Northeast Sustainable Communities Workshop

"Sustainability and Remediation"

June 18, 2009

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DUPONT®
The miracles of science™

Corporate Sustainability Principles

“Sustainable Growth” part of our core mission statement

Market-driven Science Company – make products that serve Sustainable concepts

- Photovoltaic cells – 10 different products serve industry
- Bio-based Fuel Development
- Sorona® - renewably-sourced polymer used as fabric

Reduce our “footprint”

- Renewable Energy targets
- Lower energy consumption while increasing production output
- Greenhouse Gas reductions

Remediation Sustainability Principles

Minimize or eliminate energy consumption

Minimize or eliminate ancillary environmental impacts from cleanups (e.g., carbon dioxide emissions to the air)

Preserve natural resources

Maximize the reuse of land and the recycling of other material

Encourage the use of remediation technologies that permanently destroy contamination

Remediation Sustainability Efforts

SURF – collaborative forum

- Public and private involvement
- Share learning's and experiences

Remedy Selection Tool

- Includes sustainability as an evaluation factor
- NOT used to "lessen" protectiveness as a factor
- Including sustainability as a goal can change thinking

Remedy Selection Table - Example

Remedy Evaluation Factors

Potential Remedies

	HH &E	Sources	Object've	Reliability	T, M, V	effectiveness	Implement'n	Cost	Community acceptance	State acceptance	Sustainability	
	when ined MNA	Yes, by treat-ment	Yes	High	High due to treatment	32 days 3,300 hours 8,5	Moderate	$$	Acceptable - pending public	Acceptable - pending review	CO_2 Eff Water	170 ton 0.003 130,000 gal
E vation & Site D sal	Yes, when combined with MNA	Yes, by removal	Yes	High	None	4,4 11				Acceptable - pending review	CO_2 Eff Water	250 ton 0.000 0 gal
nal De orption	Yes, when combined with MNA	Yes, by treat-ment	Yes	High	High due to treatment	7,1				Acceptable - pending review	CO_2 Eff Water	5,909 ton 0.008 0 gal
Soil Vapor Extraction	Yes, when combined with MNA	Yes, by treat-ment	Yes	High	High due to treatment	2 years 6,700 hours 17,000 miles	Moderate	$$	Acceptable - pending public notice	Acceptable - pending review	CO_2 Eff Water	160 ton 0.003 0 gal
Capping	Yes, when combined with MNA	Yes, by cover	Yes	Moderate	Moderate, eliminate mobility	13 days 820 hours 1,600 miles	Simple	$	Acceptable - pending public notice	Acceptable - pending review	CO_2 Eff Water	24 ton 0.000 0 gal

Sustainability

Measure each remedy for greenhouse gas generation, water consumption, and efficiency

Sustainable Redevelopment

Brownfields are inherently sustainable

Market-based approach – today's end users prefer sustainable developments

Sustainable Energy programs (solar, wind, etc.) typically match well with long-term site goals when traditional real estate demand is not robust