

SOLID WASTE REGULATIONS  
AND  
LANDFILL CASE STUDIES

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**SOLID WASTE :**

***Waste, including, but not limited to, Municipal, Residual, or Hazardous Waste, including solid, liquid, semisolid, or contained gaseous material.***

***Code Section 271. 1***

*PA Generates 3mit. TON/year  
6.4 lbs/person/day*

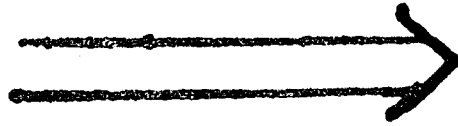
# MUNICIPAL WASTE

*Solid*

*Liquid*

*Semi-solids*

*Contained gaseous material*



*Residential*

*Municipal*

*Commercial*

*institutional.*

**EX:** • *Household garbage*

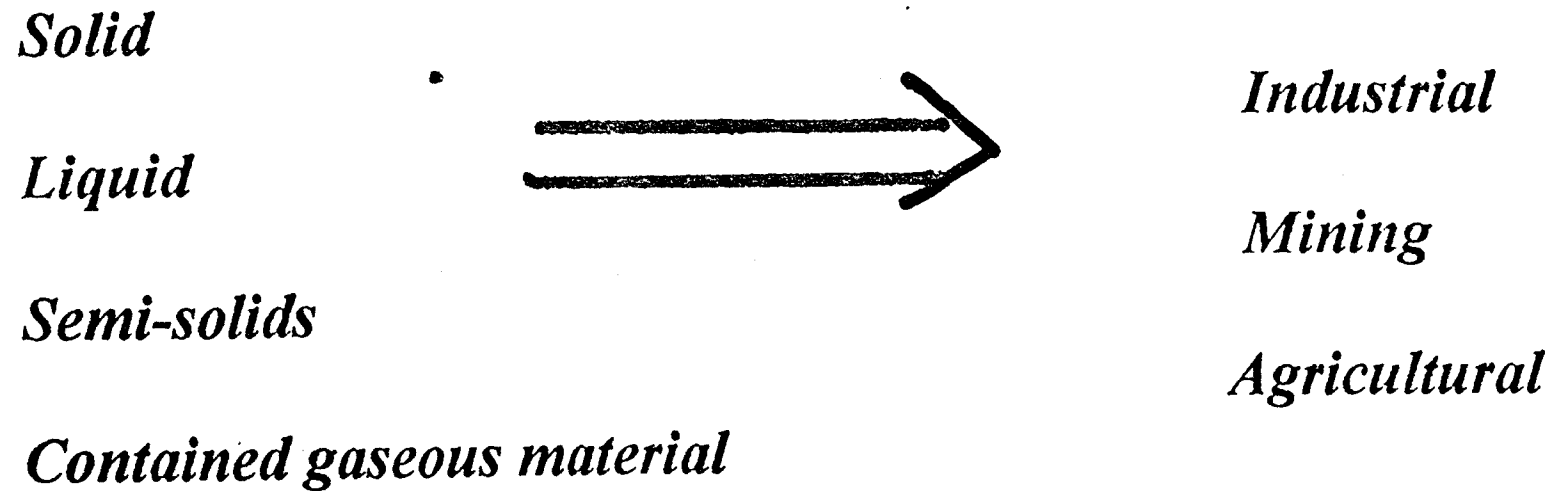
• *Recyclables*

• *Home Demolition Waste*

• *Furniture / Appliances / Lumber*

*NA = 10 mil / year*

## RESIDUAL WASTE

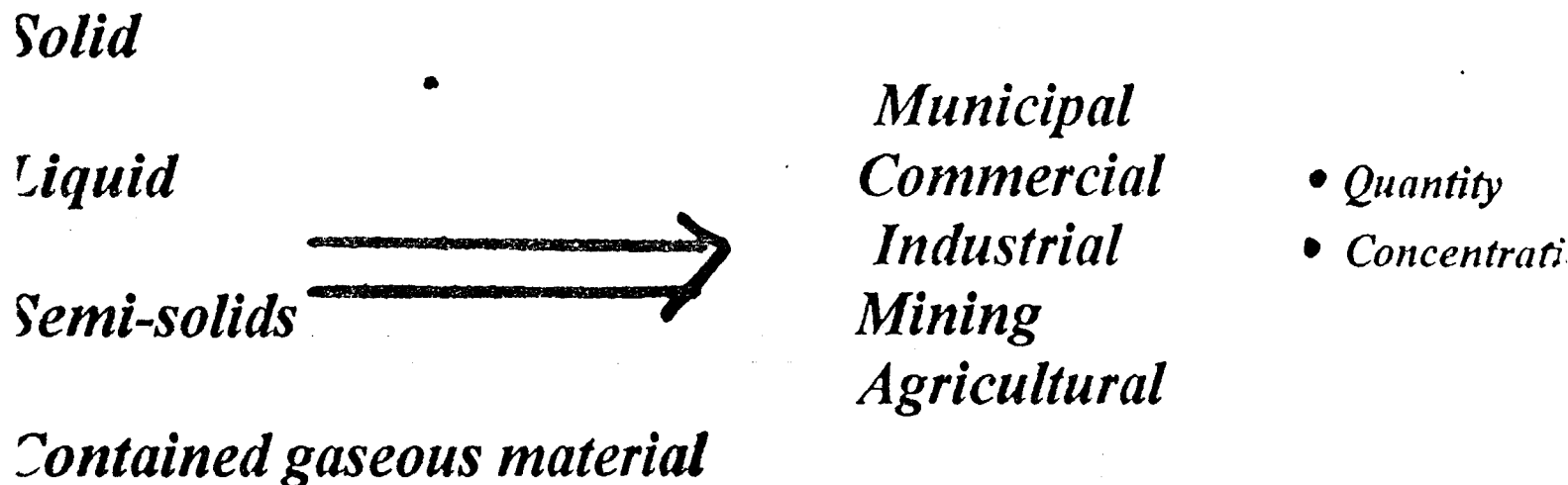


- EX:**
- *Fly / Bottom Ash*
  - *Slag*
  - *Foundry Sands*
  - *Sand Blasting Waste*
  - *Mill Scale / Sludges*

\*\* PA generates 18 million tons/yr

*40% of total = combustion residue*

# HAZARDOUS WASTE



\*\* PA is the 4th largest generator of Hazardous Waste at 750,000 tons/yr — NO SITES IN PA

Waste which Because of:

- QUANTITY
- Concentration
- Physical
- Chemical
- Infectious
- Characteristic

May Either:

- (1) ↑ mortality or morbidity = TOXIC
- (2) Pose Hazard to human health or ENV't due to: Ignitable, Corrosive, Reactive

# REGULATIONS IN REVIEW

1965 -- 1st Federal Solid Waste Statute

1968 -- Act 241 - Solid Waste Management Act

1976 -- RCRA - Resource, Conservation, & Recovery Act - Federal

1980 -- Fed. CERCLA - "SUPERFUND"

1980 -- Act 97 - Solid Waste Management Act

1988 -- Act 101 - MW WASTE PLANNING, RECYCLING & WASTE REDUCTION  
Act 108 - Hazardous Sites Cleanup

1988 -- Municipal Waste Regulations

1989 -- PA GOV EXEC ORDER  
1990 -- Hazardous Waste Regulations

1992 -- Residual Waste Regulations

## Process:

- Legislature develops Law  $\Rightarrow$  Act.
- PA DER drafts regulations
- Environmental Quality Board reviews.
- Draft regulations published for - public review  
Political & Commercial Industry
- Peer reviews + reviews  
EQB, Attorney General
- Final Approved By EQB - published, effective

PHASE I PERMIT APPLICATION  
REQUIREMENTS FOR ██████████ WASTE LANDFILLS

- FACILITY PLAN AND DESCRIPTION
- SITE MAPS WITH PHYSICAL FEATURES
- GEOLOGY AND GROUNDWATER DESCRIPTION
- GROUNDWATER QUALITY DESCRIPTION
- SOIL DESCRIPTION
- SURFACE WATER INFORMATION
- ALTERNATIVE WATER SUPPLY INFORMATION
- MINERAL DEPOSITS INFORMATION

PHASE II PERMIT APPLICATION  
REQUIREMENTS FOR ██████████ WASTE LANDFILLS

- OPERATION PLAN
- DETAILED SITE MAPS
- *Liner System*
- COMPACTION AND COVER **PLAN**
- REVEGETATION PLAN
- SOIL EROSION AND SEDIMENTATION CONTROL PLAN
- WATER QUALITY MONITORING PLAN
- GAS MONITORING AND CONTROL PLAN
- CONTINGENCY PLAN
- CLOSURE PLAN
- POST-CLOSURE LAND USE PLAN

## AREAS EXCLUDED FROM LANDFILL SITING

- WITHIN 100 YEAR FLOODPLAINS\*
- IN OR WITHIN 300 FEET OF AN EV WETLAND
- IN OR WITHIN 100 FEET OF WETLAND
- IN COAL-BEARING AREAS (UNLESS OPERATOR OWNS COAL)
- IN VALLEYS THAT IMPACT PERENNIAL STREAMS\*
- AREAS UNDERLAIN BY LIMESTONE >5 FEET THICK AS TOP ROCK
- WITHIN 300 TO 500 FEET OF AN OCCUPIED DWELLING (CAN BE WAIVED)\*
- WITHIN 100 FEET OF A PERENNIAL STREAM\*
- WITHIN 100 FEET OF PROPERTY LINE
- WITHIN 25 FEET OF COAL SEAM, OUTCROP, OR COAL REFUSE
- WITHIN 1/4 MILE UPGRADIENT AND 300 FEET\* DOWNGRADIENT OF PUBLIC OR PRIVATE WATER SOURCE (CAN BE MODIFIED)
- 5,000 - 10,000 FEET FROM AIRPORTS (PUTRESCIBLE WASTES ONLY)

- within 300yds of:  
School  
park  
playground