroleum contamination cleanup program and the Brownfields program. Pursuant to those statutes "target levels" are the numerical standards for groundwater and surface water. If a numerical standard does not exist, the applicable statutes require the target level is to be based (among other things) on a

life time cancer risk level of one in a million (1×10^{-6}) or less for carcinogens or a health hazard index of 1.0 for non-carcinogens.

- Pursuant to express statutory direction, target levels for soil cleanup in the petroleum contamination cleanup program, the Brownfields program, and the Dry-Cleaning Solvent Cleanup program are (among other things) to be based on a lifetime cancer risk level of 1×10^{-6} or a health hazard index of 1.0 for non-carcinogens.[1]

- Nothing in the policy of the state of Florida, as adopted by the legislature, states that a life time cancer risk level of 1×10^{-6} must be used at all times in all programs in developing numerical standards.

- Conversely, nothing in the policy of the state of Florida, as adopted by the legislature, states that DEP is precluded from using a lifetime cancer risk of 1×10^{-6} in developing numerical standards to protect human health and the environment.

- No standard or rule currently adopted by the Department states that a lifetime cancer risk level of 1×10^{-6} must be used at all times to carry out policy.

- On the other hand, no standard or rule adopted by the Department prohibits use of a cancer risk level of 1×10^{-6} to carry out policy.

- While Soil Cleanup Target Levels exist for petroleum cleanup, Brownfields, and dry-cleaning solvent cleanup program areas, no other general numerical standards currently exist for soils.

- This paper outlines issues pertaining to the implementation of the general public policy to protect human health and the environment through adoption of "target levels" or "standards" for removal of contaminants from soil or soil-like materials. Issues discussed include: (1) use of Risk Based Corrective Action Principles; (2) Consensus for Adoption of a uniform Table of SCTLs applicable to certain cleanup programs specified by the legislature; (3) the appropriateness of adopting uniform SCTLs in other cleanup programs; (4) the appropriateness of using Risk Based Corrective Action principles in other cleanup programs; (5) the statutory authority for DEP to adopt SCTLs or "soil standards"; and (6) the appropriateness of extending uniform SCTLs to re-use of soils and soil-like materials. The paper concludes with recommendations for the immediate, short and long term.

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[1] There is disagreement among participants in the Forum as to whether there is sufficient statutory authority for the Department to adopt target levels for soils outside of the petroleum cleanup, Brownfields, and dry cleaning solvent areas. This issue is discussed in detail in Section "H" of this report.

B. RISK-BASED, CORRECTIVE ACTION IN FLORIDA AND THE INTRODUCTION OF THE CONCEPT OF SOIL CLEANUP TARGET LEVELS AS A MEANS OF IMPLEMENTING POLICY.

What is RBCA?

- The concept of risk-based corrective action (RBCA) (pronounced "Rebecca") has been the focal point of discussion and debate in various federal and state waste cleanup programs, including Florida's waste cleanup programs. RBCA is a decision-making process for assessment and response to chemical releases, based on the protection of human health and the environment. Chemical release sites vary greatly in terms of complexity, physical and chemical characteristics, and in the risk that they may pose to human health and the environment.

- The RBCA process recognizes such diversity by using a "tiered" approach that couples site assessment and response actions with human health and environmental risk assessment to determine the need for remedial action and to tailor corrective action activities to site-specific conditions and risks.

- The formal RBCA process first appeared in or around 1994 when the American Society of Testing and Materials (ASTM) issued its technical guidance entitled "Emergency Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites", ES38-94 (July, 1994).

- ASTM's RBCA technical guidance for petroleum release sites "Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites," E1739-95, (November, 1995) contemplates three tiers whereby the decision to move from one tier to the next is the result of a decision that the lower tier cleanup target levels or goals are inappropriate.

- Currently, ASTM is developing a standardized guide for use of RBCA principles at <u>any</u> site contaminated by a chemical release, in addition to those sites contaminated by petroleum releases. That standardized guide is expected to be completed in November 1998. The draft ASTM guide also uses a tiered approach.

- The evaluation and methods used under ASTM RBCA begin with simple analyses in Tier 1 and move to increasingly complex evaluations in Tiers 2 and 3. The process of gathering and evaluating data is conducted in a scaled fashion such that only site information which is necessary for that particular tier's decision-making is collected at each tier.

- At the first tier, ASTM guidance recommends the establishment of “look up tables” or “default concentrations”, which are published concentrations of contaminants which

have been determined to be protective of public health and the environment using highly conservative general assumptions about potential exposure to contaminants.

- The second tier uses site specific data to replace the non-site specific assumptions used in the Tier 1 evaluation. The third tier involves a much more in-depth, site specific risk assessment.

- For parties responsible for the assessment and remediation of chemical release sites, decisions must be made by comparing the cost of meeting the lower tier remediation goals with the expense of assessment and establishing site-specific remediation goals for the next higher tier in determining whether the next higher tier's site-specific cleanup goals will result in a more cost-effective cleanup.

- The U.S. Environmental Protection Agency (EPA) has incorporated RBCA principles in various of its cleanup programs, including those for underground storage tanks[2] and Resource Conservation and Recovery Act hazardous waste corrective action sites[3].

Use of RBCA in Florida.

- The RBCA cleanup process was initially introduced in Florida as part of the 1995 legislative debate that occurred concerning the Florida Department of Environmental Protection (FDEP)'s petroleum contamination cleanup program.

- Before the 1995 Florida legislative session, the former Florida Petroleum Efficiency Task Force included a recommendation in its report that Florida improve the cost-effectiveness of its petroleum contamination cleanup program by using RBCA principles for cleanup of petroleum contamination sites. This recommendation was the genesis of the heated debate that occurred during the 1995 and 1996 Florida legislative sessions regarding overhaul of FDEP's petroleum contamination cleanup program and the place of RBCA in that program.

- There were numerous public meetings and workshops prior to the 1995 and 1996 legislative sessions during which the subject of RBCA was debated. Participants in these meetings included legislative staff, DEP staff, county and local pollution control

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[2] Use of Risk-Based Decision-Making in UST Corrective Action Programs, OSWER Directive 9610-7 (March 1, 1995).

[3] Corrective Action for Solid Waste Management Units (SWMUs) at Hazardous Waste Management Facilities, EPA Proposed Rule, 55 Federal Register 307998 (July 27, 1990). EPA has incorporated some, but not all, RBCA principles in this cleanup program. For example natural attenuation with monitoring is an acceptable response to hazardous waste contamination so long as the contamination has not extended beyond the property boundary of a facility.

programs, industry representatives and associations, and environmental protection organizations.

- These public meetings and workshops included lengthy debate and information exchange, including detailed presentations on the ASTM RBCA guidelines for petroleum release sites. The ASTM guidelines were refined and modified by the stake holders in the public workshops to reach a consensus agreement on a RBCA process to be applied to petroleum contamination sites in Florida.

- That debate ultimately resulted in the passage of Florida's first clear statutory pronouncement of RBCA principles which were set forth in Chapter 96-277, Laws of Florida, and which can now be found at Section 376.3071(5)(b), Florida Statutes (F.S.).

Florida RBCA Applied - The Petroleum Cleanup Program.

- In the 1996 general legislative session, a substantial overhaul of the petroleum contamination cleanup program was adopted. As part of the revisions to Chapter 376, Florida Statutes, the legislature directed DEP to incorporate Risk Based Corrective Action ("RBCA") principles into its petroleum contamination cleanup rule to the maximum extent feasible. Section 376.3071(5)(b), Fla. Stat.

- As part of the Florida RBCA process, the 1996 legislature also directed DEP to develop appropriate soil cleanup target levels. (SCTLs) The legislature mandated that for the top two feet of soil the SCTLs be based upon consideration of calculations using a lifetime cancer risk level of 1×10^{-6}; a hazard index of 1 or less; the best achievable detection limits; or the naturally occurring background concentration. Section 376.3071(5)(b)9.b, Fla. Stat.

- The legislature required that leachability-based SCTLs be based upon protection of the groundwater. Section 376.3071(5)(b)9.b, Fla. Stat. The legislature required that source removal and other cost-effective alternatives that are technologically feasible shall be considered in achieving the leachability SCTLs. Section 376.3071(5)9(c), Fla. Stat.

- DEP implemented the statutory revisions to Chapter 376, Fla. Statutes through a major revision to the petroleum cleanup rule, Chapter 62-770, F.A.C. The revised rule established SCTLs based upon the cancer risk and hazard index mandated by the legislature. These numerical values were incorporated as Table IV to the petroleum cleanup rule. The SCTLs establish numerical cleanup target levels for an extensive laundry list of petroleum products' chemicals of concern.

- The SCTLs established in Table IV of Chapter 62-770, F.A.C. separately address both residential scenario cleanups and industrial scenario cleanups. The SCTLs

include both "direct exposure" levels (applicable in the top two feet of soils) and "leachability based" levels dependent on the classification of the potentially impacted ground or surface waters.

Florida RBCA Applied Again - The Brownfields Program.

- In 1997, the legislature adopted the Brownfields Redevelopment Act to encourage the voluntary cleanup of contaminated properties designated as Brownfields by local governments.

- As in the petroleum cleanup area, the legislature directed DEP to incorporate RBCA principles and to adopt SCTLs. The legislature again mandated that for the top two feet of soil the SCTLs be based upon consideration of calculations using a lifetime cancer risk level of 1×10^{-6}; a hazard index of 1 or less; the best achievable detection limits; or the naturally occurring background concentration. Section 376.81(1)(j)1, Fla. Stat.

- The legislature again required that leachability-based SCTLs be based upon protection of the groundwater. Section 376.81(1)(j)12, Fla. Stat. The legislature required that source removal and other cost-effective alternatives that are technologically feasible shall be considered in achieving the leachability SCTLs. Section 376.81(2), Fla. Stat.

- DEP implemented the Brownfields Redevelopment Act through adoption of Chapter 62-785, F.A.C. The Brownfields Cleanup rule established SCTLs based upon the cancer risk and hazard index mandated by the legislature. These numerical values were incorporated as Table II to the Brownfields cleanup rule.

- The SCTLs adopted and incorporated into the Brownfields Cleanup Rule were essentially the same as the numerical values previously adopted as part of the revised Petroleum Contamination Cleanup Rule. However, due to the time that had passed between adoption of Chapter 62-770, F.A.C. and the adoption Chapter 62-785, F.A.C. some of the numeric values changed as a result of changes in the underlying scientific assumptions regarding some chemicals of concern.

Florida RBCA Applied Once More - The Dry-Cleaning Solvent Contamination Program.

- In the 1998 general legislative session, the legislature adopted amendments to the state's dry-cleaning solvent cleanup program.

- As in the petroleum and Brownfields cleanup programs, the legislature directed DEP to adopt appropriate SCTLs. Once again, the legislature mandated that for

the top two feet of soil the SCTLs be based upon consideration of calculations using a lifetime cancer risk level of 1×10^{-6}; a hazard index of 1 or less; the best achievable detection limits; or the naturally occurring background concentration. Section 376.3078(4)(I)1, Fla. Stat.

- As in the petroleum cleanup and Brownfields programs, the legislature again required that leachability-based SCTLs be based upon protection of the groundwater. Section 376.3028(4)(I)2, Fla. Stat. The legislature required that source removal and other cost-effective alternatives that are technologically feasible shall be considered in achieving the leachability SCTLs. Section 376.3078(4)(I), Fla. Stat.

- DEP has initiated rule making to adopt a Dry-Cleaning Solvent Cleanup Criteria Rule (Proposed Chapter, 62-782, F.A.C.). The workshop draft of the rule proposes the same SCTLs previously adopted during the Brownfields rule adoption, although limited only to the dry-cleaning chemicals of concern.

What are RBCA's Advantages?

- The Florida RBCA process includes three basic and inseparable elements to address site cleanup. These are the establishment of a one in one million cancer risk factor for carcinogenic constituents and a hazard index of one for non-carcinogenic constituents in development of cleanup target levels for groundwater, surface water, and soil; an ability to move the point of compliance away from the "hot spot" or "source area" of contamination to the edge of the plume, to the property boundary, or in some instances further than the property boundary to allow natural attenuation processes to occur; and the use of institutional and engineering controls to eliminate or minimize human exposure to the contamination site.

- The RBCA process recognizes the obvious fact that not all waste cleanup sites are alike. Before the advent of RBCA principles in Florida, waste cleanup sites were required to achieve conservative cleanup target levels which assumed direct human exposure and potable use of groundwater, or even background and detection limits in some cases. While responsible parties were able to utilize risk assessment processes to justify deviations from the established conservative target levels before the advent of RBCA in Florida, the responsible party incurred significant costs in developing alternative site cleanup target levels. Additionally, there were not clear scientific principles or regulatory criteria enunciated that would provide the responsible party with an idea that any alternative site cleanup target levels proposed would be accepted by FDEP, even though responsible parties were provided with the opportunity to make such a demonstration. Advantages of RBCA processes include:

    - Use of different cleanup "tiers" with associated different cleanup target levels which correspond to site conditions.

- Added flexibility in cleanup by allowing responsible parties to achieve cleanup through compliance with applicable cleanup target levels or to control or reduce exposure by using institutional controls or engineered containment methods.

- Allowing a responsible party to utilize the most cost-effective cleanup strategy that is suitable for the site, while protective of human health and the environment, with or without specific institutional or engineering controls.

C. A PLEA FOR CONSISTENCY: THE APRIL 1998 MEETING OF THE ENVIRONMENTAL REGULATION COMMISSION.

- During the meeting of the Environmental Regulation Commission on April 30, 1998 regarding the Brownfields rule, commentors from the Department, regulated industry, and environmental groups all expressed a need to have uniform and consistent SCTLs that would apply in the program areas where the legislature had specifically directed that DEP develop SCTLs using the cancer risk calculation of 1 x 10^{-6} or health hazard index of 1 or less.

- Environmental groups also noted during that meeting the need to periodically update the SCTLs and to take into account additive and synergistic effects of contaminants as directed by the legislature.

D. DEP SHOULD IMMEDIATELY ADOPT A UNIFIED TABLE OF SOIL CLEANUP TARGET LEVELS.

- There is no serious dispute that DEP currently has the clear legislative authority to adopt SCTLs to apply to the Petroleum Cleanup, Brownfields Cleanup, and Dry-Cleaning Solvent Cleanup Programs (hereafter referred to as "the three designated program areas").

- The direct exposure default SCTLs in each of the three designated program areas were developed using the same legislatively mandated "standard", i.e. a lifetime cancer risk level of 1 x 10^{-6}; a health hazard index of 1 or less; or the best achievable detection limit. The leachability-based numbers were derived using the same assumptions for protection of the underlying groundwater (dependent upon the ground or surface water classification) from leaching impacts.

- The assumptions used in deriving the numerical SCTLs in the three designated program areas are likely to change with developing science. Therefore there is a need to periodically review and update, as necessary, the currently promulgated SCTLs.

- There currently exist differences between the SCTLs adopted for the petroleum cleanup program and the SCTLs adopted for the Brownfields program. These differences are due, in part, to the passage of time and emerging science, between the dates of the two rule adoption proceedings.

- Differences in established SCTLs for identical chemicals of concern in different program areas is likely to lead to confusion and uneven application of cleanup requirements.

- The Department, the regulated community, and the affected public would benefit from having a single uniform set of SCTLs that apply to the three designated program areas.

- A single uniform set of SCTLs could be periodically updated (e.g., every 3 years) to keep pace with emerging science and resulting changes in assumptions underlying the calculation of the default SCTLs.

E. CONSIDERATIONS SUPPORTING EXTENSION OF RBCA AND UNIFORM SCTLs TO OTHER PROGRAM AREAS.

- Once DEP has adopted a uniform set of SCTLs to apply to the three designated program areas, the policy question becomes whether it is advisable to apply RBCA principles and the same SCTLs to other program areas administered by DEP. If so, does DEP have the statutory authority to require that the SCTLs be achieved in other program areas?

- Other programs administered by DEP where SCTLs might be immediately considered include permits for Soil Treatment Facilities, general ground water contamination cleanup cases, RCRA closure cases, and CERCLA or Superfund Cleanup cases.

Soil Treatment Facilities.

- DEP currently regulates Soil Thermal Treatment Facilities pursuant to Chapter 62-775, F.A.C. As a result of recent litigation, DEP has committed to development of a rule that applies a uniform set of standards to all soil treatment facilities, regardless of the treatment technology employed. DEP has held several workshops aimed at developing a Soil Treatment Facility Rule.

- In the current workshop draft of the Soil Facility Treatment Rule, DEP has adopted the same set of SCTLs used in the Brownfields program as the levels which must be achieved by a treatment facility in order to be eligible for unrestricted use or disposal of the treated contaminated soils.

- It is logical, and will promote consistency in application of rules, for the proposed Soil Facility Treatment Rule to adopt and incorporate the uniform set of SCTLs as the "default" values which must be met by a facility that is issued a permit by DEP to treat contaminated soils removed from cleanup sites.

Ground Water Cleanup Cases.

- DEP, through its enforcement program, currently requires contamination assessment and cleanup at sites that do not fall within the three designated program areas. These sites typically involve industrial waste discharges or accidental releases which have resulted in actual or potential impact to soils, ground water, and/or surface water.

- Some commentors and interested parties maintain that DEP lacks statutory authority to require that specific SCTLs be met in a general ground water contamination cleanup cases, unless such soil is an existing source of continuing groundwater contamination. The statutory authority argument is further discussed in Section H below.

- Rule 62-522.700 F.A.C. governs DEP required corrective actions for ground water contamination cases. This promulgated rule provides a bare bones outline of required contamination assessment and cleanup requirements. It does not specifically address the need to assess or remediate contaminated soils.

- Under its Model Corrective Actions for Contamination Site Cases, DEP does require a more thorough and detailed contamination assessment and remedial action. The Model Corrective Actions require that areas of contaminated soils which may serve as a continuing source of leaching to ground water (or surface waters) be assessed and treated or removed. The introduction to the Model Corrective Actions states: *"Note: The Corrective Actions for Contamination Site Cases is to be used for sites where contamination of the groundwater, surface water, soils or sediments is known or documented by data or where the probability of finding such contamination is so high that implementation of the Preliminary Contamination Assessment Actions is an unnecessary action."*

- The Model Corrective Actions specifically address the establishment of risk based soil cleanup target levels for the cleanup.

- As a practical matter, DEP typically applies the same SCTLs in general ground water contamination cleanup cases as established for the three designated programs (petroleum, Brownfields, dry-cleaning). In other words, DEP has historically used the 1×10^{-6} cancer risk, or health hazard index of 1 or less, in determining SCTLs in connection with a ground water (or surface water) cleanup

case. Some participants in the Forum dispute DEP's authority to apply such SCTLs outside of the three designated program areas of petroleum cleanup, Brownfields, and Dry-Cleaning Solvent cleanup.

RCRA Cleanups.

- Cleanup of facilities or sites contaminated with hazardous wastes is governed by the RCRA closure permit process or by the RCRA corrective action program.

- Under RCRA, contaminated soils could be removed as part of a "risk based clean closure" process. The remediation levels to be achieved in a clean closure are determined by the state administering the RCRA program.

- In Florida the remediation levels to be achieved for approval of a clean closure proposal are the same numeric SCTLs that have been adopted for the three designated program areas.

- If a site is not "clean closed", then the RCRA permit process will establish the remediation levels to be achieved for contaminated soils, and the terms and conditions for contamination containment, leachate control and collection, and ground water monitoring.

- There is presently an inconsistency between DEP and EPA on SCTLs for RCRA sites. EPA, in the HSWA Corrective Action program allows a risk range of 1 x 10^{-4} through 1 x 10^{-6}. DEP, in administering the RCRA closure permit program, requires adherence to the 1 x 10^{-6} risk level.

CERCLA Cleanups.

- CERCLA or federal Superfund cleanups could also be potentially impacted if Florida adopts a unified set of "soil cleanup target levels."

- Currently, EPA establishes remediation goals for Superfund sites based upon the Remedial Investigation/Feasibility Study (RI/FS) process, that ultimately results in the promulgation of a Record of Decision ("ROD"). This process provides opportunity for public participation and comment during the selection of the remediation goals.

- CERCLA regulations require that EPA consider state regulations which establish standards for site cleanup. In CERCLA jargon, these state requirements are known as Applicable or Relevant and Appropriate Requirements. ("ARARs").

- In the absence of chemical-specific ARARs for soils, EPA will allow a site-specific remediation goal to be established using a range of risk from 1 x 10^{-4} to 1 x 10^{-6}. (The greater the risk of human exposure, the higher the remediation goal is likely to be established.)

- If DEP adopts a unified Table of SCTLs, these could be considered ARARs for purposes of establishing the cleanup target levels at CERCLA sites.

- Some participants in the Forum maintain that, form the standpoint of consistency, it would be sound policy to require that a Superfund site be held to the same SCTLs as a petroleum cleanup, Brownfields, or dry-cleaning site.

- Other participants in the Forum prefer EPA's more flexible approach which allows for a range of risk form 1 x 10^{-4} through 1x10^{-6} in determining SCTLs at Superfund sites.

F. ADDITIONAL CONSIDERATIONS REGARDING THE APPLICATION OF UNIFORM RBCA PRINCIPLES TO REMAINING FDEP WASTE CLEANUP PROGRAMS.

- Currently, there is some debate as to whether FDEP can apply RBCA principles provided for in the petroleum contamination cleanup, Brownfield site, and dry-cleaning solvent contamination cleanup programs to waste cleanup sites being cleaned up pursuant to FDEP's general authority under Chapters 376 and 403, F.S.

- There is no known technical or scientific rationale for excluding the use of RBCA principles at these other sites. The application and use of RBCA principles, however, to these "nonprogram" sites still raise the issues regarding the Florida RBCA specifically:

  - Whether the cancer risk level of 10^{-6} is still appropriate or a risk range of 10^{-4} to 10^{-6} can still be protective of human health and the environment and should be considered?

  - Whether ecological impact considerations should be included?

  - Whether a RBCA process that is more closely tuned to the ASTM RBCA process is appropriate?

  - A final issue that needs to be addressed when evaluating the RBCA process in Florida is whether Florida should adhere to a "probabilistic" approach or a "deterministic" approach in establishing site cleanup levels. This issue should

be addressed jointly by the FDEP Contaminated Soils Policy and Scientific Groups.

- Some form of RBCA usage in all waste cleanup sites is appropriate to effectively use limited financial resources in the cleanup of chemical release sites based on the risk of that site's contamination to human health and the environment. Only through use of RBCA and similar principles will progress be made in remediating cleanup sites so as to provide a better environment for future generations of Floridians.

G. ARGUMENTS AGAINST EXTENDING UNIFORM DEFAULT SCTLs TO OTHER DEP PROGRAMS.

- While there appears to be a general consensus that RBCA principles should be extended to programs other than petroleum cleanup, Brownfields, and dry-cleaning solvent cleanups, there is not agreement as to the specific details of establishing RBCA principles in other programs.

- Many commentors are strongly opposed to adoption of any generic, soil cleanup target levels that could be misconstrued as ambient "clean soil standards." These commentors note:

  - The Department should not attempt to develop numerical standards for soil.

  - Contaminated soil can exist entirely on private property and the policy of protecting human health would not be undermined by allowing contaminated soils to exist entirely on private property, provided it is not leaching to ground water.

  - The public interest in protecting air and waters of the state is not the same when it comes to soil. There are much stronger private property interests at stake when considering soil. Soil can be owned entirely by a private interest and have no influence on air or water of the state.

  - There is no statutory authority for the Department to assert jurisdiction over soil that is not influencing air or waters of the state.

  - When contaminated soil does influence air or waters of the state, a legitimate public interest is present and the Department has authority based on its jurisdiction over air and waters of the state to carry out the policy.

  - The Department should continue to develop target levels for contaminated soil, only in program areas identified by the legislature.

- The specific programs identified by the legislature have specific policy statements that justify consideration of contaminated soil.

- The specific programs identified by the legislature give the Department jurisdiction over soil contamination within that program area.

- The specific programs identified by the legislature include assurances other than numerical standards to carry out policy.

- When future program specific target levels for contaminated soils and other contaminated media are adopted, there is no policy requirement that they must be developed at a life time cancer risk level of 1×10^{-6}. Indeed, it may be appropriate (as EPA has seen fit) to allow development of SCTLs using a risk range of $1x\ 10^{-4}$ through $1\ x10^{-6}$.

- When future program-specific target levels for contaminated soils and other contaminated media are adopted, they should be consistent with other program specific target levels that rely on the same assurances.

- When different assurances are used, future program specific target levels for contaminated soils and other contaminated media can vary and still be consistent with policy.

- Development of a reasonable set of assurances that are cost-effective and implement policy, is the key to creation of target levels for contaminated soils and other contaminated media.

- Reasonable assurances may be very different from one program area to another.

- The RBCA process set forth in statute for the petroleum contamination cleanup, Brownfield site, and dry-cleaning solvent contamination cleanup programs gives authority to the FDEP to develop appropriate SCTLs which are protective of human health from the standpoint of direct human exposure and leachability to groundwater resources. FDEP has developed conservative default SCTLs for application at petroleum contamination sites, dry-cleaning solvent contamination sites, and Brownfield sites. What is unclear is FDEP's statutory authority to require the cleanup of contaminated soil absent possible impact to groundwater outside of the three above-referenced programs.

- This very issue was the subject of debate between industry and FDEP during recent negotiations concerning possible delegation to FDEP of the EPA RCRA corrective action program. Disagreement on this issue ultimately led to that proposed legislation being withdrawn by interested stakeholders and FDEP. Listed below are some additional important issues that will need to be addressed if RBCA principles are to be

applied at all waste cleanup sites in Florida. These additional issues relate specifically to FDEP authority to establish and apply SCTLs for all Florida waste cleanup sites. These include but are not limited to:

- What specific discharges, sites, properties, or situations would be subject to application of FDEP's uniform soil cleanup values?

- How would FDEP's new "soil" authority apply to spills, leaks, and/or discharges occurring prior to creation of the agency's expanded authority?

- De minimis thresholds. Many, if not most, industrial, commercial, and agricultural areas likely have de minimis concentrations of various chemicals from past and present activities which likely pose no threat to human health and the environment. How would this de minimis concept be recognized and implemented by the agency.

- What consideration will be given to background soil concentrations and how will such background levels be determined uniformly recognizing varying geology and soil types in the state?

- Should any attempt be made to determine the origin of background concentration of contaminants (natural vs. anthropogenic)? How should the origin of background contaminant concentrations be determined? What effect should naturally occurring vs. anthropogenic background contaminant concentrations have on the direct exposure based SCTLs?

- How will FDEP utilize its already limited staff resources in implementing a new authority over the cleanup of soil, where no surface water or groundwater pollution from such contaminated soil is occurring?

- In the development of leachability-based SCTLs for some constituents, FDEP groundwater guidance concentrations are utilized. Are such SCTLs defensible from a scientific and legal standpoint?

H. STATUTORY AUTHORITY AND THE TOMOKA DECISION.

- It is well-settled law that a state Agency may only promulgate rules based upon a delegation of authority from the legislature. Established legal precedents also provide that Agencies may not make new laws, but can only implement the laws enacted by the Legislature, based upon a specific delegation of authority to act.

- Over the years, a debate has raged over the level of specificity required in a statutory delegation of power to the Agency. Some court decisions held that a general grant of rule making power was sufficient, and a rule would be valid so

long as it was "rationally related" to the enabling legislation, and was not arbitrary or capricious.

- In the 1996 legislative session, amendments were made to the Administrative Procedure Act to specifically address the question of what level of specificity would be required for Agency rulemaking. Section 120.536, Florida Statutes was enacted and provides that:

> (1) A grant of rulemaking authority is necessary but not sufficient to allow an agency to adopt a rule; a specific law to be implemented is also required. An agency may adopt only rules that implement, interpret, or make specific the particular powers and duties granted by the enabling statute. No agency shall have authority to adopt a rule only because it is reasonably related to the purpose of the enabling legislation and is not arbitrary and capricious, nor shall an agency have the authority to implement statutory provisions setting forth general legislative intent or policy. Statutory language granting rulemaking authority or generally describing the powers and functions of an agency shall be construed to extend no further than the particular powers and duties conferred by the same statute.

- The meaning of this statutory change to the Administrative Procedures Act was tested in the recent case of St. Johns River Water Management District v. Consolidated-Tomoka Land Co. 23 FLW 1787 (Fla. First DCA, July 29, 1998)

- The Tomoka case involved Water Management District rules which designated certain hydrologic basins within which more stringent permit requirements would apply. Consolidated-Tomoka Land Company challenged the rules claiming that, while Water Management District had the general authority to issue permits, it did not have specific authority to carve out hydrologic basins where more stringent permit requirements would apply.

- The Court rejected Consolidated-Tomoko's argument that the Agency must have detailed and specific statutory authority to adopt rules under the APA revisions. The Court concluded that***: "the proper test to determine whether a rule is a valid exercise of delegated authority is a functional test based on the nature of the power and duty at issue and not the level of detail in the language of the enabling statute. The question is whether the rule falls within the range of powers the Legislature has granted to the agency for the purpose of enforcing or implementing the statutes within its jurisdiction. A rule is a valid exercise of delegated statutory authority if it regulates a matter directly within the class of powers and duties identified in the statute to be implemented."***

- There is no question that DEP has the specific and detailed legislative authority to adopt SCTLs applicable in the three designated program areas (Petroleum

Cleanup, Brownfields Cleanup, Dry-Cleaning Solvent Cleanup). Similar specific and detailed statutory authority to adopt SCTLs to other waste programs does not exist.

- Some commentors have suggested that DEP lacks the statutory authority to adopts SCTLs in any program area outside of the three designated programs.

- These commentors believe that the Tomoka decision does not adversely affect this position. Using the Tomoka "functional test", it is still necessary that establishment of SCTLs applicable to programs other than the three designated programs fall within the "class of powers and duties identified in the statute to be implemented." Upon examination of Chapters 403 and 376, Florida Statutes, other than in the three designated program areas, the specific power or duty to establish soil criteria for the protection of human health is not found. Indeed, had the Legislature desired to grant such authority to FDEP in other of the agency's waste cleanup programs, it would specifically have done so. See, also, Dept. of Bus. And Prof'l. Reg. v. Calder Race Course, Inc. et al., 23 Fla. L. Weekly D 1795, (Court adopts reasoning of Tomoka but holds that agency statutes cited as authority for rule granting agency employees ability to conduct warrantless searches failed to convey requisite power for agency to promulgate rules authorizing such activities).

- The commentors claiming a lack of DEP statutory authority to extend SCTLs to other programs also point to other precedent from the Florida Second (2nd) District Court of Appeal (DCA) that seemingly conflicts with the Tomoka decision. In St. Petersburg Kennel Club v. Dept. of Business and Prof'l Reg., Div. Of Pari-Mutual Wagering , 23 Fla. L. Weekly D2046, the 2nd DCA seemingly ignored the Tomoka decision and held that the Division of Pari-Mutual Wagering (Division) improperly created a definition of "poker" that constituted an invalid exercise of delegated legislative authority. In construing Section 120.536, F.S., the 2nd DCA read literally that statute holding that the Division could not make a rule based solely on its general rulemaking authority, but must identify the specific law to be implemented. The Division pointed to two statutes purportedly providing it with authority to adopt rules regulating card-room operations, including but not limited to: issuance of card room and employee licenses for card-room operations; operation of a card room; record-keeping and reporting requirements; and collection of fees and taxes. The 2nd DCA opined that these laws did not provide the specific rulemaking authority for the Division's rule defining the game of "poker".

- Finally, these commentors also question the longevity of the Tomoka decision as precedent since it is being appealed to the Florida Supreme Court. Jurisdictional briefs have been filed by the parties in that matter, but the Florida Supreme Court has not yet made its decision as to whether it will accept jurisdiction over the case.

In addition, it is highly probable that the Florida Legislature may further clarify Section 120.536, F.S. in response to the Tomoka decision.

- Other commentors believe DEP has sufficient authority to establish SCTLs for contamination cleanup sites, other than the three designated programs Under the Tomoka standard, the power to establish SCTLs, protective of public health and the environment, fall within the "range of powers that the Legislature has granted to the Agency." Establishment of SCTLs to apply to contamination sites is "directly within the class of powers and duties the legislature has granted" to DEP. According to these commentors, DEP has the sufficient statutory authority, under the Tomoka standard, to promulgate a uniform set of SCTLs that should apply to all contamination cleanup sites.

- The commentors claiming DEP has sufficient statutory authority note that DEP has the power to establish rules, including but not limited to…removal or disposal standards to implement the intent of Sections 376.30-376.319, Florida Statutes (pertaining in general to protection of the public and environment from the results of spills, discharges, and escapes of pollutants and hazardous substances). See Section 376.303, Florida Statutes.

- These commentors also note that DEP has the power and duty to adopt, modify, and repeal regulations to carry out the intents and purposes of Chapter 403, Florida Statutes (pertaining to protection of air and water resources). See Section 403.061, Florida Statutes. Under this general authority, DEP currently requires cleanup of "non-program" sites using the 1×10^{-6} risk level as the benchmark for establishing SCTLs.

- These commentors also note that DEP has the express power and duty to adopt, repeal or amend rules pertaining to disposal of solid and hazardous wastes in the state. See Section 403.704, Florida Statutes.

- In the event the Contaminated Soils Forum determines that additional statutory authority is necessary for DEP to apply the uniform SCTLs to program areas other than the three designated program areas, then additional authority could be sought to specifically authorize DEP to establish SCTLs for "non-program" sites, using the same underlying risk-based calculations that were used for the development of SCTLs at Brownfields, Petroleum Cleanup, and Dry-Cleaning Solvent sites.

I. EXPANDING THE BOUNDARIES FURTHER: AIMING TOWARDS UNIVERSAL SCTLs APPLICABLE TO DISPOSAL, USE OR RE-USE OF ALL SOIL AND SOIL LIKE MATERIALS.

- As a practical matter DEP has already applied, or has proposed to apply, RBCA concepts and the same uniform SCTLs in the program areas discussed above (Soil

Treatment Facilities, Model Corrective Actions for Contamination Sites, RCRA cleanup, and CERCLA cleanup.). The DEP's current non-rule policies and practices in these areas should probably be formally adopted in Department rules. The promulgation of the uniform SCTLs as a separate rule chapter will facilitate the adoption of these SCTLs on a program specific basis.

- Some commentors have proposed that the uniform SCTLs should also serve as the basis for defining acceptable risk levels for decisions regarding the disposal, use or re-use of other soil and soil like materials that are regulated by the Department. Such materials include (but are not limited to):

  - Combustor and incinerator ash.
  - Recovered Screen Materials (RSM) from Construction & Demolition Debris Facilities.
  - Compost.
  - Dredged spoils and sediment.
  - Domestic Wastewater Residuals (sludge).
  - Other industrial by-products and sludges.

- Some may question the DEP's statutory authority to adopt these risk based SCTL values as "standards" to apply to use and re-use decisions.

- Others may argue that adoption of such stringent levels will act as an impediment to the beneficial use or re-use of such materials.

- On the other hand, from the standpoint of regulatory consistency, it would be reasonable to apply the same risk based numeric standards to decisions regarding appropriate and acceptable risks to the public from the disposal, use or re-use of soil-like materials.

J. CONCLUSION.

- DEP should move forward with promulgation of the risk based SCTLs currently incorporated in Chapters 62-770 and 62-785 into a separate rule chapter that will be uniform and can be periodically updated to keep pace with emerging science. This separate rule chapter would not establish ambient soil standards and would initially apply only to the petroleum cleanup, Brownfields site cleanup, dry-cleaning solvent site cleanup programs.

- DEP should adopt and incorporate by reference the uniform SCTLs for the three designated program areas: Petroleum Cleanup, Brownfields, and Dry-Cleaning Solvent Cleanup and as the default values for Soil Treatment Facilities.

- DEP should adopt RBCA principles to govern cleanup in other program areas. The uniform SCTLs should only be adopted in other program areas if the fundamental RBCA principles are also included as an integral part of the program.

- As a long term goal DEP should continue the dialogue with interest parties to determine whether any agreement can be reached on application of uniform SCTLs in other program areas including general Contamination Site Cleanups, RCRA closure, and CERCLA cleanups under state oversight.

- In the longer term, DEP should continue to evaluate whether the uniform SCTLs can serve as the basis for establishing risk based standards applicable to disposal, use or re-use of soils and soil like materials.

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