BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	R06-10
PROPOSED AMENDMENTS TO	)	(Rulemaking-Land)
TIERED APPROACH TO CORRECTIVE	)	
ACTION OBJECTIVES	)	
(35 Ill. Adm. Code 742)	)	
	)	

NOTICE

Dorothy Gunn, Clerk
Illinois Pollution Control Board
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PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board the Agency's **SUPPLEMENTAL TESTIMONY OF GREGORY DUNN, THOMAS HORNSHAW, AND LAWRENCE EASTEP** and the Agency's **MOTION TO CORRECT THE TRANSCRIPT**, a copy of each of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: _____
Kimberly A. Geving
Assistant Counsel
Division of Legal Counsel

DATE: February 17, 2006

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THIS FILING SUBMITTED ON RECYCLED PAPER

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
TIERED APPROACH TO CORRECTIVE	)	R06-10
ACTION OBJECTIVES: AMENDMENTS	)	(Rulemaking-Land)
TO 35 Ill. Adm. Code 742	)	
	)	

MOTION TO CORRECT THE TRANSCRIPT

NOW COMES the Illinois Environmental Protection Agency ("Agency") by one of its attorneys, Kimberly A. Geving, and pursuant to 35 Ill. Adm. Code 101.604 moves the hearing officer in this matter to correct the transcript of January 31, 2006 as follows:

Page	Line	Correction
3	22	Change "post" to "posed"
11	15	Change "modeled" to "model"
24	2	Change "states" to "sites"
27	8	Change "9061(a)" to "9060(a)"
27	22	Change "organ" to "organic"
28	4	Change "organ" to "organic"
28	5	Change "organ" to "organic"
28	11	Change "organ" to "organic"
28	13	Change "9060" to "9060(a)"
28	23	Delete the word "no"
44	11	Change "risk base" to "risk-based"
47	24	Change "three" to "there"
50	23	Insert "or" between "ingestion" and "inhalation"
55	3	Change "abbreviation" to "remediation"
55	12	Change "of" to "to"
56	14-15	Add a comma after "where" in line 14 and a comma after "compound" in line 15, delete the period in 15, and make the "the" lower case
64	19	Change "pHs" to "PAHs"
77	2	Change "vain" to "vein"
90	17	Change "appendix D" to "appendix B"

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: _____
Kimberly A. Geving
Assistant Counsel
Division of Legal Counsel

Dated: February 17, 2006

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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	)	
PROPOSED AMENDMENTS TO	)	
TIERED APPROACH TO CORRECTIVE	)	R06-10
ACTION OBJECTIVES	)	(Rulemaking - Land)
(35 Ill. Adm. Code 742)	)	
	)	

PRE-FILED SUPPLEMENTAL TESTIMONY OF GREGORY W. DUNN

The Illinois Environmental Protection Agency (Agency) would like to provide a response to questions raised during the January 31, 2006 Proposed Amendments to Tiered Approach to Corrective Action Objectives (TACO) hearing concerning acceptable detection limits (ADLs). One of the issues identified by the Illinois Association of Environmental Laboratories (IAEL) consists of remediation objectives identified in TACO that cannot be met with USEPA SW-846 test methods, routinely used by environmental laboratories. Although a different SW-846 method could be used at a higher cost to a laboratory client, the IAEL stated an ADL should be added for those compounds where the routinely used SW-846 method cannot reach the soil and/or remediation objective.

The Agency is aware there are compounds for which the routinely used methods cannot meet their respective remediation objectives established in TACO but believes mechanisms already exist in TACO to evaluate these compounds. At this time, the Agency does not anticipate providing any additional ADLs for compounds in TACO. The following provides an explanation of why the Agency will not propose additional ADLs.

The Tier 1 remediation objectives established in Appendix B, Table A for residential properties and Appendix B, Table B for industrial/commercial properties are numerical concentrations representing a level of contamination at or below which there are no human health concerns for the designated land use. As stated in the Illinois Pollution Control Board's (Board) Opinion and Order of the Board dated April 17, 1997, the Tier 1 remediation objectives for individual chemical contaminants do not exceed an excess cancer risk of 1 in 1,000,000 (or 1×10^{-6}) for carcinogens, or a hazard quotient of 1 for non-carcinogens. The Agency contends the current remediation objectives identified in TACO represent a concentration at which there are no human health concerns. The Agency also contends that if a laboratory detection limit exceeds a risk-based remediation objective for a certain chemical identified in TACO, there are numerous ways a person can achieve compliance:

1. A Tier 2 evaluation can be completed on the contaminant of concern to achieve a higher remediation objective for that compound. Equations in Appendix C, Table A and Appendix C, Table C allow the use of site-specific information to determine a site-specific remediation objective for the route (ingestion, inhalation, soil migration to groundwater or groundwater ingestion) of concern.
2. A Tier 3 option is also available, allowing a person to provide information to the Agency documenting the exposure route of concern is not complete, the remediation of this compound above the established remediation objective is impractical, or any other situation allowed pursuant to Section 742.900.
3. The exposure route of concern can be excluded pursuant to the requirements of Sections 742.310, 742.315, or 742.320. The use of institutional controls (Environmental Land Use Controls, Highway Authority Agreements,

Groundwater Ordinances, etc.) or engineered barriers can be used to exclude the route of concern.

4. An argument could be made to the Agency stating the chemical with the detection limit exceeding the established remediation objective in TACO is not a contaminant of concern at the site. The argument must include reasons why the chemical would not be a contaminant of concern.
5. The Remediation Applicant, owner/operator, or anyone else using TACO could petition the Illinois Pollution Control Board to request the use of an adjusted standard pursuant to Section 28.1 of the Environmental Protection Act.

In summary, the Agency understands there are compounds for which routinely used methods cannot meet their respective remediation objective established in TACO, and the Agency does not anticipate adding additional ADLs to the Tier 1 tables in TACO.

This concludes my testimony.

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
PROPOSED AMENDMENTS TO	)	
TIERED APPROACH TO CORRECTIVE	)	R06-10
ACTION OBJECTIVES	)	(Rulemaking - Land)
(35 Ill. Adm. Code 742)	)	
	)	

PRE-FILED SUPPLEMENTAL TESTIMONY OF THOMAS C. HORNSHAW, Ph.D.

This supplemental testimony is in response to two issues concerning chemical analysis that arose during the first hearing in the above-captioned matter. The first issue concerns the proposal in my testimony to list as an incorporation by reference a website citation for the USEPA's SW-846 analytical methods (which is updated periodically) instead of a date-certain document, as required by the Illinois Administrative Procedures Act (5 ILCS 100). Upon further consideration, it is now the Agency's belief that such incorporation by reference is not appropriate; therefore, I ask that this proposal be withdrawn from the record in this proceeding.

The second issue pertains to the appropriateness of footnote "f" in Appendix B, Tables A and B. In response to the Board's questions about whether this footnote, which reads "Level is at or below Contract Laboratory Program required quantitation limit for Regular Analytical Services (RAS)," is appropriate in regard to the Acceptable Detection Limits (ADLs) defined in TACO, I researched some details of the Contract Laboratory Program (CLP). In this research, I reviewed the USEPA publication "User's Guide to the Contract Laboratory Program" (Office of Emergency and Remedial Response, Washington, DC. NTIS PB91-921278CDH, January 1991),

and discussed the CLP with Gary Germann and Celeste Crowley of the Agency's Division of Laboratories.

The CLP was developed to provide USEPA's Superfund Program with consistent physical and chemical analytical data of known quality, and with a fast turnaround time. It contains two levels of analytical services, RAS and Special Analytical Services (SAS). RAS consists of a standardized list of analytical procedures addressing a selected group of analytes, the Target Compound List (TCL), and also specifies quality control criteria and detection limits that must be achieved by participating laboratories. The RAS methods are used for water, soil, and sediment samples. SAS addresses procedures and circumstances that fall outside the scope of RAS (e.g., faster turnaround or lower detection limits for TCL chemicals than specified for RAS, analysis for non-TCL chemicals, or matrices other than water, soil, and sediment). It should be noted that the detection limits specified for RAS methods do not in all cases correspond to detection limits specified in SW-846 methods addressing the same chemical. For example, the RAS detection limits in soil for several polycyclic aromatic hydrocarbons (PAHs are set at 330 ug/kg, whereas the corresponding PAH detection limits from Method 8270 are 660 ug/kg.

The PAH example was chosen purposefully, since it helps illustrate the Agency's longstanding desire to ensure cleanup levels that are at or as close as possible to the risk-based values. In the case of the carcinogenic PAHs benzo(a)pyrene and dibenzo(a,h)anthracene, even the lower RAS soil detection limit still exceeds the residential risk-based soil objective of 90 ug/kg. As I stated at the first hearing in response to questioning about ADLs, when the risk-based objectives for PAH cleanups became effective, the Agency required that SW-846 Method 8310 be used for PAH cleanups since the detection limits for this Method for the carcinogenic

PAHs were lower than the risk-based cleanup levels. The Agency decided to force the use of this Method, even though it was not widely available at commercial laboratories at that time, in order to drive cleanups as close to risk-based values as possible.

Regarding the appropriateness of footnote "f," in light of the above discussion the Agency now believes that this footnote is not appropriate to the TACO soil objective tables. This footnote was included in the initial version of TACO because it was one of the footnotes included in the table of generic USEPA Soil Screening Guidance soil objectives; the Agency included the footnote because it was our intention to make the TACO rule as similar to the USEPA Soil Screening Guidance as possible. Since the RAS detection limits are not in some cases consistent with the Agency's goal of trying to make cleanup objectives as close to the risk-based concentrations as possible, we are now proposing to delete all references to footnote "f" in the TACO soil objective tables. The proposed specific changes are included in Errata Sheet Number 3.

This concludes my supplemental testimony on analytical issues.

THIS FILING IS SUBMITTED ON RECYCLED PAPER

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	
TIERED APPROACH TO CORRECTIVE ACTION OBJECTIVES: AMENDMENTS TO 35 Ill. Adm. Code 742	)	R06-10 (Rulemaking-Land)
	)	
	)	

PRE-FILED SUPPLEMENTAL TESTIMONY OF LAWRENCE W. EASTEP, P.E.

During the January 31, 2006 hearing, several questions were raised by the Board that require further discussion. Those questions were in regards to the applicability of TACO, why the polynuclear aromatic hydrocarbon (PNA) background values were included as footnotes in Appendix B, Tables A and B and linked to a new table, and whether new appendices D, E, F, and H should be models or mandatory forms. I will address each of those questions in the order in which they appear in the rules.

First of all, there were a number of question at hearing as to whether the changes in the first and second lines of Section 742.105(a) expanded the scope of TACO. The purpose of these changes was not to expand the scope of TACO; rather, it was to make explicit those considerations that were already implicit from the structure of TACO.

The scope of TACO does go beyond the specific programs listed in Section 742.105(b). In the original hearings on December 2, 1996, there was testimony relative to whether sites other than those entered in the listed programs could utilize TACO. Mr. King discussed how sites under enforcement (see December 2, 1996 transcript p. 76, lines 17-24 and p. 81) and how sites responding to some emergency release (Id. at 80) could use the TACO rules. However, because the proposed new language in the first and

second lines of Section 742.105(a) raised some confusion rather than clarifying the intent, we now propose to delete the new language in the first two lines.

Landfills were also discussed in 1996, and Mr. King stated that while it might not be practical for landfills to try to use TACO, if they had complied with their other regulatory obligations and were not prohibited by Section 58.1(a)(2) of the Act, they may be able to use TACO. Therefore, the intent behind the second change to Section 742.105(a) was to make it explicit that landfills could not use TACO in lieu of requirements under 35 Ill. Adm. Code 807 or Parts 811-814.

Also at the January 31, 2006 hearing, questions were raised as to why the polynuclear aromatic hydrocarbon (PNA) background values were included as footnotes in the Tier 1 and Tier 2 tables and linked to a new table. The Board asked whether the PNA background numbers could have been incorporated as part of Sections 742.405 and 742.415 – Determining Area Background. Questions were also raised as to the risk posed by the PNAs and whether the PNAs posed an acute threat.

The purpose of incorporating the new PNA numbers as footnotes directing the reader to a new table was to avoid the "area background" connotation. In the original legislation, the concept of "area background" was needed to ensure persons remediating sites were not required to clean up to levels lower than "background" while at the same time protecting the public from increased levels of risk. This made sense when referring to regulated substances in the vicinity of a site or an area local to the site. For example, the steelmaking industry was prevalent around Granite City, southeast Chicago, and a few other areas around the State. In the general area of these steel mills, slag was frequently used for construction purposes, and regulated substances may have been

dispersed as a result of air emissions. Thus, many sites in the area of these mills would be expected to be contaminated by releases from the mills. Section 58.5 of the Act states that these sites do not have to clean up beyond what is considered "area background." However, the Act goes on to state that these sites can't be converted to residential use unless the contamination meets risk-based residential standards. Thus, even though a site might not have to be cleaned up to below background, it still can't cause the residents to be subjected to excess risk.

In the original hearings on this matter in 1996, there was a lot of testimony on this particular issue. This testimony revolved around the "area" concept and when and under what conditions it might apply. Even though there was a subset of the area background provisions dealing with "statewide approach," it was not really the same since, except for arsenic (for which there was a subsequent rule amendment), there were no regulated substances that existed at background levels greater that TACO Tier 1. Thus, if a site met background, it did not have to worry about Tier 1 since all of the background levels except for arsenic were below Tier 1. Likewise, if it met Tier 1, background had no significance. In the case of arsenic there was documentation that background levels were greater than the 10^{-6} level statewide, and this meant that basically no site could meet the arsenic standard. Arsenic was found to be present everywhere above the Tier 1 residential objectives. It was in residential areas, natural areas, and many other uncontaminated areas. The Agency determined that even though arsenic was above Tier 1 objectives, it poses no additional (incremental) excess risk over what the public is exposed to every day. The Agency dealt with arsenic by removing the Tier 1 objective and replacing it with a footnote that directed the reader to the background table. The footnote did not

reference Section 742.405(b), nor was Table G limited to use with Section 742.405(b). Thus, arsenic was not characterized as "area background" since it was a statewide phenomenon and did not fit the statutory concept of area background.

The Agency has proposed much the same with the PNAs. They are not appropriate for "area background" since they are not being determined as part of some local area around a site. PNAs have a statewide presence that residents are exposed to everyday. The studies used for this rulemaking did not investigate all of the State, only those locations in "populated" areas; however, the locations sampled did occasionally extend out to relatively rural areas.

The area background provisions also contain a prohibition from converting the site to residential use. The Act and existing rules were written on the premise that there is some sort of industrial nature to existing sites in these circumstances. However, the background studies used only sites not impacted by industrial releases of PNAs. Therefore, there should be no assumption that these sites are contaminated. Many sites undergoing remediation in the SRP are not necessarily industrial in nature to begin with (e.g., commercial sites with historically contaminated fill, spill clean ups, etc.). Thus, the "area background" concept does not apply, and these sites are not automatically subject to Subpart D. As an aside, however, if a remedial applicant so chooses, Subpart D could be used to determine a true "area background" for a site.

It was suggested at the first hearing in this matter that another way of dealing with high levels of PNAs would have been to make a site-specific determination that the PNAs were not a constituent of concern. This might be an option at some sites, but it may not

be practical for many sites since there is not enough information to make a site-specific determination to exclude PNAs, or there may be historical amounts present at the site.

The proposed amendments should have no impact in terms of excess risk to residential users of remediated sites. Since the studies have shown PNAs to be ubiquitous in Illinois, the use of a statewide background does not fit the concept of "area background" provided in the Act and current rules. "Area background" was intended to address specific areas contaminated by local activities of industry. The residential conversion prohibition is not relevant in these cases because there is no increase in risk to people. Adopting the proposed amendments will encourage additional cleanup efforts because the PNA issue has been an impediment to some cleanups. In some cases, the cost to clean up PNAs that are not necessarily a constituent of concern can be excessively high. The amendments would eliminate such hindrances.

The third area that requires further discussion revolves around the Agency's inclusion of new appendices D, E, F, and H. The Board questioned whether those new forms should be used as models or whether their form and substance should be mandatory, as proposed by the Agency. There was some discussion regarding who would fill out the forms and whether it would be considered the practice of law to fill out the forms.

The Agency contends that filling out the forms exactly as they are proposed in the rules does not constitute the practice of law. The forms were prepared by Agency attorneys to meet the four corners of the law, and simply having members of the regulated community fill in the blanks with site specific information does not require any legal expertise, nor does the Agency believe it constitutes the practice of law. Forms are

widely used in every aspect of government and filled out by members of the public without being classified as "the practice of law." The Agency sees no difference with requiring these forms.

This concludes my supplemental testimony.

THIS FILING IS SUBMITTED ON RECYCLED PAPER

STATE OF ILLINOIS)
)
COUNTY OF SANGAMON)

PROOF OF SERVICE

I, the undersigned, on oath state that I have served the attached **SUPPLEMENTAL TESTIMONY OF GREGORY DUNN, THOMAS HORNSHAW, AND LAWRENCE EASTEP** and the Agency's **MOTION TO CORRECT THE TRANSCRIPT** upon the persons to whom they are directed, by placing a copy of each in an envelope addressed to:

Dorothy Gunn, Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 W. Randolph, Suite 11-500
Chicago, Illinois 60601
(Via First Class Mail)

Bill Richardson, General Counsel
Illinois Dept. of Natural Resources
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Matt Dunn
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Richard McGill
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and mailing them from Springfield, Illinois on February 17, 2006, with sufficient postage affixed as indicated above.

Kimberly A Geving

SUBSCRIBED AND SWORN TO BEFORE ME
This 17th day of February, 2006.

Brenda Boehner
Notary Public

OFFICIAL SEAL
BRENDA BOEHNER
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 11-3-2009

THIS FILING SUBMITTED ON RECYCLED PAPER

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