BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

| IN THE MATTER OF: |) | |
|--------------------------------|---|---------------------|
| |) | |
| PROPOSED AMENDMENTS TO CLEAN |) | R-12-009 |
| CONSTRUCTION OR DEMOLITION |) | (Rulemaking - Land) |
| DEBRIS (CCDD) FILL OPERATIONS: |) | |
| PROPOSED AMENDMENTS TO 35 ILL. |) | |
| Adm, Code I 100 |) | |

NOTICE OF FILING

TO: SEE ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that I have filed today with the Illinois Pollution Control Board, the **Responses to Post-Hearing Comments by the Public Building Commission of Chicago**, copies of which is herewith served upon you.

Dated: April 27, 2012 Respectfully submitted,

PUBLIC BUILDING COMMISSION

OF CHICAGO

Claire A. Manning

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PROOF OF SERVICE

I, Claire A. Manning, certify that I have served the attached <u>Responses to Post-Hearing</u> <u>Comments of the Public Building Commission of Chicago</u>, by U.S. Mail, first class postage prepaid, on April 27, 2012 to the following:

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| PROPOSED AMENDMENTS TO 35 II | L.) | |
| Adm. Code 1100 |) | |

RESPONSES TO POST-HEARING COMMENTS BY THE PUBLIC BUILDING COMMISSION OF CHICAGO

NOW COMES the PUBLIC BUILDING COMMISSION OF CHICAGO ("PBC"), by and through its counsel Brown, Hay & Stephens, LLP, and presents the following Responses to Post-Hearing Comments for consideration by the Illinois Pollution Control Board ("Board").

I. <u>ATTORNEY GENERAL'S CONTENTION REGARDING APPLICABILITY OF</u> FEDERAL LAW IS MISPLACED.

The Office of the Attorney General ("OAG") argued in its Post-Hearing Comments that clean construction and demolition debris ("CCDD") is a waste – and that there is no explicit federal determination that "allows CCDD to be considered anything other than waste." However, Section 3.160(b) of the Act excludes CCDD from being a waste when used in a manner that is the subject of this proceeding. Here, the concern of the PBC in this proceeding is to define reasonable parameters for the use of soil and clean construction debris (bricks, concrete, etc.) as fill in a permitted CCDD fill operation. This is not a new or unique concept. A simple internet search would establish that many states and government agencies and entities have developed programs and regulations for the use of such soil and construction materials as fill – without butting up against the federal Resource Conservation and Recovery Act ("RCRA") (42 U.S.C. 6901 et. seq.) definition of waste.

With respect, the limitation contained in Section 3.160(b) of the Act ("(t)) the extent allowed by federal law") is not framed the way the OAG contends. The question is not whether federal law *requires* that CCDD is waste, but whether the use as fill as urged by the majority of participants in this proceeding (with the notable exception of Waste Management) is contrary to federal law. It is not.

The Illinois definition of "waste" at Section 3.53 of the Act is:

"Waste" means any garbage, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility or other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows, or coal combustion byproducts as defined in Section 3.135, or industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as now or hereafter amended, or source, special nuclear, or byproduct materials as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 921) or any solid or dissolved material from any facility subject to the Federal Surface Mining Control and Reclamation Act of 1977 (P.L. 95-87) or the rules and regulations thereunder or any law or rule or regulation adopted by the State of Illinois pursuant thereto.

The Illinois definition tracks, very closely, the definition of "solid waste" in the federal RCRA at 42 U.S.C. § 6903(27):

The term "solid waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 1342 of title 33, or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923) [42 U.S.C. 2011 et seq.].

The CCDD definition begins:

"Clean construction or demolition debris" means uncontaminated broken concrete without protruding metal bars, bricks, rock, stone, reclaimed or other asphalt pavement, or soil generated from construction or demolition activities.

These definitions establish that CCDD is not in the lengthy list of specific items regulated in the federal definition (nor is CCDD a hazardous waste). Nor is CCDD "other discarded material" referred to in both the Illinois and federal definitions if, as the Illinois legislature stated, it is "used as fill material in a current or former quarry, mine, or other excavation ... in accordance with the requirements of Section 22.51 of this Act and the rules adopted thereunder." Moreover, the legislature's use of the term "uncontaminated" (*i.e.*, clean) does not adversely implicate any federal program.

Thus, the OAG's citations to case law (where material was *not* used in a manner provided for in the CCDD laws and regulations) are *not relevant* to this proceeding and should not drive it. Thus, the Board's initial conclusions on this point in its February 2, 2012 Opinion and Order in this matter (at page 57) are correct: CCDD is not waste.

II. AGENCY INSISTENCE UPON MOST STRINGENT ASSUMPTIONS FOR MACS IS WITHOUT ADEQUATE SCIENTIFIC BASIS AND IS NOT APPROPRIATE RELATIVE TO RISK.

PBC contends that the IEPA is being unnecessarily rigid in its stance on MACs. That position assumes worst-case conditions on a statewide basis. Such conditions may not be present for solubility into the groundwater (*i.e.*, using low soil pH assumptions), risk to the groundwater (*i.e.*, assuming Class I Groundwater), or an exposure pathway (*i.e.*, ingestion-inhalation for PAHs). The unreasonableness and intransigence of the IEPA position related to MACs is evident in its follow-up discussion related to the testimony given by Honorable Christopher Getty, Mayor of the Village of Lyons.

In the Lyons example, only the "cleanest of the clean" (60%) of the excavated soil from the park adjacent to a quarry was allowed to be used as fill in the quarry itself, while the other 40% was considered "a contaminated medium" and "waste" because it exceeded TACO Tier I residential standards. Nonetheless, despite such perceived status (as waste) the IEPA allowed the material to be placed in a berm exterior to the quarry. The IEPA's decision was based upon its view of the applicable law and regulations: "The project was handled in accordance with applicable law and not in an arbitrary manner." IEPA First Notice Comments, April 18, 2012, p. 42.

Apparently, the IEPA's view of the law then (and its proposed regulations now), does not focus on groundwater risk related to the placement of soil in quarries, but is rather based upon a very rigid application of the strictest TACO parameters – requiring the application of parameters which are not relevant to the placement. In this case, the soil that was required to be placed in a berm was deemed ineligible for placement in the quarry – despite the opinion of the Village's engineering consultants and because of the IEPA's required application of irrelevant TACO parameters (here, the residential ingestion pathway).

Nothing could speak louder to the purposes of this legislation, and these rules, than the testimony of Mayor Getty and the IEPA's tortured response to that testimony. Indeed, any Second Notice Opinion of the Board must adequately *focus on soil and relative risk to groundwater*, in order to provide the vast Illinois community regulated by these rules with a sensible approach to the allowance of soil for use as fill in CCDD fill operations.

Below are comments to further address specific considerations of TACO applications, as discussed by various participants.

Appropriate Regulatory Soil pH Values. Both Waste Management and the IEPA present factual support for the simple proposition that pH values for soil varies. While that may be true, the record does not support, and the Board should not accept, the IEPA position that any such variation reasonably requires using the lowest pH values when determining the applicable pH-dependent MAC. In its post-hearing comments, the IEPA stated that the soil pH data in the Natural Resource Conservation Service STATSFO2 database is "still the single most comprehensive source . . . of data [and that the database is] more geographically diverse." The IEPA also stated that "the STATSGO2 data . . . led the Agency to conclude that soil pH is too variable and that no generalizations suitable for a statewide rule . . . could be made regarding average or background soil pH."

However, the Agency also admitted that "the arithmetic mean and medium soil pH values in Illinois are generally above 6.25" (emphasis added). It is that IEPA statement that should drive this rulemaking to reasonableness, as required by Section 27 of the Act, since it is consistent with the expert, data-based opinions expressed by the majority of participants in this rulemaking, including: Dr. Roy, Dr. Fernadez, Mr. Huff, Mr. Hock, Mr. Wilcox, Ms. Maenhout and others. As the record demonstrates, typical Illinois soils are not acidic. The Board's adoption of a MAC that is based upon a low pH, as urged by the IEPA, would be arbitrary and capricious, given the testimony and evidence presented in these hearings.

One of the driving forces of this rulemaking, and underlying legislation, was a need to reasonably define "uncontaminated" urban soils: soils that have not been the subject of any contamination event or history, but that nonetheless may contain non-natural elements due to anthropogenic causes. Thus, Cook County must be considered as a reasonable example for the Board's rulemaking process. The soil pH data provided by Natural Resource Conservation

Service for Cook County simply does not support the assertion that a pH 4.5 is a reasonable value. There are 620 measurements of pH for soil samples collected down to a depth of 60 inches for Cook County. For each depth, they give a *range* in pH. The rationale for this format was not given.

For example:

| Soil Name | Depth | Soil Reaction |
|-----------|---------|---------------|
| | Inches | рН |
| Blout | 0 - 7 | 5.1 – 7.3 |
| | 7 – 14 | 5.1 – 7.3 |
| | 13 - 26 | 4.5 - 6.5 |
| | 26 - 32 | 6.1 - 7.8 |
| | 32 - 60 | 7.4 - 8.4 |
| | | |
| Kankakee | 0 - 11 | 5.7 - 7.3 |
| | 11 - 14 | 5.6 - 7.8 |
| | 14 - 21 | 6.1 - 7.8 |
| | 21 - 60 | 7.4 - 8.4 |

If we combine the entire dataset together, pH ranges from 4.5 to 8.4. Of the 620 samples, only 19 were reported as having a pH 4.5 in lower range which is only about 3% of the total given. As stated repeatedly during the hearings, a soil of 4.5 is possible in Illinois, but it is not typical.

The mean or average pH for lowest (most acidic) samples is pH 5.57. The mean for the most alkaline part of the range is 7.59. Therefore the mean pH of all 620 soil samples collected from Cook County is between 5.57 and 7.59.

Unlike positions generally urged by the scientific research community, the IEPA position avoids making decisions that are based on the mean or median values of a dataset – and, importantly, it urges the Board to do likewise. The IEPA position presents simple ranges without any statistical tools applied to better characterize a given dataset.

It seems that the Agency believes that one bad apple really *can* spoil the whole bunch – a contention not reasonable in this rulemaking, where testimony abounds that soil chemistry is not so simple a proposition – and that various chemical truisms apply to allow the Board to conclude that the IEPA's position is, quite simply, arbitrary and capricious from a science viewpoint. And evaluating science in Illinois environmental regulatory proceedings is one of the key reasons the legislature created the Board. See David P. Currie, *Rulemaking Under the Illinois Pollution Law*, 42 U. Chi. L. Rev. 457 (1975). Quite simply, the available soil pH data, regardless of source, does not support the IEPA's conservative assumption when *all* of the data are considered.

PBC, through Dr. Roy's testimony, recommends using soil pH values from 6.25 through 8.74 when selecting the pH-dependent MAC. The values in the pH-dependent cleanup objective TACO tables seem to be fairly consistent throughout this range. The IEPA comments present the issue more as using a minimum soil pH of 6.25 as a MAC. That is, any soil with a pH of less than 6.25 would be rejected no matter what the chemical concentrations. PBC did not endorse such a concept. PBC's approach just recognizes that realistic ranges of soil pH are appropriate in MAC selection because the soil pH affects the potential for chemicals leaching into water.

Appropriate TACO Values; Appropriate Risk Assumptions. It seems to be accepted as true at IEPA (with concurrence by Dr. Roy) that the TACO process is very conservative and that the TACO objectives provide protection to a lifetime risk of no more than one in a million.

For carcinogens, that risk level appears to be the legislative instruction for any numerical standards developed here.

And, at least for the purposes of this proceeding, assuring a risk level of no more than one in a million should be the driver for all the MACs. That would further the goal of making reasonable and economic use of this material, while still being protective of human health and the environment. To use the most stringent assumptions possible will only act to force more and more of this material into landfills, taking up space that could be used for garbage, increasing the costs of construction projects, and all for no quantifiable environmental benefit.

Class I Groundwater Requirement. PBC language recommendations included removing the reference to the required use of Class I groundwater input values. Since this proceeding is mandated to fashion a regulatory scheme that adequately protects groundwater and still have the legitimate use of the CCDD as fill, the groundwater classification for the CCDD site is very relevant to the protection it needs. More simply put, if the site is in an area of Class II groundwater, the pH-specific MACs should be selected from the Class II Groundwater table (Part 742, Appendix B, Table D).

Tier I Residential Objectives. As the Board well knows (since it provided the regulatory incentive for the creation and promulgation of TACO in the proceedings that gave birth to Part 742) the Tier I Residential objectives were designed to protect human health and the environment in environmental remediation projects such that:

- Children would safely play on remediated properties in residential neighborhoods (Tier I residential ingestion criteria);
- Public and neighbors would be protected from airborne contaminants from contaminated properties (Tier I residential inhalation criteria);

 Construction workers would be protected from exposure to materials during construction or transport (Tier I construction exposure route).

While required use of the strictest of the Tier I Residential Objectives may be appropriate where soil is placed as topsoil in residential neighborhoods, the driver for this rulemaking is the use of soil in CCDD fill operations which are former quarries, mines and other excavations (generally, very large holes in the ground). Thus, the Board's concern should be with groundwater protection (and, accordingly, appropriate TACO groundwater values) not irrelevant exposure routes (inhalation and ingestion).

Here, very little (if any) of the material being discussed will ever be exposed physically to the public (except to construction workers during construction, transport and fill) as the vast majority of this material will be used as fill deep within the earth. Thus, while it might make some sense to utilize the strictest TACO approach, with the full panoply of potential exposure routes, on the very top feet of a filled quarry (provided it will be used residentially) those criteria are not necessary to protect groundwater – and thus should not drive decisions as to the definition of uncontaminated soil for use as fill in a CCDD fill operation. Rather, the issue related to soil that might be exposed to human activity at the end of a CCDD fill operations effective life can easily be allowed for by special permit condition, authorized by these Board rules.

On that note, PBC continues to reject IEPA's proposed one-size-fits all/most conservative parameters approach to the definition of uncontaminated soil for use as fill. Such approach flies in the face of the definition of uncontaminated soil as CCDD, as established in the underlying legislation: "For purposes of this Section, uncontaminated soil means soil that does not contain contaminants in concentrations that pose a threat to human health and safety and the environment." 415 ILCS 5/3.160(c) and "(A)ny background concentration set forth in 35 Ill.

Adm. Code 742 that is adopted as a maximum concentration must be based upon the location of the quarry, mine, or other excavation where the soil is used as fill material." 415 ILCS 5/3.160(c)(1). Obviously the legislature did not intend a one-size-fits all approach to the definition of uncontaminated soil in these Board rules -- or why would it have emphasized a location-based use of background?

III. GROUNDWATER MONITORING/SITE ASSESSMENT PROCEDURES.

Many participants commented upon the IEPA's proposed groundwater monitoring requirement. PBC leaves the question of groundwater monitoring to the Board's discretion, but agrees with the IEPA that "the direct burden for groundwater protection" should not be placed on the soil generators and their construction projects and, accordingly, agrees that a more flexible approach to site assessment and evaluation is warranted. See IEPA First Notice Comment, at pp. 19-27. PBC also suggests the following points for the Board's consideration:

- Any groundwater monitoring requirements must be considered in light of actual risk
 from the materials being taken as CCDD and uncontaminated soil. Some CCDD fill
 operations, because of location and size, carry greater risk than others. Smaller
 operations which take in very little CCDD and soil might pose little to no risk.
- As Mr. Huff points out in his April 18 comment, groundwater near many CCDD fill operations may already be impacted by neighboring properties or by pre-CCDD legislation practices or by site conditions. Thus, with any groundwater monitoring requirements, adequate regulatory provisions should also be developed to require that any information garnered from groundwater monitoring must be carefully evaluated as to actual source, so as not to *presume* that the contamination results from CCDD and soil as regulated by these rules.

Where an excavation site owner has acted in accordance with these rules, the owner should

enjoy a "safe harbor" from any alleged violations that result from groundwater monitoring.

IV. DUE DILIGENCE.

The PBC supports the IEPA's request that the Board allow for a "general and flexible"

approach to PIP assessments and certifications "based on site-specific judgments" of LPEs and

LPGs. IEPA First Notice Comment, at p. 22. However, PBC believes there is insufficient

specificity in these rules to require IEPA's deference. Without such specificity IEPA is free to

develop guidance inconsistent with the legislative purpose (and actual language) of this

legislation (i.e., soil which has never been used for commercial or industrial purposes is

presumed to be uncontaminated soil). See 415 ILCS 5.22.51 (f) (2)(B).

V. CONCLUSION. PBC appreciates the opportunity to have presented argument and

testimony in this rulemaking and thanks the Board for its consideration of these responses to

comments.

Dated: April 27, 2012

Respectfully submitted,

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