

APPENDIX H
SOURCE REDUCTION AND RECYCLING
RESOURCES

NOTES

SOURCE REDUCTION AND RECYCLING RESOURCES

RAILROAD COMMISSION OF TEXAS, OIL AND GAS DIVISION

Waste Minimization Program

The Railroad Commission's Waste Minimization Program offers the following products and services to help oil and gas operators in their waste minimization efforts.

- The manual, Waste Minimization in the Oil Field
- Waste Minimization Workshops
- Technology Transfer on Request
- Service Company and Vendor Information
- On-Site Assistance in Waste Minimization Planning

Visit the **Waste Minimization Program Page** on the **Railroad Commission Web Site** at www.rrc.state.tx.us. The Waste Minimization Program page provides several documents on waste minimization for the various oil and gas operational areas and the *WasteMin* software described below above.

WasteMin, a Waste Minimization Planning Tool

The Waste Minimization Program offers ***WasteMin***, a waste minimization planning software. *WasteMin* is a Windows-based program for operators to use in developing an inventory and minimization plan for wastes generated in a specific area of operation. Multiple plans may be created using *WasteMin*. An added feature of *WasteMin* is a searchable database of technical references (e.g., Society of Petroleum Engineers papers) which provide waste minimization techniques for a wide variety of oil and gas wastes. *WasteMin* may be downloaded from the Waste Minimization Program page on the Railroad Commission's internet web site (see below). Contact the Waste Minimization Program to obtain *WasteMin* on diskettes (a nominal charge is required to cover costs for diskettes, mailers, and postage).

To contact the Waste Minimization Program call **Bart Sims at (512) 463-5405** or send e-mail to bart.sims@rrc.state.tx.us. Or write to:

Railroad Commission of Texas
Oil and Gas Division
Waste Minimization Program
P.O. Box 12967
Austin, Texas 78711-2967

Railroad Commission-Permitted Crude Oil Reclamation Plants

The Railroad Commission maintains a list of permitted crude oil reclamation plants (Statewide Rule 57). For information call:

Reclamation Plant Permits
Phone: (512) 463-6818

Railroad Commission Books, Manuals, Documents, and Subscriptions

The Railroad Commission publishes many documents of interest to oil and gas operators. A list of available Railroad Commission publications is available on the Commission's web site. For information on ordering available manuals, books, or other documents call:

Administrative Services Division
Phone: (512) 463-7255

OTHER STATE OF TEXAS AGENCIES

Texas Natural Resource Conservation Commission*

Small Business and Environmental Assistance Division
Office of Pollution Prevention & Recycling
P.O. Box 13087
Austin, TX 78711-3087

Phone: (512) 239-3100, or

Call the Recycling Hotline at 1-800-64TEXAS

Visit the TNRCC Web Site at **www.tnrcc.state.tx.us**.

The Texas Natural Resource Conservation Commission (TNRCC) offers Recycle Texas on their web site at www.tnrcc.state.tx.us (look under "R" using the agency "Index"). Recycle Texas lists companies that recycle a wide variety of wastes. This service is helpful in finding options for recycling oil and gas wastes. A hard copy of Recycle Texas may be ordered by calling the TNRCC toll free at 1-800-447-2827 (or 512-239-3100), or send e-mail to recycle@tnrcc.state.tx.us.

Also, TNRCC maintains a waste exchange named RENEW (Resource Exchange Network for Eliminating Waste). The network is a marketing channel for industries, businesses, and governmental units that want to sell surplus materials, by-products, and wastes to users who will reclaim or reuse them. RENEW is also available on the TNRCC web site (see location given above). A subscription to RENEW may be made by calling 1-800-447-2827 (or 512-239-3171).

The TNRCC also maintains a list of registered facilities that transport, store, process, and/or market used oil and used oil filters for recycling. This list of recycling facilities

is updated periodically and is available through the TNRCC or the Commission's Waste Minimization Program. Information on registered used oil and used oil filter recyclers may be obtained by calling TNRCC's Registration and Reporting section at (512) 239-6413.

Texas Department of Health

1100 West 49th Street
Austin, TX 78756

Phone: (512) 458-7111

OTHER STATES' PROGRAMS

Alaska Department of Environmental Conservation

The Alaska Department of Environmental Conservation has published three documents which offer waste minimization assistance to the oil and gas industry. "Pollution Prevention Opportunities for the Oil Field Service Industry" (1994) is a guide directed toward oil and gas service company activities. Alaska has also published the report, "Oily Water Recycling Systems Used by Oil Field Service Companies in Deadhorse, Alaska" (1992). For drilling and production operations, Alaska has published, in association with the Pacific Northwest Pollution Prevention Research Center, Pollution Prevention Opportunities in Oil and Gas Production, Drilling, and Exploration (1993). The waste minimization techniques discussed in these publications address operations in Alaska (i.e., the North Slope). However, they offer numerous waste minimization tips that can be applied in any geographic area.

Judd Peterson
State of Alaska
Dept. of Environmental Conservation
Division of Environmental Quality
Pollution Prevention Office
555 Cordova Avenue
Anchorage, Alaska 99501

Phone: (907) 269-7684
Fax: (907) 269-7655

New Mexico Oil Conservation Division

The New Mexico Oil Conservation Division (NMOCD) has published "Pollution Prevention Best Management Practices," which is comprised of two volumes. Volume 1 addresses the pollution prevention systems approach, pollution prevention opportunities (i.e., waste minimization, and tools for developing an effective pollution prevention plan). Volume 2 provides non-process specific information for wastes generated by various oil field operations. Volume 2 focuses on waste treatment and disposal, and end-of-pipe recycling opportunities. "Pollution Prevention Best

Management Practices” includes some regulatory summaries specific to New Mexico; however, the publication is a good tool for oil and gas operators in any state.

For information regarding “Pollution Prevention Best Management Practices” and other NMOCD information contact:

Martyne Kieling
New Mexico Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Phone: (505) 827-7153
Fax: (505) 827-8177
E-mail: mkieling@state.nm.us

Also, visit the NMOCD web site at www.emnrd.state.nm.us/ocd/.

Oklahoma Corporation Commission

The Oklahoma Corporation Commission (OCC) has published two booklets. The first booklet, “Oilfield Pollution Prevention,” provides oil and gas waste minimization tips. The second booklet, “Pollution Prevention at Exploration and Production Sites for Erosion and Pollution Control,” discusses construction methods for roads and pads, which reduce sedimentation from stormwater runoff.

For information on the OCC publications contact:

Carl Solomon
Oklahoma Corporation Commission
Jim Thorpe Building, Room 460
Oklahoma City, Oklahoma 73105

Phone: (405) 521-2426
Fax: (405) 521-6045

FEDERAL AGENCIES AND PROGRAMS

EPA’s Natural Gas Star Program

An additional source for waste minimization techniques in natural gas treating and processing operations is the EPA Natural Gas STAR Program. The Natural Gas STAR Program is a voluntary government/industry partnership designed to accomplish environmental protection through **cost-effective** measures without regulation. The program was started in March of 1993 and it encourages natural gas companies to adopt “best management practices” that can reduce methane emissions.

Natural Gas STAR Partners sign a Memorandum of Understanding (MOU) with EPA agreeing to review and implement “best management practices” as appropriate. The

company then implements the plan over the next three years. The EPA supports the partners by assisting in training, analyzing new technologies, and removing unjustified regulatory barriers.

The Natural Gas Star web site at www.epa.gov/gasstar/ is an excellent source of information. Also, more information on the Natural Gas Star Program can be obtain by contacting the program at (202) 564-9793 or (202) 564-9736.

Natural Gas Star
U.S. EPA APPD (6202J)
401 M Street, SW
Washington, DC 20460

U.S. Environmental Protection Agency (EPA)

U.S. EPA, Region 6
Hazardous Waste Management Div.
Interfirst Two Building
1201 Elm Street
Dallas, TX 75270

Phone: (214) 665-6444

For answers to questions about hazardous waste regulation and other EPA regulatory programs call the **EPA RCRA Hotline** at **(800) 424-9346** *Toll Free*.

Department of Transportation (DOT)

Federal Highway Administration
Office of Public Affairs
HOA-1
400 7th Street SW
Washington, DC 20590

Phone: (202) 366-0660

Government Printing Office

Superintendent of Documents
Washington, DC 20402

Phone: (202) 783-3238

NATIONAL ORGANIZATIONS

Interstate Oil and Gas Compact Commission

The Interstate Oil and Gas Compact Commission (IOGCC) has adapted the Railroad Commission's manual, "Waste Minimization in the Oil Field," for use in all oil and gas producing states in the U.S. The IOGCC manual is titled "Guidelines for Waste Minimization in Oil and Gas Exploration and Production." IOGCC published the manual with grant assistance from the U.S. Department of Energy. IOGCC also has produced a companion waste minimization video that is about 40 minutes in length. The video is a shortened version of the Waste Minimization Workshop sponsored by the IOGCC.

For information on IOGCC programs and publications call (405) 525-3556, or send e-mail to **iogcc@iogcc.state.ok.us**. IOGCC's Internet web site is located at **www.iogcc.state.ok.us**.

Gas Research Institute

The Gas Research Institute (GRI) is headquartered in Chicago and manages a cooperative research, development, and commercialization program for the mutual benefit of the natural gas industry. GRI works with research organizations, manufacturers and its member companies to develop gas technologies and to transfer new products and information to the marketplace. GRI members also help transfer research results to the marketplace in the form of new products, tools, techniques, and information. The added participation of equipment manufacturers, service companies, major energy users, and government agencies enhances the effectiveness of the program.

GRI has published studies of waste generation and management in the natural Gas industry. "Waste Minimization in the Natural Gas Industry: Regulations, Methodology, and Assessment of Alternatives" is of particular interest. This publication provides a thorough overview of waste generation in the industry and methods for minimizing many of the waste streams.

Gas Research Institute
8600 West Bryn Mawr Avenue
Chicago, Illinois 60631-3562

Phone: (773) 399-8100
Internet: **www.gri.org**

American Petroleum Institute

The American Petroleum Institute (API) has established a program called "Strategies for Today's Environmental Partnership," called STEP. A component of STEP is compiling pollution prevention ideas, which should include source reduction and recycling options for the exploration and production industry. You can contact API's STEP by calling (202) 682-8468.

API has published several documents that are useful to your waste minimization efforts. One publication, "Environmental Guidance Document: Waste Management in Exploration and Production Operations," is particularly useful. API also has published a document that illustrates methods for measuring pollution prevention, as well as free pamphlets on pollution prevention. API will provide a catalog of publications. API publication sales may be contacted at:

American Petroleum Institute
Order Desk
1220 L Street, N.W.
Washington, D.C. 20005

Phone: (202) 682-8375
Fax: (202) 682-4776
E-mail: **publications@api.org**

Information on API programs and publications is also available on the internet at **www.api.org**.

"Keepin' It All Clean in the Oil Patch"

The National Environmental Training Association (NETA) has published waste minimization materials for the oil and gas exploration and production industry. The "Keepin' It All Clean in the Oil Patch" project produced: a sturdy "field guide" of waste minimization tips for use in the field; a "train-the-trainer" manual for use in developing an in-house training program; and a short video (produced by ARCO) that is a good waste minimization primer. The project was overseen by technical committees represented by industry and state regulatory agencies.

Funding for the "Keepin' It All Clean in the Oil Patch" project was provided by the U.S. EPA Office of Solid Waste and Emergency Response, with additional support from the American Petroleum Institute and the Gas Research Institute.

The field guide, train-the-trainer manual, and video may still be available from NETA. NETA provides the materials to independent companies at no charge. Major oil companies are charged a nominal fee.

National Environmental Training Association
2930 E. Camelback Rd., Ste. 185
Phoenix, Arizona 85016-4412

Phone: (602) 956-6099
Fax: (602) 956-6692

UNIVERSITIES AND COLLEGES

Gulf Coast Hazardous Substance Research Center (GCHSRC)

Dr. William Cawley
Lamar University
P.O. Box 10613
Beaumont, TX 77710

Phone: (409) 880-8707 or 8768

Other Texas colleges and universities that are members of GCHSRC:

University of Texas - Austin
University of Texas - Arlington
Texas A&M University
University of Houston

Environmental Institute for Technology Transfer (EITT) **University of Texas - Arlington**

Dr. Gerald Nehman, Director
Dr. Victorio Argento, Associate Director
P.O. Box 19050
Arlington, TX 76019

Phone: (817) 273-2300

Center for Environmental Technologies Texas Tech University

Dr. John R. Bradford
P.O. Box 43121
Lubbock, TX 79409-3121

Phone: (806) 742-1413

LIBRARIES

Railroad Commission of Texas

Susan Bains Rhyne
William B. Travis Building, 12th Floor
1701 North Congress
Austin, Texas

Phone: (512) 463-7160

Environmental Protection Agency, Region 6

U.S. EPA, Region 6
Library
Interfirst Two Building
1201 Elm Street
Dallas, TX 75270

Phone: (214) 665-6444

Universities and Colleges

Refer to universities and colleges listed on the preceding page. Also, the universities or colleges in your area may have waste minimization and management references.

INDUSTRY ASSOCIATIONS AND SOCIETIES

Note: The following contact information may change with time. Contact the Railroad Commission's Waste Minimization Program (see page H-1) if you have difficulty contacting any listed association or society.

American Association of Drilling Engineers

3300 Bingle Road
Houston, Texas 77055
(713) 895-7575, FAX 895-7586

American Gas Association

1515 Wilson Blvd.
Arlington, VA 22209
(703) 841-8400

American Petroleum Institute (API)

API Production Department
1201 Main Street, Suite 2535
Dallas, Texas 75202-3904

Association of Oil Pipe lines

1725 K St., Ste. 1205
Washington, DC 20006
(202) 331-8228

Association of Oilwell Servicing Contractors

6060 N. Central Expy., Ste. 428
Dallas, Texas 75206
(214) 692-0771

Association of Texas Intrastate Natural Gas Pipelines

604 West 14th Street
Austin, Texas 78701
(512) 478-2871

Chemical Marketing Association

11601 Katy Fwy., Ste. 223
Houston, Texas 77079
(713) 497-6202

East Texas Producers and Royalty Owners Association

P.O. Box 1700
Kilgore, Texas 75663
(903) 984-8676

Gas Processors Association

6526 East 60th Street
Tulsa, OK 74145-9247
(918) 493-3872

Gas Research Institute (GRI)

8600 West Bryn Mawr Avenue
Chicago, Illinois 60631
(312) 399-8333

International Association of Drilling Contractors (IADC)

P.O. Box 4287
Houston, Texas 77210
(713) 578-7171

Luling Oil Producers and Royalty Owners, Inc.

P. O. Box 962
Luling, Texas 78648
(830) 875-3135

National Association of Royalty Owners

P. O. Box 920
Ada, Oklahoma 74821
(580) 436-0034

National Solid Wastes Management Association

1730 Rhode Island Ave NW, Ste. 1000
Washington, DC 20036

National Stripper Well Association

10077 Grogan Mill Road, Ste. 200
The Woodlands, Texas 77380
(281) 364-7037

North Texas Oil & Gas Association

726 Scott Street, Ste. 801
Wichita Falls, Texas 76301
(940) 723-4131

Panhandle Producers & Royalty Owners Association

2201 Civic Circle, Ste. 500
Amarillo, Texas 79109-1843
(806) 352-5637

Permian Basin Petroleum Association

P.O. Box 132
Midland, Texas 79702
(915) 684-6345

Petroleum Equipment Suppliers Association

9225 Katy Fwy., Ste. 310
Houston, Texas 77024
(713) 932-0168

Society of Petroleum Engineers

222 Palisades Creek Drive
P.O. Box 833836
Richardson, Texas 75803-3836
(214) 669-3377

Society of Piping Engineers & Designers (SPED)

One Main Street
Houston, Texas 77002
(713) 221-8090

Texas Association of Environmental Professionals

P.O. Box 385533, Ste. 302
Houston, Texas 77238

Texas Gas Association

1111 IH 35 North, Ste. 200
Round Rock, Texas
(512) 388-4000

Texas Independent Producers & Royalty Owners Association (TIPRO)

515 Congress Avenue, Suite 1910
Austin, Texas 78701
(512) 477-4452

Texas Oil & Gas Association

304 West 13th Street
Austin, Texas 78701-1823
(512) 478-6631

Texas Mining & Reclamation Association

314 Highland Mall Blvd., Ste. 251
Austin, Texas 78752
(512) 467-1300

Texas Oil Marketer's Association

701 W. 15th St.
Austin, Texas 78701
(512) 476-9547

Texas Society of Professional Engineers

1303 Sherwood Forest
Houston, Texas 77043
(713) 659-2283

West Central Texas Oil & Gas Association

P.O. Box 2332
Abilene, Texas 79604
(915) 677-2469