Subject Index

A

Adsorption
toxic pollutants, 13
zinc, marine clays, 50

Air emissions, contaminated dredged
materials, modeling, 227

Anchored sheet pile wall, 220

Areas of Concern
   Canadian Great Lakes, 112
   Great Lakes, 1
   Port Hope Harbour, 297
   potential, U. S., 1

Assessment and Remediation of
Contaminated Sediments Program, 145

B

Background concentrations, heavy metals, 58

Bathymetry, sediment characterization, 40

Bay sediments, heavy metal concentrations, 58

Biochemical oxygen demand, 136

Biodegradation, 145

Bioremediation, polychlorinated biphenyls, 155

Biostimulant, 155

C

Cement-bentonite cutoff wall, 252

Clamshell bucket, 112

Coal tar, seepage abatement, surface water bodies, 220

Compatibility, soil-bentonite slurry cutoff walls, 239

Compression, unconfined, 252

Compressive strength, unconfined, 136

Confined disposal facility, contaminant pathway control, 195

Containment, 1
   cement-bentonite cutoff wall, 252
   soil-bentonite slurry cutoff walls, 239

Contaminants
   dredged materials, air emission modeling, 227
   hazard/risk assessment, 306
   hydraulic isolation, 271
   management strategies, 289
   pathway control, 195
   releases during dredging, 128
   remediation, 297, 319
   removal by dredging, 77
   soil-bentonite slurry cutoff walls, 239
   toxic, 13

Contaminated Sediment Removal Program, 112

Cutoff wall
   cement-bentonite, 252
   soil-bentonite, 239, 271

D

Dechlorination, in-situ anaerobic, 155

Dehalogenation, reductive, 155

Design mix methodology, 239, 252

Diaphragm walls, 271

Diffusion, 271

Diffusive equilibration in thin-film, 170

Diffusive gradient in thin-film, 170

Dredged materials
   contaminated, 128, 289
      air emission modeling, 227
      pathway control, 195
     remediation, 319

Dredging, 289
   contaminant releases during, 128
cutterless suction, 182
   equipment, 77
   field studies, 77
   mercury-contaminated sludge, 182
   sediment characterization, 40
   solidification technique, 136
technologies, 1

E

Environmental media, 40

Environmental regulation, remediation, 319

Environmental restoration, 297

Equipment, dredging of contaminated sediments, 77

F

Fate, toxic pollutants, 13

Federal Navigation Project, 40

Fox River, Wisconsin, anaerobic dechlorination of PCBs, 155

Functional groups, 13

331
G
Great Lakes
Areas of Concern, 1
Canada, 112
regulatory approaches, 319

Hazard/risk assessment, contaminated sediments, 306
Heavy metals
adsorption, marine clays, 50
in bay sediments, 58
fate, 13
Port Hope Harbour, 297
removal efficiency, 145
Hydraulic conductivity, 252
Hydraulic isolation, contaminated sites, 271

I
Indiana Harbor, 40
Interlocks, sealed, coal tar seepage abatement, 220
Ion-exchange resin, 170
Iron oxide, marine clays, 50
Isolation, 1

James Bay Development Project, 252
Japan
heavy metal concentration, bay sediments, 58
Minamata Bay, mercury contamination, 182

L
Laboratory testing
cement-bentonite cutoff wall, 252
soil-bentonite slurry cutoff walls, 239, 271
Lachine Canal decontamination project, 306

M
Management strategies, 1
contaminated sediments, 289
Marine clays
pyrite oxidation, 50
zinc adsorption, 50
Mercury-contaminated sludge, dredging, 182
Minamata Bay, mercury-contaminated sludge treatment, 182
Minamata Disease, 182
Monitoring program, dredging, 128

N
Navigation projects, 40
Nutrients, dechlorination stimulation, 155

O
Oil products, soil-bentonite slurry cutoff walls, 239
Organic chemicals, fate, 13
Oxidation, pyrite, in marine clays, 50
Oxygen, dissolved, 136

P
Partitioning, 13
Pathways, contaminant control, 195
Permeability, 271
Persistence, toxic pollutants, 13
pH
change, pyrite oxidation in marine clays, 50
leachate from solidification, 136
Pilot-scale demonstrations, treatment technologies, 145
Plastic barrier, cement-bentonite cutoff wall, 252
Pneuma pump, 112
Pollution criteria, 1
degree of, 58
Polyacrylamide gel, metals measurement, 170
Polychlorinated biphenyls
in-situ anaerobic dechlorination, 155
Port Hope Harbour, 297
removal efficiency, 145
Polynuclear aromatic hydrocarbons, removal efficiency, 145
Pore water, trace metals, in-situ measurement procedures, 170
Port Hope Harbour Remedial Action Plan, 297
Pyrite, oxidation, in marine clays, 50
<table>
<thead>
<tr>
<th>Subject</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality criteria</td>
<td>306</td>
</tr>
<tr>
<td>Radioactive waste, low-level, remediation</td>
<td>297</td>
</tr>
<tr>
<td>Regulatory determinations</td>
<td>40</td>
</tr>
<tr>
<td>Regulatory strategies, remediation</td>
<td>319</td>
</tr>
<tr>
<td>Remediation</td>
<td>1, 289</td>
</tr>
<tr>
<td>contaminated sediments</td>
<td>319</td>
</tr>
<tr>
<td>Port Hope Harbour Remedial Action Plan</td>
<td>297</td>
</tr>
<tr>
<td>Removal technologies</td>
<td></td>
</tr>
<tr>
<td>clamshell bucket</td>
<td>112</td>
</tr>
<tr>
<td>pneuma pump</td>
<td>112</td>
</tr>
<tr>
<td>Resource Conservation and Recovery Act</td>
<td>40</td>
</tr>
<tr>
<td>Revetment</td>
<td>182</td>
</tr>
<tr>
<td>Risk assessment</td>
<td>306</td>
</tr>
<tr>
<td>Sediment characterization, bathymetry</td>
<td>40</td>
</tr>
<tr>
<td>Sediment disposal</td>
<td>182</td>
</tr>
<tr>
<td>Sediment resuspension</td>
<td>128</td>
</tr>
<tr>
<td>Sediment washing</td>
<td>145</td>
</tr>
<tr>
<td>Seepage, coal tar, abatement, surface water bodies</td>
<td>220</td>
</tr>
<tr>
<td>Selectivity</td>
<td>13</td>
</tr>
<tr>
<td>Sheet piling, coal tar seepage abatement</td>
<td>220</td>
</tr>
<tr>
<td>Site encapsulation</td>
<td>271</td>
</tr>
<tr>
<td>Slurry cutoff wall</td>
<td></td>
</tr>
<tr>
<td>cement-bentonite</td>
<td>252</td>
</tr>
<tr>
<td>soil-bentonite</td>
<td>239, 271</td>
</tr>
<tr>
<td>Soil-bentonite slurry cutoff walls</td>
<td>239, 271</td>
</tr>
<tr>
<td>Solidification technique, dredging</td>
<td>136</td>
</tr>
<tr>
<td>Solvent extraction</td>
<td>145</td>
</tr>
<tr>
<td>Storage capacity, of sediments</td>
<td>13</td>
</tr>
<tr>
<td>Sulfuric acid, produced by pyrite oxidation</td>
<td>50</td>
</tr>
<tr>
<td>Surface water bodies, coal tar seepage abatement</td>
<td>220</td>
</tr>
<tr>
<td>Surfactants, dechlorination stimulation</td>
<td>155</td>
</tr>
<tr>
<td>Suspended sediment</td>
<td>128</td>
</tr>
<tr>
<td>Suspended solid</td>
<td>136</td>
</tr>
<tr>
<td>Thermal desorption</td>
<td>145</td>
</tr>
<tr>
<td>Toxic pollutants, fate</td>
<td>13</td>
</tr>
<tr>
<td>Trace metals, in-situ measurement procedures</td>
<td>170</td>
</tr>
<tr>
<td>Treatment technologies</td>
<td>1</td>
</tr>
<tr>
<td>field demonstrations</td>
<td>145</td>
</tr>
<tr>
<td>Triaxial compression</td>
<td>252</td>
</tr>
<tr>
<td>Volatile organic compounds, air emissions from contaminated dredged materials</td>
<td>227</td>
</tr>
<tr>
<td>Water quality, contaminant release during dredging</td>
<td>128</td>
</tr>
<tr>
<td>Water Quality Act of 1987</td>
<td>145</td>
</tr>
<tr>
<td>Water Resources Development Act, Wisconsin, in-situ anaerobic dechlorination of PCBs</td>
<td>155</td>
</tr>
<tr>
<td>Zinc, adsorption, marine clays</td>
<td>50</td>
</tr>
</tbody>
</table>