IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF OKLAHOMA

STATE OF OKLAHOMA, ex rel. W.A. DREW EDMONDSON, et al.,	)	
Plaintiffs,	)	
v.	)	NO.: 05-CV-00329 GKF--SAJ
TYSON FOODS, INC., et al.,	)	
Defendants.	)	

Declaration of Richard C. Fortuna

I, Richard C. Fortuna, declare under penalty of perjury under the laws of the United States of America, and in accordance with 28 U.S.C. § 1746, that the following is true and correct:

I. EXECUTIVE SUMMARY OF OPINIONS

OPINION 1: **RCRA's Legislative History and its Regulatory Implementation Record Confirm That Manures Applied to the Land as Fertilizers Or Soil Conditioners Are Exempt from RCRA Jurisdiction and Regulation.**

OPINION 2: **In Addition to the Specific Exclusion for Agricultural Waste, Reusing Animal Manures as Fertilizers Would Qualify for Other Generic Exclusions Contained in the RCRA Regulations.**

OPINION 3: **The Motion's Implied Assertion That the Reuse of Chicken Litter as Fertilizer Is a Form of *Sham Recycling* Is Misplaced -- RCRA Does Not Have *Sham Recycling* Criteria for "Solid Wastes," Only "Hazardous Wastes."**

OPINION 4: **The Motion's Assertion That a Waste Must Be Recycled Within The *Same Industry* in Order to Be Exempt From RCRA Jurisdiction/Regulation Is Simply Incorrect.**

OPINION 5: **The Motion Could Have Grave Implications for Other Manure Management Programs and the Disposal of Municipal Sewage Sludges. Landfilling Is Not a Realistic Option.**

OPINION 6: **The Motion's "Imminent and Substantial Endangerment" Claim Is Unprecedented.**

II. QUALIFICATIONS

A. Overall Experience

The resume of my qualifications and accomplishments is contained at **Appendix A**. Supplemental information regarding my rate, and recent depositions and publications is contained at **Appendix B**. In summary, I have over 28 years experience in developing and implementing waste management policies involving solid, hazardous and radioactive wastes. I have developed key legislative provisions, implemented them for nearly 30 years, and witnessed firsthand regulated industry's response to statutory and regulatory directives of RCRA and CERCLA and the Clean Water Act (CWA). I was a principal architect of the cornerstone elements of the 1984 Hazardous and Solid Waste Amendments (HSWA), including the "hammer" provision as well as Corrective Action and the Land Disposal Restriction Programs. I led the nation's leading association of technology-based waste management firms, the Hazardous Waste Treatment Council (HWTC), for 11 years. In addition, I authored a book on RCRA and the 1984 HSWA Amendments with a forward by Sen. John Chaffee, the Floor Manager of the HSWA, and co-authored by Dave Lennett, Chief Attorney for the Environmental Defense Fund (EDF) at the time. Other accomplishments include:

- Organized numerous Congressional hearings as a Staff Member of the House Energy and Commerce Committee, testified before Congress 20+ times, and chaired 12 national conferences on RCRA/CERCLA issues;

- As Executive Director of the HWTC, was involved in 10+ legal challenges to EPA and State interpretations of RCRA/CERCLA provisions, including a challenge which secured HSWA's "technology-based" treatment standards;[1]

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[1]62 **FR** 26041, 26058-60, (May 12, 1997), Land Disposal Restrictions Phase IV; Final Rule. "To satisfy RCRA Section 3004(m), EPA has chosen to promulgate treatment standards based on performance of 'best demonstrated available technology' (BDAT), **See** 51 **FR** 40,572, 40,578, (Nov. 7, 1988); provided such standards are not established at a point beyond which threats are minimized. **See** Hazardous Waste Treatment Council v. EPA, 886 F.2d 355, 361-66 (D.C. Cir. 1989) (upholding establishing technology-based treatment standards as a reasonable construction of RCRA section 3004(m), cert. denied, 498 U.S. 849 (1990) ('**HWTC III**')."

- Submitted over 100 comments to Federal and State Agencies on RCRA, CERCLA, TSCA, and CWA proposed regulations; and,

- Worked with over 200 commercial firms in navigating the waste management and remediation marketplaces.

B. Specific Experience

In addition to these overall credentials, I have been involved in a number of specific regulatory, legal and investigatory projects regarding RCRA's Definition of Solid Waste and its recycling provisions. These accomplishments include:

- Worked for years to limit the exemptions from RCRA's Solid Waste Definition for various forms of recycling, especially burning for energy/materials recovery;

- Participated in EPA's Solid Waste Definition Task Force in 1990, an Office of Solid Waste's initiative to reform the Solid Waste Definition as it pertained to recycling and reuse of secondary materials, and to better define *sham recycling*;

- Commented on proposed Solid Waste Definition revisions since 1985;

- Filed comments and actively worked with EPA to limit the use of hazardous waste as ingredients in fertilizers, particularly K061 Electric Arc Furnace (EAF) dust;

- Issued a Report with the Environmental Defense Fund on recycling loopholes in RCRA's Solid Waste Definition that was aired at a hearing of the House Energy and Commerce Committee in 1992;

- Filed the initial inquiry with EPA and the DOJ in 1986 on the legitimacy of Marine Shale Processors (MSP) recycling operation as head of HWTC. Our group initiated or participated in numerous administrative and legal proceedings at the Federal and State level to ensure proper enforcement of RCRA at MSP;[2] and,

- Initiated numerous inquiries regarding the legitimacy of other purportedly exempt hazardous waste "recycling" practices including Horseheads Resources, Inc., World Resources, and others.

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[2]**See** "An Assessment of Environmental Problems Associated with Recycling of Hazardous Secondary Materials," U.S. EPA, Office of Solid Waste, Appendix 2, p. 142, RCRA Docket # EPA-HQ-RCRA-2002-0031, for chronology of MSP events. **See** also Louisiana DEQ Press Release, September 18, 2006 stating that, "DEQ does not expect that [existing settlements of $6.2 million + $850,000 Letter of Credit] will be sufficient for a full remediation and will pursue other responsible parties for the remainder of the cost."

Note: Please note that terms appearing in quotes such as "solid waste" refer to terms with specific regulatory or statutory meaning. Terms in italics such as *sham recycling* or *same industry* refer to terms of art and/or regulatory concepts that are not specifically defined.

III. BACKGROUND ON RCRA'S BASIC STRUCTURE, RECYCLING PROVISIONS AND JURISDICTIONAL EXCLUSIONS

1. "Solid" v. "Hazardous" Waste v. Excluded Materials

The statute governing the daily management of "hazardous waste" in the U.S. is known as the Resource Conservation and Recovery Act (RCRA; pronounced Rec-Ra).[3] For a material to be governed by RCRA, it must first be deemed to be a "solid waste" or "discarded material" as opposed to a product or a material that is used or reused in a manufacturing process.

In addition to establishing the overall structure of the Hazardous Waste Program, Congress took direct action regarding the status of certain materials and reuse practices during the enactment of the 1976 RCRA. This includes a series of exclusions from RCRA jurisdiction that were granted by statute or that have been subsequently issued by EPA via regulation. Regarding the status of animal manures applied to the land as fertilizers or soil conditioners, Congress granted an exclusion from the definition of "solid waste" by determining that it was not a "discarded material." **See FIGURE 1 below, and OPINION 1**.

Regarding material reuses that were not expressly exempted from RCRA by Congress, the most important concept to be mindful of is that some reuses of "secondary materials"[4] are more akin to manufacturing (i.e., direct reuse as a substitute for a

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[3]RCRA or P.L. 94-580 was enacted in 1976 and amended the Solid Waste Disposal Act (SWDA) P.L. 89-272, enacted in 1965. RCRA incorporated Subtitle C, the Hazardous Waste Program. The Hazardous and Solid Waste Amendments (HSWA) of 1984, P.L. 98-616, effectively rewrote Subtitle C of the SWDA. Of all these acronyms, it is "RCRA" that is most frequently used to refer to the SWDA and its collective amendments.

[4]50 **FR** 614, (January 4, 1985), Definition of Solid Waste Final Rule, Footnote 4. "EPA refers to "secondary materials" as the group of all materials that potentially can be a solid and hazardous waste when recycled. The rule refers to the following types of secondary materials: spent material, sludges, byproducts, scrap metal and commercial chemical products recycled in ways that differ from their normal use." **[Emphasis added.]** Thus, "secondary materials" is simply a term of convenience to refer to materials that can effectively go either way: into the manufacturing/production exempt

commercial product), while others are more akin to waste treatment and disposal (i.e., solvent regeneration, burning for energy recovery use of waste as "aggregates," "anti skid material"). It is due to this inherent complexity in distinguishing between the manufacturing-like versus the waste management-like activities that the triage mechanism between the two is involved, but important. The significance of being designated as either a waste management-like recycling activity versus as manufacturing-like recycling activity is that the former are regulated by RCRA and the latter are not.

FIGURE 1 provides a simplified framework for understanding and discussing these complexities and distinguishing between those materials and/or reuses that are statutorily excluded from being "discarded materials" (i.e., manures applied as fertilizers), those that are excluded from the definition of "solid waste" by virtue of their reuse practices, and those activities that constitute a form of "discard" including waste treatment, disposal and certain forms of reclamation (i.e., a form of waste treatment).

RCRA uses the term "solid waste" to designate all those materials that fall within its jurisdiction, regardless of whether the actual form of the waste is a solid, liquid or a gas. For a material to be deemed a "hazardous waste" (i.e., by virtue of being either specifically "listed" or exhibiting a "characteristic") it must first be a "solid waste." Thus, the universe of "solid wastes" governed by RCRA has two major subsets: "hazardous waste" and non-hazardous wastes. This later subcategory of non-hazardous or "solid wastes" are referred to by a number of terms by different agencies and/or authors including: "industrial wastes," "industrial non-hazardous wastes, " "Subtitle D wastes" (i.e., in recognition of the Subtitle governing non-hazardous, solid wastes), "industrial D wastes," and sometimes just "solid waste." Thus "solid waste" as used in the RCRA statute/regulations refers to the broad universe of materials and secondary materials that <u>are</u> subject to RCRA regulation. In common usage, however, "solid waste" refers only to the subset of non-hazardous waste.

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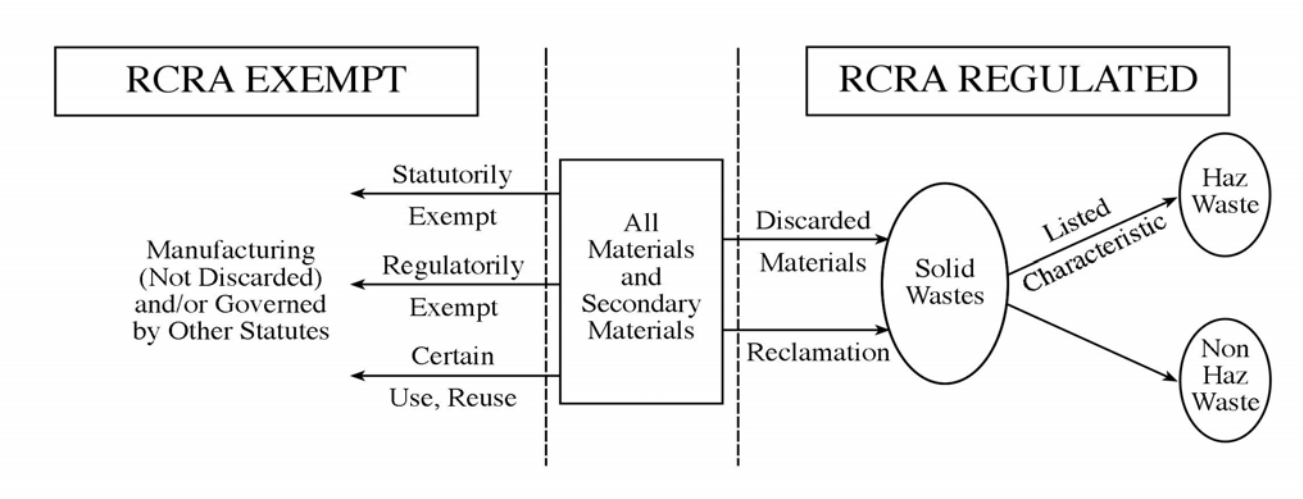
side of the equation or to the solid/hazardous waste regulated side of the equation, depending upon how the material is reused. **<u>See</u> FIGURE 1.**

FIGURE 1: RCRA'S SOLID WASTE DEFINITION AND EXCLUSIONS



IV. OPINIONS

<u>OPINION 1</u>: RCRA'S LEGISLATIVE HISTORY AND ITS REGULATORY IMPLEMENTATION RECORD CONFIRM THAT MANURES APPLIED TO THE LAND AS FERTILIZERS OR SOIL CONDITIONERS ARE EXEMPT FROM RCRA JURISDICTION AND REGULATION.

A. 1976 RCRA Legislation and 1978 Proposed Rule on Classification Criteria For Solid Waste Disposal Facilities

In 1978, EPA proposed its first regulation in response to the 1976 Resource Conservation Recovery Act (RCRA), regarding minimum criteria for determining acceptable solid waste land disposal facilities. §1008(a)(3) of RCRA required EPA to "provide minimum criteria to be used by the States to define those solid waste management practices which constitute the open dumping of solid waste." §4004(a) of RCRA required EPA to promulgate regulations containing minimum criteria for determining which solid waste disposal facilities posed no reasonable probability of adverse health effects on health or the environment from disposal of solid waste at such facilities.

In short, these regulations attempted to distinguish legitimate disposal operations from "open dumping" of solid waste. This Proposed Rule also identifies those practices that were excluded by the statute from being considered "solid waste" management operations and therefore were exempt from RCRA statutory controls. Regarding agricultural wastes, this seminal Proposed Rule issued pursuant to the 1976 RCRA stated as follows:

> The criteria as proposed do not apply to agricultural wastes, including manures and crop residues returned to the soil as fertilizers or soil conditioners, or to mining and milling wastes intended for return to the mine. Congressional support for this exclusion is found in the House Report on the Bill:
>
> > Agricultural wastes which are returned to the soil as fertilizers or soil conditioners are not considered discarded materials (solid waste) in the sense of this Legislation. Similarly, overburden resulting from mining operations and inserted for return to the mine site are not considered to be discarded material within the meaning of this legislation. (H.R. Rep. No. 94-1491, 94th Congress, 2nd Session, p. 2 (1976)).[5]

The actual regulatory language in this proposed rule tracks the preamble language precisely:

> These criteria apply to all *solid waste disposal* facilities as these terms are defined in the act with the following <u>exceptions</u>: ....(3) agricultural wastes, including manures and crop residues, which are returned to the soil as fertilizers or soil amendments are not subject to classification by these Criteria;...[6] (Italics in original). **[Emphasis added]**.

Hereafter, this provision is referred to as the "Agricultural Waste Exclusion."

B. 1979 Final Rule Regarding Classification Criteria for Solid Waste Disposal Facilities

The Final Rule regarding classification criteria for solid waste disposal facilities repeats and reemphasizes the Congressional intent to exclude animal manures returned to the soil from the jurisdiction of the Act. As such, the Agency in 1979 finalized the Congressional intent expressed in the 1976 RCRA, that animal manures returned to the soil are not to be considered subject to RCRA:

> EPA has concluded that the criteria applied to all solid waste disposal with the following exceptions: 1. <u>The criteria do not apply to agricultural</u>

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[5] 43 **<u>FR</u>** 4942, 4943, (February 6, 1978), Solid Waste Disposal Facilities, Proposed Criteria for Classification.

[6] 43 **<u>FR</u>** 4942, 4943, (February 6, 1978), Solid Waste Disposal Facilities, Proposed Criteria for Classification, pp. 4942, 4952. **<u>See</u>** also 40 **<u>CFR</u>** §257.1(c)(1).

> wastes, including manures and crop residues returned to the soil as fertilizers or soil conditioners. All other disposal of agricultural waste including placement in a landfill or a surface impoundment is subject to these criteria. This exclusion is based on the House Report (H.R. Rep. No. 94-1491, 94th Congress, 2nd Session, p. 2 (1976)) which explicitly indicates that agricultural wastes returned to the soil are not to be subject to the Act.[7] **[Emphasis added.]**

The actual regulatory language contained in the Final Rule regarding the Agricultural Waste Exclusion is codified at 40 **CFR** §257.1(c)(1), and states:

> These criteria apply to all solid waste disposal facilities and practices with the following exceptions: (1) the criteria do not apply to agricultural wastes, including manures and crop residues, returned to the soil as fertilizers or soil conditioners...[8]

C. 1991 Final Rules Regarding Solid Waste Disposal Facility Criteria

In 1991, EPA promulgated revised criteria and operating standards for Municipal Solid Waste Landfills (MSWLFs) under 40 **CFR** §258. This Final Rule made no changes to the 40 **CFR** §257 Classification Criteria for solid waste disposal facilities as noted in the Final Rule:

> The §257 Criteria are otherwise unchanged with respect to their applicability and remain in effect for all other facilities and practices.[9]

D. Current Code of Federal Regulations Provisions Regarding Manures Used as Fertilizer

EPA's regulatory language and reasoning regarding the Agriculture Waste Exclusion has not changed since its initial promulgation in September 1979. The current Code of Federal Regulations, which contain the text of the regulations presently in effect,

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[7] 44 **FR** 53438, 53440, (September 13, 1979), Criteria For Classification of Solid Waste Disposal Facilities and Practices; Final Rule..

[8] 44 **FR** 53438, and 53461, (September 13, 1979), Criteria For Classification of Solid Waste Disposal Facilities and Practices; Final Rule. **See** also 45 FR 33066 (May 19, 1980) Hazardous Waste Management System: General; Final Rule. Provides further support for the legislative basis of the Agricultural Waste Exclusion.

[9] 56 **FR** 50978, (October 9, 1991), Solid Waste Disposal Facility Criteria Part I - §V. A.

maintains the same language governing the Agricultural Waste Exclusion as was promulgated in September, 1979:

> (c) These criteria apply to all solid waste disposal facilities and practices with the following exceptions: (1) the criteria do not apply to agricultural wastes, including manures and crop residues, returned to the soil as fertilizers or soil conditioners.[10]

E. The History of EPA Interpretations Regarding the Agricultural Waste Exclusion Confirm that Manures Used as Fertilizers Were Not Intended To Be Governed by the RCRA Program.

The RCRA On-Line Database[11] is an electronic compendium of regulatory guidance and interpretations made on the full spectrum of site-specific waste management questions presented to the Office of Solid Waste of U.S. EPA. Despite the thousands of documents, interpretations, and guidances issued and catalogued in this database, only one specifically addresses the Agricultural Waste Exclusion. This lone inquiry questioned whether food processing wastes were covered by the scope of the Agricultural Waste Exclusion.[12] EPA responded that it was not and cited the language contained in the House Report and regulations above.

F. The 9th Circuit Court of Appeals Recently Sustained This Interpretation of the Agricultural Waste Exclusion.

In a 2004 Case, which was actually cited in the Motion,[13] the 9th Circuit found that manures applied to the ground did not constitute an act of "discarding" and therefore were not considered "solid wastes." In this regard the 9th Circuit Opinion states:

> In enacting the Resource, Conservation and Recovery Act, Congress declared that agricultural products that could be recycled or reused as fertilizers were not of concern. Much industrial and agricultural waste is reclaimed or put to *new use* and is therefore not part of the discarded materials disposal problem the Committee addresses. Agricultural waste which are returned to the soil as fertilizers or soil conditioners are not

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[10] 40 **CFR** §257.1(c)(1), (July 1, 2007) Edition.

[11] www.epa.gov/rcraonline

[12] RCRA On-Line Database, Food Processing Wastes Not Under Agricultural Waste Exclusion, RCRA On-Line #12002. (August 19, 1980).

[13] Motion at p. 13.

considered discarded materials in the sense of this legislation.[14] **[Emphasis added].**

See OPINION 4 below for additional discussion.

G. In My 28 Years of Legislative and Regulatory Work on the RCRA and Superfund Programs, a Concern Regarding the Agricultural Waste Exclusion Has Never Been Raised.

In my legislative work on the 1984 Hazardous and Solid Waste Amendments (HSWA) to RCRA, and throughout all subsequent work on waste policy, regulation and legislation, not one person or group has ever mentioned the need to eliminate or modify the Agricultural Waste Exclusion for any reason. This includes: State associations such as ASTSWMO, the National Governor's Association, individual State program directors, national and local environmental groups (i.e., EDF, NRDC, Sierra Club, Audubon Society, Friends of the Earth), universities, commercial waste management firms, and Federal regulatory officials.

From the inception of my work with the RCRA program, my primary focus has been to identify loopholes and gaps in coverage. The 1984 HSWA Amendments in many ways represented the best of State regulatory efforts to close loopholes that existed in the Federal regulatory program at that time. No stone or exemption was left unturned when we comprehensively restructured the RCRA program hazardous waste via the 1984 HSWA Legislation. During the HSWA enactment, the Agriculture Waste Exclusion was examined and a determination was made that modification to this policy was not necessary. A part of any legislative process is a practical accommodation of political forces and available resources. However, in this case not a single voice was raised then or since regarding problems or abuses associated with the Agricultural Waste Exclusion, until this Case.

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[14]Safe Air for Everyone, et al., v. Meyer, et al. 373 F. 3d 1035, (July 1, 2004), (9th Circuit), HN. 16. **See** also Motion at p. 13.

OPINION 2: **IN ADDITION TO THE SPECIFIC EXCLUSION FOR AGRICULTURAL WASTE, REUSING ANIMAL MANURES AS FERTILIZERS WOULD QUALIFY FOR OTHER GENERIC EXCLUSIONS CONTAINED IN THE RCRA REGULATIONS.**

A. Preface To Opinions 2, 3, and 4

OPINION 1 provides the most direct and dispositive evidence of Congressional intent and EPA's implementation history regarding the Agricultural Waste Exclusion (i.e. manures applied to the land as fertilizers or soil conditioners were not "discarded" and therefore not "solid waste"). Discussion of the Motion's characterizations of RCRA requirements and its claims of RCRA-related violations is presented only for purposes of fully vetting the Motion's flawed and incorrect application of RCRA's policies and requirements in this matter.

Moreover, Congress specifically excluded manures applied as fertilizers and soil conditioners from both RCRA's "solid waste" and "hazardous waste" management requirements. The Motion's purported RCRA violation claims, which are discussed in **OPINIONS 3 and 4**, and the alternative exemption for manure fertilizers discussed in **OPINION 2**, would only be applicable if manures used as fertilizers or soil conditioners were regulated as "solid" and "hazardous" waste, which they are not. As such, the discussion in **OPINIONS 2, 3, and 4** is useful by way of analogy, but is not directly applicable in light of previous Congressional action on this matter.

B. Exclusion for Materials Used or Reused As Effective Substitutes For Commercial Products

Pursuant to EPA's Definition of "Solid Waste" regulations promulgated in January 1985,[15] three generic exclusions were incorporated for "materials that are not solid waste when recycled."[16] These three generic exclusions were developed for the RCRA Subtitle C Hazardous Waste Program.[17] The second of the three generic exclusions is for materials that are used or reused as an effective substitute for commercial products. Thus, even if the Agricultural Waste Exclusion was not separately enacted by Congress,

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[15] 50 **FR** 614, 619-620, (January 4, 1985), "Definition of Solid Waste," Final Rule.

[16] 40 **CFR** §261.2 (e)(1)(i)-(iii).

[17] These three generic exclusions were developed for "secondary materials" which had the potential to be regulated as "solid" and/or "hazardous waste," depending on how they were recycled. Therefore materials that incorrectly claimed to be eligible for one of these three generic exclusions would in turn be regulated as "hazardous waste."

this generic regulatory exclusion nonetheless provides significant guidance on the use of poultry litter as a fertilizer or soil conditioner.[18]

The Director of the State of Oklahoma Department of Environmental Quality (ODEQ), Land Protection Division, Mr. Thompson has testified in this proceeding that he believes poultry litter is an effective substitute for commercial fertilizers.[19] Moreover, the ODEQ has never issued a determination that: the reuse of poultry litter as a substitute fertilizer constitutes a "solid waste;"[20] has never determined that poultry litter practices present an "imminent hazard;"[21] had never received any complaints about poultry litter;[22] and, that in general no environmental issues regarding poultry litter have arisen that would generate a specific regulatory focus.[23] Mr. Thompson also testified that poultry litter would be a solid waste "if somebody wanted to throw it away, to dispose of it." [24] In fact, Mr. Thompson testified that the determination or the issue of whether poultry litter constituted a solid waste under RCRA has never come up.[25]

In addition, the Director of the Oklahoma Department of Agriculture, Food and Forestry (ODAFF), Agricultural Environmental Management Services (AEMS) Division, which regulates and oversees all aspects of poultry litter practices in the State, has testified that chicken litter is a valuable soil amendment and better than commercial fertilizers as a soil amendment,[26] and that AEMS has actually run a Poultry Waste Transfer Program to assist citizens and businesses in locating and purchasing chicken litter for use as a fertilizer.[27]

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[18]**See** also 40 **CFR** 261.1(b)(1).

[19]Deposition of Scott Thompson, (January 4, 2008), pp. 26, and 109.

[20]Deposition of Scott Thompson, (January 4, 2008), pp. 19 - 20.

[21]Deposition of Scott Thompson, (January 4, 2008), pp. 50, 63, and 93.

[22]Deposition of Scott Thompson, (January 4, 2008), p. 45.

[23]Deposition of Scott Thompson, (January 4, 2008), p. 93. "Poultry litter not on the radar screen."

[24]Deposition of Scott Thompson, (January 4, 2008), p. 18.

[25]Deposition of Scott Thompson, (January 4, 2008), p. 19.

[26]Deposition of Daniel Parrish, (January 14, 2008), pp. 226-229.

[27]Deposition of Daniel Parrish, (January 14, 2008), pp. 217-220.

OPINION 3: **THE MOTION'S IMPLIED ASSERTION THAT THE REUSE OF CHICKEN LITTER AS FERTILIZER IS A FORM OF *SHAM RECYCLING* IS MISPLACED -- RCRA DOES NOT HAVE *SHAM RECYCLING* CRITERIA FOR "SOLID WASTES," ONLY "HAZARDOUS WASTES."**

A. Background on the Motion's Assertion of RCRA-Related Violations and Analysis Thereof in OPINIONS 3 and 4

Note: **See** Preface to **OPINIONS 2, 3, and 4** at **OPINION 2.A.** above. The Motion claims that the application of chicken litter as a fertilizer in the IRW violates RCRA in 2 respects, one implicit, one explicit :

1) The Motion implies, but does not explicitly state, that the reuse or recycling of poultry litter as a fertilizer is de facto disposal or *sham recycling*. "Rather the poultry waste is discarded, primarily by means of removing it from the poultry feeding or growing house and spreading it on nearby land within the IRW."[28] Hereafter, this will be referred to as the *Sham Recycling* Claim of the Motion.

2) The Motion asserts that, "This waste material (i.e., "poultry waste") is not reused, recycled or reclaimed for feeding or growing poultry, it has no further use or role in the poultry feeding or growing process."[29] This second claim will hereafter be referred to as the *Same Industry* Claim of the Motion.

OPINION 3 addresses the implied allegation of *sham recycling* of poultry litter being used as a fertilizer. **OPINION 4** addresses the Motion's assertion that recycling poultry waste must occur within the *same industry* in which the waste was generated. For purposes of analyzing these two RCRA-related claims, I will set aside the discussion in **OPINION 1**, the statutory Agricultural Waste Exclusion, which directly addresses the Motion's claims via RCRA's Legislative History. In short these two claims have no

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[28]Motion at p. 12-13. **See** also Footnote 7 which states, "Lest it be contended by Defendants that poultry waste is being reclaimed for use as a fertilizer in the IRW, it should be pointed out, except in rare instances, because past land applications of poultry waste in the IRW has lead to a surplus of "P" in the soils of the IRW fields and pastures, such lands in the IRW do not reasonably require additional application of poultry waste as a "P" fertilizer under good agronomic practices." Thus, the Motion alleges that placement of poultry litter on nearby lands in the IRW is a de facto disposal operation under the guise of a fertilizer reuse as evidenced by the excess of "P" being placed on the land in the IRW. While the Motion does not use this terminology, this is effectively a claim of *sham recycling*, a term which has been in use under the RCRA Program since 1983, and which the Attorney General should be familiar with.

[29]Motion at p. 12, and associated case citations on p. 13.

foundation in RCRA's regulations, legislation and/or implementation history. Moreover, the Motion effectively generates these untethered claims anew, but provides no explanation of their function within the context of an "Imminent and Substantial Endangerment" (ISE) action and their relationship to one another as discussed immediately below.

First, the Motion is silent as to how the two violation claims (i.e., *sham recycling* and *same industry*) relate to one another. Must they both be satisfied in order for the practice to be considered lawful under RCRA?

Second, what constitutes *sham recycling* for purposes of this Motion? Does sham recycling involve only Phosphorous (P) levels or other constituents and/or agents as well? The State's Agricultural Agency oversee and extensively regulates manure placement practices including acceptable phosphorous (P) levels.[30] The Motion appears to assert violations of RCRA despite general compliance with applicable State Poultry Waste Management standards. It is unclear what standard(s) has been breached and/or what standard(s) must be met in order to comply with the Motion's two free-wheeling violation claims, particularly the *sham recycling* claim.

Third, the relationship between these two alleged RCRA violations and the claimed ISE is at best unclear. If the reuse of chicken litter *was* occurring within the *same industry*, would the ISE no longer exist? In short, there is no decision rule provided by the Motion to indicate what constitutes compliance for the purpose of these alleged violations, and/or elimination of the ISE.

B. The Motion's Implication of *Sham Recycling* Requirement Is Irrelevant Since Agricultural Manures Have Been Granted a Freestanding Statutory Exclusion.

The Motion asserts that poultry industry waste is not reused, recycled, or reclaimed for feeding or growing poultry, and that it has no further use or role in the poultry feeding or growing process. Rather, the claim is made that chicken litter is "discarded" on nearby lands.[31] This implied claim of *sham recycling* of chicken litter (i.e., land disposal of chicken litter under the guise of fertilization) is irrelevant in this context as: 1) animal manures used for fertilization have been granted a separate, statutory exclusion **(See OPINION 1)**; and, 2) the assertion or implication of *sham recycling* of solid waste under RCRA only applied to those materials that would otherwise be regulated as "hazardous wastes" if the claim of a *sham recycling* could be sustained (**See Subsection C below**).

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[30]Deposition of Daniel Parrish, (January 14, 2008), pp. 84-86, 93-97, 100, 101, 134 - 138, and others.

[31]Motion at pp. 12 - 13, and Footnote 7.

Even the Motion does not assert that manures application to the land constitute a "hazardous waste."

Therefore, the balance of this section is presented solely for purposes of arguments and/or for complete analysis of all flaws in the Motion, as the fundamental question of the status of reused manures has already been addressed in **OPINION 1**
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C. There Are No *Sham Recycling* Criteria for "Solid," or Non-Hazardous, Waste Which Are Not Subject To RCRA Hazardous Waste Controls. Such Determinations Have Been Delegated to State Programs. See OPINION 5.

In 2003 EPA Proposed a series of revisions to RCRA's Definition of Solid Waste. Among other things these revisions attempted to formally incorporate *sham recycling* or *legitimacy* criteria into the regulations as a basis for formally distinguishing between sham and legitimate recycling. The 2003 Proposal specified that the *sham recycling* criteria contained in that Proposal only applied to "secondary materials" that would otherwise be regulated as "hazardous waste," and did not apply to non-hazardous or "solid wastes" or other secondary materials that had otherwise been excluded from RCRA. In this regard, the Proposal specifically stated:

> Today's Proposal would add a new paragraph (h) to the 40 **CFR** §261.2 Definition of Solid Waste specifying four general criteria to be used in determining whether recycling of hazardous secondary materials is legitimate. It should be noted that today's proposed *legitimacy* criteria are not intended to apply to recycling of materials that are non-hazardous (i.e., materials that are not listed hazardous waste and that do not exhibit a hazardous characteristic). Thus for example, recycling of non-hazardous household waste such as newspapers and aluminum cans would not be subject to the proposed criteria. Likewise the proposed criteria would not apply to recycling of non-hazardous secondary materials generated from industrial operations.[32] **[Emphasis added]**.

[32] 68 **FR** 61558, and 61582, (October 28, 2003), Redefinition of Solid Waste: Proposed Rule. **See** Footnote 14.

D. RCRA's Current *Sham Recycling* Criteria for "Hazardous Wastes;" the 1989 Sylvia Lowrance Memo. These Criteria Are Qualitative Guidance, Not a Quantitative Decision Making Formula.

The fact that I begin this discussion with a reference to a 1989 Memo/Guidance issued by a former, but well regarded, Director of the Office of Solid Waste[33] in itself provides meaningful insight into the disjointed, confusing, and malleable mire known as the *Sham Recycling* criteria. (i.e., also referred to as *legitimacy* determinations.) This near-20 year old memo is still the definitive guidance in identifying which hazardous waste reuse activities are the functional equivalent of disposal and/or waste treatment, rather than reuse in a manufacturing process.[34]

First and foremost, these criteria only apply to secondary materials that would be classified as "hazardous waste" if a finding of *sham recycling* were made. At present, there are no *sham recycling* criteria for "solid waste" or other secondary materials under RCRA. (**See Subsection C above.**)

Regarding the six evaluation criteria that are in effect to this day, the Lowrance Memo states as follows:[35]

> It has come to the attention of EPA Headquarters that many of the Regions and authorized States are being requested to make determinations on the regulatory status of various recycling schemes for F006 Electroplating Sludge [i.e., a listed hazardous waste]. . . Two issues are presented. The first issue is whether these activities are legitimate recycling or rather just some form of treatment called "recycling" in an attempt to evade regulations. A second, assuming the activity is not sham recycling, the issue is whether the activity is a type of recycling that is subject to regulation under Sections 261.2 and 261.6 or is it excluded from

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[33]A Memorandum from Sylvia K. Lowrance, Director of Office of Solid Waste, to Hazardous Waste Management Division Directors, Regions I-X, regarding F006 Recycling (including criteria for evaluating whether a waste is being recycled), (April 26, 1989), RCRA Online No. 11426, pp. 1, 2, and 4.

[34]68 **FR** 61558, and 61582, (October 28, 2003), Revisions To The Definition Of Solid Waste; Proposed Rules. "This Memorandum [Lowrance Memo] has been, and still is, the primary source of guidance for the regulated community and for overseeing agencies in distinguishing between legitimate and sham recycling."

[35]A Memorandum from Sylvia K. Lowrance, Director of Office of Solid Waste, to Hazardous Waste Management Division Directors, Regions I-X, regarding F006 Recycling (including criteria for evaluating whether a waste is being recycled), (April 26, 1989), RCRA Online No. 11426, pp. 1, 2, and 4 - 6.

> our authority. . . . The answer to these questions should help draw the distinction between recycling and *sham recycling* or treatment:
>
> > 1) Is the secondary material similar or analogous, raw material or product?;
> >
> > 2) What degree of processing is required to produce a finished product?;
> >
> > 3) What is the value of the secondary material?;
> >
> > 4) Is there a guaranteed market for the end product?;
> >
> > 5) Is the secondary material handled in a manner consistent with the raw material/product is replaces?; and
> >
> > 6) Other relevant factors (i.e., What are the economics of the recycling process? Are the toxic constituents actually necessary to produce the product or are they just "along for the ride?")
>
> These criteria are drawn from 53 **FR** at 522 (January 8, 1988); 52 **FR** at 17013 (May 6, 1987); and 50 **FR** at 638 (January 4, 1985).

The six criteria identified above present little more than a qualitative framework for evaluation, rather than a quantitative algorithm intended to yield a definitive "yes" or "no" answer. As the Lowrance Memo itself notes prior to enumerating the six criteria:[36]

> With respect to the issue of whether the activity is sham recycling, this question involves assessing the intent of the owner or operator evaluating circumstantial evidence, always a difficult task. Basically, the determination rests on whether the secondary material is "commodity-like.". . . The difference between recycling and treatment is sometimes difficult to distinguish. In some cases, one is trying to interpret intent from circumstantial evidence showing mixed motivation, always a difficult proposition. . . . In certain cases, there may be few clear-cut answers to the question of whether a specific activity is this type of excluded recycling (and, by extension that a secondary material is not a waste, but rather a raw material or effective substitute); however, the following list of criteria may be useful in focusing the consideration of a specific activity. Here to, there may be no clear-cut answers, but taken as a whole the answers to these questions should help draw the distinction between recycling and sham recycling or treatment. **[Emphasis added]**.

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[36]Ibid, pp. 1, 2, and 4 - 6.

E. EPA's Proposed Revisions to RCRA Solid Waste Definition in 2003, 2007 Further Confirm the Difficulty in Identifying and Distinguishing Sham from Legitimate Recycling. Economic Criteria Emerge as the Only "Core" Arbiters of Sham v. Legitimate Recycling.

In an attempt to move beyond the 1989 Memo, in 2003[37] and 2007,[38] EPA proposed that recycling determinations would be a case-specific judgment as to whether a particular recycling activity is consistent with the four criteria.[39] Four criteria included:

- **Criterion 1** – Managed as a Commodity: The secondary material to be recycled must be managed as a valuable commodity or in a manner consistent with the management of the raw material;

- **Criterion 2** – Used as an Ingredient: The secondary material must provide a useful contribution to the recycling process, or to a product of the recycling process. Evaluating this criterion should include consideration of the economics of the recycling transaction;

- **Criterion 3** – Valuable Product: The recycling process must yield a valuable product or intermediate. That is, the product should be sold to a third party or used by the recycler or generator an effective substitute for a commercial product or as a useful ingredient in an industrial process; and,

- **Criterion 4** – Significant Hazardous Constituents: The product of the recycling process should not contain significant amounts of hazardous constituents that are not found analogous products.

After four years of review and consideration EPA has determined that the only "core" requirements of legitimate recycling are those dealing with the economic value of the secondary material at the time of its acquisition [Criterion 2], and that the recycling process produce a useful or marketable product [Criterion 3].[40] It is for these same

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[37] 68 **FR** 61558, (October 28, 2003), Revisions to the Definition of Solid Waste: Proposed Rule.

[38] 72 **FR** 14172, (March 26, 2007), Revisions to the Definition of Solid Waste: Supplemental Proposed Rule.

[39] 68 **FR** 61558, and 61583, (October 28, 2003), Revisions to the Definition of Solid Waste: Proposed Rule.

[40] 72 **FR** 14172, and 14198, (March 26, 2007), Revisions to the Definition of Solid Waste: Supplemental Proposed Rule.

reasons that State programs have focused on economic factors in assessing the *legitimacy* of recycling practices involving non-hazardous wastes/exempt materials.[41]

F. There Has Been Only One Federal Prosecution Involving the *Sham Recycling* Criteria.

Marine Shale Processors (MSP) is without a question, the most notorious, well documented, and most heavily litigated case of *sham recycling* in U.S. environmental history.[42] Based on my knowledge and research, MSP is the only major Federal enforcement action where the *Sham Recycling* criteria were mentioned in the Opinion.

OPINION 4: THE MOTION'S ASSERTION THAT A WASTE MUST BE RECYCLED WITHIN THE *SAME INDUSTRY* IN ORDER TO BE EXEMPT FROM RCRA JURISDICTION/REGULATION IS SIMPLY INCORRECT.

A. RCRA's Recycling Regulations Make No Reference Whatsoever to a *Same Industry* Requirement in Order to Qualify for a Recycling-based Exclusion.

Note: **See** Preface to **OPINIONS 2, 3, AND 4** at **OPINION 2.A.** above. The Motion asserts that poultry industry waste is not re-used, recycled, or reclaimed for feeding or growing poultry (i.e., that is re-used within the *same industry*), and that it has no further use or role in the poultry feeding or growing process. Rather, the claim is made that it is simply discarded by virtue of being applied to nearby lands, an application which does not constitute fertilization in the opinion of the Motion's author.[43]

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[41]ASTSWMO 2006 Beneficial Use Survey Report; ASTMWO, Washington, D.C., (November, 2007), p. 10. ASTSWMO 2000 Beneficial Use Survey Report; ASTMWO, Washington, D.C., (November, 2000), p. A-3.

[42]U.S. vs. the Marine Shale Processors, Southern Wood Piedmont Company, U.S. Court of Appeals, 5th Circuit, Case No. 94-30419, (April 18, 1996).

[43]Motion at pp. 12-13, and Footnote 7.

The regulations governing the recycling of "secondary materials,"[44] for purpose of determining which material/activities are "solid" and/or "hazardous" wastes under RCRA, have a long, if not ponderous, history. Beginning with the 1980 baseline RCRA program,[45] the major revisions to the Definition of Solid Waste in 1985[46] and even to the present day proposed revisions to the Definition of Solid Waste,[47] these provisions[48] of RCRA have been the focus of numerous and detailed regulatory reviews and promulgations.

Despite the long and detailed history of RCRA regulatory promulgations and guidance regarding the Definition of Solid Waste, the Motion fails to cite a single regulation or guidance in support of its assertion of a *same industry* recycling requirement. In fact, a review of the actual regulations governing the identification and listing of hazardous waste in 40 **CFR** §261, in particular 40 **CFR** §261.2 -- the Definition of Solid Waste, reveals not a single reference to a requirement that wastes be reused within the *same industry* in order to qualify for an exclusion from RCRA's Definition of Solid Waste.

The most relevant subsection of the regulations governing secondary materials that are not "solid waste" when recycled is 40 **CFR** §261.2(e),[49] discusses three specific situations of materials that are not solid waste when they can be shown to be recycled by virtue of being: 1) used or re-used as an ingredient in an industrial process to make a product, 2) used or re-used as an effective substitute for commercial products, or 3) returned to the original process from which they are generated (i.e., so called "closed loop" recycling). None of these three exclusions makes so much as a mention of a *same industry* recycling requirement.

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[44]50 **FR** 614, (January 4, 1985), "Definition Of Solid Waste," Final Rule. Footnote 4, "Throughout this preamble EPA refers for convenience to 'secondary materials.' We mean a material that can potentially be a solid and hazardous waste when recycled. The Rule itself refers to types of secondary materials: spent materials, sludges, by-products, scrap metal, and commercial chemical products recycled in ways that differ from their normal use. The Rule itself does not use the term 'secondary materials.'" **[Emphasis added.]**

[45]45 **FR** 33066, (May 19, 1980), Hazardous Waste Management System; General, Revisions to Final Rule and Interim Final Rule.

[46]50 **FR** 614, (January 4, 1985), "Definition Of Solid Waste," Final Rule.

[47]72 **FR** 14172, (March 26, 2007), "Revisions To The Definition Of Solid Waste," Supplemental Proposed Rule.

[48]40 **CFR** §261.1-261.9.

[49]Entitled, *Materials That Are Not Solid Waste When Recycled*.

B. Current RCRA Regulations Actually Exempt from the Definition of "Solid Waste" Fertilizers Made from *"Hazardous Waste"* Feedstocks, Let Alone Non-Hazardous Manures.

For the past twenty years, EPA has explicitly allowed hazardous waste from steel industry air pollution control systems (i.e., EAF Dusts) to be used in the manufacture and production of zinc-based fertilizers for use in agricultural applications, hardly a reuse within the *same industry*. These 1988 rulemakings not only excluded zinc-based fertilizers made from hazardous waste from the Land Disposal Restrictions,[50] restrictions that apply to K061 Electric Arc Furnace dust if it is landfilled, but also exempted such fertilizer products from RCRA jurisdiction altogether.

C. The Motion's Characterizations of RCRA Case Law, Which Purportedly Support a *Same Industry* Recycling Requirement, Are Erroneous and Misleading. In Fact, One of the Motion's Case Citations Supports OPINION 1 Above, Regarding the Statutory Basis for the Agricultural Waste Exclusion; Manure Fertilizers Are Not "Solid Wastes."

1. Background

In support of the Motion's assertion of a *same industry* recycling requirement, two cases[51] are cited that purportedly substantiate this assertion. Neither of these cases provides support for a *same industry* recycling requirement as discussed in greater detail immediately below.

2. U.S. v. ILCO, Inc.

The ILCO case did not involve a question of whether lead batteries where being reclaimed within the *same industry*, as the Motion asserts. Rather, it involved a determination as to whether "reclamation" occurred prior to re-smelting of the lead plates from automotive batteries. The ruling in the Case did not hinge upon whether the batteries were reclaimed within the *same industry*. Rather, the ruling was based upon a determination that reclamation (i.e., processing and management of the batteries) occurred prior to insertion of the lead plates into the smelter, and the fact that EPA had previously issued regulations defining battery recycling as a form of "reclamation," and in turn "discard," and therefore subject to RCRA. If a "secondary material" can be

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[50] 40 **CFR** §268. **See** also 52 **FR** 31138, (August 17, 1988), "First Third Land Disposal Restriction," Final Rule.

[51] Motion at p. 13.

directly re-used without reclamation, it is not considered a "solid waste."[52] However, if "reclamation" does occur prior to reinsertion, that activity is considered waste management and the entire process is subject to hazardous waste management standards. In addition, the Court noted that the regulations specifically and explicitly identified battery reclamation as an activity covered under the broader umbrella of "discarded material."[53]

3. Safe Air For Everyone, et al. v. Meyer

The Motion seriously misstates, if not misinterprets, the holding of this Case as it pertains to the *same industry* criteria alleged in the Motion. The Motion alleges that this Case demonstrates that recycling of a material must occur within the *same industry* from which it was generated in order to be exempt.

The 9th Circuit did not sustain the grower's position that grass residues remaining after Bluegrass harvest were not a "solid waste" because they were reused within the *same industry*. The 9th Circuit held that they were not "solid waste" because the residues that remained after year-end burning of the grass fields were not "discarded" or "abandoned," but were reused in the field to facilitate the growth of future Bluegrass crops.[54] In fact, the holding of this Case bolsters and sustains the findings presented in **OPINION 1** of this Declaration regarding the meaning of the Agriculture Waste Exclusion of RCRA (i.e., manures applied to the land as fertilizers because they are not "discarded" and therefore not "solid waste"). In this regard the 9th Circuit states,

> In enacting the Resource, Conservation and Recovery Act, Congress declared that agricultural products that could be recycled or reused as fertilizers were not of concern. Much industrial and agricultural waste is reclaimed or put to *new use* and is therefore not part of the discarded materials disposal problem the Committee addresses. Agricultural waste which are returned to the soil as fertilizers or soil conditioners are not considered discarded materials in the sense of this legislation.[55] **[Emphasis added]**.

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[52]**See** preceding discussion in **OPINION 2**. **See** also 40 **CFR** 261.2(e).

[53]U.S. v. ILCO, et al., 996 F.2d 1126, (August 4, 1993), (11th Circuit, 1993), p. 15.

[54]Safe Air for Everyone, et al., v. Meyer, et al. 373 F. 3d 1035, (July 1, 2004), pp. 24 - 25.

[55]Safe Air for Everyone, et al., v. Meyer, et al. 373 F. 3d 1035, (July 1, 2004), (9th Circuit, 2004), HN. 16.

OPINION 5: **THE MOTION COULD HAVE GRAVE IMPLICATIONS FOR OTHER MANURE MANAGEMENT PROGRAMS AND THE DISPOSAL OF MUNICIPAL SEWAGE SLUDGES. LANDFILLING IS NOT A REALISTIC OPTION FOR CHICKEN LITTER.**

A. The Motion's *Same Industry* Recycling Principle Would Have Serious Implications for All Animal-based Agriculture.

The Motion states that manures must be recycled within the *same industry* from which the material originated in order to be exempt from RCRA.[56] That is, unless the chicken litter is reused as feed to raise new chickens, the material would not be "recycled," and therefore would be considered an act of "discarding," and a "solid waste" activity.

The Agricultural Waste Exclusion (**See OPINION 1**) refers to manures generically, making no distinction between chicken litter and other farming operations. As such, the clear implication of the Motion's *same industry* recycling principle is that other non-chicken, manure-generating operations would be subject to this same principle. The Motion itself acknowledges that re-feeding manures does not occur within the poultry industry.[57] According to the Motion, a significant portion of these materials could be landfilled, a situation which creates its own series of problems. (**See** further discussion in **Subsection C** below.)

In conclusion, the practical result of the Motion's *same industry* recycling principle would be to force animal-based agricultural operations in the State and potentially elsewhere to use an unacceptable practice for purposes of avoiding regulation of their animal wastes under RCRA, and/or to landfill all animal wastes. Do the Motion's authors really believe Congress enacted an Exclusion from RCRA for Agricultural Waste only for these operations to be required to reuse feces as feed? This is such a perverse result that it cannot in any way be reconciled with the express promulgation of an exclusion for agricultural waste.

B. The *Same Industry* Principle Could Have Significant Consequences for All Biosolids Management Programs as Well.

Exhibit 1 to the Motion addresses the significant contribution of sewage treatment plants (i.e., waste water treatment facilities -- WWTFs) to phosphorous and other contaminant loadings to the Illinois River. In addition to ignoring the contribution of WWTFs to IRW pollution, the Motion's *same industry* recycling principle also will have serious potential consequences for the management of sewage sludge (i.e., biosolids) that are generated

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[56]Motion at pp. 12-13.

[57]Motion at p.12, cite to Exhibit 5, Taylor Affidavit.

by WWTFs throughout Oklahoma on a daily basis. As an EPA Guidance on the implementation of the EPA's Biosolids Management Program (i.e., sewage sludge) indicates, this Program would rival, if not dwarf, in size the volume of materials generated by agriculture:

> There are approximately 15,000 publicly owned treatment works (POTWs) in the United States that process almost 34 billion gallons of domestic sewage and other wastewater each day (EPA 1991). Sewage sludge is generated by POTWs and by privately owned and Federally owned treatment works during the treatment of domestic sewage. The amount of sewage sludge generated during the treatment of domestic sewage is estimated at about 47 pounds for every individual in the United States (58 **FR** 9249, February 19, 1993).[58] **[Emphasis added].**

The Motion raises an obvious question as to whether the *same industry* recycling principle would be applied to Sewage Sludge/Biosolids Management Programs. While there is no direct comparison of metal in animal manures versus domestic sewage sludge, it is widely recognized that domestic sewage sludge contains significantly higher levels of heavy metals than animal manures.[59] Land application is the principal method of sewage sludge management.

The Motion does not address the role of either sewage sludge or other manure sources as potential causes of the harm alleged in the Motion. The Motion simply allocates all of the environmental harm discussed therein to chicken litter, and is silent on the role of all other form of biological wastes land placement (i.e., other manures, domestic sewage sludge/biosolids WWTFs).[60] Since land placement of sewage sludge is so widespread throughout the State and country, one would expect some accounting for these other practices and their relative contributions to IRW pollution. In addition, to the extent that the land placement of chicken litter is a "imminent hazard" requiring immediate terminations, why would this urgency not apply equally to the land application of sewage sludge in the IRW?

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[58]U.S. EPA Office of Water, §503 Implementation Guidance, Document No. EPA 833-R-95-001, (October, 1995), p. 1-1.

[59]Deposition of Scott Thompson, (January 4, 2008), pp. 98 - 99, and 104 - 105.

[60]Motion Exhibit 1, "The Comprehensive Basin Management Plan for the Illinois River in Oklahoma, pp. i - xiii. This Report details the full range of contributors to IRW pollution including WWTFs, septic systems, AFOs, urban runoff, and nurseries. The Report notes, "From the data it is obvious that sewage treatment plant discharges pose a major threat to water quality...." Report at p. 28.

C. The Assertion That These Wastes Could Simply Be Disposed of in a Commercial Land Disposal Facility Is Speculative at Best.

Based upon my twenty-eight plus years of working with commercial waste management firms, many of whom managed land disposal facilities for both solid and hazardous waste, animal manures pose managerial challenges for landfill facilities. Regarding the question of whether solid waste landfills would accept significant volumes of animal manure in a limited time frame, the Executive Director of SWANA[61] believes that as a general rule, solid waste landfills will not accept large volumes of animal manures, unless their design contains special systems and operations to handle the animal manures.[62] Moreover, the South Carolina Bio-Mass Council has noted the need for specialized design when using animal wastes:

> Methane can be produced from animal waste in a process known as anaerobic digestion. The process works best in <u>an air tight container containing a mixture of bacteria</u> normally present in animal wastes.[63] **[Emphasis added]**.

Other recent research on manure management strategies and technologies reveals that landfill disposal is not even listed among the leading management methods for manures generally.[64] In addition, the Deposition of Mr. Thompson acknowledges potential capacity and/or logistics concerns if all chicken litter from IRW farms were required to be land disposed.[65]

The Motion would exacerbate the technical challenge posed by manure wastes, generally, because under its terms all poultry facilities in the IRW would simultaneously

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[61]The Solid Waste Association of North America, founded in 1966, is an 8,000 member association of solid waste management professionals. **<u>See</u>** http://www.swana.org.

[62]Personal communication with John Skinner, Executive Director of the Solid Waste Association of North America, (SWANA), Silver Spring, Maryland, and Former Director of the U.S. EPA Office of Solid Waste, (January 31, 2008).

[63]South Carolina Bio-Mass Council, "Gaseous Bio-Mass Fuels." Web Site: http://www.scbiomass.org/gaseousfuels.html, p. 1.

[64]Lorimore, J., Fulhage, C., et al., "Manure Management Strategies/Technologies," National Center for Manure and Animal Waste Management, http://www.cals.ncsu.edu/waste_mgt?natlcenter/whitepapersummaries/manuremanagement.pdf.

[65]Deposition of Scott Thompson, (January 4, 2008), p. 91.

be forced to seek and compete for limited landfill space, assuming such specially designed landfills and/or manure processing facilities even exist in the Region. This in turn would most likely result in marketplace restrictions and/or prohibitions on disposal of chicken litter in regional landfills.

OPINION 6: THE MOTION'S "IMMINENT AND SUBSTANTIAL ENDANGERMENT" CLAIM IS UNPRECEDENTED.

A. There Is No Precedent for Such an Expansive Claim Involving Manures.

In my experience, Citizen Suits actions based upon a claim of "Imminent and Substantial Endangerment" (ISE), typically identifies a specific population or receptor, plume, constituent(s) and/or facility(s) that is the alleged cause of the contamination. On occasion, the range of the geographic scope of these claims involve a facility whose plume or emission covers a wide area (i.e., smelters). However, in my experience I do not recall another Citizen Suit being filed that encompasses such a broad geographic range without regard to specific sources of contamination. Moreover, based on the research I conducted for this Declaration, I do not believe that a 7003 case has been filed involving either chicken litter or manures of any kind.

The most intensive period of RCRA 7003 Case filings by EPA/Department of Justice occurred between March 1980 and December 1981. During this period, 62 separate RCRA 7003 cases were filed addressing a wide range of contamination incidents. While a large number of abandoned and leaking sites were being discovered, relatively few other authorities existed to address such problems. The broader authorities under CERCLA had yet to be enacted or implemented. As a result, RCRA 7003 was effectively pushed to its limits to address as many site contamination profiles as possible. A review of the summary of the 62 cases reveals that not one of them even remotely approached the type being brought in the Motion, namely a Case involving two States, a vast if not un-quantified area of land, and an unspecified and an un-quantified number of receptors or exposure cases.[66]

B. There Is No General Finding of Poultry Industry Non-Compliance.

The declaration of an "imminent and substantial endangerment" would be more understandable if there were documented evidence of widespread non-compliance with the State's poultry waste management requirements in the IRW. However, depositions of environmental officials in both the Department of Environmental Quality (DEQ) and the Department of Agriculture, Food and Forestry (ODAFF) reveal that there is no evidence of widespread poultry industry non-compliance with either Department's

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[66]Hazardous Waste Enforcement Taskforce Case Summaries, (March, 1980 - December, 1981).

requirements. Mr. Thompson of DEQ notes that his Department has issued no public health warnings regarding chicken litter, and that chicken litter has not raised concerns that would place it on his radar screen.[67] Mr. Parrish of ODAFF's Environmental Division notes that violation's of the Department's Poultry Waste Management regulation occur in "instances," but not as a general matter.[68] Moreover, neither Agency has made a determination that poultry litter posed an "imminent and substantial endangerment" or was every asked to do so.[69]

C. The Motion Does Not Discuss How or Whether the Cessation of Poultry Litter Practices in the IRW Alone Will Abate the "Imminent and Substantial Endangerment."

As discussed in the Motion's own Exhibit 1, there are numerous other significant sources of surface water pollution in the IRW. The Motion does not discuss in any meaningful way how and/or whether cessation of the land application of poultry litter as a fertilizer alone will in fact abate the alleged "imminent and substantial endangerment" in the IRW, or whether other measures such as improved discharges from WWTFs, septic systems, or the other sources discussed in Exhibit 1 must also be instituted in order to diminish the threat below a level deemed to be an "imminent and substantial endangerment."

Executed on February 8, 2008.

Richard C. Fortuna
President
Strategic Environmental Analysis, L.C.
8828 Harness Trail
Potomac, MD 20854
(301) 299-6013

[67]Deposition of Scott Thompson, pp. 90 - 91.

[68]Deposition of Daniel Parrish, pp. 213 - 214.

[69]Deposition of Scott Thompson, pp. 63-67, and Deposition of Daniel Parrish, p. 212.

APPENDIX A

RESUME

RICHARD C. FORTUNA

PROFILE

For the past twenty eight years, Mr. Fortuna has been one of the principal architects of the nation's preventive hazardous waste management policies. Mr. Fortuna is best known for his work in developing key provisions of the 1984 RCRA Amendments, including the land disposal restriction and corrective action provisions, while serving on the House Commerce Committee under Congressman James Florio. In addition, he directly participated in the enactment of the original Superfund Act in 1980, while a member of Congressman John J. Dingell's personal staff, and contributed to the 1986 Superfund Amendments and Reauthorization Act (SARA). Based on these and other legislative successes, a recent Brookings study identified "reducing exposure to hazardous waste" as one of the Federal government's 50 greatest accomplishments of the 20th century.

After leaving Capitol Hill in 1984, Mr. Fortuna served as Executive Director of the Hazardous Waste Treatment Council for eleven years -- a group which played a pivotal role in implementing all key RCRA, CERCLA and TSCA waste management policies and provisions. In 1994, Mr. Fortuna founded Strategic Environmental Analysis, L.C., a management consulting firm whose focus is helping technology-based companies in the waste management and wastewater fields succeed through quality market assessments, compliance strategies and technology evaluations. Clients also include members of the business, legal and financial communities, engineering firms, insurance companies, members of the Fortune 500, Federal and state agencies, and environmental groups. Mr. Fortuna has published numerous books and articles on waste policy and holds a Master's Degree in Toxicology and Environmental Health Policy from the University of Michigan, School of Public Health. He also served on the Department of Energy's Technology Development and Deployment Advisory Board for five years. Significant accomplishments include:

Hazardous and Solid Wastes

- Developed many of the key provisions of the 1984 RCRA Amendments including, the land disposal restriction and corrective action provisions. The 1984 RCRA Amendments have been credited with stimulating the nation's rapid transition from land-based to technology-based methods of hazardous waste management. In less than 10 years the U.S. advanced from almost exclusive reliance on land disposal to one that is rich in treatment and recycling capacity;

- Implemented the preventive policies of 1984 RCRA legislative reforms, including the "hammer" to ensure that present hazardous waste management does not cause future liability, and the leaking underground storage tank (LUST) Provisions. The "hammer" was the centerpiece of the 1984 RCRA reforms and is a self-implementing sanction in the event of Agency inaction on key statutory deadlines to stimulate the use of technology-based solutions. The LUST Provisions have stimulating the cleanup of groundwater and soil at thousands of leaking chemical product tank sites throughout the nation;

- Participated in the enactment of the original Superfund Act in 1980, while a member of Congressman John J. Dingell's personal staff, and assisted in the development of the "hot spots" approach to site remediation during the 1986 Superfund re-authorization. This policy would target the "permanent remedy" directives of 1986 Superfund legislation to optimize cleanup expenditures;

- Counseled over 200 firms on market strategies, technology investment and scale-up, response strategies regarding various aspects of Federal and State waste regulations, developing direct knowledge of regulated industry's response to regulatory provisions, deadlines and remedial policies;

- Conducted numerous market studies and due diligence investigations in the hazardous, solid, and radioactive waste sectors for commercial waste management firms, insurance companies and financial institutions regarding: the advisability of market entry, the need for restructuring of current services to respond to future needs and demands, and the likelihood of future success of a given technology or market strategy;

- Provided expert witness testimony on the history and intended impacts of RCRA and CERCLA policies on the practices of hazardous waste generators and facilities that treat, store, and dispose of hazardous waste. Prepared numerous Expert Reports, have been deposed and testified at trial. Admitted as a RCRA and/or CERCLA expert in Federal and State courts and in an EPA Administrative Law proceeding;

- Submitted comments on over 100 proposed Federal and State regulations and policies under RCRA, CERCLA, TSCA, the CWA and other statutes affecting the management of hazardous, solid, radioactive wastes, PCBs, and, remediation situations;

- Testified at over 25 Congressional hearings, and organized eight others while serving as Committee Staff;

- Organized 12 national and regional conferences on hazardous waste issues since 1985; and,

- Improved the image and performance of the commercial hazardous waste industry to one that is now respected for providing services that are consistent with long-term protection of public health and the environment.

Radioactive Wastes

- Conducted detailed evaluations of the future market for technology-based management of low-level and mixed radioactive waste, and has performed a comprehensive assessment of the market position of all key commercial vendors in the low-level/mixed waste markets.

- Served on DOE-HQ's Assessment Team of the Hanford Tank Waste Privatization, which performed the final assessment of the Department's overall readiness to proceed with this landmark effort--- the single largest procurement in the history of DOE. This assessment was commissioned by the Office of the Secretary.

- Serves as a member of the DOE Environmental Management Advisory Board (EMAB), Technology Development and Deployment Subcommittee.

EXPERIENCE

President June 1994 to Present
Strategic Environmental Analysis, L.C.
Potomac, MD

Duties and Accomplishments: Study design, identifying key elements of response or action strategy, assembling team appropriate to given investigation, project management, budget preparation; investigate and research key project elements to ensure successful outcome, client development, government liaison, and public spokesperson. See preceding Profile for major accomplishments.

Executive Director 1983 to 1994
Hazardous Waste Treatment Council
Washington, D.C.

Duties and Accomplishments: Develop options, positions, and strategic plans to ensure that hazardous wastes are properly managed; and to ensure faithful implementation of the nation's two hazardous waste statutes, RCRA and Superfund, through direct involvement in all phases of the programs, including regulation, legislation, education, and litigation. Public spokesperson for the hazardous waste treatment industry, including Congressional relations and preparation and delivery of testimony. Prepare budgets, develop membership, and manage personnel. Established the Council as the responsible voice of the commercial hazardous waste treatment industry by building a membership that recognizes the waste treatment industry as the business of environmental protection; shaped national hazardous waste policy to ensure emphasis on prevention and technology. Produced several educational pieces for the general public on hazardous waste problems and technologies, including a video narrated by Edwin Neuman on the strengths and limitations of hazardous waste incineration.

Staff Toxicologist 1981 to 1983
House Energy and Commerce Committee
Transportation Hazardous Materials Subcommittee
Rep. James J. Florio, Chairman

Duties and Accomplishments: Principal architect of the 1984 RCRA reforms (The Hazardous and Solid Waste Amendments of 1984 (HSWA) making land disposal the least favored method of management for hazardous wastes and requiring maximum toxicity reduction through use of best available technology prior to land disposal.

Legislative Assistant 1979 to 1981
Office of Representative John D. Dingell

Duties and Accomplishments: Participated in drafting and negotiating key provisions of the original 1980 Superfund law, including the liability standard, the size of the fund, and the clean-up standards.

EDUCATION

Master's of Public Health 1979
Toxicology and Public Health Policy, University of Michigan

A self-designed dual program that now serves as a formal course of study.

Bachelor of Science 1975
Zoology and Microbiology, University of Michigan

REFERENCES

Personal and Professional References Available Upon Request

SELECTED NON-PROPRIETARY PUBLICATIONS

BOOKS

"Future Trends in Treatment Technology," Environmental Strategy America, 1994/95, William Reilly, ed., Camden Publishing Ltd., London, September 1994.

"Hazardous Waste Treatment Comes of Age," Standard Handbook of Hazardous Waste Treatment and Disposal, Harry M. Freeman, ed., McGraw-Hill, New York, 1989.

Richard C. Fortuna and David J. Lennett, "Hazardous Waste Regulation - The New Era: An Analysis and Guide to RCRA and the 1984 Amendments," Foreword by Senator John Chafee, McGraw-Hill, New York, 1987.

"Same Wastes, New Solutions: The Market for Treatment Alternatives," Beyond Dumping, Bruce Piasecki, ed., Quorum Books, Westport, CT, 1984, p. 199.

TESTIMONY, ARTICLES, AND REPORTS

“Beyond the MACT Rule Wars,” EI Digest, June 2001.

“The Emerging Market for Steel Waste Recycle Technologies,” EI Digest, November, 1996.

"Steel Industry Wastes and RCRA's Solid Waste Definition," Presentation Before EPA's Common Sense Initiative, Iron and Steel Committee, Chicago, Illinois, August 24, 1995.

"Incineration 1995: A Reality Check," Presentation Before 14th Annual International Incineration Conference, Seattle, Washington, May 8, 1995.

"A Technology Developer's Perspective on the Cleanup of Military Toxics," Presentation Before the National Forum on Military Toxics, Sponsored by Global Green USA, Army/Navy Club, Washington, DC, April 7, 1995.

"Richard C. Fortuna on Hazardous Waste Issues," Environment Today, Arlington, Virginia, January, 1995.

"Risk-based Standards and Pollution-Credit Trading: Has Their Time Come for Hazardous Waste Management?" EI Digest, Environmental Information Ltd., Minneapolis, Minnesota, December, 1994.

"Superfund Reauthorization: The Role of Technology and Permanent Remedies," Testimony before the Subcommittee on Superfund, Recycling and Solid Waste Management, Senate Environment and Public Works Committee, September 30, 1993.

"Technology Development and Transfer in the Superfund Program," Subcommittee on Oversight and Investigations, House Science, Space, and Technology Committee, April 29, 1993.

"Strategies for Accelerated Remedial Action," Colorado Center for Environmental Management, Snowmass, Colorado, October 19, 1992.

"Sham and Uncontrolled Recycling: A Strategy to Stop Environmental Degradation and Promote Source Reduction," Environmental Defense Fund, Hazardous Waste Treatment Council March 16, 1992.

"Comments on 'Strategies for Managing Present and Future Wastes,'" Risk Analysis, Society for Risk Analysis, Plenum Press, New York, Vol. 11, No. 1, March 1991, p. 83.

"The Status of Superfund Implementation," Testimony before the Committee on Public Works and Transportation Subcommittee on Investigations and Oversight, U.S. House of Representatives, November 12, 1991.

“Tracking Superfund: Where the Program Stands,” Environmental Defense Fund, Friends of the Earth, National Audubon Society, Natural Resources Defense Council, Sierra Club, Hazardous Waste Treatment Council, February 1990.

"RCRA: The Birth of the Hammer," The Environmental Forum, Environmental Law Institute, Washington, Vol. 7, No. 5, September/October 1990, pp. 18.

Testimony on H.R. 2525, The Waste Export Control Act, before the Committee on Energy and Commerce Subcommittee on Transportation and Hazardous Materials, U.S. House of Representatives, July 1989.

“Right Train, Wrong Track: Failed Leadership in the Superfund Cleanup Program,” Environmental Defense Fund, Friends of the Earth, National Audubon Society, Natural Resources Defense Council, Sierra Club, Hazardous Waste Treatment Council, February 1988.

For Further Information, Please Contact:

SEA, L.C.
8828 Harness Trail
Potomac, MD 20854
301-299-6013

APPENDIX B

SUPPLEMENTAL INFORMATION

February 8, 2008

Jay T. Jorgensen
Sidley Austin, LLP
1501 K Street, N.W.
Washington, D.C. 20005

RE: Supplemental Information to Accompany the Declaration

RATES

- $325 for all work related to preparation of Declaration.

- $375 for all work related to Deposition and/or Trial.

DEPOSITIONS AND/OR TRIAL TESTIMONY IN LAST 4 YEARS

- *Chem-Nuclear Systems, LLC. v. AVANTech Inc.* South Carolina State District Court (Columbia). Deposed in January, 2005.

- *U.S. Department of Energy, Flour Hanford Inc., Duratek Federal Services, Inc., and CH2M Hill Hanford Group v. Washington State Department of Ecology (DOC)*. Washington Pollution Control Hearing Board, Case Numbers, 04-137, 04-138. Deposed in September, 2006.

ARTICLES WRITTEN WITHIN THE LAST 10 YEARS

- "Beyond the MACT Rule Wars," EI Digest, June 2001.

Sincerely,

Richard C. Fortuna
President