ORIGINAL: 2245

THE PORT OF PHILADELPHIA AND CAMDEN
a department of the Delaware River Port Authority
One Port Center
PO Box 1949
Camden, NJ 08101-1949

April 3, 2002

Maritime
856-968-2043

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

To Whom It May Concern:

The Delaware River Port Authority (DRPA) supports the proposal by the Pennsylvania Department of Environmental Protection (PADEP) to amend Chapter 271 and 287, pertaining to municipal waste and residual waste management regulations. We applaud the inclusion of uncontaminated dredge material in the definition of safe fill. Dredge material has traditionally been treated as a waste product requiring a permit for use as fill, which was a frustrating and expensive process. This discouraged the use of dredge material for use as landfill and brownfield cover and for construction projects. The proposed regulations, which eliminate the need for a permit, will encourage the use of uncontaminated dredge material as fill.

This letter will highlight four concepts we feel should be included in PADEP cleanfill reform efforts.

I. Interstate Coordination

Dredge material removed from the Delaware and Schuylkill Rivers is deposited into nine Army Corps of Engineers upland containment areas located in Pennsylvania, New Jersey and Delaware, as well as one private facility (White's Basin), located in southern New Jersey. DRPA, in cooperation with NJDEP and PADEP, are engaged in ongoing efforts to develop beneficial uses for the dredge material that is presently on these sites. These reuse efforts will regenerate capacity in the existing containment facilities, reducing the total acreage needed for new containment areas. Potential beneficial use projects are located both in Pennsylvania and New Jersey. Testing the material from select sites for use in both states is expensive and time-consuming, with each state having different testing requirements and frequency of tests. It is recommended that the PADEP and NJDEP attempt to coordinate the standards, testing requirements and frequency of testing dredge material and sediment in an effort to bring a level of conformity to the regulations. Chemical and physical analyses accepted by one state should be acceptable to the other. This reciprocity would be a major step forward in the safe fill regulations for dredge material.

II. Sampling Frequency

Although the proposed sampling frequency may be appropriate for small volumes of waste with variable composition, the sampling frequency is unnecessarily high for larger volumes of waste with more homogeneous composition, such as dredge material. Beneficial use projects are seldom less than 50,000 cubic yards of material and more likely to be 150,000 to 200,000 cubic yards of material. In situ dredged material chemical characterization in the Delaware River and Schuylkill River, as well as characterization at the Pedricktown Confined Disposal Facility (CDF) (Salem County, NJ), and Fort Mifflin CDF (Philadelphia, PA), shows that the chemical composition of stored dredged material from the Delaware and Schuylkill Rivers meet the proposed Safe Fill Standards using the 75%/2X rule, with few exceptions. Given the consistency of these findings, the proposed sampling frequency will be costly and unnecessary.

It is recommended that a tiered testing approach be implemented for larger volume projects. For example, for larger volumes of material, the first 10,000 cubic yards can be analyzed at the proposed sampling frequency (e.g., 1 sample per 10,000 cubic yards). If any subsequent samples were to exceed numeric standards, then the sampling frequency would be increased again in the vicinity of this sample. The tiered approach would only apply to material anticipated to be homogeneous and no historical or visual evidence indicates that the material has been subject to a spill. Alternately, if the Department does not approve of a tiered approach, language should be inserted into the proposed rule making allowing for alternate sampling approaches based on statistical sampling frequencies, as allowable by the Act II guidance.

III. Due Diligence and Dredge Material

The Safe Fill Requirements listed #287.1 (C) states, "based on an appropriated level of due diligence and knowledge of the site, the material meets the safe fill numeric standards without sampling and analysis and meets the requirements of clause (A)."

It is unclear whether this due diligence requirement applies to dredge material stored in CDFs. After dredge material is moved into a CDF, the dredge material stored in CDFs has not been subject to a release and sampling to date indicates that the material generally meets numeric standards. If this level of sampling and site knowledge does not fulfill the appropriate level of due diligence, then the appropriate level of due diligence should be more clearly defined.

IV. Duration of Permit-By-Rule Process

The process duration for acquiring permit approval for a beneficial reuse project, involving dredge material, must be significantly shortened than the time it presently takes to secure a permit. Most construction projects that can use dredge material have very narrow windows of opportunity. A complicated, time-consuming process will discourage contractors from using dredge material, turning to other sources of dirt. For example, it took a contractor (Pierson Construction) a year to obtain a permit, too late for the project, which, when received, contained so many restrictions that it would have been difficult to implement. And, it was very costly. (Please refer to Pierson Construction comments submitted separately.)

DRPA applauds PADEP for including dredge material in the Safe Fill regulations and for the progress made in streamlining the regulatory process for the use of dredge material. The changes recommended above will further help to encourage the use of dredge material as fill. There are millions of cubic yards of dredge material available, most of which appear to meet the Safe Fill Standards. As more contractors become familiar with potential uses for dredge material and find that testing requirements, process time and costs are reasonable, dredge material will become a more commonly-used fill product.

Sincerely,

Melissa A. Grimm
Director

MAG/s

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April 3, 2002

SEVERN TRENT SERVICES

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Environmental Quality Board
PADEP
Rachel Carson State Office Bldg., 15th Floor
400 Market Street
Harrisburg, PA 17101

Re: Proposed Rulemaking 25 PA Code Chapters 271 and 287; Safe Fill.

Dear EQB Members:

I have reviewed the proposed rulemaking listed above and have attended public meetings held to discuss this issue and am submitting the following comments for your consideration in establishing this policy.

1. Numerical Standards

Please evaluate the analytical laboratory community's ability to support the established numerical standards to determine if material that meets the criteria for classification as safe fill. Many of the standards listed in the proposed rulemaking are not achievable using generally accepted EPA methodology. The proposed standards are derived from Act 2 which utilizes a risk based determination approach. Act 2 allows for the interpretation and evaluation of data down to the analytical limit that the laboratory is able to achieve. This proposed rulemaking would exclude material from being categorized as safe fill due to limitations of both instrumentation and methodology. For example, Benzidine standards compared to STL Pittsburgh laboratory data are presented below for illustration of this issue:

Benzidine 92-87-5	Table 2 Safe Fill Numerical Std. Lower of RDC or RGV	Table 2 Safe Fill Numerical Std. GWMSC by SPLP	USEPA Method 8270C GC/MS Reporting Limit	USEPA Method 8270C GC/MS Method Detection Limit
Soil	0.00032 mg/kg	N/A	3.3 mg/kg	0.17 mg/kg
SPLP Leachate	N/A	0.0000029 mg/L	0.10 mg/L	0.002 mg/L

If benzidine was not detected in the samples the laboratory would report "None Detected" and include both the reporting limit and the method detection limit for the sample. In this case neither would be sufficient to fulfill the criteria established in the standard as safe fill. The data presented in this table is generated the most recent version of the USEPA method and performed utilizing the newest generation of GC/MS technology.

This is only one analyte but the situation exists for many analytes of concern in the proposed rulemaking. I have attached a spreadsheet that compares the proposed standards to laboratory data for your consideration. If the analytical data generated by the laboratory community is insufficient to allow

evaluation of the material to the standards produced, then no material will be able to be classified as safe fill.

2. Data Evaluation

Please clarify in the final form of the rule the evaluation of laboratory data against the standards using both reporting limits and method detection limits. Laboratories that are reporting data consistent with the National Environmental Laboratory Accreditation Program (NELAP) are required to analyze and include in the instrument calibration a standard that is at or below the reporting limit (RL). The method detection limit (MDL) is a statistical determination based upon replicate analyses on a periodic basis.

a. If an analyte of concern is not detected, is the reporting limit or method detection limit to be used in comparison to the safe fill numerical standard?
b. If an analyte is detected above the method detection limit but below the reporting level the standard convention is to qualify the data as estimated. How is estimated data to be used in comparison to the safe fill numerical standards?
c. Method selection affects both reporting levels and conventions. For example if USEPA SW-846 method are utilized reporting levels and method detection limits are employed as discussed previously. If USEPA Contract Lab Program (CLP) methods are utilized Contract Required Quantitation Limits (CRQLs) are used and in the case of metals analyses, Instrument Detection Limits (IDLs) are used in reporting conventions how would data generated under these conditions be evaluated as in the examples of 2a and 2b above?
d. Not all compounds identified in the newest update of the Act 2 standards have methods to support their quantitation. If these analytes are included in the safe fill what methods are proposed to perform analysis?
e. Are compounds that are indentified utilizing their mass spectra only as tentatively identified compounds (TICs) and quantitated using generally accepted protocols for this class of analytes able to be utilized in comparison to the safe fill standards?

3. Sediment Analyses

Sediment is often referred to as the fourth analytical matrix. Due to the high moisture content of this sample matrix the reporting levels and method detection limits are normally elevated when reported on a dry weight basis. This will result in an even larger subset of compounds that are unable to be evaluated against the currently proposed standards. Will separate data quality objectives (DQOs) be established for sediment? Is any consideration being given to the composition of the water generated as part of the dewatering process for sediment prior to utilization as safe fill?

4. Particle size reduction:

For material that will be potentially utilized as safe fill, such as brick, block, concrete and asphalt, various size reduction techniques must be employed to perform appropriate analyses. For example material must be able to pass a 9.5mm sieve to be evaluated using the SPLP or TCLP. The representative and appropriate nature of both the sample and the reduction technique should be addressed in the final rule. Techniques that do not compromise the sample such as heat generating methods that would affect volatile analytes or metal crushers that may lead to contamination of metals of interest should be avoided.

Severn Trent Laboratories (STL) consists of 29 laboratory facilities in the United States and is well positioned as the leading group of laboratories for environmental testing in the U.S. STL has grown in the US through the acquisition of established, well managed, high quality and respected environmental analytical testing facilities. These laboratories have extensive experience working with all matrices, methods, protocols and programs working on behalf of industry, commerce and government. I will gladly provide you information as to compound lists, reporting limits and method detection limits for your use in evaluating the ability of the analytical community to support this rule. Likewise we would also be willing

to participate in the discussion on data evaluation to provide perspective and technical support from the analytical community.

If you have any questions concerning these comments please contact me directly at 412-820-2082.

Respectfully submitted,

Albert F. Vicinie III
Laboratory Director
STL- Pittsburgh

Safe Fill Table	CAS	Compound	Numerical Standard	RL (mg/kg)	UNIT
TABLE2	92-67-1	AMINOBIPHENYL, 4-	0.0012	1.6	mg/kg
TABLE2	92-87-5	BENZIDINE	0.000032	3.3	mg/kg
TABLE2	924-16-3	NITROSO-DI-N-BUTYL/	0.0003	0.33	mg/kg
TABLE2	94-75-7	DICHLOROPHENOXYA	1.8	5	mg/kg
TABLE2	95-53-4	TOLUIDINE, O-	0.32	0.66	mg/kg
TABLE2	95-94-3	TETRACHLOROBENZE	0.12	0.33	mg/kg
TABLE2	96-12-8	DIBROMO-3-CHLOROF	0.0091	0.01	mg/kg
TABLE2	96-12-8	DIBROMO-3-CHLOROF	0.0091	0.01	mg/kg
TABLE2	96-12-8	DIBROMO-3-CHLOROF	0.0091	0.01	mg/kg
TABLE2	99-09-2	NITROANILINE, M-	0.033	0.83	mg/kg
TABLE2	99-09-2	NITROANILINE, M-	0.033	0.83	mg/kg
TABLE2	99-09-2	NITROANILINE, M-	0.033	0.83	mg/kg
TABLE2	99-09-2	NITROANILINE, M-	0.033	1.6	mg/kg
TABLE2	99-65-0	DINITROBENZENE, 1,3	0.049	0.33	mg/kg
TABLE4	7439-92-1	LEAD	0.5	0.6	mg/kg
TABLE4	7439-92-1	LEAD	0.5	10	mg/kg
TABLE4	7439-92-1	LEAD	0.5	30	mg/kg
TABLE4	7440-38-2	ARSENIC	5	30	mg/kg
TABLE4	7440-38-2	ARSENIC	5	60	mg/kg
TABLE5	100-01-6	NITROANILINE, P-	0.031	0.83	mg/kg
TABLE5	100-01-6	NITROANILINE, P-	0.031	0.83	mg/kg
TABLE5	100-01-6	NITROANILINE, P-	0.031	0.83	mg/kg
TABLE5	100-01-6	NITROANILINE, P-	0.031	1.6	mg/kg
TABLE5	106-93-4	DIBROMOETHANE, 1,2	0.0012	0.005	mg/kg
TABLE5	106-93-4	DIBROMOETHANE, 1,2	0.0012	0.005	mg/kg
TABLE5	106-93-4	DIBROMOETHANE, 1,2	0.0012	0.01	mg/kg
TABLE5	107-13-1	ACRYLONITRILE	0.0087	0.1	mg/kg
TABLE5	107-13-1	ACRYLONITRILE	0.0087	0.1	mg/kg
TABLE5	110-86-1	PYRIDINE	0.11	0.66	mg/kg
TABLE5	111-44-4	BIS(2-CHLOROETHYL)	0.0039	0.00667	mg/kg
TABLE5	111-44-4	BIS(2-CHLOROETHYL)	0.0039	0.33	mg/kg
TABLE5	111-44-4	BIS(2-CHLOROETHYL)	0.0039	0.33	mg/kg
TABLE1	7440-28-0	THALLIUM	14	200	mg/kg
TABLE1	7440-38-2	ARSENIC	12	30	mg/kg
TABLE1	7440-38-2	ARSENIC	12	60	mg/kg
TABLE1	7440-42-8	BORON AND COMPOU	6.7	20	mg/kg
TABLE1	7440-42-8	BORON AND COMPOU	6.7	20	mg/kg
TABLE1	7440-42-8	BORON AND COMPOU	6.7	20	mg/kg
TABLE1	7782-49-2	SELENIUM	26	50	mg/kg
TABLE2	100-01-6	NITROANILINE, P-	0.031	0.83	mg/kg
TABLE2	100-01-6	NITROANILINE, P-	0.031	0.83	mg/kg
TABLE2	100-01-6	NITROANILINE, P-	0.031	0.83	mg/kg
TABLE2	100-01-6	NITROANILINE, P-	0.031	1.6	mg/kg
TABLE2	101-14-4	METHYLENE BIS(2-CH	0.057	0.33	mg/kg
TABLE2	106-93-4	DIBROMOETHANE, 1,2	0.0012	0.005	mg/kg
TABLE2	106-93-4	DIBROMOETHANE, 1,2	0.0012	0.005	mg/kg
TABLE2	106-93-4	DIBROMOETHANE, 1,2	0.0012	0.01	mg/kg
TABLE2	107-13-1	ACRYLONITRILE	0.0088	0.1	mg/kg
TABLE2	107-13-1	ACRYLONITRILE	0.0088	0.1	mg/kg

TABLE2	110-86-1	PYRIDINE	0.11	0.66	mg/kg
TABLE2	111-44-4	BIS(2-CHLOROETHYL)	0.0039	0.00667	mg/kg
TABLE2	111-44-4	BIS(2-CHLOROETHYL)	0.0039	0.33	mg/kg
TABLE2	111-44-4	BIS(2-CHLOROETHYL)	0.0039	0.33	mg/kg
TABLE2	111-44-4	BIS(2-CHLOROETHYL)	0.0039	0.33	mg/kg
TABLE2	111-44-4	BIS(2-CHLOROETHYL)	0.0039	0.33	mg/kg
TABLE2	121-14-2	DINITROTOLUENE, 2,4	0.05	0.33	mg/kg
TABLE2	121-14-2	DINITROTOLUENE, 2,4	0.05	0.33	mg/kg
TABLE2	121-14-2	DINITROTOLUENE, 2,4	0.05	0.33	mg/kg
TABLE2	121-14-2	DINITROTOLUENE, 2,4	0.05	0.33	mg/kg
TABLE2	122-66-7	DIPHENYLHYDRAZINE	0.15	0.33	mg/kg
TABLE2	123-91-1	DIOXANE, 1,4-	0.073	0.5	mg/kg
TABLE2	123-91-1	DIOXANE, 1,4-	0.073	1	mg/kg
TABLE2	134-32-7	NAPHTHYLAMINE, 1-	0.3	0.33	mg/kg
TABLE2	143-50-0	KEPONE	0.56	1.3	mg/kg
TABLE2	1912-24-9	ATRAZINE	0.13	0.33	mg/kg
TABLE2	1912-24-9	ATRAZINE	0.13	0.33	mg/kg
TABLE2	2104-64-5	ETHYL P-NITROPHEN\	0.0041	0.033	mg/kg
TABLE2	2303-16-4	DIALLATE	0.15	0.66	mg/kg
TABLE2	298-02-2	PHORATE	0.41	1.6	mg/kg
TABLE2	298-04-4	DISULFOTON	0.08	1.6	mg/kg
TABLE2	3689-24-5	TETRAETHYLDITHIOP	0.054	1.6	mg/kg
TABLE2	51-28-5	DINITROPHENOL, 2,4-	0.21	0.83	mg/kg
TABLE2	51-28-5	DINITROPHENOL, 2,4-	0.21	0.83	mg/kg
TABLE2	51-28-5	DINITROPHENOL, 2,4-	0.21	0.83	mg/kg
TABLE2	51-28-5	DINITROPHENOL, 2,4-	0.21	1.6	mg/kg
TABLE2	53-96-3	ACETYLAMINOFLUORI	0.069	0.66	mg/kg
TABLE2	55-18-5	NITROSODIETHYLAMII	0.000018	0.33	mg/kg
TABLE2	60-11-7	DIMETHYLAMINOAZOI	0.037	0.66	mg/kg
TABLE2	60-51-5	DIMETHOATE	0.28	0.66	mg/kg
TABLE2	62-53-3	ANILINE	0.16	0.33	mg/kg
TABLE2	62-73-7	DICHLORVOS	0.012	0.033	mg/kg
TABLE2	62-75-9	NITROSODIMETHYLAI	0.000041	0.33	mg/kg
TABLE2	621-64-7	NITROSODI-N-PROPYI	0.0013	0.00667	mg/kg
TABLE2	621-64-7	NITROSODI-N-PROPYI	0.0013	0.33	mg/kg
TABLE2	621-64-7	NITROSODI-N-PROPYI	0.0013	0.33	mg/kg
TABLE2	621-64-7	NITROSODI-N-PROPYI	0.0013	0.33	mg/kg
TABLE2	621-64-7	NITROSODI-N-PROPYI	0.0013	0.33	mg/kg
TABLE2	66-27-3	METHYL METHANESU	0.083	0.33	mg/kg
TABLE2	88-74-4	NITROANILINE, O-	0.037	0.83	mg/kg
TABLE2	88-74-4	NITROANILINE, O-	0.037	0.83	mg/kg
TABLE2	88-74-4	NITROANILINE, O-	0.037	0.83	mg/kg
TABLE2	88-74-4	NITROANILINE, O-	0.037	1.6	mg/kg
TABLE2	88-85-7	DINOSEB	0.29	0.66	mg/kg
TABLE2	88-85-7	DINOSEB	0.29	2.5	mg/kg
TABLE2	91-59-8	NAPHTHYLAMINE, 2-	0.012	0.05	mg/kg
TABLE2	91-59-8	NAPHTHYLAMINE, 2-	0.012	0.33	mg/kg
TABLE5	111-44-4	BIS(2-CHLOROETHYL)	0.0039	0.33	mg/kg
TABLE5	111-44-4	BIS(2-CHLOROETHYL)	0.0039	0.33	mg/kg
TABLE5	11104-28-2	PCB-1221 (AROCLOR)	0.05	0.067	mg/kg
TABLE5	11104-28-2	PCB-1221 (AROCLOR)	0.05	0.067	mg/kg
TABLE5	11104-28-2	PCB-1221 (AROCLOR)	0.05	0.067	mg/kg

TABLE5	118-74-1	HEXACHLOROBENZEI	0.1	0.33	mg/kg
TABLE5	118-74-1	HEXACHLOROBENZEI	0.1	0.33	mg/kg
TABLE5	118-74-1	HEXACHLOROBENZEI	0.1	0.33	mg/kg
TABLE5	118-74-1	HEXACHLOROBENZEI	0.1	0.33	mg/kg
TABLE5	121-14-2	DINITROTOLUENE, 2,4	0.05	0.33	mg/kg
TABLE5	121-14-2	DINITROTOLUENE, 2,4	0.05	0.33	mg/kg
TABLE5	121-14-2	DINITROTOLUENE, 2,4	0.05	0.33	mg/kg
TABLE5	121-14-2	DINITROTOLUENE, 2,4	0.05	0.33	mg/kg
TABLE5	122-66-7	DIPHENYLHYDRAZINE	0.083	0.33	mg/kg
TABLE5	123-91-1	DIOXANE, 1,4-	0.073	0.5	mg/kg
TABLE5	123-91-1	DIOXANE, 1,4-	0.073	1	mg/kg
TABLE5	134-32-7	NAPHTHYLAMINE, 1-	0.037	0.33	mg/kg
TABLE5	143-50-0	KEPONE	0.0041	0.033	mg/kg
TABLE5	143-50-0	KEPONE	0.0041	1.3	mg/kg
TABLE5	191-24-2	BENZO[GHI]PERYLENI	0.026	0.33	mg/kg
TABLE5	191-24-2	BENZO[GHI]PERYLENI	0.026	0.33	mg/kg
TABLE5	191-24-2	BENZO[GHI]PERYLENI	0.026	0.33	mg/kg
TABLE5	191-24-2	BENZO[GHI]PERYLENI	0.026	0.33	mg/kg
TABLE5	1912-24-9	ATRAZINE	0.13	0.33	mg/kg
TABLE5	1912-24-9	ATRAZINE	0.13	0.33	mg/kg
TABLE5	193-39-5	INDENO[1,2,3-CD]PYRI	0.09	0.33	mg/kg
TABLE5	193-39-5	INDENO[1,2,3-CD]PYRI	0.09	0.33	mg/kg
TABLE5	193-39-5	INDENO[1,2,3-CD]PYRI	0.09	0.33	mg/kg
TABLE5	193-39-5	INDENO[1,2,3-CD]PYRI	0.09	0.33	mg/kg
TABLE5	205-99-2	BENZO[B]FLUORANTH	0.09	0.33	mg/kg
TABLE5	205-99-2	BENZO[B]FLUORANTH	0.09	0.33	mg/kg
TABLE5	205-99-2	BENZO[B]FLUORANTH	0.09	0.33	mg/kg
TABLE5	205-99-2	BENZO[B]FLUORANTH	0.09	0.33	mg/kg
TABLE5	207-08-9	BENZO[K]FLUORANTH	0.055	0.33	mg/kg
TABLE5	207-08-9	BENZO[K]FLUORANTH	0.055	0.33	mg/kg
TABLE5	207-08-9	BENZO[K]FLUORANTH	0.055	0.33	mg/kg
TABLE5	207-08-9	BENZO[K]FLUORANTH	0.055	0.33	mg/kg
TABLE5	218-01-9	CHRYSENE	0.19	0.33	mg/kg
TABLE5	218-01-9	CHRYSENE	0.19	0.33	mg/kg
TABLE5	218-01-9	CHRYSENE	0.19	0.33	mg/kg
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TABLE5	298-02-2	PHORATE	0.19	1.6	mg/kg
TABLE5	298-04-4	DISULFOTON	0.03	0.033	mg/kg
TABLE5	298-04-4	DISULFOTON	0.03	1.6	mg/kg
TABLE5	309-00-2	ALDRIN	0.00087	0.0017	mg/kg
TABLE5	309-00-2	ALDRIN	0.00087	0.0017	mg/kg
TABLE5	309-00-2	ALDRIN	0.00087	0.0017	mg/kg
TABLE5	309-00-2	ALDRIN	0.00087	0.0017	mg/kg
TABLE5	3689-24-5	TETRAETHYLDITHIOP	0.49	1.6	mg/kg
TABLE5	50-32-8	BENZO[A]PYRENE	0.02	0.33	mg/kg
TABLE5	50-32-8	BENZO[A]PYRENE	0.02	0.33	mg/kg
TABLE5	50-32-8	BENZO[A]PYRENE	0.02	0.33	mg/kg
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TABLE5	51-28-5	DINITROPHENOL, 2,4-	0.21	1.6	mg/kg
TABLE5	510-15-6	CHLOROBENZILATE	0.24	0.33	mg/kg
TABLE5	53-70-3	DIBENZO[A,H]ANTHRA	0.009	0.33	mg/kg
TABLE5	53-70-3	DIBENZO[A,H]ANTHRA	0.009	0.33	mg/kg
TABLE5	53-70-3	DIBENZO[A,H]ANTHRA	0.009	0.33	mg/kg
TABLE5	53-70-3	DIBENZO[A,H]ANTHRA	0.009	0.33	mg/kg
TABLE5	53-96-3	ACETYLAMINOFLUORI	0.017	0.66	mg/kg
TABLE5	55-18-5	NITROSODIETHYLAMII	0.000018	0.33	mg/kg
TABLE5	56-55-3	BENZO[A]ANTHRACEN	0.09	0.33	mg/kg
TABLE5	56-55-3	BENZO[A]ANTHRACEN	0.09	0.33	mg/kg
TABLE5	56-55-3	BENZO[A]ANTHRACEN	0.09	0.33	mg/kg
TABLE5	56-55-3	BENZO[A]ANTHRACEN	0.09	0.33	mg/kg
TABLE5	60-11-7	DIMETHYLAMINOAZOE	0.014	0.66	mg/kg
TABLE5	60-51-5	DIMETHOATE	0.28	0.66	mg/kg
TABLE5	62-53-3	ANILINE	0.16	0.33	mg/kg
TABLE5	62-73-7	DICHLORVOS	0.012	0.033	mg/kg
TABLE5	62-75-9	NITROSODIMETHYLAM	0.000041	0.33	mg/kg
TABLE5	621-64-7	NITROSODI-N-PROPYL	0.0013	0.00667	mg/kg
TABLE5	621-64-7	NITROSODI-N-PROPYL	0.0013	0.33	mg/kg
TABLE5	621-64-7	NITROSODI-N-PROPYL	0.0013	0.33	mg/kg
TABLE5	621-64-7	NITROSODI-N-PROPYL	0.0013	0.33	mg/kg
TABLE5	621-64-7	NITROSODI-N-PROPYL	0.0013	0.33	mg/kg
TABLE5	66-27-3	METHYL METHANESU	0.083	0.33	mg/kg
TABLE5	67-72-1	HEXACHLOROETHANE	0.1	0.33	mg/kg
TABLE5	67-72-1	HEXACHLOROETHANE	0.1	0.33	mg/kg
TABLE5	67-72-1	HEXACHLOROETHANE	0.1	0.33	mg/kg
TABLE5	67-72-1	HEXACHLOROETHANE	0.1	0.33	mg/kg
TABLE5	79-34-5	TETRACHLOROETHAN	0.0093	0.01	mg/kg
TABLE5	79-34-5	TETRACHLOROETHAN	0.0093	0.01	mg/kg
TABLE5	79-34-5	TETRACHLOROETHAN	0.0093	0.01	mg/kg
TABLE5	82-68-8	PENTACHLORONITRO	0.25	1.6	mg/kg
TABLE5	87-68-3	HEXACHLOROBUTADI	0.1	0.33	mg/kg
TABLE5	87-68-3	HEXACHLOROBUTADI	0.1	0.33	mg/kg
TABLE5	87-68-3	HEXACHLOROBUTADI	0.1	0.33	mg/kg
TABLE5	87-68-3	HEXACHLOROBUTADI	0.1	0.33	mg/kg
TABLE5	87-86-5	PENTACHLOROPHEN(	0.1	0.83	mg/kg
TABLE5	87-86-5	PENTACHLOROPHEN(	0.1	0.83	mg/kg
TABLE5	87-86-5	PENTACHLOROPHEN(	0.1	0.83	mg/kg
TABLE5	87-86-5	PENTACHLOROPHEN(	0.1	1.6	mg/kg
TABLE5	88-74-4	NITROANILINE, O-	0.038	0.83	mg/kg
TABLE5	88-74-4	NITROANILINE, O-	0.038	0.83	mg/kg
TABLE5	88-74-4	NITROANILINE, O-	0.038	0.83	mg/kg
TABLE5	88-74-4	NITROANILINE, O-	0.038	1.6	mg/kg
TABLE5	88-85-7	DINOSEB	0.29	0.66	mg/kg
TABLE5	88-85-7	DINOSEB	0.29	2.5	mg/kg
TABLE5	91-59-8	NAPHTHYLAMINE, 2-	0.012	0.05	mg/kg
TABLE5	91-59-8	NAPHTHYLAMINE, 2-	0.012	0.33	mg/kg
TABLE5	91-94-1	DICHLOROBENZIDINE	0.15	0.33	mg/kg
TABLE5	91-94-1	DICHLOROBENZIDINE	0.15	0.33	mg/kg
TABLE5	91-94-1	DICHLOROBENZIDINE	0.15	0.33	mg/kg
TABLE5	91-94-1	DICHLOROBENZIDINE	0.15	1.6	mg/kg

TABLE5	92-67-1	AMINOBIPHENYL, 4-	0.0012	1.6	mg/kg
TABLE5	92-87-5	BENZIDINE	0.00029	3.3	mg/kg
TABLE5	924-16-3	NITROSO-DI-N-BUTYL/	0.0027	0.33	mg/kg
TABLE5	94-75-7	DICHLOROPHENOXYA	1.8	5	mg/kg
TABLE5	95-53-4	TOLUIDINE, O-	0.28	0.66	mg/kg
TABLE5	99-09-2	NITROANILINE, M-	0.033	0.83	mg/kg
TABLE5	99-09-2	NITROANILINE, M-	0.033	0.83	mg/kg
TABLE5	99-09-2	NITROANILINE, M-	0.033	0.83	mg/kg
TABLE5	99-09-2	NITROANILINE, M-	0.033	1.6	mg/kg
TABLE5	99-65-0	DINITROBENZENE, 1,3	0.049	0.33	mg/kg
TABLE5LEACH	100-01-6	NITROANILINE, P-	0.0021	0.05	mg/L
TABLE5LEACH	100-01-6	NITROANILINE, P-	0.0021	0.05	mg/L
TABLE5LEACH	100-01-6	NITROANILINE, P-	0.0021	0.05	mg/L
TABLE5LEACH	100-01-6	NITROANILINE, P-	0.0021	0.05	mg/L
TABLE5LEACH	100-01-6	NITROANILINE, P-	0.0021	0.25	mg/L
TABLE5LEACH	100-02-7	NITROPHENOL, 4-	0.06	0.25	mg/L
TABLE5LEACH	100-42-5	STYRENE	0.1	0.625	mg/L
TABLE5LEACH	101-14-4	METHYLENE BIS(2-CH	0.0051	0.01	mg/L
TABLE5LEACH	101-14-4	METHYLENE BIS(2-CH	0.0051	0.01	mg/L
TABLE5LEACH	1024-57-3	HEPTACHLOR EPOXIC	0.0002	0.0005	mg/L
TABLE5LEACH	1024-57-3	HEPTACHLOR EPOXIC	0.0002	0.0005	mg/L
TABLE5LEACH	106-46-7	DICHLOROBENZENE, I	0.075	0.625	mg/L
TABLE5LEACH	106-93-4	DIBROMOETHANE, 1,2	0.00005	0.001	mg/L
TABLE5LEACH	106-93-4	DIBROMOETHANE, 1,2	0.00005	0.005	mg/L
TABLE5LEACH	106-93-4	DIBROMOETHANE, 1,2	0.00005	0.005	mg/L
TABLE5LEACH	106-93-4	DIBROMOETHANE, 1,2	0.00005	0.05	mg/L
TABLE5LEACH	106-93-4	DIBROMOETHANE, 1,2	0.00005	0.625	mg/L
TABLE5LEACH	107-05-1	CHLORO-1-PROPENE,	0.0028	0.005	mg/L
TABLE5LEACH	107-05-1	CHLORO-1-PROPENE,	0.0028	0.005	mg/L
TABLE5LEACH	107-05-1	CHLORO-1-PROPENE,	0.0028	0.05	mg/L
TABLE5LEACH	107-05-1	CHLORO-1-PROPENE,	0.0028	0.625	mg/L
TABLE5LEACH	107-06-2	DICHLOROETHANE, 1,	0.005	0.05	mg/L
TABLE5LEACH	107-06-2	DICHLOROETHANE, 1,	0.005	0.625	mg/L
TABLE5LEACH	107-13-1	ACRYLONITRILE	0.00063	0.01	mg/L
TABLE5LEACH	107-13-1	ACRYLONITRILE	0.00063	0.02	mg/L
TABLE5LEACH	107-13-1	ACRYLONITRILE	0.00063	0.1	mg/L
TABLE5LEACH	107-13-1	ACRYLONITRILE	0.00063	0.1	mg/L
TABLE5LEACH	107-13-1	ACRYLONITRILE	0.00063	1	mg/L
TABLE5LEACH	107-13-1	ACRYLONITRILE	0.00063	12.5	mg/L
TABLE5LEACH	108-05-4	VINYL ACETATE	0.55	6.25	mg/L
TABLE5LEACH	108-10-1	METHYL ISOBUTYL KE	0.19	6.25	mg/L
TABLE5LEACH	108-90-7	CHLOROBENZENE	0.1	0.625	mg/L
TABLE5LEACH	110-54-3	HEXANE	0.55	1.25	mg/L
TABLE5LEACH	110-86-1	PYRIDINE	0.0097	0.02	mg/L
TABLE5LEACH	110-86-1	PYRIDINE	0.0097	0.02	mg/L
TABLE5LEACH	110-86-1	PYRIDINE	0.0097	0.02	mg/L
TABLE5LEACH	110-86-1	PYRIDINE	0.0097	0.02	mg/L
TABLE5LEACH	110-86-1	PYRIDINE	0.0097	0.1	mg/L
TABLE5LEACH	11096-82-5	PCB-1260 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	11096-82-5	PCB-1260 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	11097-69-1	PCB-1254 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	11097-69-1	PCB-1254 (AROCLOR)	0	0.001	mg/L

TABLE5LEACH	111-44-4	BIS(2-CHLOROETHYL)	0.00013	0.01	mg/L
TABLE5LEACH	111-44-4	BIS(2-CHLOROETHYL)	0.00013	0.01	mg/L
TABLE5LEACH	111-44-4	BIS(2-CHLOROETHYL)	0.00013	0.01	mg/L
TABLE5LEACH	111-44-4	BIS(2-CHLOROETHYL)	0.00013	0.01	mg/L
TABLE5LEACH	111-44-4	BIS(2-CHLOROETHYL)	0.00013	0.05	mg/L
TABLE5LEACH	11104-28-2	PCB-1221 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	11104-28-2	PCB-1221 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	11141-16-5	PCB-1232 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	11141-16-5	PCB-1232 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	117-81-7	BIS[2-ETHYLHEXYL] PI	0.006	0.01	mg/L
TABLE5LEACH	117-81-7	BIS[2-ETHYLHEXYL] PI	0.006	0.01	mg/L
TABLE5LEACH	117-81-7	BIS[2-ETHYLHEXYL] PI	0.006	0.01	mg/L
TABLE5LEACH	117-81-7	BIS[2-ETHYLHEXYL] PI	0.006	0.01	mg/L
TABLE5LEACH	117-81-7	BIS[2-ETHYLHEXYL] PI	0.006	0.05	mg/L
TABLE5LEACH	118-74-1	HEXACHLOROBENZEI	0.001	0.01	mg/L
TABLE5LEACH	118-74-1	HEXACHLOROBENZEI	0.001	0.01	mg/L
TABLE5LEACH	118-74-1	HEXACHLOROBENZEI	0.001	0.01	mg/L
TABLE5LEACH	118-74-1	HEXACHLOROBENZEI	0.001	0.01	mg/L
TABLE5LEACH	118-74-1	HEXACHLOROBENZEI	0.001	0.05	mg/L
TABLE5LEACH	120-83-2	DICHLOROPHENOL, 2,	0.02	0.05	mg/L
TABLE5LEACH	121-14-2	DINITROTOLUENE, 2,4	0.0021	0.01	mg/L
TABLE5LEACH	121-14-2	DINITROTOLUENE, 2,4	0.0021	0.01	mg/L
TABLE5LEACH	121-14-2	DINITROTOLUENE, 2,4	0.0021	0.01	mg/L
TABLE5LEACH	121-14-2	DINITROTOLUENE, 2,4	0.0021	0.01	mg/L
TABLE5LEACH	121-14-2	DINITROTOLUENE, 2,4	0.0021	0.05	mg/L
TABLE5LEACH	122-66-7	DIPHENYLHYDRAZINE	0.00083	0.01	mg/L
TABLE5LEACH	122-66-7	DIPHENYLHYDRAZINE	0.00083	0.01	mg/L
TABLE5LEACH	122-66-7	DIPHENYLHYDRAZINE	0.00083	0.01	mg/L
TABLE5LEACH	122-66-7	DIPHENYLHYDRAZINE	0.00083	0.01	mg/L
TABLE5LEACH	122-66-7	DIPHENYLHYDRAZINE	0.00083	0.05	mg/L
TABLE5LEACH	123-91-1	DIOXANE, 1,4-	0.0056	0.2	mg/L
TABLE5LEACH	123-91-1	DIOXANE, 1,4-	0.0056	0.5	mg/L
TABLE5LEACH	123-91-1	DIOXANE, 1,4-	0.0056	1	mg/L
TABLE5LEACH	123-91-1	DIOXANE, 1,4-	0.0056	125	mg/L
TABLE5LEACH	123-91-1	DIOXANE, 1,4-	0.0056	5	mg/L
TABLE5LEACH	124-48-1	CHLORODIBROMOME	0.1	0.625	mg/L
TABLE5LEACH	126-98-7	METHACRYLONITRILE	0.0019	0.005	mg/L
TABLE5LEACH	126-98-7	METHACRYLONITRILE	0.0019	0.005	mg/L
TABLE5LEACH	126-98-7	METHACRYLONITRILE	0.0019	0.05	mg/L
TABLE5LEACH	126-98-7	METHACRYLONITRILE	0.0019	0.625	mg/L
TABLE5LEACH	126-99-8	CHLOROPRENE	0.019	0.15	mg/L
TABLE5LEACH	126-99-8	CHLOROPRENE	0.019	1.875	mg/L
TABLE5LEACH	12672-29-6	PCB-1248 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	12672-29-6	PCB-1248 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	12674-11-2	PCB-1016 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	12674-11-2	PCB-1016 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	127-18-4	TETRACHLOROETHYL	0.005	0.05	mg/L
TABLE5LEACH	127-18-4	TETRACHLOROETHYL	0.005	0.625	mg/L
TABLE5LEACH	134-32-7	NAPHTHYLAMINE, 1-	0.00037	0.01	mg/L
TABLE5LEACH	134-32-7	NAPHTHYLAMINE, 1-	0.00037	0.01	mg/L
TABLE5LEACH	134-32-7	NAPHTHYLAMINE, 1-	0.00037	0.01	mg/L
TABLE5LEACH	134-32-7	NAPHTHYLAMINE, 1-	0.00037	0.01	mg/L

TABLE5LEACH	134-32-7	NAPHTHYLAMINE, 1-	0.00037	0.05	mg/L
TABLE5LEACH	143-50-0	KEPONE	0.000041	0.001	mg/L
TABLE5LEACH	143-50-0	KEPONE	0.000041	0.001	mg/L
TABLE5LEACH	143-50-0	KEPONE	0.000041	0.001	mg/L
TABLE5LEACH	143-50-0	KEPONE	0.000041	0.001	mg/L
TABLE5LEACH	143-50-0	KEPONE	0.000041	0.001	mg/L
TABLE5LEACH	143-50-0	KEPONE	0.000041	0.04	mg/L
TABLE5LEACH	143-50-0	KEPONE	0.000041	0.2	mg/L
TABLE5LEACH	156-59-2	DICHLOROETHYLENE,	0.07	0.625	mg/L
TABLE5LEACH	156-60-5	DICHLOROETHYLENE,	0.1	0.625	mg/L
TABLE5LEACH	1634-04-4	METHYL TERT-BUTYL	0.02	0.05	mg/L
TABLE5LEACH	1634-04-4	METHYL TERT-BUTYL	0.02	0.05	mg/L
TABLE5LEACH	1634-04-4	METHYL TERT-BUTYL	0.02	6.25	mg/L
TABLE5LEACH	191-24-2	BENZO[GHI]PERYLENI	0.00026	0.01	mg/L
TABLE5LEACH	191-24-2	BENZO[GHI]PERYLENI	0.00026	0.01	mg/L
TABLE5LEACH	191-24-2	BENZO[GHI]PERYLENI	0.00026	0.01	mg/L
TABLE5LEACH	191-24-2	BENZO[GHI]PERYLENI	0.00026	0.01	mg/L
TABLE5LEACH	191-24-2	BENZO[GHI]PERYLENI	0.00026	0.05	mg/L
TABLE5LEACH	193-39-5	INDENO[1,2,3-CD]PYRI	0.0009	0.01	mg/L
TABLE5LEACH	193-39-5	INDENO[1,2,3-CD]PYRI	0.0009	0.01	mg/L
TABLE5LEACH	193-39-5	INDENO[1,2,3-CD]PYRI	0.0009	0.01	mg/L
TABLE5LEACH	193-39-5	INDENO[1,2,3-CD]PYRI	0.0009	0.01	mg/L
TABLE5LEACH	193-39-5	INDENO[1,2,3-CD]PYRI	0.0009	0.05	mg/L
TABLE5LEACH	205-99-2	BENZO[B]FLUORANTH	0.0009	0.01	mg/L
TABLE5LEACH	205-99-2	BENZO[B]FLUORANTH	0.0009	0.01	mg/L
TABLE5LEACH	205-99-2	BENZO[B]FLUORANTH	0.0009	0.01	mg/L
TABLE5LEACH	205-99-2	BENZO[B]FLUORANTH	0.0009	0.01	mg/L
TABLE5LEACH	205-99-2	BENZO[B]FLUORANTH	0.0009	0.05	mg/L
TABLE5LEACH	207-08-9	BENZO[K]FLUORANTH	0.00055	0.01	mg/L
TABLE5LEACH	207-08-9	BENZO[K]FLUORANTH	0.00055	0.01	mg/L
TABLE5LEACH	207-08-9	BENZO[K]FLUORANTH	0.00055	0.01	mg/L
TABLE5LEACH	207-08-9	BENZO[K]FLUORANTH	0.00055	0.01	mg/L
TABLE5LEACH	207-08-9	BENZO[K]FLUORANTH	0.00055	0.05	mg/L
TABLE5LEACH	218-01-9	CHRYSENE	0.0019	0.01	mg/L
TABLE5LEACH	218-01-9	CHRYSENE	0.0019	0.01	mg/L
TABLE5LEACH	218-01-9	CHRYSENE	0.0019	0.01	mg/L
TABLE5LEACH	218-01-9	CHRYSENE	0.0019	0.01	mg/L
TABLE5LEACH	218-01-9	CHRYSENE	0.0019	0.05	mg/L
TABLE5LEACH	2303-16-4	DIALLATE	0.0025	0.02	mg/L
TABLE5LEACH	2303-16-4	DIALLATE	0.0025	0.02	mg/L
TABLE5LEACH	2303-16-4	DIALLATE	0.0025	0.02	mg/L
TABLE5LEACH	2303-16-4	DIALLATE	0.0025	0.02	mg/L
TABLE5LEACH	2303-16-4	DIALLATE	0.0025	0.1	mg/L
TABLE5LEACH	23950-58-5	PRONAMIDE	0.05	0.1	mg/L
TABLE5LEACH	298-00-0	METHYL PARATHION	0.002	0.01	mg/L
TABLE5LEACH	298-02-2	PHORATE	0.0019	0.05	mg/L
TABLE5LEACH	298-02-2	PHORATE	0.0019	0.05	mg/L
TABLE5LEACH	298-02-2	PHORATE	0.0019	0.05	mg/L
TABLE5LEACH	298-02-2	PHORATE	0.0019	0.05	mg/L
TABLE5LEACH	298-02-2	PHORATE	0.0019	0.25	mg/L
TABLE5LEACH	298-04-4	DISULFOTON	0.0003	0.05	mg/L
TABLE5LEACH	298-04-4	DISULFOTON	0.0003	0.05	mg/L

TABLE5LEACH	298-04-4	DISULFOTON	0.0003	0.05	mg/L
TABLE5LEACH	298-04-4	DISULFOTON	0.0003	0.05	mg/L
TABLE5LEACH	298-04-4	DISULFOTON	0.0003	0.25	mg/L
TABLE5LEACH	309-00-2	ALDRIN	0.0000087	0.00005	mg/L
TABLE5LEACH	309-00-2	ALDRIN	0.0000087	0.00005	mg/L
TABLE5LEACH	309-00-2	ALDRIN	0.0000087	0.00005	mg/L
TABLE5LEACH	309-00-2	ALDRIN	0.0000087	0.00005	mg/L
TABLE5LEACH	309-00-2	ALDRIN	0.0000087	0.00005	mg/L
TABLE5LEACH	309-00-2	ALDRIN	0.0000087	0.0005	mg/L
TABLE5LEACH	309-00-2	ALDRIN	0.0000087	0.0005	mg/L
TABLE5LEACH	319-84-6	BHC, ALPHA	0.0001	0.0005	mg/L
TABLE5LEACH	319-84-6	BHC, ALPHA	0.0001	0.0005	mg/L
TABLE5LEACH	319-85-7	BHC, BETA-	0.00037	0.0005	mg/L
TABLE5LEACH	319-85-7	BHC, BETA-	0.00037	0.0005	mg/L
TABLE5LEACH	3689-24-5	TETRAETHYLDITHIOP'	0.0049	0.05	mg/L
TABLE5LEACH	3689-24-5	TETRAETHYLDITHIOP'	0.0049	0.05	mg/L
TABLE5LEACH	3689-24-5	TETRAETHYLDITHIOP'	0.0049	0.05	mg/L
TABLE5LEACH	3689-24-5	TETRAETHYLDITHIOP'	0.0049	0.05	mg/L
TABLE5LEACH	50-32-8	BENZO[A]PYRENE	0.0002	0.01	mg/L
TABLE5LEACH	50-32-8	BENZO[A]PYRENE	0.0002	0.01	mg/L
TABLE5LEACH	50-32-8	BENZO[A]PYRENE	0.0002	0.01	mg/L
TABLE5LEACH	50-32-8	BENZO[A]PYRENE	0.0002	0.01	mg/L
TABLE5LEACH	50-32-8	BENZO[A]PYRENE	0.0002	0.05	mg/L
TABLE5LEACH	51-28-5	DINITROPHENOL, 2,4-	0.019	0.05	mg/L
TABLE5LEACH	51-28-5	DINITROPHENOL, 2,4-	0.019	0.05	mg/L
TABLE5LEACH	51-28-5	DINITROPHENOL, 2,4-	0.019	0.05	mg/L
TABLE5LEACH	51-28-5	DINITROPHENOL, 2,4-	0.019	0.05	mg/L
TABLE5LEACH	51-28-5	DINITROPHENOL, 2,4-	0.019	0.25	mg/L
TABLE5LEACH	510-15-6	CHLOROBENZILATE	0.0024	0.01	mg/L
TABLE5LEACH	510-15-6	CHLOROBENZILATE	0.0024	0.01	mg/L
TABLE5LEACH	510-15-6	CHLOROBENZILATE	0.0024	0.01	mg/L
TABLE5LEACH	510-15-6	CHLOROBENZILATE	0.0024	0.01	mg/L
TABLE5LEACH	510-15-6	CHLOROBENZILATE	0.0024	0.05	mg/L
TABLE5LEACH	53-70-3	DIBENZO[A,H]ANTHRA	0.00009	0.01	mg/L
TABLE5LEACH	53-70-3	DIBENZO[A,H]ANTHRA	0.00009	0.01	mg/L
TABLE5LEACH	53-70-3	DIBENZO[A,H]ANTHRA	0.00009	0.01	mg/L
TABLE5LEACH	53-70-3	DIBENZO[A,H]ANTHRA	0.00009	0.01	mg/L
TABLE5LEACH	53-70-3	DIBENZO[A,H]ANTHRA	0.00009	0.05	mg/L
TABLE5LEACH	53-96-3	ACETYLAMINOFLUORI	0.00017	0.02	mg/L
TABLE5LEACH	53-96-3	ACETYLAMINOFLUORI	0.00017	0.02	mg/L
TABLE5LEACH	53-96-3	ACETYLAMINOFLUORI	0.00017	0.02	mg/L
TABLE5LEACH	53-96-3	ACETYLAMINOFLUORI	0.00017	0.02	mg/L
TABLE5LEACH	53-96-3	ACETYLAMINOFLUORI	0.00017	0.1	mg/L
TABLE5LEACH	53469-21-9	PCB-1242 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	53469-21-9	PCB-1242 (AROCLOR)	0	0.001	mg/L
TABLE5LEACH	541-73-1	DICHLOROBENZENE,	0.6	0.625	mg/L
TABLE5LEACH	542-75-6	DICHLOROPROPENE,	0.0066	0.05	mg/L
TABLE5LEACH	55-18-5	NITROSODIETHYLAMII	0.000001	0.01	mg/L
TABLE5LEACH	55-18-5	NITROSODIETHYLAMII	0.000001	0.01	mg/L
TABLE5LEACH	55-18-5	NITROSODIETHYLAMII	0.000001	0.01	mg/L
TABLE5LEACH	55-18-5	NITROSODIETHYLAMII	0.000001	0.01	mg/L
TABLE5LEACH	55-18-5	NITROSODIETHYLAMII	0.000001	0.05	mg/L

TABLE5LEACH	56-23-5	CARBON TETRACHLO	0.005	0.05	mg/L
TABLE5LEACH	56-23-5	CARBON TETRACHLO	0.005	0.625	mg/L
TABLE5LEACH	56-55-3	BENZO[A]ANTHRACEN	0.0009	0.01	mg/L
TABLE5LEACH	56-55-3	BENZO[A]ANTHRACEN	0.0009	0.01	mg/L
TABLE5LEACH	56-55-3	BENZO[A]ANTHRACEN	0.0009	0.01	mg/L
TABLE5LEACH	56-55-3	BENZO[A]ANTHRACEN	0.0009	0.01	mg/L
TABLE5LEACH	56-55-3	BENZO[A]ANTHRACEN	0.0009	0.05	mg/L
TABLE5LEACH	57-74-9	CHLORDANE	0.002	0.005	mg/L
TABLE5LEACH	58-89-9	BHC, GAMMA (LINDAN	0.0002	0.0005	mg/L
TABLE5LEACH	58-89-9	BHC, GAMMA (LINDAN	0.0002	0.0005	mg/L
TABLE5LEACH	60-11-7	DIMETHYLAMINOAZOE	0.00014	0.02	mg/L
TABLE5LEACH	60-11-7	DIMETHYLAMINOAZOE	0.00014	0.02	mg/L
TABLE5LEACH	60-11-7	DIMETHYLAMINOAZOE	0.00014	0.02	mg/L
TABLE5LEACH	60-11-7	DIMETHYLAMINOAZOE	0.00014	0.02	mg/L
TABLE5LEACH	60-11-7	DIMETHYLAMINOAZOE	0.00014	0.1	mg/L
TABLE5LEACH	60-51-5	DIMETHOATE	0.0073	0.02	mg/L
TABLE5LEACH	60-51-5	DIMETHOATE	0.0073	0.02	mg/L
TABLE5LEACH	60-51-5	DIMETHOATE	0.0073	0.02	mg/L
TABLE5LEACH	60-51-5	DIMETHOATE	0.0073	0.02	mg/L
TABLE5LEACH	60-51-5	DIMETHOATE	0.0073	0.1	mg/L
TABLE5LEACH	60-57-1	DIELDRIN	0.000041	0.00005	mg/L
TABLE5LEACH	60-57-1	DIELDRIN	0.000041	0.00005	mg/L
TABLE5LEACH	60-57-1	DIELDRIN	0.000041	0.00005	mg/L
TABLE5LEACH	60-57-1	DIELDRIN	0.000041	0.00005	mg/L
TABLE5LEACH	60-57-1	DIELDRIN	0.000041	0.00005	mg/L
TABLE5LEACH	60-57-1	DIELDRIN	0.000041	0.001	mg/L
TABLE5LEACH	60-57-1	DIELDRIN	0.000041	0.001	mg/L
TABLE5LEACH	606-20-2	DINITROTOLUENE, 2,6	0.037	0.05	mg/L
TABLE5LEACH	608-93-5	PENTACHLOROBENZE	0.029	0.05	mg/L
TABLE5LEACH	62-53-3	ANILINE	0.0028	0.01	mg/L
TABLE5LEACH	62-53-3	ANILINE	0.0028	0.01	mg/L
TABLE5LEACH	62-53-3	ANILINE	0.0028	0.01	mg/L
TABLE5LEACH	62-53-3	ANILINE	0.0028	0.01	mg/L
TABLE5LEACH	62-53-3	ANILINE	0.0028	0.05	mg/L
TABLE5LEACH	62-75-9	NITROSODIMETHYLAM	0.0000031	0.01	mg/L
TABLE5LEACH	62-75-9	NITROSODIMETHYLAM	0.0000031	0.01	mg/L
TABLE5LEACH	62-75-9	NITROSODIMETHYLAM	0.0000031	0.01	mg/L
TABLE5LEACH	62-75-9	NITROSODIMETHYLAM	0.0000031	0.01	mg/L
TABLE5LEACH	62-75-9	NITROSODIMETHYLAM	0.0000031	0.05	mg/L
TABLE5LEACH	621-64-7	NITROSODI-N-PROPYL	0.000094	0.01	mg/L
TABLE5LEACH	621-64-7	NITROSODI-N-PROPYL	0.000094	0.01	mg/L
TABLE5LEACH	621-64-7	NITROSODI-N-PROPYL	0.000094	0.01	mg/L
TABLE5LEACH	621-64-7	NITROSODI-N-PROPYL	0.000094	0.01	mg/L
TABLE5LEACH	621-64-7	NITROSODI-N-PROPYL	0.000094	0.05	mg/L
TABLE5LEACH	630-20-6	TETRACHLOROETHAN	0.07	0.625	mg/L
TABLE5LEACH	66-27-3	METHYL METHANESU	0.0067	0.01	mg/L
TABLE5LEACH	66-27-3	METHYL METHANESU	0.0067	0.01	mg/L
TABLE5LEACH	66-27-3	METHYL METHANESU	0.0067	0.01	mg/L
TABLE5LEACH	66-27-3	METHYL METHANESU	0.0067	0.01	mg/L
TABLE5LEACH	66-27-3	METHYL METHANESU	0.0067	0.05	mg/L
TABLE5LEACH	67-64-1	ACETONE	3.7	12.5	mg/L
TABLE5LEACH	67-66-3	CHLOROFORM	0.1	0.625	mg/L

TABLE5LEACH	67-72-1	HEXACHLOROETHANE	0.001	0.01	mg/L
TABLE5LEACH	67-72-1	HEXACHLOROETHANE	0.001	0.01	mg/L
TABLE5LEACH	67-72-1	HEXACHLOROETHANE	0.001	0.01	mg/L
TABLE5LEACH	67-72-1	HEXACHLOROETHANE	0.001	0.01	mg/L
TABLE5LEACH	67-72-1	HEXACHLOROETHANE	0.001	0.05	mg/L
TABLE5LEACH	71-36-3	BUTYL ALCOHOL, N-	0.97	50	mg/L
TABLE5LEACH	71-43-2	BENZENE	0.005	0.05	mg/L
TABLE5LEACH	71-43-2	BENZENE	0.005	0.625	mg/L
TABLE5LEACH	71-55-6	TRICHLOROETHANE,	0.2	0.625	mg/L
TABLE5LEACH	72-54-8	DDD, 4,4'-	0.00062	0.001	mg/L
TABLE5LEACH	72-54-8	DDD, 4,4'-	0.00062	0.001	mg/L
TABLE5LEACH	74-83-9	BROMOMETHANE	0.01	0.05	mg/L
TABLE5LEACH	74-83-9	BROMOMETHANE	0.01	1.25	mg/L
TABLE5LEACH	74-87-3	METHYL CHLORIDE	0.003	0.01	mg/L
TABLE5LEACH	74-87-3	METHYL CHLORIDE	0.003	0.01	mg/L
TABLE5LEACH	74-87-3	METHYL CHLORIDE	0.003	0.1	mg/L
TABLE5LEACH	74-87-3	METHYL CHLORIDE	0.003	1.25	mg/L
TABLE5LEACH	74-95-3	DIBROMOMETHANE	0.097	0.625	mg/L
TABLE5LEACH	74-97-5	BROMOCHLOROMETH	0.09	0.625	mg/L
TABLE5LEACH	75-00-3	CHLOROETHANE	0.23	1.25	mg/L
TABLE5LEACH	75-01-4	VINYL CHLORIDE	0.002	0.01	mg/L
TABLE5LEACH	75-01-4	VINYL CHLORIDE	0.002	0.01	mg/L
TABLE5LEACH	75-01-4	VINYL CHLORIDE	0.002	0.05	mg/L
TABLE5LEACH	75-01-4	VINYL CHLORIDE	0.002	1.25	mg/L
TABLE5LEACH	75-05-8	ACETONITRILE	0.17	0.2	mg/L
TABLE5LEACH	75-05-8	ACETONITRILE	0.17	1	mg/L
TABLE5LEACH	75-05-8	ACETONITRILE	0.17	25	mg/L
TABLE5LEACH	75-09-2	DICHLOROMETHANE (	0.005	0.05	mg/L
TABLE5LEACH	75-09-2	DICHLOROMETHANE (	0.005	0.625	mg/L
TABLE5LEACH	75-25-2	TRIBROMOMETHANE (	0.1	0.625	mg/L
TABLE5LEACH	75-27-4	BROMODICHLOROME	0.1	0.625	mg/L
TABLE5LEACH	75-34-3	DICHLOROETHANE, 1,	0.027	0.05	mg/L
TABLE5LEACH	75-34-3	DICHLOROETHANE, 1,	0.027	0.625	mg/L
TABLE5LEACH	75-35-4	DICHLOROETHYLENE,	0.007	0.05	mg/L
TABLE5LEACH	75-35-4	DICHLOROETHYLENE,	0.007	0.625	mg/L
TABLE5LEACH	75-71-8	DICHLORODIFLUORO	1	1.25	mg/L
TABLE5LEACH	76-44-8	HEPTACHLOR	0.0004	0.0005	mg/L
TABLE5LEACH	76-44-8	HEPTACHLOR	0.0004	0.0005	mg/L
TABLE5LEACH	77-47-4	HEXACHLOROCYCLO	0.05	0.25	mg/L
TABLE5LEACH	78-83-1	ISOBUTYL ALCOHOL	2.9	4	mg/L
TABLE5LEACH	78-83-1	ISOBUTYL ALCOHOL	2.9	50	mg/L
TABLE5LEACH	78-87-5	DICHLOROPROPANE,	0.005	0.05	mg/L
TABLE5LEACH	78-87-5	DICHLOROPROPANE,	0.005	0.625	mg/L
TABLE5LEACH	78-93-3	METHYL ETHYL KETO	2.8	12.5	mg/L
TABLE5LEACH	79-00-5	TRICHLOROETHANE,	0.005	0.05	mg/L
TABLE5LEACH	79-00-5	TRICHLOROETHANE,	0.005	0.625	mg/L
TABLE5LEACH	79-01-6	TRICHLOROETHYLENE	0.005	0.05	mg/L
TABLE5LEACH	79-01-6	TRICHLOROETHYLENE	0.005	0.625	mg/L
TABLE5LEACH	79-34-5	TETRACHLOROETHAN	0.0003	0.001	mg/L
TABLE5LEACH	79-34-5	TETRACHLOROETHAN	0.0003	0.005	mg/L
TABLE5LEACH	79-34-5	TETRACHLOROETHAN	0.0003	0.005	mg/L
TABLE5LEACH	79-34-5	TETRACHLOROETHAN	0.0003	0.05	mg/L

TABLE5LEACH	79-34-5	TETRACHLOROETHAN	0.0003	0.625	mg/L
TABLE5LEACH	79-46-9	NITROPROPANE, 2-	0.000016	0.01	mg/L
TABLE5LEACH	8001-35-2	TOXAPHENE	0.003	0.02	mg/L
TABLE5LEACH	8001-35-2	TOXAPHENE	0.003	0.02	mg/L
TABLE5LEACH	82-68-8	PENTACHLORONITRO	0.0025	0.05	mg/L
TABLE5LEACH	82-68-8	PENTACHLORONITRO	0.0025	0.05	mg/L
TABLE5LEACH	82-68-8	PENTACHLORONITRO	0.0025	0.05	mg/L
TABLE5LEACH	82-68-8	PENTACHLORONITRO	0.0025	0.05	mg/L
TABLE5LEACH	82-68-8	PENTACHLORONITRO	0.0025	0.25	mg/L
TABLE5LEACH	86-74-8	CARBAZOLE	0.033	0.05	mg/L
TABLE5LEACH	87-68-3	HEXACHLOROBUTADI	0.001	0.005	mg/L
TABLE5LEACH	87-68-3	HEXACHLOROBUTADI	0.001	0.01	mg/L
TABLE5LEACH	87-68-3	HEXACHLOROBUTADI	0.001	0.01	mg/L
TABLE5LEACH	87-68-3	HEXACHLOROBUTADI	0.001	0.01	mg/L
TABLE5LEACH	87-68-3	HEXACHLOROBUTADI	0.001	0.01	mg/L
TABLE5LEACH	87-68-3	HEXACHLOROBUTADI	0.001	0.05	mg/L
TABLE5LEACH	87-86-5	PENTACHLOROPHEN(	0.001	0.004	mg/L
TABLE5LEACH	87-86-5	PENTACHLOROPHEN(	0.001	0.05	mg/L
TABLE5LEACH	87-86-5	PENTACHLOROPHEN(	0.001	0.05	mg/L
TABLE5LEACH	87-86-5	PENTACHLOROPHEN(	0.001	0.05	mg/L
TABLE5LEACH	87-86-5	PENTACHLOROPHEN(	0.001	0.05	mg/L
TABLE5LEACH	87-86-5	PENTACHLOROPHEN(	0.001	0.25	mg/L
TABLE5LEACH	88-74-4	NITROANILINE, O-	0.0021	0.05	mg/L
TABLE5LEACH	88-74-4	NITROANILINE, O-	0.0021	0.05	mg/L
TABLE5LEACH	88-74-4	NITROANILINE, O-	0.0021	0.05	mg/L
TABLE5LEACH	88-74-4	NITROANILINE, O-	0.0021	0.05	mg/L
TABLE5LEACH	88-74-4	NITROANILINE, O-	0.0021	0.25	mg/L
TABLE5LEACH	88-85-7	DINOSEB	0.007	0.01	mg/L
TABLE5LEACH	88-85-7	DINOSEB	0.007	0.02	mg/L
TABLE5LEACH	88-85-7	DINOSEB	0.007	0.02	mg/L
TABLE5LEACH	88-85-7	DINOSEB	0.007	0.02	mg/L
TABLE5LEACH	88-85-7	DINOSEB	0.007	0.02	mg/L
TABLE5LEACH	88-85-7	DINOSEB	0.007	0.1	mg/L
TABLE5LEACH	91-20-3	NAPHTHALENE	0.1	1.25	mg/L
TABLE5LEACH	91-59-8	NAPHTHYLAMINE, 2-	0.00037	0.01	mg/L
TABLE5LEACH	91-59-8	NAPHTHYLAMINE, 2-	0.00037	0.01	mg/L
TABLE5LEACH	91-59-8	NAPHTHYLAMINE, 2-	0.00037	0.01	mg/L
TABLE5LEACH	91-59-8	NAPHTHYLAMINE, 2-	0.00037	0.01	mg/L
TABLE5LEACH	91-59-8	NAPHTHYLAMINE, 2-	0.00037	0.05	mg/L
TABLE5LEACH	91-94-1	DICHLOROBENZIDINE	0.0015	0.05	mg/L
TABLE5LEACH	91-94-1	DICHLOROBENZIDINE	0.0015	0.05	mg/L
TABLE5LEACH	91-94-1	DICHLOROBENZIDINE	0.0015	0.05	mg/L
TABLE5LEACH	91-94-1	DICHLOROBENZIDINE	0.0015	0.05	mg/L
TABLE5LEACH	91-94-1	DICHLOROBENZIDINE	0.0015	0.25	mg/L
TABLE5LEACH	92-67-1	AMINOBIPHENYL, 4-	0.000031	0.05	mg/L
TABLE5LEACH	92-67-1	AMINOBIPHENYL, 4-	0.000031	0.05	mg/L
TABLE5LEACH	92-67-1	AMINOBIPHENYL, 4-	0.000031	0.05	mg/L
TABLE5LEACH	92-67-1	AMINOBIPHENYL, 4-	0.000031	0.05	mg/L
TABLE5LEACH	92-67-1	AMINOBIPHENYL, 4-	0.000031	0.25	mg/L
TABLE5LEACH	92-87-5	BENZIDINE	0.0000029	0.1	mg/L
TABLE5LEACH	92-87-5	BENZIDINE	0.0000029	0.1	mg/L
TABLE5LEACH	92-87-5	BENZIDINE	0.0000029	0.1	mg/L

TABLE5LEACH	92-87-5	BENZIDINE	0.0000029	0.1	mg/L
TABLE5LEACH	92-87-5	BENZIDINE	0.0000029	0.5	mg/L
TABLE5LEACH	924-16-3	NITROSO-DI-N-BUTYL/	0.000027	0.01	mg/L
TABLE5LEACH	924-16-3	NITROSO-DI-N-BUTYL/	0.000027	0.01	mg/L
TABLE5LEACH	924-16-3	NITROSO-DI-N-BUTYL/	0.000027	0.01	mg/L
TABLE5LEACH	924-16-3	NITROSO-DI-N-BUTYL/	0.000027	0.01	mg/L
TABLE5LEACH	924-16-3	NITROSO-DI-N-BUTYL/	0.000027	0.05	mg/L
TABLE5LEACH	95-50-1	DICHLOROBENZENE,	0.6	0.625	mg/L
TABLE5LEACH	95-53-4	TOLUIDINE, O-	0.0028	0.02	mg/L
TABLE5LEACH	95-53-4	TOLUIDINE, O-	0.0028	0.02	mg/L
TABLE5LEACH	95-53-4	TOLUIDINE, O-	0.0028	0.02	mg/L
TABLE5LEACH	95-53-4	TOLUIDINE, O-	0.0028	0.02	mg/L
TABLE5LEACH	95-53-4	TOLUIDINE, O-	0.0028	0.1	mg/L
TABLE5LEACH	95-57-8	CHLOROPHENOL, 2-	0.04	0.05	mg/L
TABLE5LEACH	95-94-3	TETRACHLOROBENZE	0.011	0.05	mg/L
TABLE5LEACH	96-12-8	DIBROMO-3-CHLOROF	0.0002	0.001	mg/L
TABLE5LEACH	96-12-8	DIBROMO-3-CHLOROF	0.0002	0.01	mg/L
TABLE5LEACH	96-12-8	DIBROMO-3-CHLOROF	0.0002	0.01	mg/L
TABLE5LEACH	96-12-8	DIBROMO-3-CHLOROF	0.0002	0.1	mg/L
TABLE5LEACH	96-12-8	DIBROMO-3-CHLOROF	0.0002	1.25	mg/L
TABLE5LEACH	98-95-3	NITROBENZENE	0.018	0.05	mg/L
TABLE5LEACH	99-09-2	NITROANILINE, M-	0.0021	0.05	mg/L
TABLE5LEACH	99-09-2	NITROANILINE, M-	0.0021	0.05	mg/L
TABLE5LEACH	99-09-2	NITROANILINE, M-	0.0021	0.05	mg/L
TABLE5LEACH	99-09-2	NITROANILINE, M-	0.0021	0.05	mg/L
TABLE5LEACH	99-09-2	NITROANILINE, M-	0.0021	0.25	mg/L
TABLE5LEACH	99-65-0	DINITROBENZENE, 1,3	0.001	0.01	mg/L
TABLE5LEACH	99-65-0	DINITROBENZENE, 1,3	0.001	0.01	mg/L
TABLE5LEACH	99-65-0	DINITROBENZENE, 1,3	0.001	0.01	mg/L
TABLE5LEACH	99-65-0	DINITROBENZENE, 1,3	0.001	0.01	mg/L
TABLE5LEACH	99-65-0	DINITROBENZENE, 1,3	0.001	0.05	mg/L
TABLE6	7439-92-1	LEAD	0.5	0.6	mg/kg
TABLE6	7439-92-1	LEAD	0.5	10	mg/kg
TABLE6	7439-92-1	LEAD	0.5	30	mg/kg
TABLE6	7440-28-0	THALLIUM	0.2	1	mg/kg
TABLE6	7440-28-0	THALLIUM	0.2	1	mg/kg
TABLE6	7440-28-0	THALLIUM	0.2	1	mg/kg
TABLE6	7440-28-0	THALLIUM	0.2	1	mg/kg
TABLE6	7440-28-0	THALLIUM	0.2	2	mg/kg
TABLE6	7440-28-0	THALLIUM	0.2	200	mg/kg
TABLE6	7440-36-0	ANTIMONY	0.6	1	mg/kg
TABLE6	7440-36-0	ANTIMONY	0.6	1	mg/kg
TABLE6	7440-36-0	ANTIMONY	0.6	12	mg/kg
TABLE6	7440-36-0	ANTIMONY	0.6	12	mg/kg
TABLE6	7440-36-0	ANTIMONY	0.6	6	mg/kg
TABLE6	7440-38-2	ARSENIC	5	30	mg/kg
TABLE6	7440-38-2	ARSENIC	5	60	mg/kg
TABLE6	7440-41-7	BERYLLIUM	0.4	0.5	mg/kg
TABLE6	7440-41-7	BERYLLIUM	0.4	0.5	mg/kg
TABLE6	7440-41-7	BERYLLIUM	0.4	0.5	mg/kg
TABLE6	7440-41-7	BERYLLIUM	0.4	1	mg/kg
TABLE6	7440-41-7	BERYLLIUM	0.4	1	mg/kg

TABLE6	7440-42-8	BORON AND COMPOU	6.7	20	mg/kg
TABLE6	7440-42-8	BORON AND COMPOU	6.7	20	mg/kg
TABLE6	7440-42-8	BORON AND COMPOU	6.7	20	mg/kg
TABLE6	7440-43-9	CADMIUM	0.5	1	mg/kg
TABLE6	7440-43-9	CADMIUM	0.5	1	mg/kg
TABLE6	7782-49-2	SELENIUM	5	25	mg/kg
TABLE6	7782-49-2	SELENIUM	5	50	mg/kg
TABLE6	Q138	CHLORIDES	0	10	mg/kg
TABLE6	Q138	CHLORIDES	0	10	mg/kg
TABLE6	Q138	CHLORIDES	0	10	mg/kg
TABLE6	Q138	CHLORIDES	0	10	mg/kg
TABLE6LEACH	7429-90-5	ALUMINUM	0.2	0.5	mg/L
TABLE6LEACH	7429-90-5	ALUMINUM	0.2	0.5	mg/L
TABLE6LEACH	7439-89-6	IRON	0	0.1	mg/L
TABLE6LEACH	7439-89-6	IRON	0	0.1	mg/L
TABLE6LEACH	7439-89-6	IRON	0	0.1	mg/L
TABLE6LEACH	7439-89-6	IRON	0	0.1	mg/L
TABLE6LEACH	7439-92-1	LEAD	0.005	0.1	mg/L
TABLE6LEACH	7439-92-1	LEAD	0.005	0.5	mg/L
TABLE6LEACH	7439-92-1	LEAD	0.005	0.5	mg/L
TABLE6LEACH	7439-92-1	LEAD	0.005	0.5	mg/L
TABLE6LEACH	7439-96-5	MANGANESE	0	0.015	mg/L
TABLE6LEACH	7439-96-5	MANGANESE	0	0.015	mg/L
TABLE6LEACH	7439-96-5	MANGANESE	0	0.015	mg/L
TABLE6LEACH	7439-96-5	MANGANESE	0	0.015	mg/L
TABLE6LEACH	7439-97-6	MERCURY	0.002	0.004	mg/L
TABLE6LEACH	7440-22-4	SILVER	0.1	0.5	mg/L
TABLE6LEACH	7440-22-4	SILVER	0.1	0.5	mg/L
TABLE6LEACH	7440-22-4	SILVER	0.1	0.5	mg/L
TABLE6LEACH	7440-22-4	SILVER	0.1	0.5	mg/L
TABLE6LEACH	7440-28-0	THALLIUM	0.002	0.01	mg/L
TABLE6LEACH	7440-28-0	THALLIUM	0.002	0.5	mg/L
TABLE6LEACH	7440-28-0	THALLIUM	0.002	0.5	mg/L
TABLE6LEACH	7440-28-0	THALLIUM	0.002	2	mg/L
TABLE6LEACH	7440-36-0	ANTIMONY	0.006	0.01	mg/L
TABLE6LEACH	7440-36-0	ANTIMONY	0.006	0.06	mg/L
TABLE6LEACH	7440-36-0	ANTIMONY	0.006	0.5	mg/L
TABLE6LEACH	7440-36-0	ANTIMONY	0.006	0.5	mg/L
TABLE6LEACH	7440-38-2	ARSENIC	0.05	0.5	mg/L
TABLE6LEACH	7440-38-2	ARSENIC	0.05	0.5	mg/L
TABLE6LEACH	7440-38-2	ARSENIC	0.05	0.5	mg/L
TABLE6LEACH	7440-38-2	ARSENIC	0.05	0.5	mg/L
TABLE6LEACH	7440-39-3	BARIUM AND COMPOU	2	10	mg/L
TABLE6LEACH	7440-39-3	BARIUM AND COMPOU	2	10	mg/L
TABLE6LEACH	7440-39-3	BARIUM AND COMPOU	2	10	mg/L
TABLE6LEACH	7440-39-3	BARIUM AND COMPOU	2	10	mg/L
TABLE6LEACH	7440-41-7	BERYLLIUM	0.004	0.005	mg/L
TABLE6LEACH	7440-41-7	BERYLLIUM	0.004	0.005	mg/L
TABLE6LEACH	7440-41-7	BERYLLIUM	0.004	0.005	mg/L
TABLE6LEACH	7440-41-7	BERYLLIUM	0.004	0.005	mg/L
TABLE6LEACH	7440-43-9	CADMIUM	0.005	0.1	mg/L
TABLE6LEACH	7440-43-9	CADMIUM	0.005	0.1	mg/L

TABLE6LEACH	7440-43-9	CADMIUM	0.005	0.1	mg/L
TABLE6LEACH	7440-43-9	CADMIUM	0.005	0.1	mg/L
TABLE6LEACH	7782-49-2	SELENIUM	0.05	0.25	mg/L
TABLE6LEACH	7782-49-2	SELENIUM	0.05	0.25	mg/L
TABLE6LEACH	7782-49-2	SELENIUM	0.05	0.25	mg/L
TABLE6LEACH	7782-49-2	SELENIUM	0.05	0.25	mg/L

MTHNAME	EXTDESC
Base/Neutrals and Acids (8270C)	
Base/Neutrals and Acids (8270C)	
Base/Neutrals and Acids (8270C)	
Herbicides (8151A)	
Base/Neutrals and Acids (8270C)	
Base/Neutrals and Acids (8270C)	
Volatile Organic Compounds - CLP (OLM04.2)	
Volatile Organics, GC/MS (CLP -OLM03.1)	
Volatile Organics, GC/MS (8260B)	
Semi-Volatile Organic Compounds - CLP (OLM04.2)	
Base/Neutrals and Acids (CLP-OLM03.1)	
Base/Neutrals and Acids (CLP-OLM03.2)	
Base/Neutrals and Acids (8270C)	
Base/Neutrals and Acids (8270C)	
Inductively Coupled Plasma(Trace)	
Inductively Coupled Plasma (6010B)	
Inductively Coupled Plasma	
Inductively Coupled Plasma (6010B)	
Inductively Coupled Plasma	
Semi-Volatile Organic Compounds - CLP (OLM04.2)	
Base/Neutrals and Acids (CLP-OLM03.1)	
Base/Neutrals and Acids (CLP-OLM03.2)	
Base/Neutrals and Acids (8270C)	
Volatile Organics, GC/MS (CLP -OLM03.1)	
Volatile Organics, GC/MS (8260B)	
Volatile Organic Compounds - CLP (OLM04.2)	
Volatile Organics, GC/MS (CLP -OLM03.1)	
Volatile Organics, GC/MS (8260B)	
Base/Neutrals and Acids (8270C)	
8270C (SIM)	
Semi-Volatile Organic Compounds - CLP (OLM04.2)	
Base/Neutrals and Acids (CLP-OLM03.1)	
Inductively Coupled Plasma (6010B)	
Inductively Coupled Plasma (6010B)	
Inductively Coupled Plasma	
Inductively Coupled Plasma (200.7 Trace)	
Inductively Coupled Plasma (6010B Trace)	
Inductively Coupled Plasma (6010B)	
Inductively Coupled Plasma	
Semi-Volatile Organic Compounds - CLP (OLM04.2)	
Base/Neutrals and Acids (CLP-OLM03.1)	
Base/Neutrals and Acids (CLP-OLM03.2)	
Base/Neutrals and Acids (8270C)	
Base/Neutrals and Acids (8270C)	
Volatile Organics, GC/MS (CLP -OLM03.1)	
Volatile Organics, GC/MS (8260B)	
Volatile Organic Compounds - CLP (OLM04.2)	
Volatile Organics, GC/MS (CLP -OLM03.1)	
Volatile Organics, GC/MS (8260B)	

Base/Neutrals and Acids (8270C)
8270C (SIM)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Volatile Organics, GC/MS (8260B)
Volatile Organics, GC/MS (CLP -OLM03.1)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (8270C)
Compounds, Organophosphorus (8141A)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Compounds, Organophosphorus (8141A)
Base/Neutrals and Acids (8270C)
8270C (SIM)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Herbicides (8151A)
8270C (SIM)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Pesticide/PCBs Compounds - CLP (OLM04.2)
Pesticides/PCB (CLP-OLM03.2)
Pesticides/PCB (CLP-OLM03.1)

Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Volatile Organics, GC/MS (8260B)
Volatile Organics, GC/MS (CLP -OLM03.1)
Base/Neutrals and Acids (8270C)
Pesticides (8081A)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Compounds, Organophosphorus (8141A)
Base/Neutrals and Acids (8270C)
Pesticide/PCBs Compounds - CLP (OLM04.2)
Pesticides/PCB (CLP-OLM03.2)
Pesticides (8081A)
Pesticides/PCB (CLP-OLM03.1)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)

Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Compounds, Organophosphorus (8141A)
Base/Neutrals and Acids (8270C)
8270C (SIM)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Volatile Organic Compounds - CLP (OLM04.2)
Volatile Organics, GC/MS (CLP -OLM03.1)
Volatile Organics, GC/MS (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Herbicides (8151A)
8270C (SIM)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)

Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Herbicides (8151A)
Base/Neutrals and Acids (8270C)
Semi-Volatile Organic Compounds - CLP (OLM04.2)
Base/Neutrals and Acids (CLP-OLM03.1)
Base/Neutrals and Acids (CLP-OLM03.2)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C)
Base/Neutrals and Acids (8270C) ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C) TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Volatile Organics, GC/MS (8260B) PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Base/Neutrals and Acids (8270C) ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Pesticides (8081A) TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A) TCLP(1311) -> LIQ/LIQ, CONT - Nominal
Volatile Organics, GC/MS (8260B) PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B) PURGE AND TRAP - 25 mL purge (Waters)
Volatile Organics, GC/MS (8260B) SPLP-W(1312-ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B) SPLP-E(1312 - ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B) TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B) PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B) SPLP-W(1312-ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B) SPLP-E(1312 - ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B) TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B) PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B) TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B) PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B) PURGE AND TRAP - 25 mL purge (Waters)
Volatile Organics, GC/MS (8260B) PURGE AND TRAP - 25 mL purge (Waters)
Volatile Organics, GC/MS (8260B) SPLP-W(1312-ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B) SPLP-E(1312 - ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B) TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B) PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B) PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B) PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B) PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B) PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Base/Neutrals and Acids (8270C) ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C) TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
PCBs (8082) TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
PCBs (8082) ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Nominal
PCBs (8082) TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
PCBs (8082) ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Nominal

Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
PCBs (8082)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
PCBs (8082)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Nominal
PCBs (8082)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
PCBs (8082)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Nominal
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP - 25 mL purge (Waters)
Volatile Organics, GC/MS (8260B)	SPLP-W(1312-ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B)	SPLP-E(1312 - ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	SPLP-W(1312-ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B)	SPLP-E(1312 - ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
PCBs (8082)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
PCBs (8082)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Nominal
PCBs (8082)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
PCBs (8082)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Nominal
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base

Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Pesticides (8081A)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Nominal
Pesticides (8081A)	SPLP-W(1312) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	SPLP-W(1312) -> LIQ/LIQ, CONT - Nominal
Pesticides (8081A)	SPLP-E(1312) -> LIQ/LIQ, CONT - Nominal
Pesticides (8081A)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Nominal
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Volatile Organics, GC/MS (8260B	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B	SPLP-E(1312 - ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base

Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Pesticides (8081A)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Nominal
Pesticides (8081A)	SPLP-W(1312) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	SPLP-W(1312) -> LIQ/LIQ, CONT - Nominal
Pesticides (8081A)	SPLP-E(1312) -> LIQ/LIQ, CONT - Nominal
Pesticides (8081A)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, CONT - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, CONT - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, CONT - Nominal
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
PCBs (8082)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
PCBs (8082)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Nominal
Volatile Organics, GC/MS (8260B	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base

Volatile Organics, GC/MS (8260B	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, CONT - Nominal
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Pesticides (8081A)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Nominal
Pesticides (8081A)	SPLP-W(1312) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	SPLP-W(1312) -> LIQ/LIQ, CONT - Nominal
Pesticides (8081A)	SPLP-E(1312) -> LIQ/LIQ, CONT - Nominal
Pesticides (8081A)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, CONT - Nominal
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Volatile Organics, GC/MS (8260B	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Volatile Organics, GC/MS (8260B	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)

Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, CONT - Nominal
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	SPLP-W(1312-ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B)	SPLP-E(1312 - ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	SPLP-W(1312-ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B)	SPLP-E(1312 - ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	SPLP-E(1312 - ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, CONT - Nominal
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B)	PURGE AND TRAP - 25 mL purge (Waters)
Volatile Organics, GC/MS (8260B)	SPLP-W(1312-ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B)	SPLP-E(1312 - ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B)	TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level

Volatile Organics, GC/MS (8260B	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Volatile Organics, GC/MS (8260B	SPLP-W(1312-ZHE) -> PURGE AND TRAP - 5 mL purge
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, SEP FUNNEL - Nominal
Pesticides (8081A)	TCLP(1311) -> LIQ/LIQ, CONT - Nominal
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Volatile Organics, GC/MS (8260B	SPLP-W(1312-ZHE) -> PURGE AND TRAP - 5 mL purge
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Herbicides (8151A)	ELUTRIATE (ACOE) -> LIQ-LIQ -> ACID -> DERIVATIZAT
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Volatile Organics, GC/MS (8260B	PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C)	TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C)	SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base

Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C) TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C) TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Volatile Organics, GC/MS (8260B) PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Base/Neutrals and Acids (8270C) ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C) TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Volatile Organics, GC/MS (8260B) PURGE AND TRAP - 25 mL purge (Waters)
Volatile Organics, GC/MS (8260B) SPLP-W(1312-ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B) SPLP-E(1312 - ZHE) -> PURGE AND TRAP - 5 mL purge
Volatile Organics, GC/MS (8260B) TCLP(1311-ZHE/filter) -> PURGE-AND-TRAP (Low Level
Volatile Organics, GC/MS (8260B) PURGE AND TRAP, MeOH EXTRACTION (Solids or Wastes)
Base/Neutrals and Acids (8270C) TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C) TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) ELUTRIATE (ACOE) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-W(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, CONT - Acid->Base
Base/Neutrals and Acids (8270C) SPLP-E(1312) -> LIQ/LIQ, SEP FUNNEL - Acid->Base
Base/Neutrals and Acids (8270C) TCLP(1311) -> LIQ/LIQ, CONT - Acid->Base
Inductively Coupled Plasma(Trace)
Inductively Coupled Plasma (6010B)
Inductively Coupled Plasma
Inductively Coupled Plasma (200.7 Trace)
Inductively Coupled Plasma (6010B Trace)
Thallium (7841, Furnace)
Thallium (279.2, Furnace)
Inductively Coupled Plasma(Trace)
Inductively Coupled Plasma (6010B)
Inductively Coupled Plasma (200.7 Trace)
Inductively Coupled Plasma (6010B Trace)
Inductively Coupled Plasma(Trace)
Inductively Coupled Plasma
Inductively Coupled Plasma (6010B)
Inductively Coupled Plasma (6010B)
Inductively Coupled Plasma
Inductively Coupled Plasma (200.7 Trace)
Inductively Coupled Plasma (6010B Trace)
Inductively Coupled Plasma (6010B)
Inductively Coupled Plasma(Trace)
Inductively Coupled Plasma

Inductively Coupled Plasma (200.7 Trace)	
Inductively Coupled Plasma (6010B Trace)	
Inductively Coupled Plasma (6010B)	
Inductively Coupled Plasma(Trace)	
Inductively Coupled Plasma	
Inductively Coupled Plasma (6010B)	
Inductively Coupled Plasma	
Chloride (325.2, Automated)	
Chloride (300.0, Ion Chromatography)	
Chloride (9251, Automated)	
Chloride (Manual Titration - 325.3)	
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	ELUTRIATE (ACOE) -> METALS, TOTAL RECOVERABLE
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	ELUTRIATE (ACOE) -> METALS, TOTAL RECOVERABLE
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Mercury (7470A, Cold Vapor) - Lic	EP TOX(1310) -> METALS, TOTAL (Method exclusive)
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	ELUTRIATE (ACOE) -> METALS, TOTAL RECOVERABLE
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	ELUTRIATE (ACOE) -> METALS, TOTAL RECOVERABLE
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	ELUTRIATE (ACOE) -> METALS, TOTAL RECOVERABLE
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (6010	METALS, DI-LEACHATE (ASTM) -> TOTAL

Inductively Coupled Plasma (601C TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (601C METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (601C TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (601C METALS, DI-LEACHATE (ASTM) -> TOTAL
Inductively Coupled Plasma (601C TCLP(1311) -> METALS, TOTAL
Inductively Coupled Plasma (601C METALS, DI-LEACHATE (ASTM) -> TOTAL

PENNSYLVANIA CHAMBER OF BUSINESS AND INDUSTRY COMMENTS ON SAFE FILL REGULATIONS

I. INTRODUCTION

On February 2, 2002, the Pennsylvania Environmental Quality Board ("EQB") published in the Pennsylvania Bulletin proposed amendments to Pennsylvania's municipal and residual waste regulations. These proposed regulatory amendments are commonly referred to as the "safe fill regulations" and are designed to replace a guidance document entitled "Policy and Procedure Establishing Criteria for Use of Uncontaminated Soils, Rock, Stone, Brick and Block, Concrete, Gravel, Used Asphalt, Dredged Material and Waste from Land Clearing, Grubbing and Excavation as Fill" (hereinafter the "Clean Fill Policy") that the Pennsylvania Department of Environmental Protection (the "Department") issued on February 29, 1996.

As described in these comments, the Pennsylvania Chamber of Business and Industry (the "Chamber") believes that the proposed safe fill regulations represent marked progress in rectifying the problems created by the Clean Fill Policy. However, substantial additional changes to the proposed safe fill regulations are necessary in order to avoid regulating under the Pennsylvania Solid Waste Management Act ("SWMA") enormous amounts of soils and other materials that can be beneficially used as fill with no adverse impact to either public health or the environment. While the proposed safe fill regulations incorporate standards based on the medium specific concentrations ("MSCs") developed by the Department as part of implementing the statewide health standard under the Pennsylvania Land Recycling and Environmental Remediation Standards Act ("Act 2"), the proposed safe fill regulations also include additional layers of requirements that are unnecessary and inconsistent with the scientific principles on which Act 2 rests. The proposed safe fill regulations can be significantly simplified and harmonized with the regulations that are already in place under Act 2 without sacrificing the protections that the Department has sought to achieve through the proposed safe fill regulations. Such efforts are critical to facilitating the ability of the regulated community to comply with the proposed safe fill regulations and the Department to administer those regulations. In the absence of further changes to the proposed safe fill regulations, Pennsylvania's landfill capacity will quickly be depleted as materials that can safely be used for beneficial purposes will instead be disposed of as wastes.

II. BACKGROUND

Few if any guidance documents issued by the Department have had broader ramifications for the regulated community than the Clean Fill Policy. The Clean Fill Policy in practical terms establishes the dividing line between soils and other materials which are deemed sufficiently "clean" to be insulated from regulation as wastes under the SWMA and those that instead are subject to the complex requirements imposed by the SWMA. As such, the Clean Fill Policy has relevance to virtually every construction and remediation project in Pennsylvania, ranging from the construction of sewer lines and

roads to the redevelopment of industrial sites and "brown fields." Indeed, virtually all earthmoving activities in Pennsylvania are potentially affected by the Clean Fill Policy. The proposed safe fill regulations cover the same expanse of activities and therefore have massive economic ramifications for the Commonwealth and its citizens.

In developing the Clean Fill Policy, the Department sought to bridge a key regulatory gap highlighted by the current framework of the residual waste regulations. Under the residual waste regulations, wastes are defined to include "contaminated soil, contaminated water [and] contaminated dredge material." 25 Pa. Code § 287.1. By contrast, clean fill is defined as "[u]ncontaminated, nonwater-soluble, inert solid material used to level an area or bring the area to grade." 25 Pa. Code § 287.1. In both instances, the concept of what is "contaminated" is critical to determining whether a material qualifies as a waste or as clean fill. The residual waste regulations, however, provide no standards for making such a determination.

The residual waste regulations also incorporate the notion of clean fill in defining the scope of permitting requirements thereunder, exempting from permitting requirements the following activities:

> The use as clean fill of the materials in subparagraphs (i) and (ii) if they are separate from other waste. The person using the material as clean fill has the burden of proof to demonstrate that the material is clean fill.
>
> (i) The following materials, if they are uncontaminated: soil, rock, stone, gravel, brick and block, concrete and used asphalt.
>
> (ii) Waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material.

25 Pa. Code § 287.101(b)(6). (The municipal waste regulations include a similar provision set forth at 25 Pa. Code § 271.101(b)(6).) Again, this permit exemption rests on the concept of what is "contaminated" and what is not.

In order to establish lines of demarcation concerning soils and other materials that are sufficiently "contaminated" to be regulated as wastes rather than qualifying as clean fill, the Department issued the Clean Fill Policy in 1996. The Clean Fill Policy includes standards that are an order of magnitude less than the most restrictive of the MSCs under Act 2. In many instances, these standards have proved to be thoroughly unworkable because the standards are below background concentrations of regulated substances found in soils and other materials. In practice, the Clean Fill Policy has afforded the Department with nearly unfettered discretion to classify soils and other materials

associated with construction and excavation projects as wastes under the SWMA. Because compliance with the Clean Fill Policy on its face has often been impossible, the Clean Fill Policy has not been utilized by many members of the regulated community. In other instances, the Clean Fill Policy has served as a monumental and unnecessary impediment to construction and development projects, including "brownfields" redevelopment projects that the Commonwealth has sought to foster.

The proposed safe fill regulations are the product of nearly five years of effort by the Department and a broad spectrum of members of business and industry. The Chamber has played a vital role in this process. Significant progress has been made. Much work remains to be completed, however. If the safe fill regulations are finalized in their current form, vast amounts of soil and other materials which are moved about as part of construction and other activities will have to be managed as wastes under the SWMA with no attendant demonstrated benefit to either public health or the environment. Limited landfill capacity will be consumed with materials that otherwise could be beneficially and safely used. At the same time, the need for virgin mined materials will increase as such materials are used to replace the materials being sent to landfills. Consequently, the proposed safe fill regulations will have profound effects on the manner in which construction, development and demolition projects are conducted in Pennsylvania and the costs associated with such projects. Moreover, the ripple effects from the safe fill regulations will be felt in a much larger sphere of activities.

The preamble to the proposed safe fill regulations indicates that 80% of soils managed yearly will not need to be sampled and analyzed under the provisions of the proposed regulations. The requirements contained in the proposed regulations, however, suggest that most soils and other materials potentially qualifying as safe fill will be subject to expensive analytical procedures. The Chamber's comments are, in part, intended to help effectuate the stated goal of allowing for the management of most soils and other similar materials without undue regulatory involvement.

The safe fill regulations need to be protective of human health and the environment while at the same time being simple to apply and administer. The safe fill regulations also need to be cost effective. The comments set forth below are intended to advance these goals.

In order to provide the EQB and the Department with specific suggestions regarding the manner in which the proposed safe fill regulations should be revised to address the comments and concerns presented herein, a redlined version of the proposed safe fill regulations is attached hereto showing changes and modifications to the proposed regulations that the Chamber recommends be incorporated. The redlined version of the proposed regulations has been prepared by an ad hoc group of individuals who, among other things, are members of the Cleanup Standards Scientific Advisory Board, the Solid Waste Advisory Committee, and the Chamber's Solid Waste Advisory Committee.

III. DISCUSSION

A. The Definition of Safe Fill

1. Overview

The heart of the proposed safe fill regulations is the definition of "safe fill" that the Department has developed. Under this definition, only certain materials can potentially qualify as safe fill. Specifically, these materials include uncontaminated soil, including rock and stone, uncontaminated dredged material, uncontaminated used asphalt, and uncontaminated and segregated brick, block or concrete resulting from construction or demolition activities from residential and commercial properties. To be classified as safe fill, such materials must also meet certain numeric standards, not have been subject to a release, and not exhibit any visible staining, odor or other sensory nuisance resulting from chemical contaminants associated with the material. The Chamber believes that the proposed definition of "safe fill" is overly complicated and restrictive, and represents a "belt and suspenders" approach that is unnecessary and unwise.

2. Types of Materials Potentially Qualifying as Safe Fill

As noted above, only uncontaminated soil, including rock and stone, uncontaminated dredged material, uncontaminated used asphalt, and uncontaminated and segregated brick, block or concrete resulting from construction or demolition activities from residential and commercial properties may potentially qualify as safe fill. There is no reason to use the descriptor "uncontaminated" before each such category of material. The term "uncontaminated" is not defined and is subject to a range of interpretations. Using this term is confusing and unnecessary. The safe fill regulations are designed to establish standards for materials that are deemed to be safe. If a material meets those standards, then it may be used as safe fill regardless of whether it is "uncontaminated." Accordingly, the Chamber recommends that this descriptor be eliminated.

Moreover, the proposed safe fill regulations categorically classify certain materials as wastes regardless of their characteristics. For example, brick, block and concrete from construction or demolition activities at industrial properties can never qualify as safe fill under the proposed regulations and are therefore automatically classified as construction and demolition wastes. In addition, under the proposed safe fill regulations, historic fill material is generally classified as a residual waste and cannot qualify as safe fill. The justification for such prescriptive requirements is wholly missing.

Brick, block and concrete from industrial properties may pose special concerns or may be perfectly innocuous. Depending on how broadly an industrial property is defined, the proposed regulations potentially render brick, block and concrete from office buildings, warehouses, shipping areas, parking lots and other areas at industrial facilities wastes even though such brick, block and concrete may be wholly devoid of impacts from industrial operations and exhibit characteristics no different than brick, block and

concrete from commercial or residential properties. Moreover, brick, block and concrete from production areas may have no different characteristics than brick, block and concrete from commercial or residential properties. The Chamber believes that the classification scheme that the Department has developed in the proposed safe fill regulations paints with too broad a brush and does not take into account the high degree of variability that is encountered in many circumstances. To eliminate this problem, the Chamber strongly recommends that brick, block or concrete from any type of property be included in the list of materials that potentially may qualify as safe fill provided that the other conditions of the definition of safe fill are met. If those conditions are not met, then the brick, block or concrete must be managed as a waste. However, if those conditions are met, then brick, block and concrete resulting from construction or demolition activities at industrial properties should qualify as safe fill.

The fact that a permit-by-rule for the use of brick, block and concrete has been included in the proposed safe fill regulations does not negate the difficulties posed by categorically defining as wastes brick, block and concrete from construction or demolition activities at industrial properties. As discussed in more detail later in these comments, the proposed permit-by-rule contains extensive conditions and limitations. These conditions and limitations will restrict the areas where brick, block and concrete from industrial properties could otherwise be used, make such materials more costly to manage, and result in delays in the use of such materials. Moreover, these burdens will not result in any significant environmental benefits.

In addition, the proposed definition of safe fill only covers "uncontaminated and segregated brick, block or concrete resulting from construction or demolition activities from residential and commercial properties." The term "uncontaminated" has already been discussed. The additional requirement - that brick, block or concrete be "segregated" - is not explained in the proposed regulations. It is unclear in the context of the proposed definition of safe fill what "segregated" means. Must bricks be separated from blocks? Must concrete be separated from bricks? Does concrete need to be separated from rebar? Can some amount of exposed rebar be present? Does it matter if the brick, block and concrete satisfy the safe fill numeric standards? Is painted brick, block or concrete unsegregated? These types of inquiries needlessly complicate the proposed definition of safe fill. The Chamber recommends that brick, block or concrete, without other qualifiers, be included on the list of materials that may potentially be classified as safe fill, and that mixtures of brick, block and concrete likewise potentially qualify as safe fill. In many instances, masonry structures may contain a mixture of brick, block and concrete. Segregating such masonry (assuming that it is feasible) may serve little purpose and result in no environmental or public health benefits. (The Department has informally adopted certain "rules of thumb" for evaluating whether sufficient extraneous materials may be present with brick, block or concrete so that the brick, block and concrete do not qualify as clean fill. Those "rules of thumb" may continue to be useful under the safe fill regulations.)

Likewise, the Chamber believes that there is no justification for categorically defining historic fill material as a residual waste. Instead, such material should be subject to the same standards as soils, dredged material and used asphalt. If historic fill material meets the criteria established under the definition of safe fill, there is no reason that such material should not qualify as safe fill.

3. General Criteria

Based on recommendations that the Department received from the Cleanup Standards Scientific Advisory Board ("CSSAB") two years ago, the Department has proposed numeric standards to be used to determine whether a material qualifies as safe fill based generally on the MSCs developed by the Department under Act 2 for soils at residential properties overlying used aquifers. As required under Act 2, the MSCs represent conservative risk-based numeric standards that are deemed to be protective of public health and which can be applied anywhere within Pennsylvania. Given the fact that the proposed safe fill numeric values rely on the most restrictive of the MSCs (which in turn are conservative in nature and designed to be protective), there is no reason to independently require that the material not have been subject to a release of regulated substances. The key question is whether the material meets the safe fill numeric values, not what may have happened to the material in the past. If the safe fill numeric standards are considered to be safe, then the current condition of the material and not its history should be determinative. To disqualify from being classified as safe fill any material which has been subject to a release, regardless of how minimal the release may have been and regardless of whether the material otherwise meets the safe fill numeric standards, ignores the scientific underpinnings of the Act 2 program.

The "no release" requirement is fraught with additional difficulties. First, the proposed safe fill regulations do not define what constitutes a release. Is air-borne deposition of regulated substances a release? Is passive migration of regulated substances a release? Are releases limited to "regulated substances?" Are impacts from "urbanization" releases? Given the fact that as currently drafted, a material that has been subject to a release cannot qualify as safe fill, answers to these questions are critically important.

Second, depending on how broadly a release is defined, the presence of non-naturally occurring substances in soils or other materials may be indicative of a release without providing any information about the nature, extent, mechanism or history of the release. This potentially could serve to disqualify as safe fill any materials in which non-naturally occurring substances have been detected.

Third, it is unclear whether the "no release" requirement extends forever. For example, is a material which has been impacted by a release but remediated barred from qualifying as safe fill? What if the remediation achieved the MSCs for residential property under Act 2? What if a documented release occurred in the distant past but the impacts are no longer discernable because of biodegradation of the released material? It

makes little sense to permanently classify a material as a waste simply because of what may have happened to it in the past rather than relying on its current characteristics.

Fourth, the "no release" requirement potentially creates a disincentive to undertake due diligence investigations concerning the history of the material potentially qualifying as safe fill. Information suggesting that a release has occurred can only serve to disqualify the material in question. As such, members of the regulated community may be loathe to conduct such investigations and may instead simply rely on sampling to demonstrate that the safe fill criteria have been satisfied.

The "no release" requirement is difficult to document (proving a negative), somewhat subjective, and most importantly, does not specifically address the potential risks posed to human health or the environment by the material. By contrast, sampling and analyzing the material provides specific information concerning such potential risks. In light of these considerations, the Chamber strongly recommends that the proposed definition of safe fill be simplified to eliminate the "no release" requirement. The Chamber also recommends that the provisions of clause (i) of the proposed definition of safe fill be reorganized to reflect the following analytical structure -

- Is the material of a type that potentially qualifies as safe fill?

- If so, does it exhibit visible staining, recurring or persistent odors or other sensory nuisance resulting from chemical contaminants associated with the material?

- If not, does the material meet the safe fill numeric standards?

With respect to meeting the safe fill numeric standards, the Chamber recommends that clause (i) of the definition of safe fill provide for two options. First, a determination may be made on the basis of knowledge of the material that the material meets the safe fill numeric standards. (Such an option parallels the provisions of the hazardous waste regulations that allow a generator to determine whether a material qualifies as a hazardous waste based on his or her knowledge of the material in lieu of sampling and analysis.) Second, a determination may be made on the basis of sampling and analysis. Under the second option, information concerning releases or potential releases should be used to help guide the selection of analytes to be evaluated (rather than to disqualify the material from being used as safe fill). In this fashion, strong incentives exist to conduct appropriate due diligence in order to help devise a sampling program that will focus on the regulated substances that may be present at concentrations exceeding the safe fill numeric standards. At the same time, the analytes listed in Tables 1 and 3 of the proposed regulations can be used for screening purposes unless there is site-specific information to suggest that either additional regulated substances on Table 2 should be evaluated or analysis of a subset of the regulated substances listed on Tables 1 and 3 is appropriate.

Finally, the Chamber agrees that safe fill should not cause nuisances. However, because soils and dredged materials frequently exhibit odors when freshly excavated, the Chamber suggests that the phrase "recurring or persistent" be inserted before the word "odor" so that transient odors associated with initial excavations should not bar a material from qualifying as safe fill.

4. Safe Fill Numeric Standards

The safe fill numeric standards referenced in clause (i) of the definition of safe fill are described in detail in the proposed version of 25 Pa. Code § 287.11. As set forth in 25 Pa. Code § 287.11(a)(1) (proposed), the safe fill numeric standards are based on the lower of the residential generic soil-to-groundwater pathway values and the residential direct contact values developed by the Department under Act 2. By contrast, the regulations implementing the statewide health standard under Act 2 provide for a series of different options to meet the soil-to-groundwater protection standard other than satisfying the generic soil-to-groundwater pathway value.

Because the universe of materials that may qualify as safe fill is heterogeneous, the Chamber believes that it is critical to afford regulated entities the ability to demonstrate that a particular material meets the residential soil-to-groundwater protection standard by using the Synthetic Precipitation Leaching Procedure ("SPLP") method of analysis in lieu of relying solely on the generic soil-to-groundwater pathway values. In many instances, SPLP testing will provide a far more accurate measure of the propensity of regulated substances to leach from a particular material than will an evaluation of the total concentrations of regulated substances in the material. For example, regulated substances may be present in concrete but be bound in the structural matrix of the material so that they pose no threat to groundwater. Likewise, regulated substances may be present in soils but have a high affinity for the particular soils so that the potential for leaching is minimal. In addition, analysis of used asphalt may show that the used asphalt contains certain organic regulated substances. However, those substances may have little or no propensity to leach. In such circumstances, SPLP analysis may be critical to evaluating the true potential for used asphalt to pose any sort of risk to groundwater.

The SPLP protocol is conservative in that the concentrations of regulated substances in the SPLP leachate are compared directly with the groundwater MSCs. This discounts any attenuation, dispersion or dilution that would otherwise naturally occur in the environment. Accordingly, the Chamber strongly recommends that 25 Pa. Code § 287.11(a)(1)(i) (proposed) be revised to read as follows:

> The residential soil-to-groundwater pathway numeric value calculated either in accordance with the methodology in § 250.308 (a)(2)(i), (3), (4)(i) and (5) (relating to soil-to-groundwater pathway generic numeric values) or based on a concentration in the material that does not produce a leachate in excess of the residential medium specific

> concentrations for groundwater, in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter, contained in Chapter 250, Appendix A, Tables 1 and 2, when subjected to the Synthetic Precipitation Leaching Procedure (Method 1312 of SW-846, Test Methods for Evaluating Solid Waste).

Such a change in the proposed regulations will afford both the regulated community and the Department with the flexibility to use SPLP testing where it makes sense to do so while at the same time ensuring that materials qualifying as safe fill can be used without posing unacceptable risks to human health or the environment. In addition to the language proposed above, the applicable standards against which SPLP testing results are to be compared will need to be added to Tables 1, 2, and 3 of the proposed safe fill regulations.

The Chamber also recommends that the phrase at the beginning of 25 Pa. Code § 287.11(a)(1) (proposed) stating "For safe fill containing substances other than copper and zinc" be deleted. Virtually all soils and soil-like materials contain copper and zinc at varying concentrations. The safe fill numeric limits for copper and zinc (which the Department proposes to base on plant toxicity) can simply be referenced as a third clause under 25 Pa. Code § 287.11(a)(1) (proposed).

Finally, because the safe fill numeric standards are based on the MSCs for residential property under Act 2, the Chamber recommends including in the safe fill regulations a provision that would automatically amend the safe fill numeric standards to reflect changes to the MSCs under Act 2. Otherwise, it is possible (if not probable) that changes will be made to the MSCs under Act 2 without conforming changes being made to the safe fill numeric standards at the same time.

5. Materials Subject to the Safe Fill Cap or Other Special Rules

The proposed definition of safe fill includes in clause (ii) certain materials that may still qualify as safe fill even if they do not meet safe fill standards. Such materials are subject to the numeric standards in clause (vii) of the proposed definition of safe fill (referred to hereinafter as the "safe fill cap"). As discussed earlier in these comments, the Chamber strongly recommends that the "no release" requirement be deleted while retaining a limitation for materials that exhibit visible staining, recurring or persistent odor, or other sensory nuisance resulting from chemical contaminants associated with the material. Accordingly, the Chamber proposes that the introduction to clause (ii) of the definition of safe fill be revised as follows:

> The term includes the material in subparagraph (i) that exceed the numeric limits in Appendix A, Table 1 or either Table 2 or 3, based on knowledge of the material or

> sampling, if there is no visible staining, recurring or persistent odor, or other sensory nuisance resulting from chemical contaminants associated with the material and the material meets one of the following requirements:

In addition, as proposed, the definition of safe fill does not contain any provisions to address projects involving small amounts of fill materials. To close this important gap in the proposed regulations, the Chamber recommends that a new category be added to clause (ii) of the definition of safe fill covering materials moved at either residential or nonresidential property or to nonresidential property where the quantity of the materials is less than 50 cubic yards. The Chamber also recommends that, as in the case of the exclusion for historic fill materials from excavations of 125 cubic yards or less, materials falling in this category not be subject to the safe fill cap.

Finally, to simplify the proposed definition of safe fill and to reflect the fact that historic fill material should, as a category of material, be potentially encompassed by the safe fill definition, the Chamber recommends that the provisions set forth in clause (v) of the proposed definition of safe fill relating to historic fill materials from excavations of 125 cubic yards or less be inserted into clause (ii) of the proposed definition of safe fill. Consistent with the proposed definition of safe fill, such small amounts of historic fill material would not be subject to the safe fill cap. This recommended modification does not result in a substantive change in the proposed regulations but instead is designed to be more consistent with the revised structure of the safe fill definition recommended by the Chamber. The Chamber also suggests that the proposed regulations clarify what is meant by the phrase "per excavation location." For example, excavations that are not connected or contiguous to one another should be treated as separate excavations. In addition, the 125 cubic yard limit should refer only to that amount of historic fill removed from an excavation and not the size of the excavation itself.

6. Soils Impacted by Pesticides

Clause (iii) of the proposed definition of safe fill, as proposed, covers soil moved from a fruit orchard under development where pesticides were used in an authorized manner in conjunction with standard horticultural practices. While orchards have exhibited impacts from pesticide usage, other agricultural lands may be similarly impacted. To take this fact into account, the Chamber recommends revising clause (iii) of the proposed definition of safe fill to cover "soil impacted by normal agricultural use of pesticides including pesticides containing lead and arsenic." Such a change avoids the problems that would be otherwise be created by the unduly narrow language developed by the Department without changing the substantive effect of the clause. In addition, the Chamber recommends that the phrase "authorized agricultural use" be changed to "normal agricultural use because the use of certain arsenated compounds predated any regulatory "authorization." Moreover, such a change is consistent with the language used in the Pennsylvania Hazardous Sites Cleanup Act to define a "release." See 35 P.S. § 6020.103.

7. Dredged Material

Clause (iv) of the proposed definition of safe fill addresses the use of dredged material as safe fill. A number of provisions contained 25 Pa. Code § 287.11 (proposed) address the conditions under which dredged material may qualify as safe fill. As such, those requirements are more appropriately included in the proposed definition of safe fill. To address this issue, the Chamber recommends that clause (iv) of the proposed definition of safe fill be revised to read as follows:

> The term includes dredged material provided that the dredged material is drained prior to placement. Dredged material and sediments from tidal streams shall meet the numeric criteria for chlorides as listed in Appendix A, Table 1 in order to qualify as safe fill. If dredged material exceeds the numeric limits in Appendix A, Table 1 and either Table 2 or 3, it is considered to be "safe fill" if the following requirements are met: (1) there is no visible staining, recurring or persistent odor or other sensory nuisance resulting from chemical contaminants associated with the dredged material; (2) the dredged material is placed directly on land adjacent to the dredging operation for beach nourishment or as a soil additive or soil substitute; and (3) one of the following conditions is met:

These changes do not represent major substantive alterations to the proposed definition of safe fill but rather are designed to clarify existing elements of the proposed regulations.

8. Historic Fill Material

Clause (v) of the proposed definition of safe fill addresses historic fill material in quantities of less than or equal to 125 cubic yards per excavation location. As discussed above, the Chamber suggests that the exclusion set forth in clause (v) of the proposed definition of safe fill be moved to clause (ii) of the proposed definition. Such a change simplifies the definition without altering the substantive effect of the definition.

9. Materials Placed into or along Surface Waters

Clause (vi) of the proposed definition of safe fill contains additional restrictions that apply to materials placed into or along surface waters of the Commonwealth. The Chamber believes that these provisions can be simplified and better harmonized with the regulations under Act 2.

As a general proposition, the proposed regulations establish a performance standard for materials that are placed into or along surface waters of the Commonwealth.

Specifically, such placement may not cause an exceedance of the surface water quality standards in 25 Pa. Code Chapters 16 and 93. While easily stated, actually making such a demonstration may be exceedingly difficult. Accordingly, the Chamber suggests that the proposed safe fill regulations afford regulated entities with three options.

First, the Chamber recommends that regulated entities be allowed to use SPLP analysis to show that the materials that are to be placed will not leach regulated substances at concentrations such that surface water quality standards will be exceeded. Second, the Chamber recommends that a table be added to the proposed regulations setting forth generic values based on surface water quality standards that will be protective using the type of analysis employed to develop the soil-to-groundwater generic numeric values under Act 2. In this regard, it is important to note that because the surface water quality standards rather than groundwater MSCs provide the ultimate target for compliance under this prong of the proposed definition of safe fill, using 10% of the safe fill standards as currently proposed in the regulations may be overly conservative in many instances. Third, the Chamber recommends that the proposed regulations be modified to provide for utilization of alternative methods that the Department may approve, either generally or on a case-by-case basis. This option is important to provide the regulated community and the Department with regulatory flexibility to utilize new sampling techniques and protocols that may be developed in the future.

With respect to the structure of clause (vi) of the proposed definition of safe fill, the Chamber recommends that provision be streamlined by eliminating the different standards that are currently proposed for materials used in active or abandoned mines or abandoned quarry reclamation versus materials that are being used pursuant to a permit issued under 25 Pa. Code Chapter 105.

10. Use of Safe Fill

Clause (ix) of the proposed definition of safe fill provides that materials that meet the definition of safe fill are not regulated as wastes when used as fill. The Chamber believes that this clause is overly narrow. For example, materials qualifying as safe fill should be able to be used as construction materials, to help facilitate mine reclamation activities, for landscaping purposes, to help control fire or subsidence events, as pipe bedding, for beach replenishment, as soil additives and so forth. It is unclear whether in each instance, the use of the materials would fit under the umbrella of the term "use as fill."

In addition, the definition of a waste in the residual waste regulations includes contaminated soil, contaminated water and contaminated dredge material. The term "contaminated" is not defined in the regulations. Both the municipal and residual waste regulations also include provisions directing that contaminated soil, used asphalt and dredged material are to be regulated under the residual waste program.

If the language of clause (ix) of the proposed definition of safe fill is finalized in its current form, it is likely to invite disputes and difficulties concerning the manner in which safe fill may be used and the interplay between the definition of safe fill and other provisions of the municipal and residual waste regulations. To avoid these problems, the Chamber suggests revising clause (ix) to state as follows – "Notwithstanding any other provisions of Chapters 271 and 287, materials that meet the requirements under this definition of safe fill are not regulated as waste when used as fill or for other beneficial purposes."

B. Definitions other than the Definition of Safe Fill

1. Definitions of Historic Fill, Sediment, and Site Undergoing Remediation Activities

While the definition of safe fill included in the proposed safe fill regulations is by far the most important of the definitions contained in the regulations, it is not the only definition that is proposed to be added to the municipal and residual waste regulations. Specifically, the proposed regulations include definitions for the terms "historic fill," "sediment," and "site undergoing remediation activities." The Chamber's comments concerning these definitions are as follows.

First, the definition of historic fill includes an exemption from that definition for small amounts (125 cubic yards or less) of historic fill material excavated per excavation location. The definition is circular in that such materials do not qualify as historic fill material but the parallel exemption in the proposed definition of safe fill only applies to historic fill material. The Chamber fully supports the exemption for small amounts of historic fill material that is currently in the proposed safe fill regulations. However, to more clearly effectuate this exemption, the definition of historic fill material should simply describe what constitutes historic fill without excluding from the definition itself small amounts of historic fill.

In addition, in recognition of the fact that large amounts of soils and other materials have been used across Pennsylvania as fill material, both historically and more recently, the Chamber recommends that the cutoff date in the proposed definition of historic fill be changed from 1988 to the effective date of the proposed safe fill regulations. Significant amounts of such materials have been used in accordance with the permit exclusions for clean fill under the terms of the municipal and residual waste regulations. Moreover, the definition of a waste under the residual waste regulations excludes the onsite use of steel slag as a substitute for aggregate. The proposed definition of historic fill excludes landfills, waste piles and impoundments. In addition, the Chamber suggests adding language to make clear that materials that were placed in violation of waste permitting requirements do not automatically escape regulation by moving the cutoff date forward.

In light of the foregoing, the Chamber suggests revising the definition of historic fill to provide as follows:

> Historically contaminated material (excluding landfills, waste piles and impoundments) used to bring an area to grade prior to _____ [effective date of the safe fill regulations] that is a conglomeration of soil and residuals, such as ashes from the residential burning of wood and coal, incinerator ash, coal ash, slag, dredged material and construction/demolition debris that was not subject to waste permitting requirements at the time it was placed.

Second, with respect to the proposed definition of "sediment," the Chamber recommends that the introductory phrase be revised to cover "[m]aterials deposited and directly overlain by waters . . ." rather than "[m]aterials deposited or overlain by waters . . ." as currently proposed. If this change is not made, the proposed definition on its face is so broad that it could cover any soils that were ever deposited by water (such as entire river valleys). In addition, the Chamber suggests including in the definition of sediments well sorted fractions of sand, silt, clay gravel and organic material was well as heterogeneous mixtures of such materials.

Third, the Chamber recommends that the definition of "site undergoing remediation activities" be expanded to cover not only sites where remediation activities are being conducted under Act 2 but sites where remediation activities are being conducted under other environmental protection acts (such as the Hazardous Site Cleanup Act and the Resource Conservation and Recovery Act.).

2. Additional Definitions

The Chamber recommends that for purposes of clarity, three definitions be added to the proposed safe fill regulations covering the terms "along," "nonresidential property," and "residential property."

The proposed safe fill regulations describe areas "along" surface waters in which additional restrictions may apply to the use of fill material. To clarify where such additional restrictions may apply, the Chamber recommends that the term "along" be defined to mean "[t]ouching or contiguous, to be in contact with; to abut upon the normal wetted perimeter of surface waters." This definition is based on the definition of the term "along" found in 25 Pa. Code § 105.1.

Likewise, because the proposed safe fill regulations make distinctions based on the type of property from which fill material came or that may be receiving fill material, the Chamber suggests that the definitions of nonresidential property and residential property found in Act 2 be added to the regulations. Specifically, the definition of nonresidential property from Act 2 states as follows:

> Any real property on which commercial, industrial, manufacturing or any other activity is done to further either the development, manufacturing or distribution of goods and services, intermediate and final products, including, but not limited to, administration of business activities, research and development, warehousing, shipping, transport, remanufacturing, stockpiling of raw materials, storage, repair and maintenance of commercial machinery and equipment, and solid waste management. This term shall not include schools, nursing homes or other residential-style facilities or recreational areas.

Act 2 defines residential property as "[a]ny property or portion of the property that does not meet the definition of 'nonresidential property.'"

C. Sampling and Analysis Requirements

The proposed safe fill regulations include detailed sampling and analysis requirements in 25 Pa. Code § 287.11 (proposed). Key aspects of these requirements have already been discussed in connection with the comments regarding the proposed definition of safe fill. Moreover, these sampling and analysis requirements apply to criteria set forth in the proposed permits-by-rule included in the safe fill regulations. Appropriate cross-references should therefore be included in the proposed regulations.

For purposes of clarity, the Chamber recommends that 25 Pa. Code §§ 287.11(c) and (d) (proposed) be revised, as follows:

> (c) The measured numeric values for regulated substances shall meet the following:
>
> (1) For a composite sample, the measured numeric value for a substance shall be equal to or less than half the safe fill numeric standard in § 287.11 (relating to numeric standards) for that substance and as listed in Appendix A, Tables 1, 2 and 3 or as specified in § 271.103(i) or § 287.102(l), as applicable; or
>
> (2) For discrete samples, the measured numeric values for a substance in 75% of the discrete samples shall be equal to or less than the applicable numeric standard for that substance with no single measured numeric value exceeding more than twice the applicable numeric standard for a substance.

> (3) For a grab sample, taken for analysis for VOCs in accordance with subsections (b)(1)(i)(C), (ii)(C) and (iii)(C), the measured numeric value for a substance must be less than or equal to the safe fill numeric standard in § 287.11 for that substance and as listed in Appendix A, Tables 1, 2 and 3, or as specified in § 271.103(i) or § 287.102(l), as applicable.

These changes clarify the different standards that apply to the different types of samples that are authorized. The changes also underscore the fact that a person or entity may collect discrete samples (including for VOCs) and use the statistical methods that are specified rather than collecting composite samples for non-VOCs and biased grab samples for VOCs.

In addition, the Chamber suggests that 25 Pa. Code § 287.11(e) (proposed) be eliminated. There is no need for the Department to develop separate requirements in the form of guidance for determining whether sediments meet safe fill numeric standards. Sediments are simply another fill matrix.

The sampling requirements contained in 25 Pa. Code § 287.11 (proposed) appear to contemplate that sampling will be performed after soils or other materials are excavated. As a practical matter, it may be infeasible to stockpile soils or other materials at construction sites for substantial periods of time while samples are collected and analyzed so that determinations can be made as to the status of the stockpiled material. For example, highway construction projects, utility projects, and other similar projects may take place in locations where it is simply impossible to temporarily store large amounts of excavated materials while the materials are sampled and analyzed. To address this problem, the Chamber recommends that the proposed safe fill regulations be clarified, with input from the CSSAB, to authorize *in situ* sampling of materials to be excavated or moved. *In situ* sampling is critically important in terms of allowing the regulated community to plan in advance how to handle soils and other materials that are to be excavated or moved so that projects are not delayed and can proceed in a controlled fashion.

The Chamber also recommends revising 25 Pa. Code § 287.11 (proposed) to clarify that for purposes of demonstrating that a material qualifies as safe fill, the sampling and analysis provisions constitute recommended procedures but not mandatory procedures. (This is in contrast to the use of such procedures to satisfy requirements under the proposed permit-by-rules.) As currently proposed, a determination that a material meets the safe fill criteria can be made on the basis of knowledge of the material without actually sampling the material. It follows then that if a contractor or other entity wanted to augment his or her knowledge of the material by collecting and analyzing samples of the material, such a step a would be perfectly permissible even if the sampling protocols were not those specified in the proposed regulations. At the same time, by providing guidance on how sampling and analysis may be performed to determine whether a material qualifies as safe fill, the proposed regulations offer the regulated

community a bench mark for acceptable practices. To reflect this distinction, the Chamber recommends the introductory section of 25 Pa. Code § 287.11(b) (proposed) to read as follows:

> To determine whether a material meets the permit-by-rule numeric standards in §§ 271.103(i) and 287.102(l), one of the sampling and analysis procedures identified in paragraphs (1) or (2), below, shall apply. These sampling and analysis procedures are also recommended for use in determining whether a material meets the safe fill numeric standards when this determination is made based on sampling and analysis of the material.

Finally, assuming that the proposed safe fill regulations are revised to allow the use of SPLP analysis as a method for demonstrating that the material to be used as safe fill satisfies soil-to-groundwater protection standards, it may be helpful to include in 25 Pa. Code § 287.11 a description for how the SPLP analysis is to be performed. The Chamber suggests that the EQB and the Department work with the CSSAB to develop such protocols.

D. Proposed Permits-by-Rule

1. General Framework of the Permits-by-Rule

The proposed safe fill regulations contain five proposed permits-by-rule ("PBRs"). One of these new PBRs (covering the use of brick, block or concrete) is to be included in the municipal waste regulations. The other four PBRs are to be included in the residual waste regulations. While each of the PBRs are designed to cover different materials and activities, they contain a large number of similar, if not identical, requirements. For example, the PBRs require that erosion and sedimentation control plans be implemented, that certain siting criteria be followed, that the material being used under the PBRs not constitute hazardous waste, and that with one exception (for materials moved to a site undergoing remediation), the materials being used under the PBRs only be used at commercial or industrial properties.

Given the similarities between the various PBRs, the Chamber strongly recommends that the PBRs be combined and streamlined. In addition, in many instances, the threshold standards that must be met in order to utilize the PBRs are so restrictive that the PBRs will serve little purpose. These issues are discussed in more detail below.

Three of the proposed PBRs cover respectively (1) contaminated soil from agricultural practices, (2) 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, and (3) historic fill material. These three PBRs can readily be combined and simplified by having one PBR that covers the use of

soil, dredged material, used asphalt or historic fill material that exceeds safe fill numeric standards. Such a PBR has the advantage of covering the major classes of materials (other than brick, block and concrete) that potentially may qualify as safe fill and serves appropriately as the backstop for such materials that do not meet the safe fill criteria.

With respect to the numeric criteria that should be included in a unified PBR, the Chamber strongly recommends the following framework. First, because materials covered by the unified PBR may only be used at nonresidential properties, the numeric criteria contained in the PBR should be based on the nonresidential MSCs under Act 2 rather than the residential MSCs under Act 2. This structure provides, at least in certain instances, a cushion between the safe fill numeric standards and the PBR numeric standards that will facilitate the utility of the PBR. (As currently drafted, the numeric standards in the PBR for contaminated soil, dredged material and used asphalt are based on residential MSCs and will, in many instances, coincide with the safe fill numeric limits.)

Second, material subject to the unified PBR should meet the nonresidential direct contact MSCs unless direct contact pathways are promptly and permanently eliminated by the placement of uncontaminated soils, safe fill or other materials or through other engineering controls. This concept was included in some but not all of the various PBRs set forth in the proposed safe fill regulations.

Third, material subject to the unified PBR should meet appropriate groundwater protection standards. In order to provide flexibility to the regulated community and the Department, the Chamber believes that it should be sufficient to meet any one of the following criteria:

- Analysis using the Toxicity Characteristic Leaching Procedure ("TCLP") that shows that the material meets the requirements in 25 Pa. Code § 288.623(a) (relating to Class III residual waste landfills).

- Analysis using SPLP that shows that the material will not leach regulated substances at concentrations exceeding the MSCs under Act 2 for used aquifers underlying nonresidential properties.

- Analysis showing that the concentration of each regulated substance in the material is below the higher of the generic soil-to-groundwater numeric value for that regulated substance in soils at nonresidential properties overlying used aquifers and the value that is 100 times the nonresidential groundwater MSC for that regulated substance (assuming a used aquifer scenario).

The same numeric criteria should be incorporated into the PBR in the municipal waste regulations for brick, block and concrete. Moreover, the scope of that PBR should

be revised to cover any brick, block or concrete that does not qualify as safe fill, provided that the other requirements of the PBR are satisfied.

With respect to the PBR for materials that are brought to a site undergoing remediation, the Chamber recommends that a permit exemption be added to 25 Pa. Code § 287.101 rather than creating a new PBR. Such an approach is consistent with the permit waiver provisions of Act 2 and the existing permit exemption set forth at 25 Pa. Code § 287.101(e). Proposed language creating such a permit exemption is set forth below:

> (f) The Department will not require a permit under this article for the use of soil, dredged material, used asphalt, or historic fill material to bring an area to grade, to limit infiltration of rainfall, to facilitate runoff, or as construction material at a site undergoing remediation activities under Chapter 250 (relating to administration of land recycling program) and the Land Recycling and Environmental Remediation Standards Act (Act 2), (35 P.S. §§ 6026.101—6026.909) provided that the following conditions are met:
>
> (1) The notice of intent to remediate the soils at the receiving site undergoing remediation activities (required by section 303(h) of Act 2 (35 P.S. § 6026.303(h)) identifies the Statewide health standard or the site specific standard as the remediation standard to be attained.
>
> (2) The soil, dredged material, used asphalt, or historic fill material being used at the site will not cause the site undergoing remediation to exceed the remediation standard selected.
>
> (3) The soil, dredged material, used asphalt, or historic fill material meets the standards set forth in Sections 287.102(l)(1) – (4).
>
> (4) For soil, dredged material, used asphalt, or historic fill material placed at a site undergoing remediation activities prior to submission of the final report, the final report shall describe the sampling and analysis performed to characterize the material and the manner and location in which the material is used, and relief from liability shall include such materials upon approval of the final report.

2. Comments Regarding General Conditions of Permits-by-Rule

As noted above, each of the various PBRs in the proposed safe fill regulations include a large number of general conditions. These requirements are sufficiently complex and onerous that many materials that could otherwise be used under the PBRs may be instead directed to landfills for disposal. In essence, landfill disposal may represent a practical and expedient but wasteful option for handling soils and other materials that are excavated or otherwise generated. The Chamber strongly recommends that the EQB and the Department carefully evaluate whether such requirements are absolutely necessary in order for the PBRs to properly function and eliminate any requirements that do not meet this standard. Comments relating to particular general conditions are set forth below.

First, the proposed PBRs generally prohibit the placement of materials within 100 feet of surface waters. This set back requirement is enormously restrictive and will have an adverse impact on many redevelopment projects that are occurring in areas along rivers and streams. The Chamber suggests that this condition be revised to provide that materials covered by the PBRs may not be placed in or along surface waters unless prior approval has been obtained from the Department. This harmonizes the condition with requirements found in 25 Pa. Code Chapter 105.

Second, the proposed PBRs prohibit the placement of materials within 100 feet of the edge of a sinkhole. The Chamber recommends that this requirement only apply in karst terrain because it is in such locations where sinkholes may serve as direct conduits to large volumes of groundwater, thereby eliminating the natural attenuation that is factored into the determination of the generic soil to groundwater standards.

Third, the proposed PBRs generally prohibit the placement of materials within 300 feet of a water source. To better define the universe of water sources that are of concern, the Chamber recommends that this siting criterion be revised to apply to potable water supply wells and potable surface water intakes.

Fourth, the proposed PBRs generally limit the placement of materials to properties that are zoned and exclusively used for commercial and industrial purposes. In the absence of zoning, the proposed PBRs limit the use of materials to properties where "the background is equal to or greater than the concentrations of contamination" in the material to be used and the property is used for commercial or industrial purposes only. Significant questions exist as to how in practice this requirement is to be implemented. Will there need to be a substance by substance comparison between background conditions and the incoming material? Will it be sufficient to compare classes or groups of regulated substances (such as volatile organic compounds)? What if certain regulated substances in the incoming material satisfy the safe fill criteria but are above background levels at the receiving property? Implementation of this requirement is likely to be difficult and confusing unless the requirement is clarified. Certainly, it would seem to make little sense to evaluate background levels of regulated substances where those

substances in the incoming material meet the safe fill numeric standards. If the material fails the safe fill numeric standards for a limited set of regulated substances, then perhaps a comparison between the concentrations of those regulated substances in the material and concentrations of those regulated substances at the site where the material is to be used may be possible.

Fifth, the notification requirements included in the proposed PBRs include information that can only be collected after material covered by the PBR has been placed at the receiving site. To reflect this reality, the Chamber recommends that the introductory phrase of the condition relating to notification state "A person who has received and used [material] . . . ." Such a change makes the condition internally consistent with other portions of the notification requirements. In addition, the Chamber request that the EQB specify where the required notice is to be submitted. For example, the source of fill material may be located in one part of Pennsylvania while the receiving site may be located in another part of Pennsylvania. What office of the Department should receive the notice in such circumstances?

Sixth, the notification requirements included in the proposed PBRs apply to the person who "receives and uses" the soil or other material covered by the PBRs. The proposed PBRs also include record-keeping requirements that apply to those "using and distributing" the soil or other material covered by the PBRs. It is unclear who actually is responsible for ensuring that the conditions of the proposed PBRs are satisfied, and whether the generator of the fill material or the person receiving that material must maintain records. Moreover, the proposed safe fill regulations are silent as to how long such records must be maintained. The Chamber suggests that a three-year required retention period is sufficient.

Finally, a number of Chamber members have raised concerns relating to the general provision that materials placed under the proposed PBRs cease to be wastes "as long as the materials remain in place." The implication of the quoted language is that such materials become wastes automatically if subsequently moved. Aside from the challenges of trying to administer such a requirement, the condition is extremely confusing. In practical terms, the analysis under the safe fill regulations will need to be performed each time material is excavated or moved anyway. If material is placed pursuant to a PBR because it did not meet the safe fill criteria but when later moved is found to satisfy such criteria, its condition at the time of subsequent movement should control its status, not what it may have been at some point in the past. Moreover, the provision as currently drafted potentially leaves those that generate fill material subject to liability under the SWMA as a result of actions that may occur long after the fill material is initially placed and that are entirely outside of the generators' ability to control. Accordingly, the Chamber recommends that this general provision be revised in the proposed PBR in the residual waste regulations to state as follows:

> Soil, dredged material, used asphalt or historic fill material placed in accordance with this permit-by-rule shall cease to

> be waste once the soil, dredged material, used asphalt or historic fill material is placed. Such soil, dredged material, used asphalt or historic fill material that is excavated or moved subsequent to placement pursuant to this permit-by-rule shall be evaluated at that time to determine whether the material qualifies as safe fill or is subject to regulation as a waste.

Parallel changes are also proposed for the PBR covering brick, block and concrete.

E. Additional Concerns

1. Status of Vegetative Materials from Land Clearing, Grubbing and Excavation Activities

The proposed safe fill regulations delete the permit exclusion found in both the municipal and residual waste regulations for the use as clean fill of waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material. These kinds of materials are not otherwise discussed in the proposed safe fill regulations. The implication of this proposed revision is that such materials in the future are to be subject to full regulation as wastes under the SWMA. Such a result would be a mistake. It makes little sense to fill Pennsylvania's landfills with trees, brush, stumps and vegetative materials when other alternatives exist. The Chamber recommends that the existing exclusion for these materials be retained.

2. Generation of Soils and Other Materials

The proposed safe fill regulations address the status under the SWMA of soils and other materials resulting from construction, development, demolition and similar activities which are used as safe fill. The requirements of the proposed safe fill regulations apply after such materials have been generated. However, no guidelines are provided to delineate when a material has actually been generated. The U.S. Environmental Protection Agency ("EPA") has developed policies to address when wastes are generated. In the context of utility installations, EPA has concluded that if soils are excavated and then returned to the excavation, they have not been "generated." (See Letter from Sylvia K. Lowrance, Director of Office of Solid Waste, to Douglas H. Green dated July 11, 1992 (available on EPA's web site).) Moreover, EPA has long endorsed the "area of contamination" policy which allows contaminated media that might otherwise qualify as hazardous wastes to be moved within an area of contamination without triggering permitting, land disposal and minimum technology requirements under the hazardous waste program. These policies have significant ramifications with respect to the proposed safe fill regulations. If the Department follows these policies, then it may alleviate many of the difficulties that would otherwise be encountered by application of the proposed safe fill regulations to utility projects and similar infrastructure projects

involving activities in rights-of-way or projects that involve only the onsite movement of soils or other materials.

Consistent with the foregoing, the Chamber recommends that the phrase "upon generation" be inserted at the beginning of 25 Pa. Code §§ 271.2(c) and 287.2(c) to make clear that the requirements under the SWMA apply after a material has been generated. Given the breadth of materials that potentially qualify as wastes under the SWMA including soils, dredged material, used asphalt and brick, block and concrete, such a phrase is important to make clear that the requirements under the SWMA apply only after a waste has been generated and not to *in situ* materials such as soils and dredged material.

Annex A

TITLE 25. ENVIRONMENTAL PROTECTION

PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

Subpart D. ENVIRONMENTAL HEALTH AND SAFETY

ARTICLE VIII. MUNICIPAL WASTE

CHAPTER 271. MUNICIPAL WASTE MANAGEMENT--GENERAL PROVISIONS

Subchapter A. GENERAL

§ 271.1. Definitions.

The following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

* * * * *

[*Clean fill***--Uncontaminated, nonwater-soluble, nondecomposable inert solid material used to level an area or bring the area to grade. The term does not include material placed into or on waters of this Commonwealth.]**

* * * * *

Construction/demolition waste--Solid waste resulting from the construction or demolition of buildings and other structures, including, but not limited to**[, wood, plaster, metals, asphaltic substances, bricks, block and unsegregated concrete.]**:

(i) Wood.

(ii) Plaster.

(iii) Metals.

(iv) Asphaltic substances.

(v) Bricks, block and concrete.

[The term does not include the following if they are separate from other waste and are used as clean fill:

(i) ~~Uncontaminated s~~Soil, rock, stone, gravel, brick and block, concrete, historic fill and used asphalt meeting the definition of safe fill.

(ii) Waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material.]

* * * * *

Historic fill--

~~(i)~~ **Historically contaminated material (excluding landfills, waste piles and impoundments) used to bring an area to grade prior to** **[effective date of safe fill regulations]** ~~**1988**~~ **that is a conglomeration of soil and residuals, such as ashes from the residential burning of wood and coal, incinerator ash, coal ash, slag, dredged material and construction and demolition** ~~**waste**~~ **debris that was not subject to waste permitting requirements at the time it was placed.**

~~**(ii) The term does not include historically contaminated material in quantities of less than or equal to 125 cubic yards per excavation location if there is no visible staining, recurring or persistent odor or other sensory nuisance resulting from chemical contaminants associated with the materialthe following conditions are met:**~~

~~**(A) There is no indication that the material has been subject to a release of regulated substances.**~~

~~**(B) There is no visible staining, odor or other sensory nuisance associated with the material.**~~

* * * * *

Safe fill--**Safe fill as defined in § 287.1 (relating to definitions).**

* * * * *

§ 271.2. Scope.

* * * * *

(c) **Upon generation, m**~~M~~anagement of the following types of waste is subject to Article IX instead of this article, and shall be regulated as if the waste is residual waste, regardless of whether the waste is municipal waste or residual waste:

* * * * *

(7) Historic fill.

* * * * *

Subchapter B. GENERAL REQUIREMENTS FOR PERMITS AND PERMIT APPLICATIONS

REQUIREMENT

§ 271.101. Permit requirement.

* * * * *

(b) A person or municipality is not required to obtain a permit:

* * * * *

~~[~~(3) For the use as ~~clean~~ fill of ~~the following materials if they are separate from other waste:~~

~~(i) Uncontaminated soil, rock, stone, gravel, unused brick and block and concrete.~~

~~(ii) W~~waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material, provided such materials are separate from other waste.

~~(4)]~~ ~~(3)~~ * * *

~~[(5)]~~ ~~(4)~~ * * *

* * * * *

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

* * * * *

(g) *Mechanical processing facility.* A facility for the processing of **[uncontaminated]** rock, stone, gravel, brick, block and concrete from construction/demolition activities, individually or in combination, by mechanical or manual sizing or by mechanical or manual separation for prompt reuse shall be deemed to have a municipal waste processing permit-by-rule if it meets the requirements of subsections (a)--(c), **the rock, stone, gravel, brick, block and concrete are separate from other waste ~~and contaminants~~** and **the operator** submits a written notice to the Department that includes the name, address and telephone number of the facility, the individual responsible for operating the facility and a brief description of the waste and the facility. The facility **[shall be onsite or process less than 50 tons or 45 metric tons per day, and]** may not operate in violation of any State, county or municipal waste management plan. **If the facility is offsite and processes more than 50 tons or 45 metric tons per day, the following additional requirements shall be met:**

(1) The facility may not receive more than 350 tons or 315 metric tons per day.

(2) The facility shall ~~and~~ maintain a 300-foot isolation distance from an occupied dwelling, unless the owner of the dwelling has provided a written waiver consenting to the facility being closer than 300 feet.

(3) The facility shall process the incoming waste within 30 days.

(4) Processed waste shall be removed from the facility within 60 days after ~~of~~ processing for reuse.

(5) The operator shall maintain records that indicate compliance with the waste processing and removal limits identified in paragraphs (3) and (4).

(6) Residue from the operation shall be removed and disposed within 30 days after ~~1 week of~~ being generated. For purposes of this paragraph, the term "residue" includes material that is unable to be processed and processed material that is unusable.

* * * * *

(i) *Brick, block or concrete.* The placement of ~~segregated~~ brick, block or concrete, or mixtures thereof, that does not qualify as safe fill ~~resulting from construction or demolition activities at industrial properties or placement of contaminated and segregated brick, block or concrete resulting from construction or demolition activities at commercial or residential properties~~ shall be deemed to have a municipal waste permit when the brick, block or concrete is used to bring an area to grade, as construction material or in the reclamation of an active or an abandoned mine or abandoned quarry, provided that the brick, block or concrete is not a hazardous waste under Chapter 261a (relating to identification and listing of hazardous waste) and, if in addition to subsections (a)--(c), the following conditions are met:

(1) The concentrations of regulated substances in the brick, block or concrete, or mixtures thereof, shall not exceed the ~~waste material does not exceed the lower of the following:~~

~~(i) The residential generic value of the soil-to-groundwater pathway numeric value calculated in accordance with the methodology in § 250.308 (a)(2)(i), (3), (4)(i) and (5) (relating to soil to groundwater pathway numeric values). The numeric standards to be met are listed in Appendix A, Tables 5 and 6.~~

~~(ii) The~~ lowest nonresidential direct contact numeric values calculated in accordance with the methodologies in §§ 250.306 and 250.307 (relating to ingestion numeric values; and inhalation numeric values). The numeric standards to be met are listed in Appendix A, Tables 5 and 6. [TABLES WILL NEED TO BE REVISED.] This condition does not apply if at the locations where the brick, block or concrete (or mixtures thereof) is placed, direct contact pathways are promptly and permanently eliminated by the placement of uncontaminated soil, safe fill or other materials or through other engineering controls.

(2) The concentrations of regulated substances in the brick, block or concrete, or mixtures thereof, shall satisfy groundwater protection standards based on either of the following:

(i) Analysis using the the Synthetic Precipitation Leaching Procedure (SPLP) (*Method 1312 of SW-846, Test Methods for Evaluating Solid* Waste, promulgated by the EPA) that demonstrates that the brick, block or concrete

does not produce a leachate in excess of the nonresidential medium specific concentrations (MSCs) for groundwater, in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter, contained in Chapter 250, Appendix A, Tables 1 and 2. The numeric standards are listed in Appendix A, Tables 5 and 6 [TABLES WILL NEED TO BE REVISED].

(ii) The higher of the nonresidential generic value of the soil-to-groundwater pathway numeric value calculated in accordance with the methodology in § 250.308 (a)(2)(i), (3), (4)(i) and (5) (relating to soil to groundwater pathway numeric values) and a value which is 100 times the nonresidential medium-specific concentration (MSC) for groundwater, as calculated in § 250.308 (relating to soil to groundwater pathway numeric values) and listed in Chapter 250, Appendix A, Table 4. The numeric standards to be met are listed in Appendix A, Tables 5 and 6 [TABLES WILL NEED TO BE REVISED].

(32) When calculating numeric standards under paragraphs (1) and (2), the following additional requirements apply:

(i) Formulae identified in § 250.305(b) (relating to MSCs in soil) shall apply as limits to the physical capacity of the soil to contain a substance.

(ii) When calculating the nonresidential soil-to-groundwater pathway numeric values, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.

(43) To determine whether the brick, block or concrete (or mixtures thereof) ~~waste material~~ meets the standards in paragraphs (1) and (2), the ~~waste~~ material shall be sampled and analyzed in accordance with §§ 287.11(b) and (c) ~~or (d)~~ (relating to safe fill numeric standards), as applicable.

(54) Brick, block or concrete (or mixtures thereof) ~~Waste material~~ may not be placed pursuant to this permit-by-rule into or along surface waters of this Commonwealth unless prior Department approval has been obtained associated with active or abandoned mine or abandoned quarry reclamation activities or under Chapter 105 (relating to dam safety and waterway management)~~, and the following conditions are met:~~

~~(i) Waste material placed into or along surface waters as approved by the Department under Chapter 105 may not exceed 10% of the numeric standards calculated in paragraphs (1) and (2), and placement of the waste may not cause an exceedance of the water quality standards in Chapters 16 and 93 (relating to water quality toxics management strategy--statement of policy; and water quality standards).~~

~~(ii) Waste material placed into or along waters as part of an active or abandoned mine or abandoned quarry reclamation may not cause an exceedance of the water quality standards in Chapters 16 and 93 and, based on an approved sampling and analysis plan, shall meet the following:~~

~~(A) The waste material received shall meet 10% of the numeric standards calculated in paragraphs (1) and (2).~~

~~(B) For metals only, in lieu of clause (A), the material may not produce a leachate in excess of the residential medium-specific concentration for groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter, when subject to the Synthetic Precipitation Leaching Procedure (SPLP) *(Method 1312 of SW-846, Test Methods for Evaluating Solid Waste,* promulgated by the EPA). The numeric standards to be met for metals by SPLP are listed in Appendix A, Table 6. The SPLP may only be used when groundwater monitoring is being conducted at the location where waste is placed.~~

(6~~5~~) Brick, block or concrete (or mixtures thereof) ~~The waste material~~ may only be placed under this permit-by-rule on properties that are zoned and exclusively used for commercial and industrial uses. For unzoned properties, brick, block or concrete (or mixtures thereof) ~~waste material~~ shall be reused in an area where the background concentrations of regulated substances are ~~is~~ equal to or greater than the concentrations of regulated substances exceeding the safe fill numeric standards in the brick, block or concrete (or mixtures thereof) ~~contamination in waste material~~ being brought to the site and the property is ~~shall be~~ used exclusively for commercial or industrial purposes ~~only~~.

(7~~6~~) At locations where brick, block or concrete (or mixtures thereof) ~~waste material~~ is placed pursuant to this permit-by-rule, an erosion and sedimentation control plan shall be ~~is~~ implemented that is consistent with the applicable requirements of Chapter 102 (relating to erosion and sediment control).

~~(7) At locations where waste material is placed, the materials may not be placed within 100 feet of surface waters of this Commonwealth except as provided in paragraph (4).~~

(8) At locations where brick, block or concrete (or mixtures thereof) ~~waste material~~ is placed pursuant to this permit-by-rule, the materials may not be placed in karst terrain within 100 feet of the edge of a sinkhole.

(9) At locations where brick, block or concrete (or mixtures thereof) ~~waste material~~ is placed pursuant to this permit-by-rule, the materials may not be placed within 300 feet of a potable water supply well or potable surface water

intake ~~source~~ unless the owner has provided a written waiver consenting to the placement of the material closer than 300 feet.

~~(10) Waste material that is hazardous waste under Chapter 261a (relating to identification and listing of hazardous waste) may not be used under this permit.~~

(10~~1~~) Brick, block or concrete (or mixtures thereof) ~~Waste material~~ when placed pursuant to this permit-by-rule may not contain free liquids, based on visual inspection, and may not create recurring or persistent ~~an~~ odor or other public nuisance resulting from chemical contaminants associated with the material.

(11~~2~~) A person who has receiveds and useds brick, block or concrete (or mixtures thereof) pursuant to this permit-by-rule ~~waste material~~ shall submit a written notice to the Department that includes the following:

(i) The name, address and phone number of the person receiving and using the waste material.

(ii) The quantity of waste material used at the receiving location.

(iii) The locations where waste material was removed for use and locations where the waste material is placed for use.

(iv) An identification of whether the area from which the waste material is removed is the subject of a corrective action or remediation activity.

(v) A description of engineering practices and construction activities used to assure that site excavation and placement of waste material does not cause onsite or offsite contamination.

(12~~3~~) Records of analytical evaluations conducted on the brick, block or concrete (or mixtures thereof) pursuant to this permit-by-rule ~~waste material~~ shall be maintained by the person using and distributing the ~~waste~~ material and shall be made available to the Department for inspection. The records shall include the following:

(i) The dates of testing.

(ii) Each parameter tested.

(iii) The test results.

(iv) The laboratory where testing was conducted.

(v) The sampling procedures and analytical methodologies used.

(vi) The name of the person who collected the sample.

(134) This permit-by-rule does not authorize and may not be construed as an approval to discharge waste, wastewater or runoff from the site where the brick, block or concrete (or mixtures thereof) ~~waste material~~ originated, or the site where the brick, block or concrete (or mixtures thereof) ~~waste material~~ is beneficially used, to the land or waters of this Commonwealth.

(145) Brick, block or concrete (or mixtures thereof) ~~Waste~~ placed in accordance with this permit-by-rule shall cease to be waste once ~~as long as~~ the material ~~remains in~~ is placed. Such material that is excavated or moved subsequent to placement pursuant to this permit-by-rule shall be evaluated at that time to determine whether the material qualifies as safe fill or is subject to regulation as a waste

ARTICLE IX. RESIDUAL WASTE MANAGEMENT

CHAPTER 287. RESIDUAL WASTE MANAGEMENT--GENERAL PROVISIONS

Subchapter A. General

§ 287.1. Definitions.

The following words and terms, when used in this article, have the following meanings, unless the context clearly indicates otherwise:

* * * * *

Along – Touching or contiguous, to be in contact with; to abut upon the normal wetted perimeter of surface waters.

* * * * *

[*Clean fill*--Uncontaminated, nonwater-soluble, inert solid material used to level an area or bring the area to grade. The term does not include materials placed in or on the waters of this Commonwealth.]

* * * * *

Historic fill--

~~(i)~~ Historically contaminated material (excluding landfills, waste piles and impoundments) used to bring an area to grade prior to _____[effective date of safe fill regulations] ~~1988~~ that is a conglomeration of soil and residuals, such as ashes from the residential burning of wood and coal, incinerator ash, coal ash, slag, dredged material and construction/demolition ~~waste~~ debris that was not subject to waste permitting requirements at the time it was placed.

~~(ii) The term does not include historically contaminated material in quantities of less than or equal to 125 cubic yards per excavation location if the following conditions are met:~~

~~(A) There is no indication that the material has been subject to a release of regulated substances.~~

~~(B) There is no visible staining, odor or other sensory nuisance associated with the material.~~

* * * * *

Nonresidential property – Any real property on which commercial, industrial, manufacturing or any other activity is undertaken to further either the development, manufacturing or distribution of goods and services, intermediate and final products, including, but not limited to, administration of business activities, research and development, warehousing, shipping, transport, remanufacturing, stockpiling of raw materials, storage, repair and maintenance of commercial machinery and equipment, and solid waste management. This term shall not include schools, nursing homes or other residential-style facilities or recreational areas.

* * * * *

Residential property – Any property or portion of the property which does not meet the definition of "nonresidential property."

* * * * *

Safe fill–

(i) Material that is ~~uncontaminated~~ soil, including rock and stone, ~~uncontaminated~~ dredged material, ~~uncontaminated~~ used asphalt, historic fill or ~~uncontaminated and segregated~~ brick, block or concrete (or mixtures thereof) resulting from construction or demolition activities; provided that there is no visible staining, recurring or persistent odor or other sensory nuisance resulting from chemical contaminants associated with the material, and that, based on an appropriate level of due diligence and knowledge of the material, ~~from residential and commercial properties and that~~ meets one of the following requirements:

(A) The material meets the safe fill numeric standards referenced in § 287.11 (relating to safe fill numeric standards) and listed in Appendix A, Tables 1 and 2 of this Chapter without sampling and analysis~~, and meets the following requirements:~~

~~(I) Based on an appropriate level of due diligence, there is no knowledge or past activity that indicates the material has been subject to a release.~~

~~(II) There is no visible staining, odor or other sensory nuisance resulting from chemical contaminants associated with the material.~~

(B) Based on sampling and analysis as described in § 287.11 (relating to safe fill numeric standards), ~~an appropriate level of due diligence, the~~

~~historical data on the excavation site indicates that past activity had the potential to result in a release, but there is no knowledge of a release and~~ the material meets the safe fill numeric standards ~~referenced in § 287.11 and~~ listed in Appendix A, Tables 1 and 3 of this Chapter, and for those organic regulated substances that were known to have been released (or potentially released) into the material, the corresponding safe fill numeric standards listed in Appendix A, Table 2 not otherwise listed in Table 3, ~~and meets the requirements of clause (A).~~

~~(C) Based on an appropriate level of due diligence and knowledge of the site, the material meets the safe fill numeric standards without sampling and analysis and meets the requirements of clause (A).~~

(ii) The term includes the material in subparagraph (i) that exceeds the numeric limits in Appendix A, Table 1 or either Table 2 or 3, based on knowledge of the material or sampling, if there is no visible staining, recurring or persistent odor, or other sensory nuisance resulting from chemical contaminants associated with the material and the material ~~it meets the criteria in subparagraph (i)(A)(I) and (II) and~~ meets one of the following requirements:

(A) The material is moved within a right-of-way.

(B) The material is moved offsite from a residential property currently developed as a residential property or zoned residential and never used for nonresidential purposes.

(C) The material is moved within a property, except for soil moved in accordance with subparagraph (iii).

(D) The quantity of material moved is less than 50 cubic yards and is moved to a nonresidential property.

(E) The material is historic fill in quantities of less than or equal to 125 cubic yards per excavation location.

(iii) The term includes soil impacted by normal agricultural use of pesticides including pesticides containing lead and arsenic ~~moved from a fruit orchard under development where pesticides were used in an authorized manner in conjunction with standard horticultural practices~~. If the soil exceeds the numeric limits in Appendix A, Table 1 or either Table 2 or 3, and meets one of the following requirements, it is considered "safe fill":

(A) The soil is used for commercial or industrial purposes.

(B) The soil is blended with other soil to meet the limits in Appendix A, Table 1 and either Tables 2 or 3, and used for residential purposes.

(iv) The term includes dredged material provided that the dredged material is drained prior to placement. Dredged material and sediments from tidal streams shall meet the numeric criteria for chlorides as listed in Appendix A, Table 1 in order to qualify as safe fill. ~~placed directly on land adjacent to the dredging operation for beach nourishment or as a soil additive or soil substitute.~~ If dredged material exceeds the numeric limits in Appendix A, Table 1 and either Table 2 or 3, based on knowledge of the material or sampling, it is considered to be "safe fill" if the following requirements are met: (1) there is no visible staining, recurring or persistent odor or other sensory nuisance resulting from chemical contaminants associated with the dredged material; (2) the dredged material is placed directly on land adjacent to the dredging operation for beach nourishment or as a soil additive or soil substitute; and (3) ~~it shall meet the criteria in subparagraph (i)(A)(I) and (II) and meet~~ one of the following conditions is met~~, it is considered "safe fill"~~:

(A) The dredged material is placed on land at a location used for commercial or industrial purposes.

(B) The dredged material is blended with other soil or other dredged material to meet the numeric limits in Appendix A, Tables 1 and 2, and used for residential purposes.

~~(v) The term includes historic fill in quantities of less than or equal to 125 cubic yards per excavation location if the conditions of subparagraph (i)(A)(I) and (II) are met.~~

(vi) The term does not include material placed into or along surface waters of this Commonwealth unless prior Department approval has been obtained associated with active or abandoned mine or abandoned quarry reclamation activities or under Chapter 105 (relating to dam safety and waterway management), and the material meets the following conditions:

(A) ~~Material placed into or along surface waters as approved by the Department under Chapter 105 and does not exceed 10% of the numeric standards calculated in § 287.11(a)(1) and (2), and p~~Placement of the material does not cause an exceedance of the water quality standards in Chapters 16 and 93 (relating to water quality toxics management strategy--statement of policy; and water quality standards).

(B) For purposes of determining whether an exceedence of the water quality standards in Chapters 16 and 93 may occur, the Synthetic Precipitation Leaching Procedure (SPLP) *(Method 1312 of SW-846, Test Methods for Evaluating Solid Waste,* promulgated by the EPA) may be used, sampling and analysis showing that the material does not contain regulated substances at concentrations greater than the generic values in Table 7 [TO BE PREPARED] may be performed, or such other methods as the Department may approve may be used.

~~(B) Material placed into or along waters as part of an active or abandoned mine or abandoned quarry reclamation does not cause an exceedance of the water quality standards in Chapters 16 and 93 and, based on an approved sampling and analysis plan, meets the following:~~

~~(I) The material received meets 10% of the numeric standards calculated in § 287.11(a)(1) and (2).~~

~~(II) For metals only, in lieu of subclause (I), the material does not produce a leachate in excess of the residential medium-specific concentration for groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter, when subject to the Synthetic Precipitation Leaching Procedure (SPLP) *(Method 1312 of SW-846, Test Methods for Evaluating Solid Waste,* promulgated by the EPA). The numeric standards to be met for metals by SPLP are listed in Appendix A, Table 1. The SPLP may only be used when groundwater monitoring is being conducted at the location where waste is placed.~~

(vii) The person using the material has the burden of proof to demonstrate that the material is safe fill.

(viii) If, based on a determination made under subparagraph (i), the material exceeds the numeric standards referenced in subparagraph (i) and is covered under subparagraphs (ii)(A), (ii)(B), (ii)(C), (iii) or (iv), the concentrations of regulated substances that exceed the safe fill numeric standards ~~exceedance~~ may be no greater than the lower of the nonresidential direct contact numeric values (using §§ 250.306 and 250.307 (relating to ingestion numeric values; and inhalation numeric values)) or nonresidential soil-to-groundwater pathway numeric values (using § 250.308(a)(2)(i), (3), (4)(i) and (5) (relating to soil to groundwater pathway numeric values)) established for aquifers used or currently planned for use containing less than 2,500 mg/l total dissolved solids. Formulae identified in § 250.305(b) (relating to MSCs in soil) apply as a limit to the physical capacity of the soil to contain a substance.

(~~viii~~ix) Notwithstanding any other provisions of Chapters 271 and 287, ~~M~~materials that meet the requirements under this definition of safe fill ~~term~~ are not regulated as waste when used as fill or for other beneficial purposes.

* * * * *

Sediment--Materials deposited and directly ~~or~~ overlain by water in rivers, lakes, ponds or tidal streams that consist of well sorted fractions or heterogeneous mixtures of sand, silt, clay, gravel and organic material deposited through erosion or by lake or river currents.

* * * * *

Site undergoing remediation activities--**The extent of contamination originating within the property boundaries and all areas in close proximity to the contamination necessary for the implementation of remediation activities to be conducted under the Land Recycling and Environmental Remediation Standards Act (Act 2) (35 P. S. §§ 6026.101--6026.909) or other environmental protection acts.**

* * * * *

§ 287.2. Scope.

* * * * *

(c) **Upon generation, m**~~M~~anagement of the following types of waste is subject to this article instead of Article VIII (relating to municipal waste), and shall be regulated as if the waste is residual waste, regardless of whether the waste is municipal waste or residual waste:

* * * * *

(7) Historic fill.

* * * * *

§ 287.11. Safe fill numeric standards and sampling, analysis and attainment procedures.

(a) ~~When conducting sampling and analysis, s~~Safe fill numeric standards listed in Appendix A, Tables 1, 2 and 3 shall be calculated as follows:

(1) ~~For safe fill containing substances other than copper and zinc, t~~The lower of the following:

(i) The residential ~~generic value of the~~ soil-to-groundwater pathway numeric value calculated either in accordance with the methodology in § 250.308 (a)(2)(i), (3), (4)(i) and (5) (relating to soil-to-groundwater pathway generic numeric values) or based on a concentration in the material that does not produce a leachate in excess of the residential medium specific concentrations for groundwater, in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter, contained in Chapter 250, Appendix A, Tables 1 and 2, when subjected to the Synthetic Precipitation Leaching Procedure (Method 1312 of SW-846, Test Methods for Evaluating Solid Waste).

(ii) The lowest residential direct contact numeric values calculated in accordance with the methodologies in §§ 250.306 and 250.307 (relating to ingestion numeric values; and relating to inhalation numeric values).

(iii~~2~~) ~~In addition to paragraph (1), f~~For ~~safe fill containing~~ copper and zinc, numeric limits which take plant toxicity into consideration and that do not exceed concentrations in § 271.914(b)(3) (relating to pollutant limits).

(23) When calculating numeric standards under paragraph (1), the following additional requirements apply:

(i) Formulae identified in § 250.305(b) (relating to MSCs in soil) shall apply as limits to the physical capacity of the safe fill to contain a substance.

(ii) When calculating the residential soil-to-groundwater pathway numeric value, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.

~~(34) Dredged material shall be drained prior to placement on land as safe fill. In addition, dredged material shall meet the requirements of subparagraphs (i) and (iii) or the requirements of subparagraphs (ii) and (iii).~~

~~(i) A Toxicity Characteristic Leaching Procedure (TCLP) that demonstrates that the dredged material meets the requirements in § 288.623(a) (relating to minimum requirements for acceptable waste).~~

~~(ii) The dredged material may not produce a leachate in excess of the residential medium-specific concentration for groundwater, in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter, when subject to the Synthetic Precipitation Leaching Procedure (SPLP) *(Method 1312 of SW-846, Test Methods for Evaluating Solid Waste,* promulgated by the EPA). The numeric standards to be met by SPLP are listed in Appendix A, Tables 1 and 2.~~

~~(iii) Dredged material and sediments from tidal streams shall meet the numeric criteria for chlorides as listed in Appendix A, Table 1.~~

(b) To determine whether a material meets the permit-by-rule numeric standards in §§ 271.103(i) and 287.102(l), ~~safe fill numeric standards,~~ one of the sampling and analysis procedures identified in paragraphs (1) or (2), below, shall apply. These sampling and analysis procedures are also recommended for use in determining whether a material meets the safe fill numeric standards when this determination is made based on sampling and analysis of the material.~~:~~

(1) Determinations ~~Sampling~~ based on composite sampling procedures shall include the following:

(i) For volumes of material equal to or less than 125 cubic yards, a total of eight samples shall be collected and analyzed as follows:

(A) For analysis of all substances other than volatile organic compounds (VOCs), the samples shall be analyzed in two composites of four samples

each, in accordance with the most current version of the USEPA Manual, SW-846 *(Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. Office of Solid Waste and Emergency Response).*

(B) Two samplinges locations shall be selected from the 8 sampling locationses for analysis of VOCs. The selection of these sampling locationses shall be based on field screening of the eight samples to select those locations ~~samples~~ that are most likely to contain the highest concentrations of VOCs.

(C) One ~~Two~~ grab samples shall be taken from each of the two sampling locations selected in accordance with § 287.11(b)(1)(i)(B). Collection and analysis of these samples for VOCs shall be ~~same areas in the material from which the two samples used for field screening of VOCs were taken,~~ in accordance with Method 5035 from the most current version of the USEPA Manual, SW-846 *(Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. Office of Solid Waste and Emergency Response).*

(ii) For volumes of material greater than 125 cubic yards and less than or equal to 3,000 cubic yards, a total of 12 samples shall be collected and analyzed as follows:

(A) For analysis of all substances other than VOCs, the samples shall be analyzed in three composites of four samples each.

(B) Three sampling locationses shall be selected from the 12 sampling locationses for analysis of VOCs. The selection of these sampling locations ~~samples~~ shall be based on field screening of the 12 samples to select those locations ~~samples~~ that are most likely to contain the highest concentrations of VOCs.

(C) One ~~Three~~ grab samples shall be taken from each of the three sampling locations selected in accordance with § 287.11(b)(1)(ii)(B). Collection and analysis of these samples for VOCs shall be ~~the same areas in the material from which the three samples used for field screening of VOCs were taken,~~ in accordance with EPA, Method 5035, referenced in subparagraph (i)(C).

(iii) For each additional 3,000 cubic yards of material or part thereof over the initial 3,000 cubic yards, 12 additional samples shall be collected and analyzed as follows:

(A) For analysis of all substances other than VOCs, the samples shall be analyzed in ~~three~~ composites of four samples each.

(B) One quarter of the total number of ~~Three~~ sampling locationses ~~for analysis of VOCs~~ shall be selected ~~from the 12 samples~~ for analysis of VOCs. The selection of these sampling locationses shall be based on field screening of all ~~the 12~~ samples to select those locations ~~samples~~ that are most likely to contain the highest concentrations of VOCs.

(C) One ~~Three~~ grab samples shall be taken from each of the sampling locations selected in accordance with § 287.11(b)(1)(iii)(B). Collection and analysis of these samples for VOCs shall be ~~the same areas in material from which the three samples used for field screening of VOCs were taken,~~ in accordance with EPA Method 5035, referenced in subparagraph (i)(C).

(iv) Nothing herein shall preclude the use of discrete sampling procedures for VOCs as set forth in § 287.11(b)(2) and the associated attainment criteria in § 287.11(c)(2).

(2) Determinations ~~Sampling~~ based on discrete sampling procedures shall include the following:

~~(i) For analysis of substances, sampling shall be random and representative of the safe fill being sampled.~~

(ii) Sampling shall be in accordance with the most current version of the EPA RCRA Manual, SW-846 *(Test Methods for Evaluating Solid Waste, Physical/Chemical Methods. Office of Solid Waste and Emergency Response).* Sampling for VOCs shall be in accordance with Method 5035 from the most current version of the EPA RCRA Manual, SW-846.

(iii) For volumes of material equal to or less than 125 cubic yards, a minimum of eight samples shall be collected and analyzed. For volumes of material greater than 125 cubic yards and less than or equal to 3,000 cubic yards, a minimum of 12 samples shall be collected and analyzed. For each additional 3,000 cubic yards of material or part thereof over the initial 3,000 cubic yards, a minimum of 12 additional samples shall be collected and analyzed.

~~(iv) For VOCs analysis, grab sampling procedures shall be the procedures described in paragraph (1), for the equivalent volumes of material sampled.~~

(c) The measured numeric values ~~analysis of composite samples~~ for regulated substances ~~required in subsection (b)(1)~~ shall meet the following:

(1) For a composite sample, the measured numeric value for a substance shall be ~~is~~ equal to or less than half the safe fill numeric standard in § 287.11 (relating to numeric standards) for that substance and as listed in Appendix A, Tables 1, 2 and 3, or as specified in § 271.103(i) or § 287.102(l), as applicable; or

(2) For discrete samples, the measured numeric values for a substance in 75% of the discrete samples shall be equal to or less than the applicable numeric standard for that substance with no single measured numeric value exceeding more than twice the applicable numeric standard for a substance.

(3) For a grab sample, taken for analysis for VOCs in accordance with subsections (b)(1)(i)(C), (ii)(C) and (iii)(C), the measured numeric value for a

substance must be ~~is~~ less than or equal to the safe fill numeric standard in § 287.11 for that substance and as listed in Appendix A, Tables 1, 2 and 3, or as specified in § 271.103(i) or § 287.102(l), as applicable.

~~(d) For discrete samples required in subsection (b)(2), the measured numeric values for a substance in 75% of the discrete samples shall be equal to or less than the safe fill numeric standard in this section for that substance with no single sample exceeding more than twice the safe fill numeric standard for a substance.~~

~~(e) To determine whether sediments meet the safe fill numeric standards, sampling and analyses shall be conducted in accordance with guidance developed by the Department.~~

Subchapter C. GENERAL REQUIREMENTS FOR PERMITS AND PERMIT APPLICATIONS

§ 287.101. General requirements for permit.

* * * * *

(b) A person or municipality is not required to obtain a permit under this article, comply with the bonding or insurance requirements of Subchapter E (relating to bonding and insurance requirements) or comply with Subchapter B (relating to duties of generators) for one or more of the following:

* * * * *

~~[~~(6) The use as ~~clean~~ fill of ~~the materials in subparagraphs (i) and (ii) if they are separate from other waste. The person using the material as clean fill has the burden of proof to demonstrate that the material is clean fill.~~

~~(i) The following materials, if they are uncontaminated: soil, rock, stone, gravel, brick and block, concrete and used asphalt.~~

~~(ii) W~~waste from land clearing, grubbing and excavation, including trees, brush, stumps and vegetative material, provided that they are separate from other waste.~~]~~

* * * * *

(f) The Department will not require a permit under this article for the use of soil, dredged material, used asphalt, or historic fill material to bring an area to grade, to limit infiltration of rainfall, to facilitate runoff, or as construction material at a site undergoing remediation activities under Chapter 250 (relating to administration of land recycling program) and the Land Recycling and Environmental Remediation Standards Act (Act 2), (35 P.S. §§ 6026.101—6026.909) provided that the following conditions are met:

(1) The notice of intent to remediate the soils at the receiving site undergoing remediation activities (required by section 303(h) of Act 2 (35 P.S. § 6026.303(h))

identifies the Statewide health standard or the site specific standard as the remediation standard to be attained.

(2) The soil, dredged material, used asphalt, or historic fill material being used at the site will not cause the site undergoing remediation to exceed the remediation standard (or standards) selected for the site.

(3) The soil, dredged material, used asphalt, or historic fill material meets the standards set forth in Sections 287.102(l)(1) – (4).

(4) For soil, dredged material, used asphalt, or historic fill material placed at a site undergoing remediation activities prior to submission of the final report, the final report shall describe the sampling and analysis performed to characterize the material and the manner and location in which the material is used, and relief from liability shall include such materials upon approval of the final report.

* * * * *

§ 287.102. Permit-by-rule.

* * * * *

~~(j) *Contaminated soil resulting from agricultural practices.* The placement of soil from known areas of contamination shall be deemed to have a residual waste permit when used to bring an area to grade, as construction material, for control of fire and subsidence events or in reclamation of active or abandoned mines, if the reclamation work is approved by the Department or is performed under contract with the Department, and if in addition to subsection (a), the following conditions are met:~~

~~(1) The soil from known areas of contamination is analyzed for lead and arsenic. If the soil comes from a location where an orchard once existed, the soil may be analyzed for pesticides including aldrin, dieldrin, DDD, DDE and DDT. Contamination in soil may not exceed the nonresidential soil-to-groundwater pathway numeric values based on the following:~~

~~(i) The highest value between the nonresidential generic value and a value which is 100 times the nonresidential medium-specific concentration (MSC) for groundwater, as calculated in § 250.308 (relating to soil to groundwater pathway numeric values) and listed in Appendix A, Table 4.~~

~~(ii) When calculating the nonresidential soil-to-groundwater pathway numeric value, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.~~

~~(iii) Formulae identified in § 250.305(b) (relating to MSCs in soil) shall apply as limits to the physical capacity of the soil to contain a substance.~~

~~(2) To determine whether soil meets the standards in paragraph (1), the soil shall be sampled and analyzed in accordance with § 287.11(b) and either (c) or (d) (relating to safe fill numeric standards).~~

~~(3) At locations where soil from known areas of contamination is placed, direct contact pathways are promptly and permanently eliminated by the placement of uncontaminated soil or through other engineering controls.~~

~~(4) At locations where soil from known areas of contamination is placed, an erosion and sedimentation control plan is implemented that is consistent with the applicable requirements of Chapter 102 (relating to erosion and sediment control).~~

~~(5) Soil is not placed into or on waters of this Commonwealth.~~

~~(6) At locations where soil from known areas of contamination is placed, soil may not be placed within 100 feet of surface waters of this Commonwealth.~~

~~(7) At locations where soil from known areas of contamination is placed, soil may not be placed within 100 feet of the edge of a sinkhole.~~

~~(8) At locations where soil from known areas of contamination is placed, soil may not be placed within 300 feet of a water source unless the owner has provided a written waiver consenting to the placement of the soil closer than 300 feet.~~

~~(9) At locations where soil from known areas of contamination is placed, soil shall only be used under this permit on properties that are zoned and exclusively used for commercial and industrial uses. For unzoned properties, soil from known areas of contamination shall be used in an area where the background is equal to or greater than the concentration of contamination in soil being brought to the site and the property shall be used for commercial or industrial purposes only.~~

~~(10) Soil from known areas of contamination that is hazardous waste under Chapter 261a (relating to identification and listing of hazardous waste) may not be used under this permit.~~

~~(11) Soil from known areas of contamination when placed may not contain free liquids, based on visual inspection, and may not create odor or other public nuisance resulting from chemical contaminants in the soil.~~

~~(12) A person who receives and uses soil from known areas of contamination shall submit a written notice to the Department that includes the following:~~

~~(i) The names, addresses and phone numbers of the persons receiving and using the soil from known areas of contamination.~~

~~(ii) The quantity of soil used from known areas of contamination at the receiving location.~~

~~(iii) The locations of the known areas of contamination where soil was removed for use and where the soil is placed for use.~~

~~(iv) An identification of whether the known areas of contamination is the subject of a corrective action or remediation activity.~~

~~(v) A description of engineering practices and construction activities used to eliminate direct contact pathways and to assure that site excavation and placement of soil does not cause onsite or offsite contamination.~~

~~(vi) If soil is used for control of fire and subsidence events or in reclamation at abandoned mines, include a reference to the Department's separate authorization of the use in those projects.~~

~~(13) Records of analytical evaluations conducted on the soil from known areas of contamination shall be maintained by the person using and distributing the soil and shall be made available to the Department for inspection. The records shall include the following:~~

~~(i) The dates of testing.~~

~~(ii) Each parameter tested.~~

~~(iii) The test results.~~

~~(iv) The laboratory where testing was conducted.~~

~~(v) The sampling procedures and analytical methodologies used.~~

~~(vi) The name of the person who collected the sample.~~

~~(14) This permit does not authorize and may not be construed as an approval to discharge waste, wastewater or runoff from the site where contaminated soil originated, or the site where contaminated soil is beneficially used, to the land or waters of this Commonwealth.~~

~~(15) Soil from known areas of contamination placed in accordance with this permit shall cease to be waste as long as the soil remains in place.~~

~~(16) For purposes of this subsection, the term "known areas of contamination" means known areas of soil impacted by authorized agricultural practices resulting in lead, arsenic and pesticide contamination.~~

(l) ~~*Contaminated s*~~*Soil, dredged material,* ~~*or used asphalt*~~ *or historic fill material* ~~*impacted by a release or contaminated soil, dredged material or used*~~

~~*asphalt that exceeds safe fill numeric standards as a result of urbanization.*~~ **The placement of ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt, or historic fill material ~~impacted by a release or contaminated soil, dredged material or used asphalt~~ that exceeds safe fill numeric standards ~~as a result of urbanization~~ shall be deemed to have a residual waste permit when the soil, dredged material, used asphalt, or historic fill material is used to bring an area to grade, as construction material, for control of fire and subsidence events or in reclamation of active or abandoned mines if the reclamation work is approved by the Department or is performed under contract with the Department, provided that the soil, dredged material, used asphalt, or historic fill material is not a hazardous waste under Chapter 261a (relating to identification and listing of hazardous waste), and, if in addition to subsection (a), the following conditions are met:**

(1) The concentrations of regulated substances in the ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt, or historic fill material used pursuant to this permit-by-rule shall ~~impacted by a release or contaminated soil, dredged material or used asphalt that exceeds safe fill numeric standards may~~ not exceed the lowest nonresidential direct contact numeric values calculated in accordance with the methodologies in §§ 250.306 and 250.307 (relating to ingestion numeric values; and inhalation numeric values). The numeric standards are listed in Appendix A, Tables 5 and 6 [TABLES WILL NEED TO BE REVISED]. This condition does not apply if at the locations where the soil, dredged material, used asphalt or historic fill material is placed, direct contact pathways are promptly and permanently eliminated by the placement of uncontaminated soil, safe fill or other materials or through other engineering controls.

~~(i) When calculating the residential direct contact numeric value, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.~~

~~(ii)~~ Formulae identified in § 250.305(b) shall apply as limits to the physical capacity of the soil to contain a substance.

(2) Concentrations of regulated substances ~~Contamination~~ in soil, dredged material, ~~or~~ used asphalt or historic fill material used pursuant to this permit-by-rule ~~may not exceed~~ shall satisfy groundwater protection standards based on any ~~either~~ of the following:

(i) Analysis using the Toxicity Characteristic Leaching Procedure (TCLP) that demonstrates that the ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material meets the requirements in § 288.623(a) (relating to minimum requirements for acceptable waste).

(ii) Analysis using the the Synthetic Precipitation Leaching Procedure (SPLP) (*Method 1312 of SW-846, Test Methods for Evaluating Solid Waste,*

promulgated by the EPA) that demonstrates that the ~~Contaminated s~~Soil, dredged material, ~~or~~ used asphalt or historic fill material does not produce a leachate in excess of the nonresidential MSCs for groundwater, in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter. ~~, when subject to the Synthetic Precipitation Leaching Procedure (SPLP) (Method 1312 of SW-846, Test Methods for Evaluating Solid Waste, promulgated by the EPA).~~ The numeric standards are listed in Appendix A, Tables 5 and 6 [TABLES WILL NEED TO BE REVISED].

(iii) Analysis using the applicable analytical methods set forth in § 287.11 that demonstrates that the soil, dredged material, used asphalt or historic fill material does not contain regulated substances at concentrations exceeding the nonresidential soil-to groundwater pathway numeric values based on the highest value between the nonresidential generic value and a value which is 100 times the nonresidential medium-specific concentration (MSC) for groundwater, as calculated in § 250.308 (relating to soil to groundwater pathway numeric values) and listed in Chapter 250, Appendix A, Table 4.

(A) When calculating the nonresidential soil-to-groundwater pathway numeric value, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.

(B) Formulae identified in § 250.305(b) (relating to MSCs in soil) shall apply as limits to the physical capacity of the soil to contain a substance.

(3) To determine whether ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material meets the standards in paragraphs (1) and (2), the soil, dredged material, ~~or~~ used asphalt or historic fill material shall be sampled and analyzed in accordance with §§ 287.11(b) and ~~either~~ (c) ~~or (d)~~, as applicable.

(4) Soils from areas impacted by normal agricultural practices resulting in lead, arsenic or pesticide contamination (such as orchards) shall be analyzed for lead, arsenic, and organic pesticides used in those areas such as aldrin, dieldrin, DDD, DDE and DDT.

(5) At locations where ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material is placed pursuant to this permit-by-rule, an erosion and sedimentation control plan shall be ~~is~~ implemented that is consistent with the applicable requirements of Chapter 102.

~~(6) Contaminated soil, dredged material or used asphalt is not placed into or on waters of this Commonwealth.~~

(6~~7~~) At locations where ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material is placed pursuant to this permit-by-rule, the

soil, dredged material, ~~or~~ used asphalt or historic fill material may not be placed ~~within~~ or along ~~100 feet of surface~~ waters of this Commonwealth unless prior approval has been obtained from the Department.

(~~8~~7) At locations where ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt, or historic fill material is placed pursuant to this permit-by-rule, the soil, dredged material or used asphalt or historic material may not be placed in karst terrain within 100 feet of the edge of a sinkhole.

(~~8~~9) At locations where ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material is placed pursuant to this permit-by-rule, the soil, dredged material, ~~or~~ used asphalt or historic fill material may not be placed within 300 feet of a potable water supply well or a potable surface water intake ~~source~~ unless the owner has provided a written waiver consenting to the placement of the ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt, or historic fill material closer than 300 feet.

(~~9~~10) At locations where ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material is placed pursuant to permit-by-rule, the soil, dredged material, ~~or~~ used asphalt or historic fill material shall only be used under this permit on properties that are zoned and exclusively used for commercial and industrial uses. For unzoned properties, ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material shall only be used under this permit ~~shall be reused~~ in an area where the background concentrations of regulated substances are ~~is~~ equal to or greater than the concentrations of regulated substances exceeding the safe fill numeric standards ~~contamination~~ in the soil, dredged material, ~~or~~ used asphalt, or historic fill material being brought to the site, and the property is ~~shall be~~ used exclusively for commercial or industrial purposes ~~only~~.

~~(10) Contaminated soil, dredged material or used asphalt that is hazardous waste under Chapter 261a may not be used under this permit.~~

(10~~1~~) ~~Contaminated~~ Ssoil, dredged material or used asphalt, or historic fill material when placed pursuant to this permit-by-rule may not contain free liquids, based on visual inspection, and may not create recurring or persistent odor or other public nuisance resulting from chemical contaminants in the soil, dredged material, ~~or~~ used asphalt or historic fill material.

(11~~2~~) A person who has receiveds and useds ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material pursuant to this permit-by-rule shall submit a written notice to the Department that includes the following:

(i) The names, addresses and phone numbers of the persons receiving and using the ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material.

(ii) The quantity of ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material used at the receiving location.

(iii) The locations of ~~contaminated soil, dredged material or used asphalt~~ where the ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt, or historic fill material were removed for use and where the ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material are placed for use.

(iv) An identification of whether the area ~~of contamination~~ where the ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt, or historic fill material originated is the subject of a corrective action or remediation activity.

(v) A description of engineering practices and construction activities used to assure that site excavation and placement of ~~contaminated~~ the soil, dredged material, ~~or~~ used asphalt or historic fill material does not cause onsite or offsite contamination.

(vi) If ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt, or historic fill material is used for control of fire and subsidence events or in reclamation at abandoned mines, identification of ~~include a reference to~~ the Department's separate authorization of the use in those projects.

(12~~3~~) Records of analytical evaluations conducted on the ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material shall be maintained by the person using ~~and distributing~~ the soil, dredged material, ~~or~~ used asphalt or historic fill material pursuant to this permit-by-rule and shall be made available to the Department for inspection. The records shall include the following:

(i) The dates of testing.

(ii) Each parameter tested.

(iii) The test results.

(iv) The laboratory where testing was conducted.

(v) The sampling procedures and analytical methodologies used.

(vi) The name of the person who collected the sample(s).

(13~~4~~) This permit-by-rule does not authorize and may not be construed as an approval to discharge waste, wastewater or runoff from the site where the ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material originated or the site where the ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt or historic fill material is beneficially used, to the land or waters of this Commonwealth.

(14~~5~~) ~~Contaminated s~~Soil, dredged material, ~~or~~ used asphalt or historic fill material placed in accordance with this permit-by-rule shall cease to be

waste <u>once</u> ~~as long as~~ the ~~contaminated~~ soil, dredged material, ~~or~~ used asphalt <u>or historic fill material is</u> ~~remains in~~ <u>placed. Such soil, dredged material, used asphalt or historic fill material that is excavated or moved subsequent to placement pursuant to this permit-by-rule shall be evaluated at that time to determine whether the material qualifies as safe fill or is subject to regulation as a waste.</u>

~~**(16) Contaminated soil may not be used at a site undergoing a remediation or corrective action that will cause the receiving site to exceed the remediation standard selected.**~~

~~(17) Placement of contaminated soil at a site undergoing a remediation or corrective action shall meet the requirements of subsection (m).~~

~~(l) *Historic fill.* The placement of historic fill shall be deemed to have a residual waste permit when used as construction material if, in addition to subsection (a), the following conditions are met:~~

~~(1) The historic fill shall be analyzed and shall meet one of the following:~~

~~(i) Historic fill may not exceed the residential soil-to-groundwater pathway numeric values based on the following parameters:~~

~~(A) The highest value between the residential generic value and a value which is 100 times the residential MSC for groundwater, as calculated in § 250.308. The numeric standards are listed in Appendix A, Tables 5 and 6.~~

~~(B) When calculating the residential soil-to-groundwater pathway numeric value, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.~~

~~(C) Formulae identified in § 250.305(b) apply as limits to the physical capacity of the soil to contain a substance.~~

~~(ii) Historic fill may not exceed the lowest residential direct contact numeric values calculated in accordance with the methodologies in §§ 250.306 and 250.307, if the requirements in clause (A) or (B) are met for groundwater protection and the requirements of clauses (C) and (D) are met when calculating the numeric value.~~

~~(A) A TCLP that demonstrates that the historic fill meets the requirements in § 288.623(a).~~

~~(B) The historic fill does not produce a leachate in excess of the residential MSC for groundwater, in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter, when subject to the Synthetic Precipitation Leaching Procedure (SPLP) *(Method 1312 of SW-846, Test Methods for Evaluating Solid*~~

Waste, promulgated by the EPA). The numeric standards are listed in Appendix A, Tables 5 and 6.

(C) When calculating the residential direct contact numeric value, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.

(D) Formulae identified in § 250.305(b) shall apply as limits to the physical capacity of the soil to contain a substance.

(2) To determine whether historic fill meets the standards in paragraph (1), the historic fill shall be sampled and analyzed in accordance with § 287.11(b) and either (c) or (d).

(3) At locations where historic fill is placed and the numeric value under paragraph (1)(i) for a regulated substance does not provide protection from direct contact exposure, direct contact pathways are promptly and permanently eliminated by the placement of uncontaminated soil and uncontaminated dredged material or through other engineering controls.

(4) At locations where historic fill is placed, an erosion and sedimentation control plan is implemented that is consistent with the applicable requirements of Chapter 102.

(5) Historic fill is not placed into or on waters of this Commonwealth.

(6) At locations where historic fill is placed, material may not be placed within 100 feet of surface waters of this Commonwealth.

(7) At locations where historic fill is placed, material may not be placed within 100 feet of the edge of a sinkhole.

(8) At locations where historic fill is placed, material may not be placed within 300 feet of a water source unless the owner has provided a written waiver consenting to the placement of the material closer than 300 feet.

(9) At locations where historic fill is placed, material shall only be used under this permit on properties that are zoned and exclusively used for commercial and industrial uses. For unzoned properties, historic fill shall be reused in an area where the background is equal to or greater than the concentration of contamination in historic fill being brought to the site and the property shall be used for commercial or industrial purposes only.

(10) Historic fill that is hazardous waste under Chapter 261a may not be used under this permit.

(11) Historic fill when placed may not contain free liquids, based on visual inspection, and may not create odor or other public nuisance associated with the historic fill.

~~(12) A person that receives and uses historic fill shall submit a written notice to the Department that includes the following:~~

~~(i) The names, addresses and phone numbers of the persons receiving and using the historic fill.~~

~~(ii) The quantity of historic fill used at the receiving location.~~

~~(iii) The locations of historic fill where material was removed for use and where the historic fill is placed for use.~~

~~(iv) An identification of whether the location where the historic fill originated is the subject of a corrective action or remediation activity.~~

~~(v) A description of engineering practices and construction activities used to eliminate direct contact pathways and to assure that site excavation and placement of historic fill does not cause onsite or offsite contamination.~~

~~(13) Records of analytical evaluations conducted on the historic fill shall be maintained by the person using and distributing the soil and shall be made available to the Department for inspection. The records shall include the following:~~

~~(i) The dates of testing.~~

~~(ii) Each parameter tested.~~

~~(iii) The test results.~~

~~(iv) The laboratory where testing was conducted.~~

~~(v) The sampling procedures and analytical methodologies used.~~

~~(vi) The name of the person who collected the sample.~~

~~(14) This permit does not authorize and may not be construed as an approval to discharge waste, wastewater or runoff from the site where historic fill originated or the site where historic fill is beneficially used, to the land or waters of this Commonwealth.~~

~~(15) Historic fill placed in accordance with this permit shall cease to be waste as long as the material remains in place.~~

~~(m) *Contaminated soil placed at a receiving site undergoing remediation activities.* Contaminated soil generated offsite and placed at a site undergoing remediation activities under Chapter 250 (relating to administration of land recycling program) and the Land Recycling and Environmental Remediation Standards Act (Act 2) (35 P. S. §§ 6026.101—6026.909) shall be deemed to have a residual waste permit when used to bring an area to grade, to limit infiltration of rainfall and to facilitate runoff if, in addition to subsection (a), the following conditions are met:~~

~~(1) The notice of intent to remediate the soils at the receiving site undergoing remediation activities (required by section 303(h) of Act 2 (35 P. S. § 6026.303(h)) identifies the Statewide health standards as the remediation standards that shall be attained. The addition of contaminated soil at the site undergoing remediation activities shall meet the Statewide health standards as follows:~~

~~(i) Prior to the placement at a residential site undergoing remediation activities, the contaminated soil brought to the residential site undergoing remediation activities shall meet the residential Statewide health standards in accordance with §§ 250.306--250.308 and as listed in Chapter 250, Appendix A, Tables 3A, 3B, 4A and 4B.~~

~~(ii) Prior to the placement at a nonresidential site undergoing remediation activities, the contaminated soil brought to the nonresidential site undergoing remediation activities shall meet the nonresidential Statewide health standards in accordance with §§ 250.306--250.308 and as listed in Chapter 250, Appendix A, Tables 3A, 3B, 4A and 4B.~~

~~(iii) When calculating the direct contact numeric value or the soil-to-groundwater pathway numeric value for the Statewide health standards, the calculation shall be based on groundwater in aquifers used or currently planned for use with naturally occurring background total dissolved solids concentrations less than or equal to 2,500 milligrams per liter.~~

~~(iv) Formulae identified in § 250.305(b) shall apply as limits to the physical capacity of the soil to contain a substance.~~

~~(2) The quantity, quality and destination of the contaminated soil shall be identified in the final report (under section 303(h) of Act 2) submitted for the receiving site undergoing remediation activities.~~

~~(3) Placement of the contaminated soil may not cause the receiving site undergoing remediation activities to exceed the Statewide health standard selected and identified in the notice of intent to remediate.~~

~~(4) Contaminated soil containing a contaminant other than those identified in the notice of intent to remediate or subsequently identified during site characterization submitted for the receiving site undergoing remediation activities may not be placed at the receiving site undergoing remediation activities.~~

~~(5) For contaminated soil placed at a site undergoing remediation activities prior to the approval of the final report, relief from liability may include the material brought to the receiving site undergoing remediation activities and the material shall be included in the final report.~~

~~(6) At a site undergoing remediation activities where contaminated soil is placed, an erosion and sedimentation control plan is implemented that is consistent with the applicable requirements of Chapter 102.~~

~~(7) At a site undergoing remediation activities where contaminated soil is placed, soil may not be placed into or on waters of this Commonwealth.~~

~~(8) At a site undergoing remediation activities where contaminated soil is placed, soil may not be placed within 100 feet of surface waters of this Commonwealth.~~

~~(9) At a site undergoing remediation activities where contaminated soil is placed, soil may not be placed within 100 feet of the edge of a sinkhole.~~

~~(10) At a site undergoing remediation activities where contaminated soil is placed, soil may not be placed within 300 feet of a water source unless the owner has provided a written waiver consenting to the placement of the soil closer than 300 feet.~~

~~(11) At a site undergoing remediation activities where contaminated soil is placed, soil may not be placed in a 100-year flood plain of waters of this Commonwealth.~~

~~(12) To determine whether contaminated soil placed at a site undergoing remediation activities meets the standards in paragraph (1), the contaminated soil shall be sampled and analyzed in accordance with § 287.11(b) and either (c) or (d).~~

~~(13) Contaminated soil placed at a site undergoing remediation activities may not contain free liquids left in the soil, based on visual inspection, and the soil may not create odor or other public nuisance resulting from chemical contaminants in the soil.~~

~~(14) Upon completion of areas where contaminated soil is placed, the areas shall be promptly vegetated to minimize and control erosion or capped to minimize infiltration.~~

~~(15) This permit does not authorize and may not be construed as an approval to discharge waste, wastewater or runoff from the site where contaminated soil originated or the site undergoing remediation activities where contaminated soil is beneficially used, to the land or waters of this Commonwealth.~~

~~(16) A person who receives and uses contaminated soil at a site undergoing remediation activities shall submit a written notice to the Department. The notice shall include the following:~~

~~(i) The names, addresses and phone numbers of the persons receiving and using the contaminated soil.~~

~~(ii) The quantity of contaminated soil from a site used at the receiving site undergoing remediation activities.~~

~~(iii) The locations of areas where contaminated soil is generated and locations of areas where the contaminated soil will be placed.~~

~~(iv) Copies of recorded deed notices that identify where on a receiving property contaminated soil is placed if nonresidential Statewide health standards are used at the sites undergoing remediation activities as the remediation standards.~~

~~(v) An identification of whether the location where the contaminated soil originated is the subject of a corrective action or remediation activity.~~

~~(vi) A description of engineering practices and construction activities used to assure that excavation and placement of contaminated soil at the site undergoing remediation activities does not cause onsite or offsite contamination.~~

~~(17) Contaminated soils that are hazardous waste under Chapter 261a may not be used under this permit.~~

~~(18) Records of analytical evaluations conducted on the contaminated soil shall be maintained by the person using and distributing the soil and shall be made available to the Department for inspection. The records shall include the following:~~

~~(i) The dates of testing.~~

~~(ii) Each parameter tested.~~

~~(iii) The test results.~~

~~(iv) The laboratory where testing was conducted.~~

~~(v) The sampling procedures and analytical methodologies used.~~

~~(vi) The name of the person who collected the sample.~~

~~(19) Contaminated soil placed in accordance with this permit shall cease to be waste as long as the contaminated soil remains in place at the site undergoing remediation activities.~~