

Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

July 22, 2004

Special Waste Procedures for Local Highway Improvements #04-09

COUNTY ENGINEERS/SUPERINTENDENT OF HIGHWAYS
MUNICIPAL ENGINEERS/DIRECTORS OF PUBLIC WORKS
CONSULTING ENGINEERS

Attached is a copy of the recently developed Special Waste Procedures for Local Highway Improvements. The FHWA and State are concerned with identifying any potential special waste problems early in a project. The concern came after certain incidents caused construction delays and high cost for remediation measures and disputes over who would pay for them. Concerns over the safety of employees and construction workers were also cited.

Previously, special waste issues on local agency projects were treated on a case by case basis with no set procedures. The intent of these procedures is to streamline the treatment of local agency projects. These procedures apply to all local agency federal and state funded projects, and are recommended for Motor Fuel Tax funded projects.

These procedures are effective immediately and will also be included in the new Local Roads Manual. If you have any questions regarding the procedures, please contact Gary Galecki at 217-785-8564.

Sincerely,

A handwritten signature in black ink that reads "Charles J. Ingersoll".

Charles J. Ingersoll, P.E.
Engineer of Local Roads and Streets

Special Waste Procedures for Local Highway Improvements

Applicability

These procedures apply to all local agency federal and state funded projects, and are recommended for MFT funded projects.

Acronyms

ASTM -	American Society for Testing and Materials
BDE Manual -	Bureau of Design and Environment Manual
BLR&S -	Bureau of Local Roads and Streets
CBLR&S -	Central Bureau of Local Roads & Streets
CERCLIS -	Comprehensive Environmental Response, Compensation, and Liability Information System
ESR -	Environmental Survey Request
IAC -	Illinois Administrative Code
IDOT -	Illinois Department of Transportation
IPCB -	Illinois Pollution Control Board
IEPA -	Illinois Environmental Protection Agency
LUST -	Leaking Underground Storage Tank
OSFM -	Office of State Fire Marshall
PESA -	Preliminary Environmental Site Assessment
PMA -	Project Monitoring Application
PSI -	Preliminary Site Investigation
RCRA -	Research Conservation and Recovery Act
SRP -	Site Remediation Program
SWA -	Special Waste Assessment
SWC -	Special Waste Coordinator in the district office. If the district does not have a Special Waste Coordinator, it would apply to the Environmental Coordinator.
TACO -	Tiered Approach to Corrective Action Objectives
UST -	Underground Storage Tank

Special Waste Screening

The local agency shall screen all projects on the local highway system in order to determine whether they require further documentation for special waste contamination or sites otherwise potentially impacted by regulated substances. The local agency shall follow the Special Waste Assessment (SWA) Screening Criteria shown on Attachment 1. The screening process applies criteria for determining a project's potential involvement with special waste and other regulated substances and leads to a determination whether or not further action is necessary. The Bureau of Design and Environment (BDE) will screen local projects requiring right-of-way in the name of the state or if the state is preparing plans for the local agency.

When a local agency project requires right-of-way in the name of the state or if the state is preparing plans for the local agency, the local agency shall check the special waste box on the Environmental Survey Request (ESR) form located at <http://www.dot.state.il.us/environment/esrhome.html> and notify the district Bureau of Local Roads and Streets (BLR&S) that this property is located within the local agency's project limits. The district BLR&S will ensure that the special waste box is checked on the Project Monitoring Application (PMA). The district's Special Waste Coordinator (SWC) will screen these types of projects. The SWC will also complete the information on the special waste screen on the ESR and place it in the Project Monitoring Application (PMA).

If the project does not require right-of-way in the name of the state and the state is not preparing the plans, the local agency should not check the special waste box or complete the special

waste screen on the ESR. However, the local agency will be required to follow these procedures.

Attachments 2 and 3 may be used as a guide to show risk levels for potential land uses for commercial and residential sites.

No Further Assessment Determined Necessary

The local agency will not need to undertake further action if completion of the SWA screening results in the determination that:

1. The project does not involve any of the following: New right-of-way or easements, railroad right-of-way other than single rail rural with no maintenance facilities, evidence of open dumping or record of spills in the project area, building demolition/modification, linear excavation, or subsurface utility relocation; or
2. The project may involve one or more of the aforementioned factors, but the local agency determines that **both** of the following apply:
 - No listed CERCLIS sites are within one mile of the project; no listed Leaking Underground Storage Tank (LUST) sites are within 1000 feet of the project; and no listed Underground Storage Tanks (UST's) or Resource Conservation and Recovery Act (RCRA) facilities are located on properties the project will directly affect. The UST includes the tank, all piping, and any part of an UST system that contains product. By definition, any system having 10 percent of the total tank volume below ground is considered to be an underground storage tank.
 - The project area is entirely agricultural/residential or agricultural/residential with some recent (developed within the last 5-10 years) "benign" commercial and industrial uses (i.e., uses not covered by Attachments 2 and 3), and all of the items listed in the "visual inspection" section of the SWA screening warrant a "No" response.

The local agency shall indicate in the environmental document or Project Development Report (if required) for the project, that the application of the screening criteria did not indicate potential for special waste or other regulated substance contamination warranting further investigation.

Preliminary Environmental Site Assessment

If application of the SWA screening procedure leads to a determination that further action is required, a Preliminary Environmental Site Assessment (PESA) will be necessary.

The purpose of a PESA is to determine the environmental condition of a site prior to the acquisition of right-of-way or improvements to existing right-of-way.

The local agency should use "A Manual for Conducting Preliminary Environmental Site Assessments for Illinois Department of Transportation Highway Projects" (Code No.-OF 1996-5) as a guide for preparing a PESA. Copies of the manual may be purchased from the Information Office Illinois State Geological Survey, 615 East Peabody, Champaign, Illinois 61820, phone (217) 244-2414, fax (217) 244-0802.

The local agency may use ASTM E 1527-97 or as modified. For a cost, ASTM E 1527 may be down loaded from the ASTM web site at www.astm.org. Select standards, individual standards, E, then 1527 on this web site.

PESA Risk Findings

1. Definitions

“No risk” finding - After a review of all available information, there is no indication of the presence of regulated substances or involvement with natural hazards in the project area.

“Low risk” finding - Current or former land use may include a facility that treats, stores, disposes of, transports, or is otherwise involved with regulated substances. The project may be located on a floodplain or have geologic materials conducive to movement during seismic activity. However, based on all available information, there is no reason to believe there would be any involvement with regulated substances of significant quantity. This is the lowest possible rating a gasoline station operating within current regulations could receive.

“Moderate risk” finding - After a review of all available information, indications are found that identify a potential for soil or water contamination or other environmental hazard; however, the hazard was not verified by local agency testing. The area could have a long history of industrial or commercial use, or a CERCLIS or LUST site may be present along the project right-of-way. This is the lowest possible rating if anticipated construction intersects an UST site.

“High risk” finding - A high risk is based on the presence of potentially hazardous compounds, either as detected by local agency testing or as documented by the IEPA. The specific presence and levels of regulated substances, to the extent that they are known, will be incorporated in the report. Further investigation may be needed to determine the nature, source, and extent of the problem.

2. Procedures for Risk Findings

- a. “No Risk or “Low” Risk Finding. If the final PESA report indicates that the project is “no risk” or “low risk” for sites potentially impacted with regulated substances, the local agency shall document this finding in the environment document or Project Development Report for the project. The documentation should include a copy of the final PESA report’s risk finding. The local agency need not take any further action regarding sites potentially impacted with regulated substances unless a reevaluation for special wastes becomes necessary under the Validation of Special Waste Assessment Results section of this policy, or if a previously unidentified site is encountered. If such a site is encountered, work affecting the site should immediately cease until the local agency has assessed the situation and determined an appropriate course of action.
- b. “Moderate Risk” or “High Risk” Finding. If the PESA results in a determination that the project is “moderate risk” or “high risk” for special waste or other sites potentially impacted with regulated substances, the local agency will determine conditions for reducing the risk to an acceptable level through some means of avoidance.

The following applies:

- **Avoidance of Contaminated Site Possible.** If the local agency determines that the project can avoid the contaminated site, it shall so indicate in the environmental document or Project Development Report (if required). Avoidance of the site may be a horizontal or vertical change in alignment so that the local agency does not acquire the contaminated site or a part that is contaminated or impacts it during construction. The local agency need not take any further action regarding sites potentially impacted with regulated substances unless a reevaluation for special wastes becomes necessary

under the Validation of Special Waste Assessment Results section of this policy or if a previously unidentified site is encountered during construction. If such a site is encountered, work affecting the site should immediately cease until the local agency has assessed the situation and determined an appropriate course of action.

- Avoidance of Contaminated Site Not Possible. If the local agency determines the project cannot conform to the avoidance of the contaminated site, it shall prepare a Preliminary Site Investigation (PSI) with a qualified consultant or personnel. The PSI will determine the nature and extent of contamination (i.e., above or below the clean-up objectives).

Preliminary Site Investigation

A PSI will not be required if the contaminated site can be avoided. For actions that require a PSI, a qualified local agency employee or a qualified consultant shall prepare the document. The BDE maintains a list of approved qualified consultants for PSI's which is available upon request. The PSI should include the following:

1. Identify the areas impacted by special waste or regulated substances. Include a location map.
2. Recommended actions to be taken.
3. Provide estimated costs to excavate, transport, and dispose of the contaminated material.
4. Provide results of field investigations of each affected site. Include boring logs, a summary of analytical results, and laboratory data if applicable.
5. A special provision for managing the contamination including pay items and quantities.

A copy of the PSI should be sent to the IEPA if a LUST or Site Remediation Program (SRP) site is investigated and exceed Tiered Approach to Corrective Action Objectives (TACO) levels. A copy of the PSI should be sent to the Office of State Fire Marshall (OSFM) if the site investigated is on the UST list and exceed TACO levels.

Special Waste on State Property

If special waste is located on property that is held or will be acquired in the name of the state or if the contract plans will be prepared by the state for the local agency, the state will be responsible for the preparation of the PESA and PSI. The local agency shall check the box on the special waste screen on the ESR and notify the district BLR&S that this project is located within the local agency's property limits. The local agency shall prepare three sets of exhibits with proposed right-of-way and easements highlighted, along with the length, width, and depth of the proposed excavation and attach a copy to the ESR. The district BLR&S will forward the special waste portion of the ESR to the SWC. The district SWC will ensure that the special waste box is checked on the PMA.

The district SWC shall complete the information on the special waste screen on the ESR, enter it into the PMA, and submit the packet to BDE for processing. Upon receipt of the final PESA, the district SWC shall notify the local agency of the findings and wait for a response to the depth stipulation. The depth stipulation is the depth determined to be acceptable to excavate.

If the depth stipulations are exceeded in existing or proposed right-of-way or easement, the BDE will contact the Statewide Special Waste Investigation Consultant and request a work plan and estimated budget for the PSI.

If the local agency performs work on property in the name of the state, but not acquiring the property, the local agency would be responsible for all activity necessary to comply with all applicable laws and regulations that may pertain to the performance of the project work. The district SWC shall need to be aware of such work in order to refer to any Tiered – Approach to Corrective Action Objectives (TACO) agreements and to ensure that the UST owner/operator is notified.

Relationship of Special Waste Process Results to Design Approval

Categorical exclusion concurrence and design approval for federal funded projects may be given at the request of the local agency when results of the special waste process support one of the following determinations:

1. Application of the SWA screening criteria resulted in a finding that the project has no potential for involving special waste sites or other sites impacted with regulated substances.
2. The PESA has resulted in a finding that the project is “no risk” or “low risk” for involvement with special waste sites or other sites impacted with regulated substances.
3. The PESA has resulted in a finding that the project is “moderate risk” or “high risk” for involvement with special wastes sites or other sites impacted with regulated substances and the local agency has determined that it can avoid the site. The request for design approval must include a copy of the PESA report and the local agency’s determination that the site can be avoided. The information regarding the avoidance determination must be included in the commitment file for the project to ensure follow-through in subsequent stages of project development and implementation.
4. The PESA resulted in a finding that the project is “moderate risk” or “high risk” for involvement with special waste sites or other sites impacted with regulated substances, and the local agency cannot avoid the site(s), the nature and extent of the involvement is known, the cost of addressing the site(s) is known (based on the results of the PSI or subsequent studies or assessments as needed) and the local agency has determined that such cost is acceptable, and the areas of contamination will be managed and disposed of in accordance with all applicable State and Federal regulations. The request for design approval must include documentation of the local agency’s determination that the cost involved in addressing the site(s) is acceptable. When the proposed project is on existing alignment or involves only a single alignment alternative, the local agency may request design approval prior to receiving the results of the PSI. In response to such a request, the Central Bureau of Local Roads and Streets (CBLR&S) may give design approval subject to the condition that the local agency may not acquire any contaminated parcel until the PSI, and subsequent studies if needed, have been completed. The local agency must reflect in the project commitment file the requirement for completing the PSI and other related studies, if needed prior to commencing acquisition of any contaminated parcel and must ensure following through on the commitment. Prior to initiation of the PSI, the local agency should re-screen the project to evaluate whether anything has changed in the project area that would affect the results of the PESA and should update the PESA as necessary.

5. The only sites potentially involved with the project and potentially impacted with regulated substances are Underground Storage Tanks (UST's) or Leaking Underground Storage Tanks (LUST's), and the BDE Geologic and Waste Assessment Unit has waived waiting for the results of further investigations prior to design approval. This waiver may be requested on the basis of the interim PESA report or letter report, the final PESA report, or the PSI report. This waiver will not be given when the UST's/LUST's will be acquired or if the local agency proposes to acquire the entire property containing the UST's/LUST's. The request for design approval must include a copy of the waiver from BDE Geologic and Waste Assessment Unit.

If the special waste is located on property that is held or will be acquired in the name of the state or if contract plans will be prepared by the state, the local agency may submit a request to the district BLR&S for design approval before the special waste procedures are completed. The district BLR&S shall coordinate the request with the district SWC. The waiver request will be submitted to BDE by the district SWC. The district BLR&S shall also ensure that the CBLR&S is aware of this submittal. The district SWC shall inform the district BLR&S whether or not the waiver has been approved.

If the special waste is located on property that is held or will be acquired in the name of the local agency, the local agency may submit a request to the district BLR&S for design approval before the special waste procedures are completed if one of the determinations stated above apply. The request shall be given via a special waste waiver. The waiver request will be submitted to the CBLR&S.

Relationship of Special Waste Process Results to Contract Letting

The local agency will be required to complete the PSI, when applicable, and perform all commitments made in the Project Development Report or environmental document prior to inclusion on a letting. The local agency will provide the district with written notification that all required work for the special waste studies have been completed.

Validity of Special Waste Assessment Results

If significant changes in land use or more than 18 months and less than three years have elapsed since the last examination of a project for special waste/regulated substance contamination [i.e., local agency screening/sign-off or PESA], the local agency must validate the examination results before proceeding with arrangements for further special waste/regulated substance investigations, before submitting the Project Development Report or environmental document (if required) for approval, or before initiating land acquisition. The validation review should include a check of the data base (See Resources) for new reported releases and new land uses of potential concern. If changes are identified, a PESA should be conducted to evaluate the new reported release(s) and/or new potential land use concern(s).

If three years or more have elapsed since the last examination for special waste/regulated substance contamination (local agency screening and sign-off or PESA), the entire project should be reevaluated as a new action prior to proceeding with arrangements for further special waste/regulated substance investigations, before submitting for approval, or before initiating land acquisition. If a project was initially screened and cleared by the local agency, the reevaluation after three years may again consist of local agency screening and clearance, provided no changes have occurred in the project area that would alter the findings upon which the original clearance was based.

If a PSI was conducted for a project and five years or more have elapsed since it was completed, the entire project should be evaluated for regulated substances as a new action and a new PESA must be conducted prior to proceeding with the aforementioned project actions.

When validation of the results of special waste/regulated substance evaluations is necessary, the review should consider any changes in the proposed action, the affected environment, anticipated special waste/regulated substance involvement, and proposed measures for addressing the special waste(s)/regulated substance(s).

Resources

The web address for the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list is www.epa.gov/superfund/sites/cursites/index.htm. The web address for the Environmental Protection Agency's current list of Leaking Underground Storage Tanks (LUST) is <http://epadata.epa.state.il.us/land/ust/search.asp>. The list of LUST sites is an unconfirmed list and should not be used as a final determination regarding whether releases have occurred at sites on the list.

If a project involves a property on which the existence of an UST is suspected and does not appear on the list, the State Fire Marshal's office should be contacted to check the most current registrations. The Standard Specifications for Road and Bridge Construction also contains guidance on proper procedures for UST removal.

Tiered Approach to Corrective Action Objectives (TACO) Agreements

Illinois environmental law requires the Illinois Pollution Control Board to consider land use controls in determining risk to human health from contamination in soil and groundwater. This approach is known as the Tiered Approach to Corrective Action Objectives (TACO). The TACO regulations recognize highway authority agreements as a land-use control. In the agreement, the highway authority is responsible for the following commitments:

- Prohibit the use of groundwater under the highway right-of-way that is contaminated above residential Tier 1 remediation objectives from the release as a potable supply of water.
- Limit access to soil contamination under the highway right-of-way that is contaminated above residential Tier 1 remediation objectives from the release. Access to soil contamination may be allowed if, during, and after any access, public health and the environment are protected.

For a highway authority willing to make these commitments, there are a number of significant benefits. These include:

1. Notification. The company is required, for the first time, to notify the agency that it has contaminated the right-of-way and to take responsibility for that. Before TACO, the oil company was allowed to leave the contamination beneath the agency's road as "impractical" to deal with. The agency would not know that. Although these agreements could cover nearly any type of pollutant, all of IDOT's agreements to date involve petroleum contamination.
2. Release. The agreement party agrees to defend, indemnify, and hold harmless the state and other highway authority, if any, maintaining the highway right-of-way by an agreement with IDOT (and other highway authorities) and their agents, contractors or employees for all obligations asserted against or costs incurred by them, including reasonable attorney's fees and court cost, associated with the release of contaminants from the site, regardless whether said obligations or costs were caused by the negligence, but not the gross

negligence, of them.

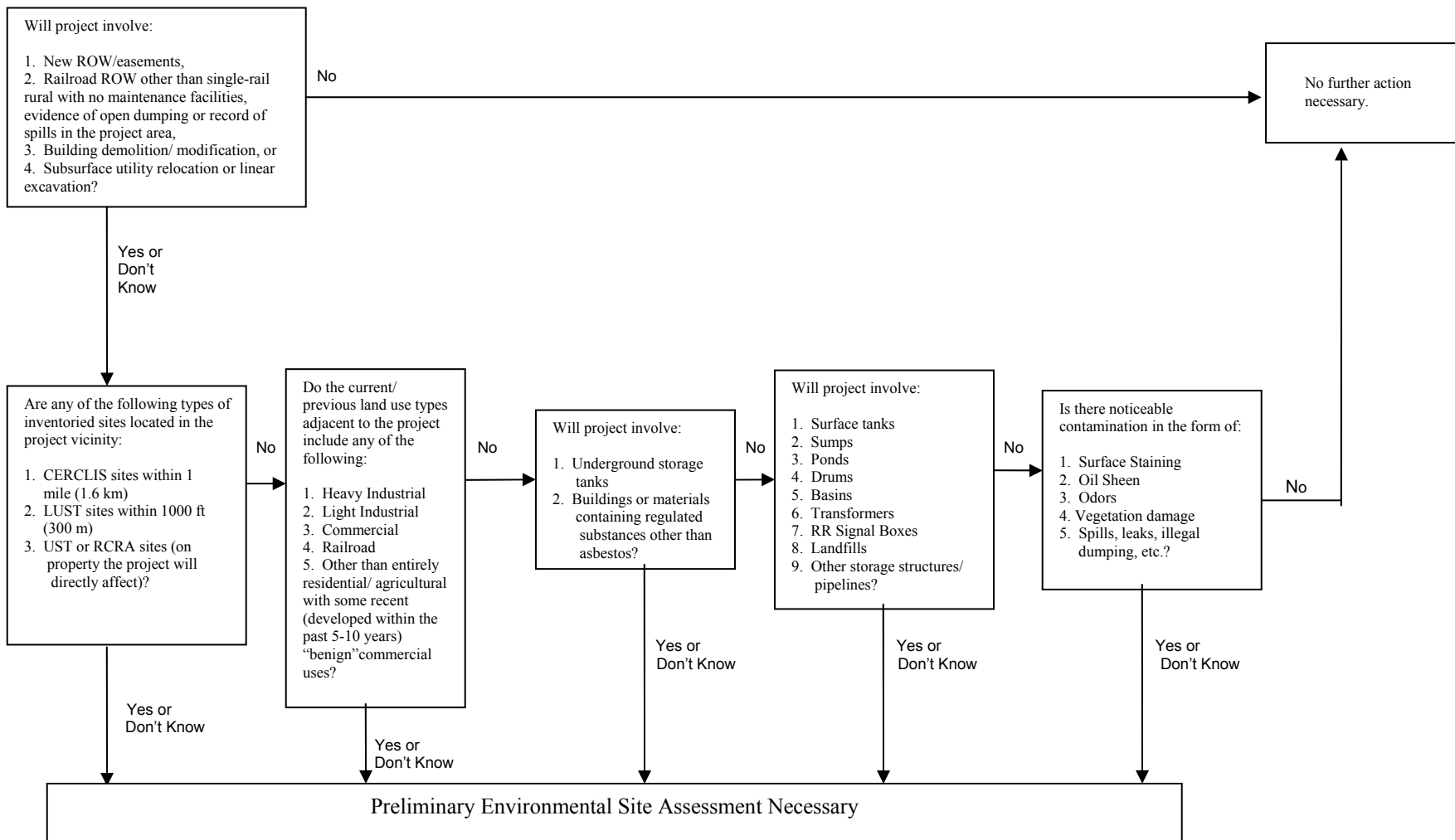
3. Reimbursement. The agreement party agrees to reimburse the highway authority for the reasonable cost it has incurred in protecting human health and the environment, including, but not limited to, identifying investigating, handling, storing, and disposing of contaminated soil and groundwater in the right-of-way as a result of the release of contaminants at a site.

A company that has contaminated the right-of-way has two choices:

- It can clean up the right-of-way.
- It can negotiate a Highway Authority Agreement that is acceptable to the local agency and/or State.

The first choice is expensive, and an unnecessary drain on the LUST Fund. This fund reimburses owners of those eligible tanks for their cleanup costs. It is typically unnecessary because the cleanup is not needed to protect human health and the environment. However, the agency still must meet its commitments made in the Highway Authority Agreement.

The appropriate rule for TACO can be down loaded from the IPCB, web site at www.ipcb.state.il.us then go to statutes and legislation, Title 35 of the IAC, Subtitle G, Part 742. This can be downloaded as a word document. More information regarding these agreements can be provided by contacting the Office of the Chief Counsel.



SPECIAL WASTE ASSESSMENT (SWA) SCREENING CRITERIA

Attachment 1

Risk Level	Potential Land Use	Comments
A	car washes	Possible UST's
A	grain elevators	Possible UST's and old sites used Carbon Tetrachloride as a fumigant
A	lumber yards/hardware/general stores	Possible UST's
A	photolabs (small, modern one-hour photo places pose minimal hazards as do places which send out pictures)	Possible heavy metals (mainly silver)
A	public utilities such as gas, phone, cable, power	Possible UST's
A	rent-all shops	Old sites where UST's are suspected would change risk to "B"
B	airports/hangars	Possible UST's, pesticides if crop dusting
B	areas where pesticide-carrying vehicles (tankers or farm application equipment) are habitually parked or washed	Possible pesticides/herbicides, fertilizers
B	auto paint centers at department stores	Possible solvents (paint thinners)
B	auto paint shops/radiator shops	Possible solvents, paint thinners, waste automotive fluids
B	auto repair shops with or without waste oil UST's	Possible UST's, waste oils, fluid disposal
B	boat builders/repairers/restorers	Possible lead from keel work
B	car dealerships	Possible UST's, waste fluid disposal
B	construction equipment/farm dealers, storage or servicing	Possible UST's
B	crop dusting facilities (public or private) (storage/mixing areas, plane parking areas)	Possible UST's, possible pesticides
B	exterminators and pest-control operations	Possible UST's, possible pesticides
B	fairgrounds	Possible UST's
B	farm co-ops/bulk agricultural chemical depots	Possible UST's, possible pesticides, herbicides, agricultural chemicals
B	farmsteads	Possible UST's
B	fleet-maintaining facility, especially trucking depots, cab services, and rental car agencies	Possible UST's
B	funeral homes	Possible UST's
B	furniture restorers/strippers	Used solvents

Risk Levels

A - Nothing generally expected

B - Potential exists

C - Likely or highly probable

COMMERCIAL SITES RECENTLY DEVELOPED (Within Last 5-10 Years) (Potentially Non-Benign)

Attachment 2

Risk Level	Potential Land Use	Comments
B	golf courses	Possible UST's
B	government offices (fire, police, ambulance, forest preserves, parks, conservation offices)	Possible UST's
B	greenhouses and (especially) nurseries	Possible UST's
B	hydraulic fluid/equipment supplier	Possible PCB's, spent fluid
B	hydroelectric plant sites (and former ones)	Lubricating oils for turbines, possible UST's for heating oil
B	landscapers/lawn care spraying operations	Possible UST's, herbicides
B	large composting or yard waste operations	Possible concentrated household agricultural chemicals
B	large private farm complexes that keep a stock of agricultural chemicals on-hand	Possible UST's, agricultural chemicals
B	mines and mining operations	Possible heavy metals and acid drainage
B	newspaper distributors	Possible UST's
B	newspaper graphic arts and painting shops	Possible solvents, heavy metals (from ink)
B	oil change shops	Possible UST's, waste fluids
B	post offices/Federal Ex/UPS depots	Possible UST's
B	railroad offices or signal yards	Possible spills, possible UST's for heating oil
B	school bus yards	Possible UST's
B	schools/colleges/churches/nursing homes/hospitals	Possible UST's
B	services/dairies/bakeries	Possible UST's
B	sign advertising material producers	Possible heavy metals
B	sites which may own small substations	Possible PCB's
B	soft drink/beer bottlers/food distributors, diaper/linen	Possible UST's
B	state/county/township/local highway department yard	Possible UST's
B	toll plazas	Possible UST's
B	transit barns, bus depots	Possible UST's

Risk Levels

- A - Nothing generally expected
- B - Potential exists
- C - Likely or highly probable

COMMERCIAL SITES RECENTLY DEVELOPED (Within Last 5-10 Years) (Potentially Non-Benign)

Attachment 2

Risk Level	Potential Land Use	Comments
B	underground oil/gas storage caverns	Possible oil leakage/spills
C	auto wrecking yards/junkyards/metal scrap yards	Possible heavy metals, waste fluids
C	bulk petroleum distributors/refineries	Possible UST's, spills
C	commercial laundries/linen services with cleaning plants on-site (also leather and fur cleaning)	Dry cleaning chemicals (may be in UST's) typically perchloroethylene (a.k.a. tetrachloroethylene)
C	deposition sites/landfills for sludge from industrial wastewater, treated human sewage, or ash from municipal solid waste	Possible heavy metals
C	drum or tank recyclers	Possible waste fluids, solvents
C	dry cleaners	Dry cleaning chemicals (may be in UST's) typically perchloroethylene (a.k.a. tetrachloroethylene)
C	gasoline stations (former) (past ones may not be on UST list)	Possible UST's
C	gasoline stations (present) (also all sites on the UST/LUST lists)	Possible UST's
C	landfills	Possibly anything
C	military armories/garages/any military installation	Possible UST's
C	oil recyclers	Possible leaks, spills, UST's
C	power substations	Risk reduced to "A" if PCB's are not suspected
C	radio transmitters	Risk reduced to "A" if PCB's are not suspected
C	railroad right-of-way yards	Possible UST's, spills, solvents
C	wood preserving operations	Various VOC's, heavy metals

Risk Levels

A - Nothing generally expected

B - Potential exists

C - Likely or highly probable

COMMERCIAL SITES RECENTLY DEVELOPED (Within Last 5-10 Years) (Potentially Non-Benign)

Attachment 2

Risk Level	Potential Land Use	Comments
B	any industry that may have bulk lubricants/fuel oil on-site	
B	battery manufacturers or recyclers	
B	pharmaceutical producers	
C	asphalt producers/paving companies/roofing tar operations	
C	coal gasification plants	
C	electronics manufacturers	
C	glass, mirror, and ceramics manufacturing	
C	heat exchanger manufacturers or any sites with older heat exchangers (operational or not)	
C	iron and steel manufacturing or smelters	
C	leather product manufacturing/tanning	
C	manufacturers of agricultural chemicals (also warehouses)	
C	metal fabrication/metal plating/tool die/machine shops (numerous degreasing solvents)	
C	metal forming, finishing, polishing operations	
C	paint or adhesive manufacturers/warehouses/painting contractors	
C	paper mills	
C	petrochemical plants, warehouses	
C	rubber or tire manufacturers	
C	synthetic fiber manufacturing	
C	textile mills and dyeing operations	
C	transformer manufacturers	

Risk Levels

A - Nothing generally expected

B - Potential exists

C - Likely or highly probable

INDUSTRIAL SITES (Sites Cannot be Screened Out)

Attachment 3