Spill Reporting and Cleanup

Department of Environment and Natural Resources
Ground Water Quality Program

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24 hour on-call system for the reporting of spills and releases.

Oil and Chemical Spill/ Release Reporting

South Dakota DENR	National Response Center (24-hour)
(605) 773-3296 or	
(605) 773-3231	**1-800-424-8802**
(after hours).	

Oil and Chemical Spill/ Release Reporting

Discharges of regulated substances must be reported to the DENR **immediately**, pursuant to ARSD 74:34:01.

Reportable Quantities:

The discharge may impact surface or ground water;

The discharge may endanger human health or safety;

The discharge exceeds 25 gallons;

The discharge causes a sheen on water;

The discharge quantity meets the SARA Title III reportable quantity;

Surface water or ground-water standards are exceeded;

The discharge may threaten wildlife or aquatic life;

The discharge of crude oil in field activities conducted under SDCL chapter 45-9 is greater than 1 barrel (42 gal).

Regulated Substances Chapter 34A-12 and ARSD 74:34:01:03

- Pesticides and fertilizers
- Hazardous substances
- Contaminates and pollutants – Clean Water Act and Toxic Substance Control Act
- Radiological, chemical or biological warfare agents or radiological waste
- Substances on the "List of Lists" – (CERCLA) Comprehensive, Environmental Response, Compensation, and Liability Act
- Hazardous wastes – (RCRA) Resource Conservation and Recovery Act.

Specified Regulated Substances

- Petroleum, petroleum substances, oil, gas, diesel, kerosene, fuel oil, oil sludge, oil refuse, oil mixed with other wastes, crude oils, substances, or additives to be used in the refining or blending of crude petroleum or petroleum stock, and any other oil or petroleum substance. (Excludes sewage and sewage sludge).

DENR Actions

- Provide advice and direction on emergency response actions that may need to be taken.
  - stopping the release at the source;
  - evacuation of the area;
  - shutting off ignition sources;
  - containing the material with earthen berms, floor dry or sorbant materials.

DENR Actions

- Assist in obtaining information and resources to cleanup the release and dispose of contaminated material.
  - Environmental consulting firms/cleanup contractors
  - Permitted landfarm sites
  - Permitted landfills
  - EPA toxicologists
- Assist in complying with federal reporting requirements.

DENR Actions

- Evaluate initial release information to determine the party or parties most responsible for the release and contamination. (SDCL 34A-12-16)
- Notify and direct the responsible party(ies) of state requirements to assess and cleanup contamination to state standards (SDCL 34A-12 and ARSD 74:34:01).
- Coordinate with other state and federal agencies (DOT, DOA, USFW, EPA) on cleanup requirements.

Other Actions

- If necessary the department may obtain court orders or begin legal actions to require the responsible party to comply with state requirements.
- SDCL 34A-12-14 outlines the conditions the Department Secretary can expend funds from the Regulated Substance Response Fund to hire consultants, contractors, excavators, etc., to secure the site or conduct cleanup actions.

Regulated Substance Response Fund

- DENR has never used the Regulated Substance Response Fund to assess or cleanup a petroleum release from a pipeline.
- SDCL 34A-18-8 outlines that a crude oil pipeline will implement response to a spill regardless of the cause or the party responsible for the release.

Guidance/Resources

- Handbook For Reporting, Investigating, and Remediating Petroleum Releases in South Dakota
- Annual Ground Water Quality Conference

"The Handbook"

- Reporting Requirements
- Steps to take after a release occurs
- Tier Assessments
  - Tier I
  - Tier II
  - Tier III
- Corrective Action Requirements
  - Excavation
  - Soil Vapor Extraction
  - Air Sparging
  - Biosparging
  - Monitored Natural Attenuation
- Closure

Typical Actions Required

- Soil testing to identify the extent of contamination
- Installation of ground water monitoring wells
- Excavation
- Soil venting and sparging
- Product recovery trenches
- Replacement of utilities
- Relocation of utilities or wells

Risk Based Corrective Action (RBCA)

Assessment and Cleanup Process

Receptors and Pathways

- Aquifers
- Non-Aquifers
- Receptors
  - –water lines
  - –sewer lines
  - –basements
  - –drinking water wells
  - –surface waters

Risked Based Corrective Action (RBCA)

- Tier I Levels (soils)
  - Benzene .2 ppm
  - Toluene 15 ppm
  - ethylbenzene 10 ppm
  - xylene 300 ppm
  - naphthalene 25 ppm
  - TPH 500 ppm (trigger level only)

Ground Water Quality Standards

- Benzene .005 ppm
- Toluene 1 ppm
- ethylbenzene .7 ppm
- xylene 10 ppm
- naphthalene 20 ppm (based on health advisory numbers)
- TPH 10 ppm or .1ppm (in a wellhead protection area)

Other Risk Based Guidance

- EPA developed risk based screening levels
  - Soil
  - Water
  - Vapor impacts to indoor air
  - Soil to ground water leaching levels

Risk - Risk - Risk

A site may be closed or assigned a No Further Action Status even if contamination remains.

Closure/No Further Action

- Standard Closure
  - no receptors
  - ground water and soil contamination below standards
- No Further Action
  - no receptors
  - ground water concentration above standards but level are stabilized or decreasing
  - not a wellhead protection area

Environmental Events Database

- Documentation of spill location, response activities, responsible party, consultant, assessment and cleanup data and the status of the project.
- Documentation of "clean" properties also included in database.
- Searchable database or hard copies of files available upon request.
- Web site: www.state.sd.us/spills