



White Paper

Risks Associated with Underground Fuel Storage Tanks (USTs) in Real Estate Transactions

Executive Summary

Underground fuel storage tanks (USTs) have long been used for storing petroleum and other hazardous substances at residential, commercial, and industrial properties. However, as these tanks age, they pose significant environmental, financial, and legal risks — particularly during property transfers.

This white paper outlines the composition, common failure modes, liability exposure, and due diligence strategies associated with USTs, helping buyers, sellers, and real estate professionals understand and mitigate risk.

1. Background and Overview

USTs are typically buried tanks used to store **heating oil, gasoline, diesel, or other petroleum-based fuels**. Commonly found at:

- Residential properties (for heating oil, especially pre-1980s homes).
- Commercial sites (auto repair shops, gas stations).
- Industrial facilities and municipal buildings.

Regulation:

- The U.S. Environmental Protection Agency (EPA) regulates USTs under **40 CFR Part 280**, primarily covering tanks containing petroleum or hazardous substances.
 - However, **residential heating oil tanks** used for on-site consumption are often **exempt from federal regulation**, though **state and local** rules still apply (e.g., NJDEP, MassDEP, etc.).
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2. Construction and Lifespan

Material	Common Installation Era	Typical Life Expectancy	Risk Factors
Bare Steel	1940s–1980s	10–30 years	Corrosion, leaks, unprotected soil contact
Fiberglass	1970s–present	30–50+ years	Cracks or joint failures from improper installation
Composite (steel + fiberglass)	1980s–present	30–50 years	Corrosion at steel sections, joint delamination
Plastic or poly tanks (aboveground/underground)	1990s–present	20–40 years	Deformation, root intrusion, UV degradation (if shallow)

Most older steel USTs **have exceeded their design life** and are at risk for corrosion and leakage.

3. Common Problems and Environmental Hazards

1. **Corrosion and Leaks** – Over time, moisture and soil acidity corrode bare steel tanks. Even small pinholes can release hundreds of gallons of fuel.
2. **Soil and Groundwater Contamination** – Petroleum leaks contaminate soil, groundwater, and vapor spaces, often requiring costly remediation.
3. **Vapor Intrusion** – Petroleum vapors can migrate into basements or buildings, posing health and explosion hazards.
4. **Unrecorded Tanks** – Many older homes have **abandoned, undocumented USTs** that were simply disconnected or filled, not removed properly.

5. **Regulatory Violations** – Lack of documentation or permits can complicate compliance with local environmental agencies.
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4. Real Estate Transaction Implications

a. Buyer Risks

- **Financial Exposure:** Cleanup of a leaking UST can cost **\$10,000–\$100,000+**, depending on contamination severity and groundwater impact.
- **Liability:** Under the federal **Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)**, a new owner can be held responsible for pre-existing contamination.
- **Financing Issues:** Many lenders and insurers will not proceed with closing until USTs are removed, tested, or certified as non-leaking.

b. Seller Risks

- **Disclosure Obligations:** Sellers must disclose known USTs, removals, and remediation. Failure to disclose can result in legal liability after closing.
- **Property Devaluation:** Active or leaking tanks can significantly reduce property value or delay sale.

c. Lender and Insurer Concerns

- Lenders may require **Phase I Environmental Site Assessments (ESA)** or **tank certifications** before underwriting loans.
 - Insurers often exclude pollution liability from standard homeowner or commercial policies.
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5. Due Diligence and Testing Protocols

Recommended actions in real estate transactions:

1. **Records Review:** Check property deeds, municipal files, and state UST databases for tank registrations or past removals.
 2. **Site Inspection:** Look for fill or vent pipes, patch marks, or disturbed soil near foundations or driveways.
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3. Non-Invasive Testing:

- Ground-penetrating radar (GPR)
- Electromagnetic (EM) surveys

4. **Tank Tightness Testing:** Used for in-use or suspected tanks.

5. **Soil Sampling:** Verify if petroleum contamination is present after removal.

6. **Removal and Closure:** Tanks must be removed or properly abandoned per **state and local codes**. Documentation should include excavation reports, disposal manifests, and lab test results.

6. Regulatory Landscape

- **Federal:** EPA's UST regulations (40 CFR 280) govern leak prevention, detection, and corrective action for regulated tanks.
- **State:**
 - Many states have their own UST programs (e.g., **NJDEP, MassDEP, NYDEC**) with stricter residential standards.
 - In New Jersey, for instance, **residential heating oil tanks** are overseen by the **NJ Department of Environmental Protection**, which requires proper closure and soil testing upon removal.
- **Local:** Municipal building and fire departments may also require permits and inspections.

7. Remediation and Cost Considerations

Type of Work	Typical Cost Range (USD)	Notes
UST Removal	\$2,000 – \$5,000	Depending on size and accessibility
Soil Testing	\$500 – \$2,000	Post-removal lab analysis

Type of Work	Typical Cost Range (USD)	Notes
Contaminated Soil Excavation	\$5,000 – \$30,000	Depending on volume and depth
Groundwater Remediation	\$20,000 – \$100,000+	For significant contamination
Documentation/Permitting	\$300 – \$1,000	Required for municipal approval

8. Risk Management Recommendations

For Buyers:

- Always conduct **environmental due diligence** before purchase.
- Request documentation of past tank removals and soil testing.
- Budget for possible removal or remediation.

For Sellers:

- Remove abandoned tanks before listing, and retain all closure reports.
- Disclose any known tanks or contamination to avoid post-sale litigation.

For Lenders and Agents:

- Require Phase I ESA or tank inspection reports as standard practice in older properties.
- Confirm compliance with state UST regulations before closing.

9. Conclusion

Underground fuel storage tanks represent one of the most significant **hidden environmental liabilities** in real estate. Even small residential tanks can lead to extensive cleanup costs, delayed transactions, or long-term legal exposure.

Proper **identification, testing, and documentation** are essential steps in managing this risk. Early detection and proactive removal not only protect buyers and sellers but also

ensure compliance with environmental law and maintain the integrity of real property investments.