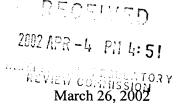
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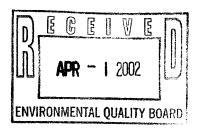




GANNETT FLEMING, INC. P.O. Box 67100 Harrisburg, PA 17106-7100 Location: 207 Senate Avenue Camp Hill, PA 17011 Office: (717) 763-7211 Fax: (717) 763-8150 www.gannettfleming.com

Environmental Quality Board PO Box 8477 Harrisburg, PA 17105-8477

Ladies and Gentleman:



Re: Proposed changes to municipal waste regulations — safe fill

The following comments and suggestions are offered regarding the proposed changes to the municipal waste regulations published February 2, 2002 in the Pennsylvania Bulletin. Two general comments are useful to convey our general concerns with the proposed rule. The first deals with the permit-by-rule which is in the current regulations and has no proposed changes. We note that there is no minimum quantity which is exempt from the proposed procedural requirement. Our imagination has conjured up several scenarios that create some challenges to the reasonableness of the proposed rule. We have concluded that some exemption, possibly one dump truck, should be exempt from the permit-by-rule evaluation depending upon material origin. The second general comment deals with integration of the safe fill requirements with facilities maintaining other PA DEP permits. Using quarries as an example, we found portions of the proposed rule to be confusing and subject to multiple interpretations. We do not believe this to be PA DEP's intent and request that some simple language be offered that the permit-by-rule can be superceded by other PA DEP issued permits. This latter suggestion allows PA DEP to have a say in product storage, material placement, and all of the issues identified in the permit-by-rule.

- \$271.1 The current definition of Historic fill is very difficult to understand because it is based on undefined terms such as historically contaminated material, waste piles, and impoundments. The use of these undefined terms introduces uncertainty and confusion. We believe the intent was to define Historic fill as follows:
- (i) Historic fill is a conglomeration of soil and residual waste materials, such as ash from the residential burning of wood and coal, incinerator ash, coal ash, slag, dredged material and construction and demolition waste used to bring an area to grade, or a specified elevation before 1988. The term excludes materials placed in connection with other PA DEP permits. Quantities of less than 125 cubic yards per excavation are excluded if they meet the following conditions...
- §271.103g Mechanical processing facility. This section is not clearly written. The wording allows for interpretation of what types of facilities are regulated under this section. We believe that this section has been written to deal with recycling centers of construction/demolition debris and not

to provide guidelines for quarry operations, or other PA DEP permitted operations. An additional statement such as, "this section does not pertain to operations in connection with other PA DEP permits." added to this section will clarify PA DEP's intentions regarding the regulation of facilities already under PA DEP permit. Additionally, it may be advantageous to call this section Construction Debris Recycling Facilities or Construction Debris Processing Facilities.

§271.103(g)(2) There is a typo in this sentence. The sentence should read, "The facility shall maintain a 300-foot"...

\$271.103(g)(3) and (4) The stated durations are extremely strict and should be modified for PA DEP permitted facilities. Our concern is that the time restrictions will cause construction/demolition recycling facilities to refuse materials because they cannot use the manufactured product within 60 days. An example of when this could occur would be when material comes into the facility in the fall, and there are no marketable uses for it until the next construction season. This will increase recycling costs and will increase the volume of construction/demolition debris that is refused from a potential beneficial use. We recommend two time durations be imposed for processing facilities: One for recycled materials that are contaminated; and one for materials that are not contaminated. We propose a required processing time of 90 days regardless of whether it is contaminated or not. This will allow a recycler to process during the winter while construction activities have slowed down. Additionally, processed materials should be allowed onsite for 90 days if contaminated and 365 days for uncontaminated material. This allows the recycler to conduct year round operations and to prepare and plan for each construction season.

§271.103(i) Brick, Block or Concrete. We recommend changing the name of this section to Contaminated/Industrial Brick, Block or Concrete. This description clearly indicates that this material is different from brick, block, or concrete included as part of safe fill and therefore is regulated differently. In addition, this change will make the proposed regulation easier to understand and use. If we have misinterpreted PA DEP's intentions, then the language has additional flaws that require correction.

§271.103(i)15 We are unsure of PA DEP intentions in this paragraph that claims the material is no longer a waste. By extension, we wondered why a waste generator wanted to fulfill the permit-by-rule requirements being proposed if it is deemed by regulation to no longer be considered a waste.

§287.1 There should be consistency between sections of the code book. The definition for safe fill is provided in section 287.1 while the definition is referenced in section 271.1. The definition for Historic fill is provided in both sections 271.1 and 287.1. Develop a consistent protocol and follow it in both sections. We recommend providing the definition in both sections.

The current definition of historic fill is very difficult to understand because it is based on undefined terms such as historically contaminated material, waste piles, and impoundments. The use

of these undefined terms introduces uncertainty and confusion. We believe the intent was to define Historic fill as follows:

- (i) Historic fill is a conglomeration of soil and residual waste materials, such as ash from the residential burning of wood and coal, incinerator ash, coal ash, slag, dredged material and construction and demolition waste used to bring an area to grade, or a specified elevation before 1988. The term excludes materials placed in connection with other PA DEP permits. Quantities of less than 125 cubic yards per excavation are excluded if they meet the following conditions...
- §287.1 Safe fill (ii)(C) The material is moved within a property, except soil moved in accordance with subparagraph (iii). This sentence is in conflict with subparagraph (iii) because subparagraph (iii) states," The term includes soil moved from a fruit orchard where pesticides were used in an authorized manner in conjunction with standard horticultural practices." It is not possible for subparagraph (iii) to include soil in the term because paragraph (C) excludes soils moved under subparagraph (iii)? We missed something here in what PA DEP was trying to convey.
- §287.1 Safe fill (vi) We recommend the following changes to clarify the paragraph: The term does not include material placed in accordance with other valid PA DEP permits unless that material meets the following conditions:...
- §287.1 Safe fill (vii) We strongly disagree with the user of safe fill having to make the determination of acceptance. If the material is potentially a waste and the permit-by-rule process is to make this determination, the principal liability for this determination belongs with the material generator. All other PA DEP waste programs require the waste generator to be initially liable for the material, including its proper disposal. Consider changing this paragraph to read: The supplier of the material has the burden of proof to demonstrate that the material is safe fill. This protects the user from dishonest suppliers, and protects small earthwork contractors that are hired to grade a site with material provided by a General Contractor. If the term user is maintained, please provide a definition to minimize interpretation of who constitutes a user.
- §287.1 Safe fill (ix) We are unsure of PA DEP intentions in this paragraph that claims the material is no longer a waste. By extension, we wondered why a waste generator wanted to fulfill the permit-by-rule requirements being proposed if it is deemed by regulation to no longer be considered a waste.
- §287.1 Site undergoing remediation activities The definition of this term does not seem to fit with the term itself. Consider renaming the term Area of Required Remediation Activities or Extent of Contamination Requiring Remediation Activities or redefine the term as follows: The extent of contamination including all areas in close proximity to the contamination that are undergoing remediation activities under the Land Recycling and Environmental Remediation Standards Act.
- §287.11 Safe fill numeric standards. (b)(1)(i) These sampling requirements seem to be excessive for 125 cubic yards of material. Consider decreasing the number of tests, or redefine the requirements

for the results. We believe that one composite sample will serve to protect the environment for these small quantities of soil.

§287.102 (j) Consider changing the wording of this paragraph as follows: Contaminated soil resulting from agricultural practices. Use of soil from known areas of contamination is possible if a residual waste permit is obtained from PA DEP and the following conditions are met.

§287.102 (j) (16)(1) Contaminated soil, dredged material or used asphalt impacted by a release or contaminated soil, dredged material or used asphalt that exceeds safe fill numeric standards as a result of urbanization. Define the term urbanization. We are unclear as to what PA DEP's intent is with this paragraph.

§287.102 (l)(12) A person receiving historic fill is required to notify PA DEP. Does this apply to landfills, quarries, mines and other PA DEP permitted facilities?

Appendix A Table 2 Regulated is spelled incorrectly. What is the purpose of the column headed, "Is Safe Fill Number Based on Generic Value?" There is no explanation of this number or a footnote explaining what the different numbers stand for. As for the values in the tables, can PA DEP please provide the origin of the values? Is it possible to use contaminated materials under certain circumstances? Does PA DEP want to outline the procedural and permitting steps for contaminated material that does not fit into the proposed regulations for safe fill?

Thanks for allowing us to express our opinions on this proposed regulation.

Very truly yours,

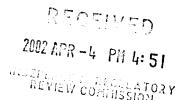
GANNETT FLEMING, INC.

JAMES A. LANGER, P.E.

Vice President

ORIGINAL: 2245

Bettis Atomic Power Laboratory P.O. Box 79 West Mifflin, PA 15122-0079





**Bechtel Bettis, Inc.** 

B-RC/E(EE)-4264 March 26, 2002

Environmental Quality Board P.O. Box 8477 Harrisburg, PA 17105-8477

Dear Sir:

This letter transmits Bechtel Bettis, Inc. comments to the proposed changes to the Municipal and Residual Waste Management regulations under Title 25, Pennsylvania Code (Title 25 PA Code) Chapters 271 and 287 as proposed on February 2, 2002.

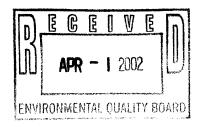
The enclosure to this letter provides the detailed comments.

If you have any questions on the above comments, please contact me at (412) 476-6716.

Very truly yours,

A. D. Smith, Manager Environmental Engineering

enclosure



#### Bechtel Bettis, Inc Comments to Safe Fill Rule

#### **Comment Number One:**

Bechtel Bettis Inc (BBI) agrees that there are valid state interests in establishing regulations to ensure that uncontaminated areas in the Commonwealth are not contaminated as a result of the use of contaminated soil as fill. However, BBI considers that the proposed rule exceeds the controls necessary to protect this interest. In particular, excavation materials should not be classified as a waste if these materials will be reused on site and particularly if it is placed back into an excavation following utility repair.

The requirements to perform detailed characterization of excavated materials prior to reusing them on site will impose significant burdens and complicate site operations for maintenance or repair of underground utilities (e.g., leaking underground fire lines or drinking water lines). Historic fill materials, such as slag, were frequently used during initial installation of underground utilities. Keeping excavations open for extended periods of time to sample and analyze the materials, poses undue risk. The added expenses to perform these operations will put Pennsylvania at a competitive disadvantage to other states for retaining and attracting new business. Excavated materials containing historic fill should not be defined as waste unless these materials are in excess of what is needed on-site. This regulation should only apply to the off-site transfer of excavated materials for use at another site.

#### **Comment Number Two:**

If the EQB elects to maintain controls for on-site management of excavated materials these controls should not apply to materials that are returned to the area of the excavation. This would even be applicable to soil and historic fill materials that have been contaminated by low levels of listed waste. This approach recognizes that placing clean fill in an area of contamination where remediation is not warranted will ultimately result in contamination of the clean fill. If the on-site management is maintained, permit-by-rule provisions should only apply if the historic fill material is moved to another area on site.

#### **Comment Number Three:**

The proposed regulations do not address situations where facilities are undergoing remediation efforts under a United States Environmental Protection Agency directive issued under RCRA or CERCLA. Clarification of the applicability of these regulations to these situations should be provided

#### **Comment Number Four:**

The definition for historic fill is vague. The Environmental Quality Board should consider providing clarification as to the percentage of residual material that would typically be contained in historic fill.

The term "visible staining" is arbitrary. Excavated materials typically contain different types of materials (e.g., decomposing vegetation) that may cause the excavation to appear visually different than the surrounding soil. The EQB should either eliminate the term "visible staining" or provide clarification for the term.

#### **Comment Number Five:**

Section 271.103(i) unfairly limits the use of brick, block and concrete from industrial facilities. All brick, block and concrete should be allowed to be reviewed as to whether it meets the numeric standards listed under this permit-by-rule. This section should be revised to read as follows:

## 271.103 – Permit-by-rule for municipal waste processing facilities other than for infectious or chemotherapeutic waste; qualifying facilities; general requirements.

(i) Brick, block or concrete. The placement of contaminated and segregated brick, block or concrete resulting from construction or demolition activities at industrial, commercial or residential properties shall be deemed to have a municipal waste permit when used to bring an area to grade, as construction material or in reclamation of an active or abandoned mine or abandoned quarry, if in addition to subsections (a) – (c), the following conditions are met:

#### **Comment Number Six:**

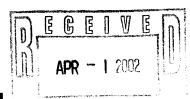
Section 287.1 unfairly limits the use of brick, block and concrete from industrial facilities. All brick, block and concrete should be allowed to be reviewed as to whether it meets the numeric standards listed to determine if it can be used as safe fill. This section should be revised to read as follows:

### 287.1 Definitions - Safe Fill

(i) Material that is uncontaminated soil, including rock and stone, uncontaminated dredged material, uncontaminated used asphalt or uncontaminated and segregated brick, block or concrete resulting from construction or demolition activities from industrial, residential and commercial properties and that meets one of the following standards:

### **Comment Number Seven:**

The tables in Appendix A of the proposed regulation contain information that is not germane to determining whether excavated materials meet safe fill standards or other permit-by-rule standards throughout the proposal. The EQB should eliminate the extra information and only include that information which will help sites determine whether their materials meet the regulatory standards identified throughout the proposed regulation.



### To: Environmental Quality Board

### Comments From: The Alliance For A Clean Environment

P.O. Box 3063 Stowe, Pa 19464 (610) 326-6433 March 24, 2002

### **Proposed Safe Fill Regulations**

Amendments to Municipal and Residual Waste Regulations

The Alliance For A Clean Environment (ACE) is a grassroots group, founded by Free people of the Greater Pottstown Area. ACE is dedicated to protecting public health and safety from the consequences of toxic exposure risks, not only for people in the Greater Pottstown Area, but for all PA residents.

After investigating the potential for harm to the health of untold numbers of citizens across PA as a result of approving these proposed safe fill regulations, ACE is urging the Environmental Quality Board NOT to approve these amendments.

### SAFE SOIL, WATER, AIR and HEALTH

Safe soil, water, and air are essential to maintain maximum health for all people in PA. These proposed safe fill regulations are actually weakening the existing unprotective standards for very toxic substances, which have the potential to cause enormous threats to public health.

"SAFE FILL" regulations play a very dangerous game of linguistic detoxification. DEP is misleading the public. It should not be called "SAFE FILL" when it would contain enormous amounts, PLUS ENORMOUS INCREASES in allowable limits of extremely hazardous substances such as arsenic, beryllium, cadmium, hexavalent chromium, copper, lead, mercury, aldrin, benzene, DDT,4,4, TCDD (DIOXIN), toluene, and xylene. These are just a few examples.

The proposed so called "safe fill" standards would allow far greater concentrations of these extremely hazardous substances in our soil, which would end up in our water, and ultimately threaten severe health harm as well as diminished quality of life for far too many PA citizens.

# If approved, these proposed "safe fill" regulations, would unquestionably result in enormous costs to PA citizens, both physically and financially.

In support of this statement, we have attached a list of some of the government documented harmful health effects for just the substances listed above. Please note these are a small fraction of the list of substances known to be harmful to humans for which "safe soil" amendments would permit huge increases in allowable limits.

Harmful health effects can be researched from ATSDR, EPA, and NIOSH for many other chemicals and metals of concern in the proposed weakened limits. We urge you to evaluate all of them and use this documented research in a decision to protect PA citizens. After evaluating all of these potentials to destroy our soil, water, and our health, we feel you will agree that allowable limits should be raised, not lowered.

It is NOT PRUDENT to allow DEP broad DISCRETION and a WEAKENED set of STATE HEALTH STANDARDS when it comes to such dangerous substances as those in "safe fill".

### Other issues of concern in DEP's amendments to the regulations.

- 1. Moving Contaminated Wastes in Soil MOVING toxic hazardous polluted contaminated substances around is NOT a SOLUTION to protect the public. Dredge soils and sediments from industrial harbors of heavily used ports and rivers, dangerous fuels and other pollutants from sites formerly used for defense, contaminated soil from around commercial nuclear reactors, asbestos and lead based paint from demolition debris, incinerator ash and cement kiln dust all contain hazards to the public. Contaminated materials should not just be moved to another contaminated site. This is hazardous waste and needs to disposed of in such a way that the water and the public, even those who live around Brownfields, are no longer exposed.
- 2. <u>Beneficial Use</u> a misleading term. This is really the dangerous practice of reusing hazardous wastes. It is not beneficial to the public to recycle any contaminated wastes. Too often, disadvantaged people are forced to live around these contaminated sites (now known as Brownfields). They are already at risk. To add to their burden is unthinkable. It is a terrible injustice to those PA citizens.
- 3. Synergism Mixing hazardous wastes together by moving them from one site to another has the potential to create a far more dangerous site. Even if levels of contamination do not exceed the original contamination, there is the potential for the exposure risks to be seriously elevated. When two or more chemicals are mixed together they can become hundreds of times more potent. Many of the substances in contaminated soils have never even been studied for their harmful synergistic effects with others. Mixing of such hazardous materials must not be permitted.
- 4. The Precautionary Principle Statewide Health Standards are not fully protective of public health, safety, welfare, and the environment. DEP is not looking out for public health when it states that 1996 toxic levels were overly conservative. Careful evaluation of the harmful human health effects of just a fraction of the toxic substances of concern will verify that the 1996 levels were NOT overly conservative, but in fact, not adequately protective. Statewide Health Standards are not sufficiently protective for unrestricted use of fill

material. The Precautionary Principle must be used when it comes to such decisions that threaten our future in so many ways. Comprehensive, independent, peer-reviewed up front SCIENCE must be used in all decisions which threaten the life support systems and health of PA citizens. Once the damage is done, strengthening regulations will not reverse the damage. Now is the time to use PRECAUTION by demanding the most stringent regulations and standards for the health and safety of Pa residents.

- 5. Brownfields Opportunities abound, in heavily populated poor and minority urban areas, to use the proposed potentially very dangerous "Safe Fill." There is a wide gap in the numerical risk levels (potentially several orders of magnitude) for what DEP calls residential and nonresidential standards.
  - a. Far too many people live in what DEP has defined nonresidential areas where the standards are even far worse.
  - b. Poor people are often unfortunate enough to have their homes far too close to Brownfield sites.
  - c. No provisions have been made in these regulations to protect them. Extremely dangerous non-residential standards would be used regardless.
  - d. What about the soil, groundwater, air emissions, and health of all these people? Don't we care about them? Doesn't DEP have a moral obligation to protect all people in PA from inevitable harm?

We ask the Environmental Quality Board to value the health and safety of all the unfortunate PA residents who are forced to live in urban areas dangerously close to many Brownfield sites. Even if economics are a factor, consider the enormous costs to the taxpayers of poor people who get sick due to excessive exposures to toxic pollution and as a result are forced to apply for disability benefits. Toxic pollution, such as that which would be allowed in contaminated soils at Brownfields, can also cause cancer, reduced IQ, learning disabilities and birth defects in our children. All this can be a great financial burden on the public. There are many other financial as well as physical costs as a result of overexposure to pollution. We believe the costs to the public far outweigh any gain to business owners.

In order to be eligible for reuse, any Brownfields site should be required to be cleaned up and certified by DEP to present no risk to the public!

- 6. "Permits-By-Rule" A ludicrous intentional regulatory loophole, which threatens major unacceptable risks to the public's water and health. This is about special interests wanting to avoid expensive treatment and disposal. Industries have used their influence with our politicians and DEP to avoid responsibility in the cost of treatment and proper disposal of dangerous wastes which threaten the future of PA citizens. Permits-by-rule facilitate the moving of contaminated fill between Brownfields sites, industrial sites, etc. with the ONLY stipulation being that the receiving site isn't any more contaminated. This is the ultimate disregard for public health and safety.
  - a. Permit-by-rule regulations ignore the probability for additive and synergistic harmful health effects at the intended disposal site.

- b. Permit-by-rule gives new meaning to the "fox watching the hen house."

  Business and industry would get to decide if the soil at each site would come under certain parts of the regulations. How illogical and ridiculous!
  - (1) Under this loophole businessmen would look, smell or use available historical data to determine what rules they need to follow for the soil in question, job by job.
  - (2) Unless historical data is obvious, it would be far too easy to claim ignorance of dangers to avoid costs involved, in spite of the inherent risks.
  - (3) To rely on sight and smell to determine the need for testing is totally inadequate as well as ridiculous. Many dangerous substances can not be detected by sight or smell, including some of the most hazardous to human health, such as dixoin and radiation.
  - (4) Businessmen required to pay for testing would actually determine if the testing needs to be done. This is an unbelievable scheme! Are we to believe this plan would actually protect the public health? What businessman is going to decide expensive testing needs to be done, if he can avoid spending the time and money? Unless forced into it, any businessman is going to avoid costs for the proper disposal or treatment of these hazardous wastes. DEP needs to find a better plan to protect the public than this ridiculous Permit-by—Rule.
- 7. Radiation DEP has avoided radiation in the proposed "Safe Fill" regulations. This is a very serious oversight. Radiation, even at low levels, is documented to harm human health. There are areas of PA where so-called "safe fill" could be extremely contaminated with radiation. It is unacceptable to exclude radiation from regulations concerning handling of contaminated materials.
- 8. "Historic Fill" Referring to slags, incinerator ash, etc. prior to 1988 when the Municipal Waste Regulations were enacted, DEP has proposed to sanction illegal waste disposal. This is absolutely not acceptable. It defies logic to allow improper placement of hazardous materials in the proposed "Safe Fill" regulations and making it sound benign by simply calling it "Historic Fill." Grandfathering polluters, just because regulations were not written, does not diminish the public's risks from these materials. Some of the pollutants that are persistent in the environment bioaccumulate, and can cause great harm to human health. There can be NO GRANDFATHERING when it comes to protecting public health and our environment. "Historic Fill" is a dangerous scheme to accommodate special interests.

In closing, we believe we have identified many serious issues

Involved with the Proposed Safe Fill Regulations,

Amendments to the Municipal and Residual Waste Regulations.

The Alliance For A Clean Environment

urges the Environmental Quality Board

to give full and fair consideration to these issues in the interest the public health and safety in PA. We urge you NOT to approve these amendments that would further destroy PA soil, water, air, and health.

### **Proposed "SAFE FILL" Toxic Metal Levels**

Health Impacts of Proposed "Safe Fill" Regulations By The Alliance For A Clean Environment March 25, 2002

DEP states that the 1996 levels of toxic metals were overly conservative. They were not conservative enough if you look at the harmful health impacts of just a few of the substances to which people could be exposed through their soil, water, and air in "Safe Fill".

### ARSENIC - Safe Fill Regulations allow 40 times more than Clean Fill Guidance

- Acute poisoning characterized by stomach and intestinal irritation, vomiting, diarrhea, bloody vomitus and stools, followed by collapse, shock, cold sweats, weak, rapid pulse, coma and death.
- 2. Chronic poisoning Disturbances of the blood, gastrointestinal system, liver, kidneys, cardiovascular system and nervous system.
- 3. Arsenic-induced liver injury is characterized by jaundice and may progress to cirrhosis and ascites.
- 4. Peripheral vascular disease and sensory loss in the peripheral nervous system are associated with arsenic exposure.
- 5. Variety of skin alterations including itching, pigmentation and skin cancer.
- 6. Arsenic is classified as a human carcinogen (Class A) by the EPA Weight of Evidence Carcinogenesis Classification (IRIS).

## <u>BERYLLIUM</u> – Safe Fill Regulations allow <u>3,200 times more</u> than Clean Fill Guidance allows.

- 1. Exposure to beryllium has been associated with the development of dermatitis, chronic skin ulcers, rhinitis, nasopharyngitis, and bronchitis.
- 2. In severe cases it is associated with acute pneumonitis, characterized by cough, scanty sputum, low grade fever, rales, dyspnea, and substernal pain.
- 3. A delayed form of lung disease, "berylliosis," has been shown to occur and is characterized by granulomatous area in lung tissue and pulmonary fibrosis. Symptoms are coughing, shortness of breath, rales, loss of appetite, weight loss, fatigue, and elevated red blood cell count. Prognosis is poor and death may result from respiratory and cardiac failure.
- 4. Can produce granulomatous tumors. (Sax 1984)
- 5. Beryllium compounds have induced malignant tumors of the lung in rats and monkeys and osteogenic sarcoma in rabbits (Casarett and Doull 1986).
- 6. Beryllium is characterized as a probable human carcinogen (Class B2) by the U.S. EPA

Why would DEP allow 3,200 times as much beryllium in "Safe Soil" as was acceptable for Clean Fill?

# <u>CADMIUM</u> – Safe Fill Regulations allow <u>19 times more</u> than Clean fill Guidance

- 1. Acute toxicity is characterized by nausea, vomiting, and abdominal pain.
- 2. Chronic Cadmium Exposure Primary effects are chronic obstructive pulmonary disease and emphysema, and chronic renal tubular disease.
- 3. Inhalation of cadmium fumes or dust may cause dryness of throat, cough, headache, a sense of constriction in the throat, dyspnea, chest pain, prostration, and vomiting.
- 4. Chronic cadmium poisoning may result in alterations of the skeletal and cardiovascular system (hypertension).
- 5. Cadmium may be a teratogen (Casarett and Doull 1986, Sax 1984).
- 6. Animal experiments produced tumors (sarcoma) at the injection site which can metastasize to the lymph nodes and lungs. Testicular necrosis and Leydig Cell tumor formations and lung cancer have been observed in rats.
- 7. Cadmium has been designated a probable human carcinogen (Class B1) by U.S. EPA.

# <u>HEXAVALENT CHROMIUM</u> - Safe Fill Regulations allow <u>3.1 times</u> more than Clean Fill Guidance.

- 1. Systemic toxicity of hexavalent chromium in humans is characterized by respiratory tract cancer (Casarett and Doull 1986, Sax 1984).
- 2. Hexavalent chromium has been designated a known human carcinogen (Class A) by EPA (IRIS).

## <u>COPPER</u> - Safe Fill Regulations allow <u>43 times more</u> than Clean Fill Guidance.

- 1. Irritation to the skin, eyes, and upper respiratory tract.
- 2. Can produce vomiting, gastric pain, dizziness, exahustion, anemia, cramps, convulsions, shock, coma, and death.
- 3. Kidney, liver, and nervous system toxicity have been observed in humans
- 4. May produce a form of metal fume fever.
- 5. In laboratory animals, inhalation of copper dust has caused red blood cell hemolysis, lung cell injury, and hemofuscin deposition in the liver and pancreas, while injection of copper dust has caused cirrhosis of the liver and pancreas (Casarett and Doull 1986, Sax 1984).

# <u>LEAD</u> - Safe Fill Regulations allow <u>22.5 times more</u> than Clean Fill Guidance.

- 1. Developmental alterations resulting in cognitive or motor neurological deficits in neonatal and young children.
- 2. Severe lead encephalopathy is accompanied by cerebral edema, cerebral spinal fluid pressure, endothelial cell swelling, glial cell proliferation, neuronoal degeneration, and areas of focal cortical necrosis.
- 3. Symptoms may vary from ataxia to stupor, coma and convulsions.

- 4. Behavior alterations such as hyperactivity, poor classroom behavior, and decreased I.Q. are associated with subclinical or low level lead toxicity in children.
- 5. Peripheral neuropathy and/or chronic nephropathy can result in adult overexposure.
- 6. Peripheral neuropathy is characterized by motor nerve dysfunction, symptoms of which may include foot-drop or wrist-drop (muscle weakness) and muscle pain.
- 7. Lead induced renal toxicity is manifested by chronic interstitial nephropathy characterized by vascular sclerosis, tubular cell atrophy, interstitial fibrosis, and glomerular sclerosis.
- 8. Effects of lead toxicity include gastrointestinal and reproductive systems (Casarett and Doull 1986). Gastrointestinal symptoms include abdominal pain, constipation or diarrhea, loss of appetite, metallic taste, nausea, vomiting, weight loss, and the presence of a lead line in the gums.
- 9. Severe toxicity has been shown to cause sterility, abortion, neonatal mortality and morbidity, and reproductive toxicity in both male and female laboratory animals.
- 10. Lead has been shown to induce renal cancer in rodents.
- 11. EPA has classified lead as a probable human carcinogen (Class B2)

### MERCURY - Safe Fill Regulations allow 5 times more than Clean Fill Guidance.

- 1. Acute inhalations of high concentrations of mercury vapor (elemental) may produce an acute, corrosive bronchitis, interstitial pneumonitis, and central nervous system effects such as tremor and excitability.
- 2. Chronic exposure to mercury vapor results in profound central nervous system disturbances which may include tremors, spasms of the extremities, changes in personality and behavior, memory loss, increased excitability (erethism), severe depression, delirium, and hallucination.
- 3. Gingivitis and salivation are also characteristic signs of chronic mercury poisoning.
- 4. Early signs of chronic exposure to mercury vapors include an authenic vegetative syndrome characterized by bodily weakness and tremors, as well as thyroid enlargement, labile pulse, tachycardia, and gingivitis (Casarell and Douli 1986)
- 5. Alkyl mercury compounds are the most toxic. Major clinical features include neurologic symptoms such as paresthesia, ataxia, disarthria and deafness. These symptoms result from degeneration of the cerebral cortical neurons of the brain. Alkyl mercury may also cause skin burns and irritation and may be absorbed through the skin.
- 6. Inorganic mercury salts can cause corrosive ulceration, necrosis and bleeding of the gastrointestinal tract, shock, and circulatory collapse.
- 7. Renal failure follows gastrointestinal toxicity and is most often due to necrosis of proximal tubular epithelial cells of the kidney.
- 8. Chronic inorganic mercury exposure may also produce an immunologic glomerular disease of the kidney.

### Proposed "Safe Fill" Organic Regulated Substances

### ALDRIN - Safe Fill Regulations allow 50 times more than Clean Fill Guidance

- Ingestion, inhalation, or dermal absorption of aldrin can caue headache, nausea, vomiting, dizziness, irritability, depression, mild chronic muscle jerking, and convulsions.
- 2. Fatalities have been reported to result from acute poisoning by cyclodiene pesticides.
- 3. Chronic exposure to aldrin can result in liver toxicity.
- 4. Aldrin has been reported to produce alterations in the reproductive systems of several laboratory animal species resulting in decreased fertility and decreased viability of offspring. Doses that produced these reproductive effects were high enough to produce hepatic toxicity in maternal animals and reproductive effects are thought to be related to hormonal imbalance. (Casarett and Doull 1986)
- 5. Aldrin is a probable human carcinogen (Class B2) due to production of liver tumors in laboratory animals (IRIS).

# BENZENE - Safe Fill Regulations allow 2.6 times more than Clean Fill Guidance

- 1. Benzene is a human carcinogen. The EPA states that benzene is a human carcinogen (Class A) based on the following:
  - a. Aplastic anemia and bone marrow depression are produced in humans. (Casarett and Doull 1986)
  - b. Increased incidence of nonlymphocytic leukemia
  - c. Increased incidence of neoplasia in mice and rats exposed by inhalation or gavage
  - d. Induction of chromosomal aberrations and micronuclei (IRIS)
- 2. Locally benzene can produce skin irritation, erythema, edema, burning and blistering.
- 3. Benzene can produce nervous system disturbances characterized by dizziness, confusion, tightening of leg muscles, headache, fatigue nausea and narcosis.
- 4. Benzene is also thought to affect both male and female reproductive capacity (Casarett and Doull 1986)

### DDT, 4,4 - Safe Fill Regulations allow 530 times more than Clean Fill Guidance

- 1. Acute DDT poisoning is manifested by central nevous system alterations which may include paresthesia of the tongue, lips and face, apprehension, hypersensitivity to stimuli, irritability, dizziness, disturbed equilibrium, tremors, and convulsions.
- Chronic DDT exposure results primarily in liver toxicity Centrolobular necrosis, liver enlargement, and altered liver enzyme levels.
- 3. DDT in the diet of rodents has resulted in an increase in liver tumor production.
- 4. DDT and its metabolites DDE and DDD have been designated probable human carcinogens by EPA (ISIS).
- 5. Animal studies suggest that DDT may produce immune system toxicity.
- 6. Food chain biomagnification of DDT has been associated with reproductive toxicity in birds and toxicity to sensitive aquatic species.

DIOXIN (TCDD) Safe Fill Regulations allow 400 times more than Clean Fill Guidance. It must be noted that dioxin is a powerful hormone-disrupting chemical that exhibits serious health effects when it reaches a few parts per trillion in your body fat. Dioxin is not metabolized by humans. It attaches to a protein in the cell and accumulates in the fat cells. Our bodies have no defense to dioxin. Dioxin is passed on to our children. EPA says that much of the U.S. population is at the dose of dioxin at which there can be serious health effects. EPA's 1994 Dioxin Reassessment said that every man, woman, and child's body may already contain enough dioxin to cause adverse health effects.

- EPA confirms that dioxin is one of the most potent cancer causing agents known to humans.
- 2. Dioxin can impact learning ability in our children and increased susceptibility to infections in our children exposed to background levels.
- 3. Can impact thyroid and liver functions.
- 4. Can cause adverse impacts on human metabolism.
- 5. Has potential to cause adverse impacts on developmental and/or reproductive biology. Dioxin has been linked with altered levels of male reproductive hormones, fewer male births, miscarriage and infant death, birth defects, low birth weight and growth retardation.
- 6. Linked with reduced glucose tolerance, and increases in diabetes.
- 7. Linked with cardiovascular disease and hypertension.
- 8. Linked with respiratory cancers and soft tissue sarcoma.
- 9. Linked to endometriosis and demasculization, and increased susceptibility to bacteria, viruses and immune system suppressions in animal studies.

Why would DEP suggest that levels of acceptable dioxin in our soil should be allowed to be 400 times over current acceptable levels?

### Please consider:

Residential Statewide Health Standards proposed to be used for "Safe Fill" Regulations are much WEAKER than current Clean Fill Criteria. Whether these calculations are exactly accurate or not, there is no doubt that there are enormous increases and given the extreme toxicity of these substances, this is unacceptable. DEP is going in the wrong direction.

For Example:

The nonresidential State Health Standard for DIOXIN is 4.4 times the residential State Health Standard for surface soil and 1,583,333,300 times the residential subsurface soil (2 to 15 feet).

The nonresidential State Health Standard for ARSENIC is 4.4 times the residential State Health Standard for Surface soil and 15, 833 for subsurface soil (2 to 15 feet)

The nonresidential State Health Standard for LEAD is 2 times the residential State Health Standard for surface soil and 380 times the residential subsurface soil (2to 15 feet.)

<u>TOLUENE</u> - Safe Fill Regulations in 2002 for Toluene allow 8,800 times more than Safe Fill Regulations in 2000 would have allowed.

- 1. Inhalation exposure to toluene can cause depression of the central nervous system.
- 2. Prolonged exposure can cause permanent/residual nervous system damage.
- 3. Produces respiratory irritation.
- 4. Studies in laboratory animals suggest that toluene may produce liver and kidney toxicity and be a developmental toxicant.
- 5. Data on Carcinogenesis is not available.

  Why would DEP allow standards on such a toxic substance to be weakened to such a degree?

# XYLENE - Safe Fill Regulations in 2002 for Xylene allow 170,000 times more than Safe Fill Regulations in 2000 would have allowed.

- 1. Acute human exposure to xylene reportedly results in irritation of the skin, eyes, nose, and throat, central nervous system depression, dizziness, headache, and fatigue.
- 2. Nervous system effects from both acute and chronic exposures to xylene may include mental confusion, narcosis, alterations in body balance, impaired short-term memory, and tremors.
- 3. Studies on animals suggest that xylene may also injure the kidneys and liver.
- 4. Xylene was shown to be embryotoxic in laboratory animals.
- 5. Data on Carcinogenesis Classification is not available.

  Why would any protective agency allow such enormous increases in levels of such extremely harmful exposure risks?

The Alliance For A Clean Environment has presented scientific data on the harmful health effects of only a fraction of the hazardous substances which could be found in what DEP has deceptively called "Safe Soil". Health impacts of ALL hazardous materials which could be in "Safe Soil" are unknown. Neither are their additive and synergistic effects. While ACE has not done the calculations listed for the increases and can not verify the exact amounts, it is obvious the public needs and deserves stronger standards, not weaker ones. Such dangerous materials at such enormous levels will eventually destroy our life support systems and our health. ACE suggests that health standards be strengthened, not weakened, and that the name be changed to a more accurate description. We have enclosed the sources of ATSDR's data on health impacts, which we used, for your convenience.

ACE urges the Environmental Quality Board —
Consider The Harmful Health Impacts

Do NOT approve DEP's amendments which can cause irreversible damage to PA's environment and its citizens.

### References

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# **PCPG**

PENNSYLVANIA COUNCIL OF PROFESSIONAL GEOLOGISTS, INC.

SUITE 300 717 NORTH SECOND STREET HARRISBURG, PENNSYLVANIA 17102-3211

TELEPHONE (717) 238-1222 FAX (717) 238-9512

On behalf of the Pennsylvania Council of Professional Geologists (PCPG), I want to thank the Environmental Hearing Board for its consideration of the comments presented to reflect PCPG's position on the proposed Safe Fill Regulations.

PCPG represents nearly 60 companies that employ more that 1,000 geologists in the Commonwealth of Pennsylvania. Many of these professionals are engaged in matters regarding determinations of safe fill as a means of reusing existing resources and minimizing unnecessary consumption of permitted landfills. To that end, PCPG recommends that the proposed rule consider developing a protocol for an appropriate standard of due diligence, when investigations of historic uses of a property are warranted; that protocol should endorse employment of environmental professionals such as geologists. As an extension of this recommendation, appropriate SW-846 methodologies should also be specified to reduce uncertainty as to how sampling should be performed; EPA's Systematic Random Sampling Protocol may be well suited to this type of waste characterization effort. Screening tools and analyses would be an appropriate protocol in this application. PCPG further recommends that characterization of materials in-place be specifically permitted by the rule, so long as an appropriate sampling protocol is applied for characterization. This should facilitate decision making in conjunction with remediation projects and optimize use of sampling and testing resources. Finally, we recognize that the proposed regulation may, in certain cases, permit laboratory testing for a "short list" of analytes when complete historical information is not available, and we endorse this approach. However, we are concerned that the regulations otherwise require use of the "long list" of analytes, which can be a significant financial obligation to impose on a generator, and such extensive analyses may be excessively broad. For example, dioxin need not be tested every time the long list is used, especially when professional judgment precludes the need for this analysis. particularly given that this test is very expensive and only needed in very specific applications.

Thank you, again, for your consideration of this information.

### COMMONWEALTH OF PENNSYLVANIA

# PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION ENVIRONMENTAL QUALITY BOARD

\* \* \* \* \* \* \* \*

IN RE: PROPOSED PROVISIONS FOR THE MANAGEMENT
OF SAFE FILL AND CONTAMINATED MATERIALS

PUBLIC HEARING

BEFORE: Susan McDonald, Chair

Khatija Satyaswaroop

Michelle Moses, Assistant Counsel

Leslie Sarvis

HEARING: Tuesday, March 19, 2002

7:00 P.M.

LOCATION: Rachel Carson State Office Building

Auditorium

400 Market Street

Harrisburg, PA

Reporter: Vivian Gratz

# **ORIGINAL**

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#### PROCEEDINGS

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CHAIR:

Good evening. I would like to welcome you to this Environmental Quality Board public hearing on proposed regulatory provisions for the management of safe fill and contaminated materials.

My name is Sue McDonald. I am Chief of the Environmental Quality Assurance Division in the Pennsylvania Department of Transportation. I am also Secretary Mallory's alternate to the Environmental Quality Board.

Also with me this evening from the Department of Environmental Protection are: Satyaswaroop, Division of Municipal and Residual Waste, Bureau of Land Recycling and Waste Management; Michelle Moses, Assistant Counsel, Bureau of Regulatory Counsel; and Leslie Sarvis, Executive Policy Specialist, Policy Office.

Notice of the proposed amendments was printed in the Pennsylvania Bulletin and in nine major newspapers around the state on February 2nd, 2002.

The proposal revises the municipal and residual waste regulations with respect to the management of uncontaminated and contaminated soil and other materials. The proposal is the result of public comments on the DEP's efforts to update a policy and numeric standards for determining when fill is safe enough to use in an unrestricted manner. The existing standards are based on the land recycling regulations proposed in 1996. Since that time, the DEP has proposed changes to its interim policy on two occasions for consistency with existing Act 2 standards, with opportunities for public comment. The first draft was published on August 28th, 1997.

Comments on this draft prompted a second draft safe fill policy package which was published on March 11, 2000.

The proposal adds a definition for safe fill that includes soils, dredge materials, used asphalt and segregated brick, block and concrete. Other major provisions include adding five permits-by-rule to allow for the beneficial use of contaminated materials with certain conditions, as well as materials that do not meet safe fill standards. The proposal also amends the definition of construction/demolition waste and adds new definitions for historic fill, sediment and sites undergoing remediation activities.

In addition to the management of

uncontaminated and contaminated materials, the proposed regulations include amendments to the permit by rule in the municipal waste regulations for mechanical processing by enlarging the tons per day of segregated construction/demolition waste that may be managed under the permit.

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In order to give everyone an equal opportunity to comment on this proposal, I would like to establish the following ground rules: I will first call upon the witness who has pre-registered to testify at tonight's hearing as included on the schedule of witnesses. After hearing from this witness, I will provide any other interested parties the opportunity to testify as time allows. testimony is limited to ten minutes for each witness. Organizations are requested to designate one witness to present testimony on its behalf. Each witness is asked to submit three written copies of the testimony to aid in transcribing this hearing. Please hand me your copies prior to presenting your testimony. Please state your name and address for the record prior to presenting your testimony. We would also appreciate your help in spelling names and terms that may not be generally familiar so that the transcript can be as accurate as possible.

1 Interested persons may submit written comments in addition to or in place of oral testimony 2 presented here. All comments must be received by the 3 Environmental Quality Board by April 3rd of 2002. 4 Comments should be addressed to the Environmental 5 Quality Board, P.O. Box 8477, Harrisburg, 7 Pennsylvania, 17105-8477. Comments can also be e-mailed to RegComments@state.pa.us. All comments 8 received at tonight's hearing and in writing by April 9 3rd will be considered by the Environmental Quality 10 Board and become part of a comment/response document 11 prepared for the Environmental Quality Board's review 12 13 prior to taking final action on this regulation. 14 Anyone interested in a transcript of this 15 hearing may contact the reporter here tonight to 16 arrange to purchase a copy. 17 I will now call the first witness. 18 Nachlas, Pennsylvania Council of Professional 19 Geologists. 20 MR. NACHLAS: 21 Good evening. My name is Paul Nachlas. 22 My business address is Alliance Environmental 23 Services, Inc. at 1414 North Cameron Street in 24 Harrisburg. I did provide three copies of the 25 testimony that I'll present tonight, and I am

preregistered.

I am here tonight on behalf of the Pennsylvania Council of Professional Geologists. And accordingly, I want to thank the Environmental Quality Board for its consideration of the comments presented to reflect the PCPG's position on the proposed safe fill regulations.

PCPG represents nearly 60 companies that employ more than 1,000 geologists in the Commonwealth of Pennsylvania. Many of these professionals are engaged in matters regarding determinations of safe fill as a means of reusing existing resources and minimizing consumption of permitted landfills. To that end, PCPG recommends that the proposed rule consider developing a protocol for an appropriate standard of due diligence, particularly when investigations of historic use of a property are warranted. That protocol should endorse employment of environmental professionals such as geologists.

As an extension of this recommendation, appropriate Solid Waste 846 methodologies should be specified to reduce uncertainty as to how sampling should be performed. And EPA's Systematic Random Sampling Protocol may be well suited to this type of waste characterization effort. Screening tools and

analyses would also be an appropriate protocol in this application.

PCPG further recommends that characterization of materials in-place be specifically permitted by the rule, so long as appropriate sampling protocol is applied. This should facilitate decision making in conjunction with remediation projects and optimize use of sampling and testing resources.

Finally, we recognize that the proposed regulation may, in certain cases, permit laboratory testing for a short list of analytes when complete historical information is not available. We endorse the use of these short list. However, we are concerned that the regulations otherwise require the use of a long list of analytes, which can be a significant financial obligation to impose on a generator, and such extensive analyses may be overly broad. For example, dioxin need not be tested every time a long list is used, especially when professional judgement precludes the need for this analysis, particularly given that this test is very expensive and only needed in very specific applications.

Thank you again for your consideration of this information.

CHAIR:

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That concludes our list of registered
1
               Is there anybody else who would like to
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    witnesses.
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    give testimony at this time?
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                  This concludes it. Thank you very much.
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                 HEARING CONCLUDED AT 7:08 P.M.
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### CERTIFICATE

I HEREBY CERTIFY THAT THE FOREGOING PROCEEDINGS
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REDUCED TO TYPEWRITING AND THAT THIS TRANSCRIPT
IS A TRUE AND ACCURATE RECORD THEREOF.

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COMMONWEALTH OF PENNSYLVANIA 2002 APR -5 PH 4: 145 ARTMENT OF TRANSPORTATION OFFICE OF HARRISBURG, PENNSYLVANIA 17120
SECRETARY OF TRANSPORTATION CONTROL OF TRANSPORTATION C

March 18, 2002



Mr. David E. Hess, Secretary PA Department of Environmental Protection 16<sup>th</sup> Floor, Rachel Carson State Office Building P.O. Box 2063 Harrisburg, PA 17105-2063

Re: PENNDOT's Proposed Safefill Amendments Concerns

I am writing to you to express the Department of Transportation's concerns with the published proposed Safefill Regulations. As you are aware, PENNDOT was prepared to present our primary concerns on the proposed regulations during the March 19, 2002, public hearing. Due to concerns from your Department with PENNDOT giving testimony at a public hearing, we will no longer be testifying. It is still our intent to provide formal, more detailed written comments on the total amendments, by April 3, 2002.

PENNDOT has been and will continue to work with DEP to achieve acceptable modifications to the regulations; however, we still have significant concerns with the proposed language in the following three primary areas:

1. The current proposed regulations may seriously jeopardize PENNDOT's and the Asphalt Industry's reuse of used asphalt and/or millings for use in Reclaimed Asphalt Pavements (RAP). RAP is the number one recycled material in the USA. When material is milled, the milling operation occurs directly on the roadway by Department force or contractor. That material is moved to another location for storage prior to its reuse, either by PENNDOT or by it's contractor's. The material can be used as subbase for the reconstruction of that project, added to the hot mix mixture in another location or stored for future use.

Section 287.1 Safefill definition and Section 287.102(k) [PBR for use of contaminated used asphalt] are of specific concern. Besides the testing requirements, these sections place restrictions, such as no placement within 100ft of a surface water body, or within 300ft of a drinking water source, that will be impossible to meet.

Section 287.1(i)(II) states that no visible staining, odors, other sensory nuisances may be associated with the material. Most surfaces of transportation facilities typically do have visible staining, caused by normal public use and dripping of vehicle lubricants. This strict requirement is unnecessary and may exclude all transportation facilities from meeting the definition of safefill and from being recycled.

- 2. In Section 287.1(i)(C), as an additional level of confidence to the "due diligence" determination, provide a sampling screening procedure to allow operators a greater comfort level in the "due diligence" determination without having to conduct the full sampling protocols of Section 287.11. Potential testing costs have been determined to be approximately \$1000/sample, which does not include any sample collection costs. The proposed sampling protocol for testing of all fill material, requires 6-9 samples per 3000 cubic yards. PENNDOT moves millions of tons of materials each year, including farmland soils, these requirements will have a significant financial impact on the Department.
- 3. In Section 287.11, an in-situ testing protocol is needed. Without such a protocol PENNDOT will experience significant project delays with a resultant increase in project costs and negative impacts on the motoring public and property owners adjacent to the project sites. With the procedure proposed in the regulations, the contractor must first excavate and then stockpile the materials before sampling and testing. Normal laboratory testing turnaround time for samples is typically 2 weeks. In a normal project, contractors try to move the material as soon after excavation as possible. If an in-situ testing protocol is developed, the material can be tested in place, prior to letting a contract so a reasonable scope of work and schedule can be established. This allows the construction process to be better planned and controlled.

These reflect our three primary concerns, any one of which will unquestionably have major impacts on the Department's construction program and our ability to deliver our transportation program to the citizens of the Commonwealth.

These and other more specific comments will be presented in our written document. Thank you.

Sincerely,

Bradley L. Mallory

Secretary of Transportation

### Western Pennsylvania River Aggregate Producers

c/o Jeffrey L. Brummert Hanson Aggregates PMA, Inc. 400 Industrial Boulevard New Kensington, PA 15068 Phone 412-362-4900

March 15, 2002

Commonwealth of Pennsylvania Environmental Quality Board Rachel Carson State Office Building, 15<sup>th</sup> Floor 400 Market Street Harrisburg, PA 17101-2301

RE:

Comments on Proposed Rulemaking Amendments to 25 PA Code Chs. 271 & 287 SAFE FILL [32 PA.B. 564]

Ladies and Gentlemen:

In response to the proposed rulemaking to amend 25 PA Code Chapters 271 and 287 for the inclusion and recognition of Safe Fill Standards, the Western Pennsylvania River Aggregate Producers (consisting of Hanson Aggregates PMA, Inc., Glacial Sand & Gravel Company and Tri-State River Products) wish to submit comments for your consideration.

Natural sand and gravel aggregate obtained from commercial sand and gravel dredging should be excluded from the proposed Safe Fill rulemaking.

The current amendments address 'dredged material' only and do not distinguish between commercially dredged sand and gravel aggregate and sediments obtained from maintenance dredging operations. We believe that the intent of the proposed rulemaking is to address dredged sediments from maintenance dredging operations - not commercial sand and gravel aggregates. The purpose and operation of commercial sand and gravel dredging and maintenance dredging greatly differ. As such, natural sand and gravel aggregate obtained from commercial sand and gravel dredging should be excluded from the proposed Safe Fill rulemaking.

Commercial sand and gravel dredging on the Allegheny and Ohio Rivers in Western Pennsylvania produces three types of aggregate: natural sand, natural gravel, and natural sandy silt of various products (for example: AASHTO #8, #2A, #57 and #67, and PennDOT #1B, #2A, #2B, #2, Pa. state sand and Pa. state subase). The natural sand and gravel is merchantable as PennDOT approved fine and coarse aggregates used as construction aggregate and in the production of concrete and asphalt. The sandy silt is not used as construction aggregate, but used



Safe Fill Comments March 15, 2002 Page 2

for abandoned mine lands reclamation, as construction fill in raising surface elevations and as an additive in manufactured topsoil.

Commercial sand and gravel dredging and maintenance dredging occur for vastly different purposes and more importantly, in different settings. As noted in the points that follow, aggregates from commercial sand and gravel dredging should be set apart from sediments obtained by maintenance dredging.

- The intent of the current provisions for dredged material address maintenance dredging operations. Such operations are performed for beach and harbor maintenance, for commercial barge dock and terminal maintenance, and occur along the river shoreline in shallow waters. These locations hold an exceedingly high potential for having been subject to a historic release of contamination.
- Commercial sand and gravel dredging operations are highly regulated and permitted by the Pa Department of Environmental Protection and the US Army Corps of Engineers.
   Commercial sand and gravel dredging occur only in the navigation pools of the Allegheny and Ohio Rivers.
- Permit conditions stipulate specific locations within the river pools where commercial sand and gravel dredging may occur. Commercial sand and gravel dredging typically occurs in water over 20 feet deep and more than 200 feet from shoreline. The aerial extents of the dredging sites are very small. At such locations, the natural sand and gravel aggregates are at a very minimal risk of having been subject to a release of contamination.
- Maintenance dredging occurs along beaches, commercial barge docks, river terminals
  and harbor areas. It is typically conducted in water less than 10 feet deep and located
  along or close to the shoreline where the potential for historic contamination is very high.

Commercially dredged sand and gravel aggregate, taken from the navigable portion of the river, should be excluded from the Safe Fill rulemaking.

As a matter of record, the US Army Corps of Engineers is in the process of conducting a NEPA-EIS of commercial sand and gravel dredging. The bottom sediments at numerous locations in the Allegheny and Ohio Rivers were studied and have not found signs of contamination in the areas permitted for commercial sand and gravel dredging.

The outlined points offered identify the need for recognizing the existence and difference between natural sand and gravel aggregate obtained by commercial sand and gravel dredging and sediments obtained from maintenance dredging operations. Because of these differences, aggregate from commercial sand and gravel dredging should be exempted from the proposed rulemaking. However, in instances when aggregate exhibits signs of contamination, sampling and analytical testing would be warranted and performed.

Safe Fill Comments March 15, 2002 Page 3

In conclusion, the Western Pennsylvania River Aggregate Producers desire that a distinction be made between commercial sand and gravel dredging operations and maintenance dredging operations, and as such, that aggregate obtained from commercial sand and gravel dredging operations be exempted from the proposed Safe Fill rulemaking.

We appreciate the opportunity for submitting our comments on the proposed Safe Fill rulemaking. Should you have any questions or desire additional information on the Western Pennsylvania River Aggregate Producers, please contact Mr. Allan J. Percha, Hanson Aggregates PMA, Inc., at 412-362-4900.

Respectfully Submitted,

Western Pennsylvania River Aggregate Producers

Jeffrey L. Brummert Vice-President

Hanson Aggregates PMA, Inc.

#### Trostle, Sharon F. - DEP

From: John Scrabis [JMScrabis@mactec.com]

Sent: Wednesday, March 13, 2002 9:34 AM

To: RegComments@state.pa.us

Cc: Dayne Crowley; Joseph Senita; Pat Pontoriero

Subject: Comments to Safe Fill Proposal

Dear EQB Members & Other Interested Parties-

I am a practicing environmental engineer with over 13 years of experience as a consultant in Pennsylvania. My work consists primarily of site assessments, remediation, and Act 2 projects, many of which involve assisting clients with decisions regarding soil management and disposal.

I have reviewed the proposed Safe Fill regulations and have the following comments:

- 1. There appears to be no provision for sites where the Background standard is a remedial objective. This will adversely affect those sites that have attained the Background standard and the owner wishes to reuse soil on site. For example, in my experience it is quite common for sites in western Pennsylvania to have background soil concentrations of arsenic that exceed the Residential Direct Contact MSC (and therefore the Safe Fill value and PBR value listed in Table 1 and Table 6, respectively, in Appendix A) of 12 mg/Kg. The regulation, specifically Section 287.102, should be revised to allow onsite (and in some instances offsite) reuse of soils that exceed the Safe Fill and/or PBR value but meet the Background standard (as determined under Chapter 250).
- 2. Regarding the new regulatory category for Historic Fill, I have no objections to regulation of such material, but the Department must be aware that the regulation, if promulgated as is, will have far-reaching implications within the general construction industry. The regulation as written will require those with projects that involve disturbance of more than 125 CY of Historic Fill to develop a sampling & analysis program per Ch. 287 and in many cases dispose of the material as residual waste. This will be nothing new for those sites where soil contamination issues are already known and addressed during construction. But many construction projects in Pennsylvania take place along rivers and hillsides where construction debris and other Historic Fill is present but soil contamination is not suspected. On most of these projects the construction team does not include an environmental consultant or others with knowledge of Chapter 287. On these projects, the common practice has been to manage excavated soils (including Historic Fill) as clean fill or otherwise as unregulated material. Once the regulation is promulgated, the Department should develop an outreach program to make sure that the general construction industry is aware of the new requirements for management of Historic Fill.

Feel free to call or email if you have any questions regarding my comments.

Sincerely,

John M. Scrabis Harding ESE, Inc. Pittsburgh, PA 412/279-6661 (office) 412/279-8567 (fax) ORIGINAL: 2245

# RT Environmental Services, Inc.

DECEMEN

March 11, 2002

2092 MAR 25 AM 9: 51,

Mr. William Pounds
Pennsylvania Department of Environmental Protection
Division of Municipal & Residential Waste
P.O. Box 8472
Harrisburg, PA 17105-8472

RE:

COMMENTS ON PROPOSED SAFE FILL REGULATIONS

Dear Mr. Pounds:

I am pleased to enclose comments on the Safe Fill Regulations, as proposed by DEP, as follows:

- A current deficiency in the Regulations is that no guidance is given to consultants as to how to study materials in situ. This is a critical element of the Safe Fill Site Screening Process, and it is not expected to be either feasible nor realistic for most materials to be sampled at the rate of 3 to 12 samples per 3000 cubic yards, using the composite or discrete sampling techniques. The New Jersey Department of Environmental Protection, at NJAC7:26E has a well developed set of regulations, focusing on sampling based on the type of suspected release, and original release source. These cover the majority of suspect release scenarios, although, more elaboration is needed in the area of screening techniques for sites with shallow impacted soils. At sites with shallow impacted soils, a sampling rate of 1 sample per 4 acres of land should be used, with samples biased, as appropriate, at low points, runoff collection points, or where vegetation or aerial photos indicate runoff sediments are likely to collect. When sampling shallow impacted soils, if it is found that there are excedences, it is then necessary to sample soils at the discrete interval depths, which, in many instances, can be less than the traditional 6 inch sample interval. The 6 inch interval is commonly used for GEOPROBE sampling. Sites where intervals need to be 2 inches or less have been found, and it is very important to determine mathematically the average, mean, and median concentrations in the shallow soil impacted zone, before considering remedial alternatives. It is very important for the Department to acknowledge flexibility in the site screening and investigation phase, or the regulations will be burdensome, particularly in the case of large earthworks projects with few areas of concern.
- There remain questions as to what does and does not constitute historical fill. Presumably, soils moved between sites from 1988, up until the current time, do not qualify. Nonetheless, it is clear that millions of cubic yards of materials have been moved, and will continue to be moved until the regulations are finalized, as Specification defined "CLEAN FILL", raising a critical question will persons who have received material specified as "CLEAN FILL" which have been received from 1988 up until the finalization of the Safe Fill Regulations be considered to have "an illegal landfill" on their property? Because there is no transition scheme in the Regulations, this aspect is unclear, but it is very important.



Mr. William Pounds PA DEP March 11, 2002 Page 2

- We think there are actually three classes of existing, moved materials, which is not reflected in the Regulations. These are:
  - 1-Materials which are clearly historical fill; and 2-those materials which are and have been a defined residual waste (such as air pollution control residues. (These two classifications of materials are the only ones to which a potential citation for operating an illegal landfill should apply.) The third category is impacted soils, for which the Department is only now promulgating realistic applicable standards, as Safe Fill Numeric Limits, and Permit By Rule limits. Where materials meeting Safe Fill Numeric Limits or Permit By Rule limits were received in good faith, and solely consist of soil and clean crushed concrete, or used asphalt, we believe that the final regulations should indicate that Permits By Rule may be issued on a case by case basis, upon application to the Department, for materials already at a site, if the materials exceed the Safe Fill Numeric Limits but meet the Permit By Rule limits.
- DEP Inspectors are already using, and have for several years, used their own Guidance measures of Clean Fill/Safe Fill compliance, which are not reflected in the Regulations. These include:
  - "10% Rebar Rule" This is a reasonable criteria indicating that up to 10% of the surface area of a section of concrete may consist of protruding rebars; this is used to judge when adequate cutting of rebars has occurred. I would recommend this be included in the Regulations.
  - The "1% Rule" Having roots in the 1996 Clean Fill Guidance Document, the "1% Rule" has applied as to when foreign materials present in Safe Fill are not considered to be of concern. I would recommend that DEP be requested to include the 1% criteria, with the understanding that such foreign materials in a Safe Fill Material are to be largely of minimal environmental concern, to include such items as bits of paper or plastic, but no significant quantities of putrescible municipal waste, painted wood, metal, etc.
- It is very important for the DEP to develop a series of <u>Fact Sheets</u>, which must, at a minimum, provide some detail information on how "waste" is defined and regulated in Pennsylvania. If this is not done, materials which are actually defined residual or hazardous waste could be moved inadvertently, if it is not understood that the materials were not actually "soils", (and they meet either the Safe Fill Numeric Limits or the Permit By Rule limits). Currently, information on the Department's website on what is and is not waste is too complicated and not very helpful, yet, compliance with the proposed regulations will require a better understanding by the regulated community of what is and is not waste if the Safe Fill regulations are to be effective.

Mr. William Pounds PA DEP March 11, 2002 Page 3

As another issue, there are questions as to what the increase will be in the volume of the Commonwealth's demolition and construction wastestream going to landfills, as a result of this rulemaking. Specifically, we have seen no studies which indicate the degree to which construction and demolition materials can and cannot be segregated, when buildings are demolished. Further, County Solid Waste Management Plans, in general, do not have provisions for managing large volumes of these materials, increased quantities of which will undoubtedly result as the Regulations are finalized and enforced.

Finally, a number of months ago, the Department Deputy Secretary for Air and Waste Management, indicated that a review was being conducted of the air permitting situation regarding the use of concrete crushers, at demolition sites. Timely air permitting of concrete crushers is a key element in maximizing not only the recycling of concrete, but a similar situation exists regarding tub grinders, wherein land clearing virgin wood materials can be made into mulch. The Department does not currently have a realistic and timely air permitting approach, so that demolition recycling equipment can be used in a timely manner, so as to maximize the use of recycling on medium and large size projects. Although the Department indicated that it would respond on this issue more than 3 months ago, no response has been forthcoming. If nothing is done to correct this problem, it is likely that more small and medium size demolition projects will make use of sanitary landfills for demolition waste, rather then wait three months, or even up to a year, for air permits to be obtained so that the materials can be recycled. This will further increase the volume of C&D materials going to landfill.

I trust these comments are helpful.

Very truly yours,

RT ENVIRONMENTAL SERVICES, INC.

Gary R. Brown, P.E.

Jan Ru

President

PUBLIC HEARING

\* \* \* \* \* \* \* \*

IN RE: PROVISIONS FOR THE MANAGEMENT OF SAFE FILL AND CONTAMINATED

MATERIALS

BEFORE:

CARL EVERETT, Chair

WILLIAM POUNDS, Member

LESLIE SARVIS, Member

KHATIJA SATYASWAROOP,

Member

MICHELLE MOSES, Member

HEARING:

MARCH 11, 2002

7:00 p.m.

LOCATION:

Upper Merion Township

Building

Freedom Hall

175 West Valley Forge Road

King of Prussia, PA

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by the certifying agency

#### WITNESSES:

Gary Brown,
Tina Daly,
Ray Heinzelmann,
Pat Morrison,
Jane Barbacz
Reporter: Nicole Montagano

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#### PROCEEDINGS

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# CHAIRMEN EVERETT:

I would like to welcome you to this Environmental Quality Board (EQB) public hearing on proposed regulatory provisions for the management of safe fill and contaminated materials.

My name is Carl Everett. I am a Citizens Advisory Council member of the EQB. Also with me this evening from the Department of Environmental Protection, the DEP, are: William Pounds, Chief of the Division of Municipal and Residual Waste, in Bureau of Land Recycling and Waste Management. Khatija Satyaswaroop also from the Division of Municipal and Residual Waste Management in the Bureau of Land Recycling

and Waste Management. Michelle Moses, Assistant Counsel to the Bureau of Regulatory Counsel.

Leslie Sarvis, Executive Policy Specialist in the Policy Office.

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Notice of the proposed amendments was printed in the Pennsylvania Bulletin and in nine major newspapers around the state on February 2, 2002. The proposal revises the municipal and residual waste regulations with respect to the management of uncontaminated and contaminated soil and other materials. The proposal is the result of public comments on the DEP's efforts to update a policy and numeric standards for determining when fill is safe enough to use in an unrestricted manner. existing standards are based on the land recycling regulations

proposed in 1996. Since that time, the DEP has proposed changes to its interim policy on two occasions for consistency with existing Act 2 standards, with opportunities for public comment. The first draft policy was published on August 28, 1997. Comments on this draft policy prompted a second draft safe fill policy package, which was published on March 11, 2000.

The proposal adds a definition for safe fill that includes soils, dredge material, used asphalt and segregated brick, block and concrete. Other major provisions include adding five permits-by-rule to allow for the beneficial use of contaminated materials with certain conditions, as well as materials that do not meet safe

fill standards. The proposal also amends the definition of construction/demolition waste and adds new definitions for historic fill, sediment, and sites undergoing remediation activities.

In addition to the management of uncontaminated and contaminated materials, the proposed regulations include amendments to the permit-by-rule in the municipal waste regulations for mechanical processing by enlarging the tons per day of segregated construction/demolition waste that may be managed under the permit.

In order to give
everyone an equal opportunity
to comment on this proposal, I
would like to establish the
following ground rules:
First I will call upon the

witnesses who have reregistered to testify at tonight's hearing as included on the schedule of witnesses. After hearing from these witnesses, I will provide any other interested parties with the opportunity to testify as time allows.

Oral testimony is limited to ten minutes for each witness.

Organizations are requested to designate one witness to present testimony on its behalf.

Each witness is asked to submit three written copies of the testimony to aid in transcribing the hearing.

Please hand me your copies prior to presenting your testimony.

Please state your name and address for the record, prior to presenting your testimony.

We would also appreciate

1 2 your help in spelling names and 3 terms that may not be generally 4 familiar so that the transcript 5 can be as accurate as possible. 6 Interested persons may 7 submit written comments in 8 addition to or in place of oral 9 testimony presented here. All 10 comments must be received by 11 the EQB by April 3, 2002. 12 Comments should be addressed to 13 the Environmental Quality 14 Board, P.O. Box 8477, 15 Harrisburg, PA 17105-8477. 16 Comments can also be e-mailed 17 to RegComments@state.pa.us. 18 All comments received at 19 tonight's hearing and in 20 writing by April 3 will be 21 considered by the EQB and 22 become part of a 23 comment/response document 24 prepared for the EQB's review 25 prior to taking final action on this regulation.

Anyone interested in a transcript of this hearing may contact the reporter here tonight to arrange to purchase a copy.

I will now call the first witness. The first witness is Gary Brown of RT Environmental Services.

### MR. BROWN:

I have three statements that I'm going to read to you on behalf of the Pennsylvania Asphalt Pavement Association, Pennsylvania Concrete and Aggregate Association, and the Associated Pennsylvania Constructors. I am pleased to submit the following comments on the Safe Fill Regulations as proposed by the Department of Environmental Protection, and noticed in the Pennsylvania Bulletin on February 2, 2002.

Our comments are as follows:

Investigating shallow in soils

both under the Act 2 Land

Recycling Program, and under

these proposed regulations,

there is little guidance on how

to properly investigate soils,

particularly when there is

shallow contamination.

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Delineation mistakes have already occurred at arsenic impacted sites. are sites contaminated by the application of herbicides and pesticides where environmental consultants took samples at intervals too great to accurately delineate the extent of the shallow impacted zone. This is very important under the Safe Fill Program, because soils impacted by urbanization, usually atmospheric particulate fallout, would be regulated for the first time.

The Department could resolve this issue through a revision to the Act 2 Technical Assistance Guidance Manual, which we understand is currently in progress. This is important because if such soils are missed through sampling interval errors, contractors could later be charged with improperly moving materials over the Safe Fill Numerical Limits.

Management of

Questionable Materials - it

occurs very frequently that

pockets of questionable

materials are encountered in

excavations, even when there

has been due diligence in

testing. Furthermore, in

working along pipelines and

other utility corridors or when

building highways, railroads,

or excavating on projects with

long dimensional lengths, it is frequently impractical to pile questionable materials within the actual right-of-way.

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In the case of construction, repairs, or utility work along highways, is actually not advisable to attempt to store questionable materials in roadway edge or private property locations where storm water could cause material dispersal. It is recommended that the regulations be revised to indicate that contractors can move materials to appropriate storage locations, so long as the materials are placed on a tarp and covered by a tarp while being characterized. Locations acceptable for removal include state, county, or municipal government property or the contractor's

yard, as is appropriate for each project.

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As there is increasing recognition that questionable materials must be appropriately characterized and managed, it is important that the DEP be flexible with respect to local transport and storage, as materials are frequently encountered in locations where storage is simply not appropriate. By the Department acknowledging that local transport is acceptable until it is determined what classification the materials are in, contractors can avoid being charged with hauling waste. As is present elsewhere in the regulations already, the maximum volume of questionable materials which could be hauled is 125 yards per excavation project, the same as the

Historical Fill Limitation.

It should also be noted, however, that for many utility contractors, 125 cubic yards is less than one day's work when installing sewers and water mains. Therefore, the limit for questionable materials and historical fill should be raised to 250 cubic yards.

Analysis of Asphalt The regulations indicate that
used asphalt maintains its Safe
Fill exemption so long as it is
not contaminated. As the
Department is aware, based on
previous submittals from the
Asphalt Pavement Association
and as confirmed by testing in
other states, the only
appropriate testing methodology
for determining whether asphalt
is or is not contaminated, is
to test the sample using SPLP
methodology or TCLP methodology

if the material is to go to landfill. Appropriate provisions need to be included in the regulations as to appropriate criteria to meet. It is recommended that no constituents in the leachate be higher than the used aquifer MSC, or, under the Permit By Rule, the non used aquifer MSC.

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Recycled Asphalt Product (RAP)/Millings - since the advent of the 1992 Residual Waste Regulations, the Association has been urging, as also advised by the Department, that RAP go back to the plant as recycled material. you're probably aware, asphalt it the most recycled material in the United States. Some government entities, however, currently require by specification and contract that RAP materials be delivered to a designated location, other than the asphalt plant.

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It is unknown at this time the degree to which the RAP materials delivered as required are appropriately managed. Uses which have been reported from the field include: Sub-base, shoulder material, filling potholes, general fill material. Although asphalt, as product, is clearly of little environmental concern, and because the petroleum fraction present in asphalt has few volatile organics and relatively low levels of PAHs, RAP is only of concern if particles flow from a stockpile or when RAP materials are placed, if they are not properly covered.

The Association recommends that if uses other

than recycling are allowed, such uses only be under the terms of one or more General Use Permits. And we gave a list of specific things that should occur and where they can occur under those permits, such as erosion and sedimentation controls and covering.

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Demolition Materials -While it would appear that properly separated construction concrete demolition waste can meet safe fill limits, there are many situations where the material cannot be practically: separated, due to the way buildings are constructed. The impact of the regulations will be to send large volumes of materials, which are not now considered waste by many landfills. The cost impact analysis in the regulations no detail on this important

1 cost impact of the regulations, 2 at a time when the Commonwealth 3 has imposed a landfill 4 permitting ban. DEP must 5 determine the impact of the 6 regulations on the facilities 7 it regulates, or the cost 8 impact analysis section of the 9 proposed regulations lacks 10 credibility. DEP should lift 11 the landfill permitting ban in 12 areas of the state where there 13 is insufficient capacity to 14 handle the additional waste 15 materials. Anecdotal 16 information suggests that such. 17 a condition exists now in the 18 Philadelphia area, and there 19 has been little effort to deal 20 with that. 21 Next Materials Placed 22

Next Materials Placed before February 2, 2002 - materials placed below grade on commercial and industrial property, materials which are

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not otherwise municipal,
residual, or hazardous waste,
should be considered to qualify
for the historical fill
provisions of Permit by Rule,
on request to the Department.
This is important because DEP
did not have usable regulations
or guidance from the current
earlier date up until February
2, 2002. Materials placed
between 1988 and February 2,
2002 would have questionable
status unless the transition
date is changed.

regulations, DEP estimates

compliance costs at

approximately \$8 million per

year. However DEP also

indicates that savings are

approximately \$500 million per

year, as contaminated materials

can be managed under Permit by

Rule, and not have to go to

landfills. However, Permit by Rule provisions, can be used until the regulations are final. The cost impact analysis is apparent faulty reasoning, because there is no evidence that DEP ever had enforceable standards requiring removal of waste in such large volumes of materials to landfills, under the Clean Fill Guidance Document.

Nevertheless, it is probable that future Safe Fill compliance costs are higher than \$8 million per year, and I won't go into details but the topics are:

Construction Delays

- Cost of due diligence and testing to determine compliance will likely cost \$5-6 per cubic yard. In large earthwork projects there will be significant costs unless the

1 characterization can be 2 focused, as you spoke about 3 earlier. Some materials in 4 landfills where the 5 constituents exceed ceiling 6 concentrations, there will be 7 additional testing where 8 materials are to be placed 9 closer to surface water and 10 other waters of the 11 Commonwealth. And of course 12 and some of them will be under 13 Permit-by-Rule. The estimated 14 cost of due diligence is 15 \$2,000-3,000 per site. And the 16 biggest impacts are: historical 17 coal burning or arsenic impact 18 in soils which would probably 19 be very extensive, based on the 20 data that we've seen so far. 21 Total per sample in Table 22 constituents is suggested by 23 the department to be about \$5 24 per sample. The key concern of 25 the construction industry is

that when there is a report on project in particularly sensitive areas, with all the cost of excavation which is right now about \$4 to \$5 per cubic yard, that would approximately double.

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And finally our concerns include also that all ultra clean materials may need to be used where materials are near streams or will be beneath the water table. And there will be higher materials costs for some of the existing quarry materials will --- will not be. able to be used. Some owners could start to ask for Safe Fill Material Certifications; compliance could eventually become a condition of cash draw for contractors to be paid. Most sites will require between \$5,000 and \$10,000 worth of advance work to see if there

are Safe Fill Numeric Limit exceedences. And of course where materials exceed the ceiling concentration they would have to be managed, as residual waste, at \$65 to \$84 per cubic yard.

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I realize this is a long letter, so I'll wrap up now, but concerning the implementation schedule, as you know, that working with the Department, we do believe we have a workable program. in the industry we do remain concerned about costs. And it's really a hope that this can be finalized without delay. Because many contractors each year in the last several years wound up moving materials that they thought were clean, only to find out they were waste. And we would like to see a realistic cost impact

evaluation and would also like to see these finalized during this construction season. I'll leave these and the letter for more details.

### CHAIRMEN EVERETT:

Thank you. Next is Tina Daly.

#### MS. DALY:

My name is Tina Daly and I live in Phoenixville. I'm speaking for the Pennsylvania Environmental Network Military Toxics Team.

rich man, who wanted to make even more money, than he had.

So he decided to deal in contaminated waste. He thought of all the dredged soils and the sediments, from industrial harbors and from heavily used ports and rivers. He thought of all the exotic fuels and other pollutants from formerly

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used defense sites set that had gotten into the soil. Не thought of the contaminated soil from around commercial nuclear reactors. He thought of asbestos and lead-based on demolition debris. He thought of incinerator ash and cement kiln dust. He thought of me still lying under old streets. And then he though of all those brown hills and filled up his wallet and went to the State Capitol.

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With his friends who were highup elected officials and their
appointees. The people at the
Capitol were glad to see him,
because they were hoping their
friends and supporters would
come to learn how to move waste
and make money in this new way.
They explained to him that he
should be logical. They said

1 recycling is good. Therefore 2 recycling in toxic, hazardous, 3 polluted, and contaminated 4 waste is good. And they said, 5 we don't regulate good things. 6 Neat, said our man, who was 7 learning fast, and saw all the 8 opportunities in recycling. 9 Another friend in the Capitol 10 told him, recycling of 11 contaminated waste is called 12 beneficial use. Our boy was 13 sure feeling good about that. 14 Then they, told him that he 15 need never worry about the 16 public and the future. They 17 told him about Permits-by-Rule, 18 and how you can decide for 19 yourself if you come under 20 certain parts of the 21 regulations. What if someone 22 can trace these contaminants 23 back to me, asked our boy. 24 problem, they said. We like to 25 mix things together and include them.

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And best of all, they talked about something that not everyone is permitted to know about, the Guardian Trust. They told him this trust would be set up to take care of any liability concerns that he might ever have. He quickly saw that he would have no worries. Our man said, you mean I can take contaminated fill and I can use it to clean up a contaminated site. they said, but please, if you use it, it is not contaminated anymore. It's safe fill, because we say it is and because it meets our health standards.

Health standards, asked our man, getting worried that someone he knew might get sick. His friends implored him not to worry. They explained that

1 they have discretion and they 2 have a sliding rule for all 3 things. His friends at the 4 Capitol explained to him that 5 so many people are so sick that 6 when their health is factored 7 in, it shows that the state 8 health standards are more 9 protective then they need to 10 be. They told him how they use 11 computer-generated modeling 12 tables which enable them to 13 figure out risk and to multiply 14 and divide percentages that are 15 extrapolated until they arrive 16 at the correct numbers. They 17 said if the correct numbers are 18 not found then the offending 19 pollutant is ignored and not 20 counted, which makes the math 21 easier. You mean like you 22 ignore radioactive elements i n 23 the fill? Yes, certainly, 24 they said. Why do we care 25 about radiation in something

called safe fill. If it is safe it could not be radioactive according to our method of determination. We just don't count it, even though we know that the Nuclear Regulatory Agency want to reuse, recycle, and release lots of radioactive contaminated materials into the soil. If the NRC says it's safe then so do we.

What about ground water, asked our man? I don't want to be sued for contaminating the ground water. Oh my, no. No chance of that ever happening, they said. The Capitol friend explained that if an area is certified public drinking water, then he could contaminate it even more. Think of all the brownfields in non-aquifer urban areas, particularly in communities of

the poor, the minorities and the people of color.

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Opportunity abounds for using contaminated fill in those areas. Who cares about ground water under those places, who cares about air emissions in those areas, who cares about soil in those parts of town. You can clean them up with waste to build soccer fields and schools on them. People who live near brownfields are sick all the time anyway, they don't know any better.

And if they do complain, of a community. When we look this kind of issue we the attempts to clean

we have to be sure to take into consideration the financial situation of the polluters and of the businesses that are trying to help clean up. cannot just look at the health

that the contractor is making. We don't look at the actual situation, but at what good people are trying to do. poor already don't care how we remediate, what do they know now? This is highly technical and only engineers can fully understand this. This is not an environmental justice issue. And moving around in what we call safe fill is not about contamination and health. It's about cleaning up damaged land and getting it on the tax rolls, you understand that. So our rich friend was

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So our rich friend was happy to learn he would be part of a great idea, remediation and reclaiming polluted land with polluted materials, referred to as safe fill and called beneficial. Wow, was he happy. He need have no qualms about just moving toxics around

and calling it a solution.

This great idea allowed him to be happy about how he planned to get richer. And just to be sure he wouldn't have to be nagged about possibly causing health problems, he wrote out a check to the local ambulance squad in the suburban community. Please, reject these proposals.

## CHAIRMAN EVERETT:

Our next speaker will be Ray Heinzelmann of the Delaware River Port Authority.

### MR. HEINZELMANN:

Thank you. I would like to introduce into the record several issues concerning the proposed safe fill regulations. It will be addressed in more in detail in a written response which we are now preparing and will have it to you by April 30th. We urge the Pennsylvania

Department of Environmental Protection, to give some consideration to interstate coordination and cooperation and formulation of their new regulations as they pertain especially to dredging materials. The Delaware River Port Authority has an ongoing effort to develop beneficial uses for dredged material in Pennsylvania and New Jersey. Given the very different protocols and Capitalization of the material in Pennsylvania and in New Jersey, it's very costly and time consuming, when we get a projects from both states, using the material for the same sources. We ask that we take initiative, to work with New Jersey DEP, to bring somewhat of a level of conformity between the regulations of the two states,

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so that the chemical and physical analysis done in one state will be accepted by the other state.

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The second issue involves the process duration, especially for Permit-by-Rule, which must be compacted into a much shorter time frame. We frequently identify as to a construction project opportunity where dredged material can be used. However, the window of opportunity is very narrow and we cannot respond to the project's time table. One contractor for example. Who we have been working with for some time, a construction project. Ιt took him over one year in order to get his permit approved. And then when he did finally get that permit, it contained a number of restrictions that

made it impossible for him to work with. And it cost him over \$60,000 to find out. So we think there is a whole series of things here in terms of especially compacting time frame in which the process is conducted.

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The thrid issue deals with the frequency of samplings. Projects using dredged material are seldom less than 50,000 cubic yards of material, and more than likely 100 to 200,000 cubic yards. The sampling frequency proposed may be appropriate for small projects, but unnecessarily high for projects requiring hundreds of thousands of cubic yards of material. Especially if the dredged material, are of a homogenous composition. Ιn sed dredged material, the chemical characterization

the Delaware and Schuylkill
Rivers as well as the
characterization of material at
countrytown Sound and Fort
Mifflin container not disposal
sites, indicates that the
chemical composition of stored
dredged material from the
Delaware River and the
Schuylkill Rivers meet the
proposed draft of the
Pennsylvania Safe Fill
standards using the '75 2X
rules.

of these findings, the proposed sampling frequency will be costly and unnecessary. What we propose for your consideration, is a tiered testing approach. For example, for large volumes of material the first 10,000 yards should be analyzed at the proposed sampling frequency. If the

results of the characterization indicate that the material meets the numeric standards then the remaining material could be analyzed at a much lower sampling frequency. If any frequent sample or any just subsequent sample, were to exceed the numeric standards, that sampling frequency would be increased again in the vicinity of the sample. The tiered approach would only apply to material that is anticipated to be homogenous

Finally, and this would. based on due diligence as well as the material interfacing the safe fill requirements of 28.11 (c), quote, and I quote (go to line 7). Based on an appropriate level of due diligence and a knowledge of the site, the material is the safe fill numeric standards

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Pat Morrison, I'm a resident of Conshohocken. I appreciate the opportunity to testify about the proposed amendment to the municipal and residential waste regulations.

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I recently attended a public hearing regarding safe fill. The first thing that struck me was the fact that DEP is already allowing safe fill to be used in place of clean fill. I find it objectable t o use these regulations before they are approved. I find it particularly objectable, due to the fact that the safe fill requirements are less stringent than the clean fill requirements. This whole process doesn't inspire confidence that one's comments will be taken seriously.

I was also amazed to learn of the variety and types

of contaminated materials that I never thought the DEP would allow to be placed in anything other than a properly lined landfill and that site specific permits are not even going to be needed, was astounding. Permit-by-Rule would not afford the same protection for the general public, or of the environment. I was also struck that William Pounds, the moderator, basically answered a question regarding sampling and testing, that was put forth by a member of the regulated community by saying it's up to you.

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I should note that the Brownfield cleanup seems to be a good thing to me, until I attended the meeting on this proposal. I now have a completely different opinion of Brownfield cleanup at this

time. Cleaning up one area by bringing the excavated material to another Brownfield seems just a little ridiculous. When the public learns about this, who will want to live in these areas.

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For most of my adult life I've been an activist and an advocate. These people an at-risk community and need someone to speak for them. With all the diseases in the environment that are suspicious to environmental causes, it is unwise to be thinking of weakening the criteria order it to make it faster to work or save money for wasted generations. Fill materials should be safe for everyone. Please restore the levels that are listed in the 1996 clean fill quidelines and do not allow Permit-By-Rule to

contaminated materials. Thank you.

#### CHAIRMAN EVERETT:

Jane Garbacz.

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### MS. GARBACZ:

Good evening. My name is Jane Garbacz. I reside in Conshohocken, Pennsylvania, and have been active in environmental issues since 1984. In the past I have commented on various plan approvals and permits, State implementation plans, the municipal, residual, and hazardous waste regulations and/or amendments, as well as variety of air, water and waste regulations, guidelines, and policies. I should note that I gave testimony on May 4, 2000 regarding the previously proposed Safe Fill policy and related amendments to the municipal and residual waste

regulations.

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The Notice in the Pennsylvania Bulletin and DEP Website is misleading. term Safe Fill is an inadequate description of this proposed regulatory package. citizens upon seeing the term Safe Fill will assume that the Department is doing an update of Clean Fill, a term the general public associates with environmentally benign material. Safe fill, while it may sometimes describe what was previously referred to as clean fill, may also be a much more The contaminated material. definition alone is indicative of great change. The Clean Fill definition is comprised of 31 words; the Safe Fill definition is comprised of over 900 words. I should note that 900-word definition only adds

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to the complexity of these regulations, and the purpose of any definition is to bring clarity.

Inclusion of the proposed Permits by Rule under the Safe Fill heading is particularly egregious since the implication is that these materials are also considered Safe Fill. In fact, a more appropriate title for these amendments might have been The Management of Contaminated and Uncontaminated Fill Material or something similar since the proposed amendments to Chapters 271 and 287 apply to both uncontaminated and contaminated material.

The notice for the prior Safe Fill of package 2000 was also lacking. Advertised as Safe Fill Policy and Related Documents, it was the first

time that a policy got more publicity than regulatory amendments --- which is what those related documents turned out to be. Since the policy was mentioned in those regulatory amendments, that safe fill policy appeared to be a regulation by reference. am appreciative that at least with this Safe Fill Package, the Department has been up front in publicizing it as regulation; however, I can see a pattern developing regarding inadequate public notice.

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If a game of linguistic detoxification and/or false advertisement is going on, the Department may be winning the battle. However, it may not win the war when the general public eventually becomes aware of the true nature of these amendments. Then the opposite

effect of what the Department has in mind --- flexible movement of fill material will occur. What is now a public acceptance of clean fill may eventually become public suspicion of all fill materials, accompanied by an inevitable NIMBY attitude toward safe fill. These proposed amendments have the potential to impact the environment of the Commonwealth like no regulation ever has.

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The Department has
abused its discretion. I musty
admit that I became reticent to
comment on the proposed
amendments upon learning that
these proposed regulations are
already being implemented.
Will testimony in opposition to
this proposal even matter?
I must strongly object

I must strongly object to the Department's decision to

allow the regulated community to use these unapproved regulations in place of the current Clean Fill Guidance levels --- especially when Safe Fill contaminant levels are, in most cases, far less stringent.

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Safe Fill and Clean Fill are not interchangeable terms. The present Clean Fill Guidance established in accordance with the Solid Waste Management Act, The Pennsylvania Clean Streams Law, and the Land Recycling and Waste Management Act. I have the Pennsylvania Clean Streams, Law, and the Land Recycling and Environmental Remediation Standards Act clearly states the reasons why the Statewide health standards are not sufficiently protective for unrestricted use of fill material. I was convinced that this policy was protective, or

I would have given comment on it. Had I realized that the statewide health standards alone would replace the Clean Fill criteria, I would have commented on those also, although it would have been difficult since Pennsylvania does not have a State Solid Waste plan in place, whereby the interface between Act 2 and other environmental statutes can be clearly seen.

I must confess that I did not learn that the Department was already using the proposed Safe Fill levels by reading about it in the Pennsylvania Bulletin. I found it out from another source. At the public meeting on February 25th, when I asked Bill Pounds about DEP's implementing these proposed amendments prior to public hearings and approval, I

was amazed to learn that the Department had disclosed such information on page 567 of the Pennsylvania Bulletin. While it is indeed mentioned on page 567, it can easily be overlooked --- especially when page 564 --- the first page of the Safe Fill notice, clearly states --- under D, Background and Purpose --- the following: In 1996, after passage of Act 2, the department revised its clean fill policy and updated the clean fill standards which are currently in effect.

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Apparently, the 1996 standards are not currently in effect, or are not currently in effect for everyone. I consider this to be an abuse of discretion, and believe that the Department tried to cover itself by inserting the paragraph on page 567. I

1 should note that within the 2 past few days, I went to the 3 DEP website, and was directed 4 to a page with the 1996 levels. 5 Why the subterfuge? In the 6 interest of public disclosure, 7 the Department should explain 8 which sites have been allowed 9 to use the unapproved safe fill 10 levels, if they are being used 11 in Consent Order and Agreements 12 or Records of Decision, and how 13 certain parties were able to 14 get permission to use 15 unapproved standards. Since 16 the Clean Fill Guidance lists 17 criteria that should be used 18 due to the fact that the 19 statewide health standards are 20 not fully protective of public 21 health, safety, welfare, and 22 the environment, how does the 23 Department justify this action? 24 The Department is wrong 25 to assert that subjective

1 sensory assessments will 2 compensate for weakened 3 numerical requirements. 0 npage 565 of the Pennsylvania 4 5 Bulletin, it is stated: proposed safe fill numeric 6 7 standards in this rulemaking 8 are less stringent than the 9 numeric standards proposed in 10 the draft policy. Τo 11 compensate for the numeric 12 differences, the proposed 13 amendments indicate that to qualify as safe fill, there 14 15 must be no indication of a 16 spill or release to the soil 17 and there must be no visual 18 stains, odors, or other nuisances. Safe fill is 19 therefore defined by impacts to 20 21 the soil as well as by the 22 numeric standards. It should be noted that 23 the Safe Fill 2000 Policy for 24 25 many regulated organic

substances to be placed in residential areas was actually in many cases more stringent than the 1996 guidance. Visual stains, odors, and nuisances would be a minor issue of those standards were met. While sensory assessments and site knowledge are important, the Department is being disingenuous to imply that such assessments will make up for weakening the numerical requirements --- especially when many very dangerous substances are colorless and odorless.

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How different is today's proposal from the one I testified about on May 4, 2000? Consider the following examples: Safe Fill regulation 2002 for anthracene allows 530 times the amount that Safe Fill 2000 would have allowed. Safe

Fill regulation 2002 for fluorene allows 576 times the amount that Safe Fill 2000 would have allowed. Safe Fill regulation in 2002 for toluene allows 8,800 times the amount that Safe Fill 2000 would allowed. Safe Fill regulation in 2002 fro xylenes allows 170,000 times the amount that Safe Fill 2000 would allow.

The Department is making excuses when it states that EQLs would not have been used had it had the proper scientific information. On page 565 on the Pennsylvania Bulletin, it is stated, quote: The Department used EQLs for organic regulated substances with the understanding that organics do not occur as natural constituents in soil. It is very likely, however, that minuscule quantities of

organic substances may be generated by microbial decomposition of plants and soil. To account for this situation, the safe fill numeric standards in this proposal are based on a subset of the Statewide Health Standards of Act 2.

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Why can't the Department just be truthful and admit that they are intent upon weakening this policy without looking for bizarre excuses? This is so embarrassing. The fact that organic substances are usually man made and have a very low probability of being formed naturally. Examples of such substances are pesticides and other organic chemicals such as PCBs, Aldrin, Dieldrin, dioxins, DDT/DDD/DDE, Endosulfan, Endrin, Heptachlor, Hexachlorocyclohexanes and

Mirex. I do not believe that the Department was out of line in using EQLs with the 2000 proposal, rather I believe that DEP is just looking for an excuse to weaken the standards.

I must admit that this inane comment about natural substances did have me speculating whether the Department might be considering NORM, naturally occurring radioactive materials and NARM, naturally occurring or accelerator produce radioactive material for a future Permit by Rule. While I have discarded that theory, you see what problems can be caused by a lack of forthrightness.

Who is the DEP looking out for when it comes to toxics? The Department in the proposed amendments, states that the 1996 levels were

1 overly conservative; upon 2 looking at some of the 3 contaminates, I do not agree. 4 For toxic metals, even in the 5 best case scenario, residential 6 area, used aquifer: Safe Fill 7 regulation for arsenic allows 8 40 times the amount that the 9 Clean Fill Guidance allows. 10 Safe Fill regulation for 11 beryllium allows 3,200 times 12 the amount that the Clean Fill 13 Guidance allows. Safe Fill 14 regulation for cadmium allows 15 19 times the amount that the 16 Clean Fill Guidance allows. 17 Safe Fill regulations for 18 hexavalent chromium allows 3.1 19 times the amount that the Clean 20 Fill Guidance allows.

#### CHAIRMAN EVERETT:

Excuse me. We have --we do have a time limit for
speech --- for presentations.
The public record will receive

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your statement in its entirely.

If you want to summarize

briefly, please go ahead.

## MS. GARBACZ:

Okay, I will summarize briefly. I guess, there are more people speaking, because I would be happy to let them go first.

## CHAIRMAN EVERETT:

Does anyone in the room care to make a statement for the record tonight. No one else wishes to testify. Okay, you can proceed. You'll be the last speaker then.

#### MS. GARBACZ:

Is it all right if I just finish reading. I mean I can try to summarize my words but you probably won't understand, I don't even know where I left off at this point.

#### CHAIRMAN EVERETT:

Well, the fact of the

matter is that the entire statement is going to be part of the public record. I don't understand why you need to read every word.

## MS. GARBACZ:

I was given the impression that a public hearing is something for the public to hear testimony. I know I have ten minutes, I think ten minutes is hard to actually put together comments. That's my opinion.

# CHAIRMAN EVERETT:

If you could please, summarize it, I think we will all appreciate it.

#### MS. GARBACZ:

All right, I will summarize. Let me just read one case in point, looking at page one under beryllium And looking at it proposed tables, several contaminant numbers are

particularly troubling. example, why would the Department need to allow 3,200 times as much beryllium in Safe Fill as was acceptable for I found the levels Clean Fill? done by Penn State, USGS, et cetera in the prior policy to be of great interest. estimated Pennsylvania soil background level for beryllium is 70 times the current clean fill level. Even if the Department felt compelled to make the standard less stringent due to this estimated background level, what could possibly be the reason to allow an inordinate amount of beryllium, 3200 times Clean Fill level, in Pennsylvania I have tried to give the soil? Department the benefit of the doubt on many occasions; however the only logical

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explanation seems to be that there's some special interest group that's interested in a cheap way of disposal.

I don't think I can summarize this, so I'll just stop. I was under the impression that I could read this. Thank you.

#### CHAIRMAN EVERETT:

No one else cares to testify. In that case the hearing is adjourned. Thank you very much. For the record the time now is 7:47 p.m. We are going to reopen the record at 8:52 p.m. 7:52 I'm sorry. We are resuming the testimony of Jane Garbacz.

#### MS. GARBACZ:

Let me go back to what I was saying about toxics. Safe Fill regulation for cadmium allows 19 times the amount that Clean Fill Guidance allows.

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Safe Fill regulation hexavalentchriomium allows 3.1 times the amount that the Clean Fill Guidance allows. Safe Fill for copper allows 43 times the amount that the Clean Fill Guidance allows. Safe Fill for lead allows 22.5 times the amount that the Clean Fill Guidance allows. Safe Fill regulation for Mercury allows times the amount that the Clean Fill Guidance allows. For organic regulation substances: Safe Fill regulations for aldrin allows 50 times the amount, anthrancene allows 5 0 times the amount, benzene allows 2.6 times the amount, benzo[a]anthracene allows times the amount, DDT allows 530 times the amount, MTBE allows 14 times the amount the Clean Fill Guidance allows and Dioxin allows 400 times the

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1 amount that the Clean Fill 2 Guidance allows. Now the case 3 in point was beryllium. 4 looking at the proposed tables, 5 several contaminant numbers are 6 particularly troubling. 7 example, why would the 8 Department need to allow 3,200 9 time as much beryllium in Safe 10 Fill as was acceptable for 11 Clean Fill? I found the 12 background levels done by Penn 13 State, USGS, et cetera. In the 14 prior policy to be of great 15 interest. The estimated 16 Pennsylvania soil background 17 level for beryllium 7mg/kg is 18 70 times the current clean fill 19 level of 0.1 mg/kg. Even if 20 the Department felt compelled 21 to make the standard less 22 stringent due to this estimated 23 background level, what could 24 possibly be the reason to allow 25 an inordinate amount of

beryllium 320 mg/kg or 3200 times the Clean Fill level in I have Pennsylvania soil? tried to give the Department the benefit of the doubt on many occasions; however the only logical explanation seems to be that one or more special interest groups is interested in a cheap way of disposal. perhaps, Pennsylvania's fossil fuel plants and/or industries are spewing forth dangerous amounts of beryllium into the air and depositing it on the soil at an alarming rate. Whatever the case may be, the fact that the Department is proposing weakening the beryllium level to such an extent is frightening. The Department cannot be too conservative with

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too conservative with pollutants that persist and bioaccumulate in the

environment. When I look at some of the other pollutants of concern --- pollutants that can persist and bioaccumulate --- I can come up with no other answer than there are special interests who, knowing how expensive treatment and disposal is, have somehow influenced the powers that be that this proposal is protective. It does not take scientist to realize that such is not the case.

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Which initiative ---Growing Greener or Becoming

17 Browner? When the Greenfield's 18 Initiative was initially 19 proposed, there were people 20 the Casey administration 21 well as in the regulated and 22 non-regulated communities who 23 warned that certain elements of 24 the proposal had the potential 25 to lessen environmental

protection in the Commonwealth.

If these proposed amendments

are passed, I believe that the

Ridge and Schweiker

administrations will have

accomplished just that.

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The proposed Permits-by-rule which facilitate moving contaminated fill between Brownfield sites, industrial sites, et cetera. with the only stipulation being that the receiving site isn't any more contaminated is a ludicrous idea. With all the money being spent on the Growing Greener Initiative, i f we truly are interested in improving the environment shouldn't we make it a priority to import the cleanest fill possible to blighted areas?

This plan to forgive the improper placement of slags, incinerator ash, et cetera

prior to 1988 when the Municipal Waste Regulations were enacted is ridiculous. Historic Fill should not go to 1988. The Solid Waste Management Act has been enforced by the Department of Environmental Resources since 1980. Just because the Department was remiss in formalizing regulations does not mean that the statute was in limbo. I object to grand fathering polluters because regulations were not written; this would be sanctioning illegal waste disposal.

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environmental justice with this proposal? It is a fact that in both urban and suburban areas, numerous residential dwellings and other sensitive sites, such as day care centers, parks,

1 schools, seniors centers, 2 hospitals, and the like are 3 situated only a stone's throw 4 away from an industrial or 5 commercial area. Sometimes 6 there are nonconforming uses i n 7 the industrial area. 8 wealthy do not purchase homes 9 or send their children to 10 schools in such areas. Such 11 homes, schools, parks, et 12 cetera are usually occupied by 13 the poor, and lower middle 14 class. I have already chased 15 children playing in the dirt more than once in an enterprise 16 17 zone where minimal remediation 18 of an Act 2 site took place. 19 The industrial area was their 20 backyard, and waste put industrial and commercial areas 21 22 qualifies for a permit by rule 23 in which nonresidential 24 standards may be used. 25 Citizens in these area are

already at greater environmental risk than those who live in residential areas away from the harmful emissions of industry.

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How wide is the gap between residential and nonresidential standards? Ιn the case of material moved within the right of way, the numerical standards for safe fill are permitted to be exceeded even without a Permit by Rule. This might be workable for a major highway where homes are far away, but what about for the poor people who are unfortunate enough to have homes only a few feet from the street? Nonresidential standards will be permitted.

The Safe Fill numerical standards may also be exceeded, and nonresidential standards used when fill is moved from

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had the courage to put those standards in this proposal so that people could see how different they are. Department must not allow this chasm between residential and nonresidential standards --especially when we are talking about heavily congested areas such as the Greater Philadelphia metropolitan area. Please do not allow these regulations to be passed as written because as bad as the residential standards are, the nonresidential standards are so much worse and no provision is made for those who live in homes close by.

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times the residential subsurface soil, 2 to 15 feet. The nonresidential Statewide Health Standard for arsenic is 4.4 times the residential Statewide Health Standard for surface soil and 15,833 for subsurface soil. The nonresidential Statewide Health Standard for lead is 22 times the residential Statewide Health Standards for surface soil and 380 times the residential subsurface soil. Ι should remind the Board how much weaker the residential Statewide Health Standards were that the current Clean Fill Criteria.

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I will close by mentioning the drought. here, and the forecast for the future is that droughts will be common in Pennsylvania. As you make the decision to allow greater concentrations of contaminants in Pennsylvania soil, please realize that many of those contaminants will end up in the water. And with less water for dilution, a deterioration of drinking water will be the end result. I urge the Environmental Quality Board not to approve these amendments. This concludes my testimony. Thank you.

### CHAIRMAN EVERETT:

Thank you. With that we will now close the record at 8:03 p.m.

\* \* \* \* \* \* \*

PUBLIC HEARING CONCLUDED AT 8:03 P.M.

## CERTIFICATE

I HEREBY CERTIFY THAT THE FOREGOING PROCEEDINGS
WERE REPORTED STENOGRAPHICALLY BY ME AND THEREAFTER
REDUCED TO TYPEWRITING AND THAT THIS TRANSCRIPT
IS A TRUE AND ACCURATE RECORD THEREOF.

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Rachel Carson State Office Building P.O. Box 8472 Harrisburg, PA 17105-8472

ELLETTEN REGULATORY REVIEW COMMISSION

December 23, 2003

Bureau of Land Recycling and Waste Management

717-787-7381

«Name»

Re: Proposed Rulemaking - Safe Fill Regulations

Dear «Salutation»:

At the request and recommendation of the Department of Environmental Protection (DEP), the proposed rulemaking referenced above was withdrawn by the Environmental Quality Board (EQB) at its December 16, 2003, meeting.

The DEP received comments from 36 commentators on the proposed rulemaking. Comments ranged from complex, costly and unworkable regulations to concerns that the numeric standards will not protect public health or the environment and will be detrimental to ecological receptors. In response, the Department made significant and substantive changes to the rulemaking and published an Advance Notice of Final Rulemaking (ANFR) for public comment. The comments received were similar to those received on the proposed rulemaking. The comments indicated that the proposed regulations, as they had evolved over several years, were too complicated and difficult to implement. Concerns were also raised about the overall protectiveness of the regulations.

In light of these comments, the proposed rulemaking was withdrawn. The DEP proposes to replace it with revisions to the 1996 Clean Fill Policy and a newly proposed General Permit, WMGR096, which will allow beneficial use of contaminated material as construction material. Notices for the proposed policy revisions and the proposed general permit were published in the *Pennsylvania Bulletin* (33 Pa. B. 5572) on November 8, 2003, for a 60-day comment period, which ends on January 9, 2004.

Thank you for your comments on the proposed rulemaking and/or the ANFR.

Sincerely,
William 2. Pourla

William F. Pounds

Chief

Division of Municipal and Residual Waste

COMMENTS ON THE PROPOSED SAFE FILL REGULATIONS, AMENDMENTS TO THE MUNICIPAL AND RESIDUAL WASTE REGULATIONS

King of Prussia DEP Public Hearing March 11, 2002

Once there was a very rich man who wanted to make even more money some he decided to deal in contaminated wastes. He thought of all the dredge spoils and sediments from industrial harbors and from heavily used ports and rivers. He thought of all the exotic fuels and other pollutants at Formerly Used Defense Sites that had gotten into the soil. He thought of contaminated soil from around commercial nuclear reactors. He thought of asbestos and lead based paint on demolition debris. He thought of incinerator ash and cement kiln dust. He thought of the fill lying under old streets and then he thought of all those Brownfields and he filled up his wallet and went to the State Capitol.

He met in the Capitol with his friends who were high up elected officials and their appointees. The people in the Capitol were glad to see him because they were hoping their friends and supporters would come to learn how to move waste and make money in this new way. They explained to him that he should be logical. They said Recycling is Good. Therefore, recycling of toxic hazardous polluted contaminated wastes is good. And, they said: We don't regulate Good Things.

Neat said Our Man who was learning fast and saw all the opportunities in recycling. Another friend in the Capitol told him that Recycling of Contaminated wastes is called Beneficial Use. Our Boy was sure feeling good about that. And they told Our Boy that he need never worry about the public and about the future.

They told him about Permit-By-Rule and how you decide for yourself if you come under certain parts of the regulations.

What if someone can trace these contaminants back to me, asked Our Boy? No problem they said - we like mixing wastes together. It improves them.

And best of all they told him about something that not everyone is permitted to know about: the Guardian Trust. They told him this Trust will be set up to take care of any liability concerns he might have. He quickly saw that he would have no worries.

Our man said: You mean I can take contaminated fill and I can use it to clean up a contaminated site? Yes, they said, but please: if you use it, it is not contaminated anymore - it's Safe because we say it is and because it meets our health standards.

Health Standards? asked Our Man, getting worried that someone he knew might get sick. His friends implored him not to worry. They explained that they have Discretion and they have a sliding rule for all things.

His friends in the Capitol explained to him that so many people are so sick that when their health is factored in it shows that the state health standards are more protective than they need to be. They told him they use computer generated modeling and tables which enable them to figure out Risk and to multiply and divide percentages that are extrapolated until they arrive at the correct numbers for Health Risk Projections. They said if the correct numbers are not found then the offending pollutant is ignored and not counted, which makes the math easier.

You mean like you ignore radioactive elements in the fill material he asked? Certainly they said. Why would we care about radiation in something called Safe Fill. If it is Safe it could not be dangerously radioactive according to our method of determination. We just don't count it even though we know the Nuclear Regulatory Agency wants to re-use, recycle and release lots of radioactive contaminated materials and soils. If the NRC says its safe then so do we.

But what about ground water asked Our Man. I don't want to be sued for contaminating ground water he cried. Oh my no. No chance of that ever happening they said. The Capitol Friends explained that if an area is served by public drinking water then he could contaminate even more. Think of all the Brownfields in non-aquifer urban areas particularly in communities of the poor, minorities and of color. Opportunity abounds for using contaminated fill in those areas. Who cares about ground water under those places? Who cares about air emissions in those areas? Who cares about soil in those parts of town? You can clean them up with wastes and build soccer

fields and schools on them. People who live near Brownfields are all sick anyway and they don't know better. And if they do complain we have to be sure to take into consideration the financial situation of the owners of the businesses that are trying to help clean up. We cannot just look at the health of a community. When we look at this kind of issue we look at the attempts to clean up that the contractor is making. We don't look at the actual situation but at what good people are trying to do. Poor minorities don't care how we remediate. What do they know? This is highly technical and only engineers can understand this fully. This is not an environmental justice issue. The moving around of what we call safe fill is not about contamination and health. It's about cleaning up damaged land and getting it on the tax roles. You understand that.

So our rich friend was happy to learn he would be part of a Great Idea: remediating and reclaiming polluted land with polluted materials referred to as Safe Fill and called Beneficial. Wow was he happy. He need have no qualms about just moving toxics around and calling it a solution. No. No. This Great Idea allowed him to be happy about how he planned to get richer. And to be sure he would not have to be nagged about possibly remotely causing health problems he wrote out a check to the local ambulance squad in his suburban community.

When DEP is addressing my comments in the Comment/Response Document I hope they will point out all the things in this story that are mistakes.

Please reject hese proposals. Please include this testimony in the formal hearing record. Thank you.

Tina Daly, Chair Military Toxics Team Pennsylvania Environmental Network 1880 Pickering Road Phoenixville, PA 19460 ORIGINAL: 2245

## Testimony of Jane Garbacz Before the Environmental Quality Board Safe Fill March 11,2002

#### Introduction

Good evening. My name is Jane Garbacz. I reside in Conshohocken, Pennsylvania, and have been active in environmental issues since 1984. In the past I have commented on various plan approvals and permits, State Implementation Plans, the Municipal, Residual, and Hazardous Waste Regulations and/or Amendments, as well as a variety of Air ,Water and Waste Regulations, Guidelines, and Policies. I should note that I gave testimony on May 4, 2000 regarding the previously proposed Safe Fill Policy and related amendments to the Municipal and Residual Waste Regulations.

### Comments

#### The Notice in the Pennsylvania Bulletin and DEP Website is misleading.

The term "Safe Fill" is an inadequate description of this proposed regulatory package. Most citizens upon seeing the term "Safe Fill" will assume that the Department is doing an update of "Clean Fill" a term the general public associates with environmentally benign material. "Safe fill" while it may sometimes describe what was previously referred to as "clean fill" may also be a much more contaminated material. The definition alone is indicative of great change. The "Clean Fill" definition is comprised of 31 words; the "Safe Fill" definition is comprised of over 900 words. I should note that a 900 word definition only adds to the complexity of these regulations, and the purpose of any definition is to bring clarity.

Inclusion of the proposed Permits by Rule under the "Safe Fill" heading is particularly egregious since the implication is that these materials are also considered "Safe Fill." In fact, a more appropriate title for these amendments might have been "The Management of Contaminated and Uncontaminated Fill Material" or something similar since the proposed amendments to Chapters 271 and 287 apply to both uncontaminated and contaminated material.

The notice for the prior Safe Fill package (2000) was also lacking. Advertised as "Safe Fill Policy and Related Documents," it was the first time that a policy got more publicity than regulatory amendments—which is what those "related documents" turned out to be. Since the policy was mentioned in those regulatory amendments, that safe fill policy appeared to be a regulation by reference. I am appreciative that at least with this Safe Fill Package, the Department has been upfront in publicizing it as a regulation; however, I still see a pattern developing regarding inadequate public notice.

If a game of linguistic detoxification and/or false advertisement is going on, the Department may be winning the battle. However, it may not win the war when the general public eventually becomes aware of the true nature of these amendments. Then the opposite effect of what the Department has in mind—flexible movement of fill material—will occur. What is now a public acceptance of "clean fill" may eventually become public suspicion of all fill material accompanied by an inevitable NIMBY attitude toward "safe fill." These proposed amendments have the potential to impact the environment of the Commonwealth like no regulation ever has.

## The Department Has abused its discretion.

I must admit that I became reticent to comment on the proposed amendments upon learning that **these proposed regulations are already being implemented!** Will testimony in opposition to this proposal even matter?

I must strongly object to the Department's decision to allow the regulated community to use these <u>unapproved</u> regulations in place of the current Clean Fill Guidance levels--especially when Safe Fill contaminant levels are, in most cases, far less stringent. Safe Fill and Clean Fill are not interchangeable terms. The present Clean Fill Guidance established in accordance with the Solid Waste Management Act, The Pennsylvania Clean Streams Law, and the Land Recycling and

Waste Management Act, The Pennsylvania Clean Streams Law, and the Land Recycling and Environmental Remediation Standards Act clearly states reasons why the Statewide Health Standards are not sufficiently protective for unrestricted use of fill material. I was convinced that this policy was protective, or I would have given comment on it. Had I realized that the Statewide Health Standards alone would replace the Clean Fill Criteria, I would have commented on those also, although it would have been difficult since Pennsylvania does not have a State Solid Waste Plan in place whereby the interface between Act 2 and other environmental statutes can be clearly seen.

I must confess that I did not learn that the Department was already using the proposed Safe Fill levels by reading about it in the *Pennsylvania Bulletin*. I found it out from another source. At the public meeting on February 25th, when I asked Bill Pounds about DEP's implementing these proposed amendments prior to public hearings and approval, I was amazed to learn that the Department had disclosed such information on p. 567 of the *Pennsylvania Bulletin*. While it is indeed mentioned on p.567, it can easily be overlooked--especially when p.564 (the first page of the Safe Fill notice) clearly states (under D. Background and Purpose) the following:

" In 1996, after passage of Act 2, the department revised its clean fill policy and updated the clean fill standards which are **currently** in effect."

Apparently, the 1996 standards are not currently in effect, or are not currently in effect for everyone. I consider this to be an abuse of discretion, and believe that the Department tried to cover itself by inserting the paragraph on p. 567. I should note that within the past few days, I went to the DEP website, and was directed to a page with the 1996 levels. Why the subterfuge? In the interest of public disclosure, the Department should explain which sites have been allowed to use the unapproved safe fill levels, if they are being used in Consent Order and Agreements or Records of Decision, and how certain parties were able to get permission to use unapproved standards. Since the Clean Fill Guidance lists criteria that should be used due to the fact that the Statewide Health Standards are not fully protective of public health, safety, welfare, and the environment, how does the Department justify this action?

# The Department is wrong to assert that subjective sensory assessments will compensate for weakened numerical requirements.

On page 565 of the Pennsylvania Bulletin, it is stated

"The proposed safe fill numeric standards in this rulemaking are less stringent than the numeric standards proposed in the draft policy. To compensate for the numeric differences, the proposed amendments indicate that to qualify as safe fill, there must be no indication of a spill or release to the soil and there must be no visual stains, odors, or other nuisances. Safe fill is therefore defined by impacts to the soil as well as by the numeric standards.

It should be noted that the Safe Fill 2000 Policy for many regulated organic substances to be placed in residential areas was actually in many cases more stringent than the 1996 guidance. Visual stains, odors, and nuisances would be a minor issue if those standards were met. While sensory assessments and site knowledge are important, the Department is being disingenuous to imply that such assessments will make up for weakening the numerical requirements--especially when many very dangerous substances are colorless and odorless.

How different is today's proposal from the one I testified about on May 4, 2000? Consider the following examples:

- •Safe Fill regulation in 2002 for **anthracene** allows **530** times the amount that Safe Fill 2000 would have allowed.
- •Safe Fill regulation 2002 for fluorene allows 576 times the amount that Safe Fill 2000 would have allowed.

- •Safe Fill regulation in 2002 for toluene allows 8,800 times the amount that Safe Fill 2000 would have allowed.
- •Safe Fill regulation in 2002 for xylenes allows 170,000 times the amount that Safe Fill 2000 would have allowed.

# The Department is making excuses when it states that EQLs would not have been used had it had the proper scientific information.

On page 565 of the *Pennsylvania Bulletin*, it is stated:

"The Department used EQLs for organic regulated substances with the understanding that organics do not occur as natural constituents in soil. It is very likely, however, that minuscule quantities of organic substances may be generated by microbial decomposition of plants and soil. To account for this situation, the safe fill numeric standards in this proposal are based on a subset of the SHS of Act 2.

Why can't the Department just be truthful and admit that they are intent upon weakening this policy without looking for bizarre excuses? This is so embarrassing. The fact is that organic substances are usually man-made and have a very low probability of being formed naturally. Examples of such substances are pesticides and other organic chemicals such as PCBs, Aldrin, Dieldrin, dioxins, DDT/DDD/DDE, Endosulfan, Endrin, Heptachlor, Hexachlorocyclohexanes and Mirex. I do not believe that the Department was out of line in using EQLs with the 2000 proposal, rather I believe that DEP is just looking for an excuse to weaken the standards.

I must admit that this inane comment about natural substances did have me speculating whether the Department might be considering NORM (naturally occurring radioactive materials) and NARM (naturally occurring or accelerator produced radioactive material) for a future permit by rule. While I have discarded that theory, you see what problems can be caused by a lack of forthrightness.

#### Who is the DEP looking out for when it comes to toxics?

The Department in the proposed amendments, states that the 1996 levels were overly conservative; upon looking at some of the contaminants, I do not agree.

For toxic metals, even in the best case scenario (residential area, used aquifer):

- •Safe Fill regulation for arsenic allows 40 times the amount that the Clean Fill Guidance allows.
- Safe Fill regulation for beryllium allows 3,200 times the amount that the Clean Fill Guidance allows.
- •Safe Fill regulation for cadmium allows 19 times the amount that the Clean Fill Guidance allows.
- •Safe Fill regulation for hexavalent chromium allows 3.1 times the amount that the Clean Fill Guidance allows.
- ·Safe Fill regulation for copper allows 43 times the amount that the Clean Fill Guidance allows.
- •Safe Fill regulation for lead allows 22.5 times the amount that the Clean Fill Guidance allows.
- Safe Fill regulation for mercury allows 5 times the amount that the Clean Fill Guidance allows.

## For organic regulated substances:

\*Safe Fill regulation for aidrin allows 50 times the amount that the Clean Fill Guidance allows.

- ·Safe Fill regulation for anthracene allows 50 times the amount that the Clean Fill Guidance allows.
- •Safe Fill regulation for benzene allows 2.6 times the amount that the Clean Fill Guidance allows.
- •Safe Fill regulation for **benzo[a]anthracene** allows **250 times** the amount that the Clean Fill Guidance allows.
- •Safe Fill regulation for DDT, 4,4<sup>1</sup> allows 530 times the amount that the Clean Fill Guidance allows.
- Safe Fill regulation for MTBE allows 14 times the amount that the Clean Fill Guidance allows.
- •Safe Fill regulation for TCDD (Dioxin) allows 400 times the amount that the Clean Fill Guidance allows.

#### Case in Point: Bervillium

In looking at the proposed tables, several contaminant numbers are particularly troubling. For example, why would the Department need to allow 3,200 times as much beryllium in Safe Fill as was acceptable for Clean Fill? I found the background levels done by Penn State, USGS, etc. in the prior policy to be of great interest. The estimated Pennsylvania soil background level for beryllium(7 mg/kg) is 70 times the current clean fill level(0.1. mg//kg). Even if the Department felt compelled to make the standard less stringent due to this estimated background level, what could possibly be the reason to allow an inordinate amount of beryllium (320 mg/kg or 3200 times the Clean Fill level) in Pennsylvania soil? I have tried to give the Department the benefit of the doubt on many occasions; however the only logical explanation seems to be that one or more special interest group is interested in a cheap way of disposal. Or perhaps, Pennsylvania 's fossil fuel plants and/or industries are spewing forth dangerous amounts of beryllium into the air and depositing it on the soil at an alarming rate. Whatever the case may be, the fact that the Department is proposing weakening the beryllium level to such an extent is frightening.

# The Department cannot be too conservative with pollutants that persist and bioaccumulate in the environment.

When I look at some of the other pollutants of concern--pollutants that can persist and bioaccumulate--I can come up with no other answer than that there are special interests who, knowing how expensive treatment and disposal is, have somehow influenced the powers that be that this proposal is protective. It does not take a scientist to realize that such is not the case.

#### Which Initiative--Growing Greener or Becoming Browner?

When the Greenfields Initiative was initially proposed, there were people in the Casey administration as well as in the regulated and nonregulated communities who warned that certain elements of the proposal had the potential to lessen environmental protection in the Commonwealth. If these proposed amendments are passed, I believe that the Ridge and Schweiker administrations will have accomplished just that.

The proposed Permits-by- rule which facilitate moving contaminated fill between brownfield sites, industrial sites, etc. with the only stipulation being that the receiving site isn't any more contaminated is a ludicrous idea. With all the money being spent on the Growing Greener Initiative, if we truly are interested in improving the environment shouldn't we make it a priority to import the cleanest fill possible to blighted areas?

This plan to forgive the improper placement of slags, incinerator ash, etc. prior to 1988 when the Municipal Waste Regulations were enacted is ridiculous. "Historic Fill" should not go t 1988. The Solid Waste Management Act has been enforced by the Department of Environmental Resources since 1980. Just because the Department was remiss in formalizing regulations does not mean that the

statute was in limbo. I object to Grandfathering polluters just because regulations were not written; this would be sanctioning illegal waste disposal.

## Can there be environmental justice with this proposal?

It is a fact that in both urban and suburban areas, numerous residential dwellings and other sensitive sites, such as day care centers, parks, schools, senior centers, hospitals, and the like are situated only a stone's throw away from an industrial or commercial area. Sometimes they are nonconforming uses in the industrial area. The wealthy do not purchase homes or send their children to schools in such areas. Such homes, schools, parks, etc. are usually occupied by the poor, and lower middle class. I have already chased children playing in the dirt more than once in an enterprise zone where minimal remediation of an Act 2 site took place. The industrial area was their backyard, and waste put in industrial and commercial areas qualifies for a permit by rule in which nonresidential standards may be used. Citizens in these areas are already at greater environmental risk than those who live in residential areas away from the harmful emissions of industry.

## How wide is the gap between residential and nonresidential standards?

In the case of material moved within the right of way, the numerical standards for safe fill are permitted to be exceeded even without a permit by rule. This might be workable for a major highway where homes are far away, but what about for the poor people who are unfortunate enough to have homes only a few feet from the street? Nonresidential standards will be permitted.

The Safe Fill numerical standards may also be exceeded, and nonresidential standards used when fill is moved from one residential property to another.

The Safe Fill numerical standards may also be exceeded where authorized pesticide use took place, such as fruit orchards. Again, people will be inhabiting property with soil that may use the nonresidential statewide health standards.

Dredged material may also exceed safe fill numerical standards and use nonresidential SHS when placed on adjacent land. Yet people may be living in close proximity.

Even when the Statewide Health Standards are used, the difference between the residential and nonresidential standards may be several orders of magnitude. I think that the Department should have at least had the courage to put those standards in this proposal so that people could see how different they are. The Department must not allow this chasm between residential and nonresidential standards -- especially when we are talking about heavily congested areas such as the Greater Philadelphia Metropolitan Area. Please do not allow these regulations to be passed as written because as bad as the residential standards are, the nonresidential standards are so much worse, and no provision is made for those who live in homes closeby.

### Consider the following:

The nonresidential SHS for **dioxin** is **4.4** times the residential SHS for surface soil and **1,583,333,300** times the residential subsurface soil (2 to 15 feet)

The nonresidential SHS for arsenic is 4.4 times the residential SHS for surface soil and 15,833 for subsurface soil (2 to 15 feet)

The nonresidential SHS for **lead** is **2**2 times the residential SHS for surface soil and **380** times the residential subsurface soil (2 to 15 feet).

I should remind the Board how much weaker the residential Statewide Health Standards

#### were than the current Clean Fill Criteria.

## Beneficial Use must benefit both the giver and receiver.

While I am willing to concede that there may be a beneficial uses for fill that do not meet the residential standard, I say it with great caution, and do not endorse it being done with a permit by rule. A site-specific permit is necessary to ensure that the site meets stringent requirements in order that the health and safety of the citizenry and of ecological receptors are not compromised.

We have become so focused on flexible movement of fill material. But this proposal is so much more. This proposal will relieve generators of the need to properly dispose of waste. While it may be true that all landfills will eventually leak, a landfill is at least designed and engineered to be protective of a site-specific environment, and post-closure plans must be in place, and approved. Landfill operators also have control over what wastes they accept. I find it problematic that we are willing to risk polluting sites just for the purpose of bringing them to grade.

I should note that I sympathize with developers and excavators who never planned to get into the waste management business. I would love to be able to facilitate earthwork for them; however the fact is that the Department for too many years has failed to properly regulate construction and demolition waste, and institute a responsible separation and recycling program for construction and demolition waste. It appears that there is a bit of a start in this proposal; but the proposal needs to be carefully crafted if it is to fully protect the environment from fugitive emissions of contaminants. We will not have a cleaner environment until the entire program is revamped.

#### Safe soil--safe water

I will close by mentioning the drought. It is here, and the forecast for the future is that droughts will be common in Pennsylvania. As you make the decision to allow greater concentrations of contaminants in Pennsylvania soil, please realize that many of those contaminants will end up in the water. And with less water for dilution, a deterioration of drinking water will be the end result.

I urge the Environmental Quality Board not to approve these amendments.

This concludes my testimony. Thank you. I would be willing to answer any questions.

Sincerely,

149 Sutcliffe Lane

Conshohocken, PA 19428

ORIGINAL: 2245

# Comments of C. Pat Morrison Environmental Quality Board Safe Fill Proposal March 11, 2002

Good evening, my name is Pat Morrison. I appreciate the opportunity to testify about the proposed amendments to the municipal and residual waste regulations.

I recently attended a public hearing regarding Safe Fill, and the first thing that struck me was the fact that DEP is already allowing Safe Fill to be used in place of Clean Fill. I find it objectionable to use these regulations before they are approved. I find it particularly objectionable due to the fact that the "safe fill" requirements are far less stringent than the "clean fill" requirements. This whole process doesn't inspire confidence that one's comments will be taken seriously.

I also was amazed to learn of the variety and types of contaminated materials that I never thought the DEP would allow to be placed into anything other than a properly lined landfill. The fact that site-specific permits are not even going to be needed was astounding. Permits by rule will not afford the same protection to the general public or to the environment.

I was also struck by the fact that William Pounds the moderator basically answered a question regarding sampling and testing that was put forth by a member of the regulated community by saying "It's up to you."

I should note that the brownfields cleanups seemed like a good thing to me until I attended the meeting on this proposal. I now have a completely different opinion of brownfield cleanups since attending. Cleaning up one area by bringing its excavated material to another brownfield is ridiculous. When the public learns about this, who will want to live in these areas?

For most of my adult life, I have been an advocate for senior citizens. These people are an at-risk community that need someone to speak for them. With all of the diseases in the environment that are suspected to have environmental causes, it is unwise to be weakening criteria in order to facilitate earthwork or save money for waste generators. Fill material should be safe for everyone. Please restore the levels that are listed in the 1996 Clean Fill Guidance, and do not allow permits by rule for a contaminated materials.

Thank you.

C. Pat Morrison 212 West First Avenue Unit #7 Conshohocken, PA 19428