

CLOSED Loop

Fall 2001

ISA and IWRC

present on Environmental Management Systems

By Marci Carter

Iowa Waste Reduction Specialist

On August 11, 2001 Roger Wolf of the Iowa Soybean Association (ISA) and Marci Carter of the Iowa Waste Reduction Center (IWRC) presented on environmental management systems (EMS) at the Midwest Soybean Conference.

Wolf discussed current environmental trends and perceptions of Iowa producers regarding resource management. He demonstrated by presenting the results of a survey where over 90 percent of the producers responded that they had a good understanding of resource management needs on their farms, and 70 percent responded that they have adopted the practices that they need. When Wolf asked the audience the same questions, the results were significantly lower than those previously indicated by the survey results. Thus, while many producers feel they are doing a good job of resource management, they lack adequate ways to prove it. Wolf had several slides that described the emerging environmental trends programs and policies emerging at local, regional and national levels. He speculated how these trends will con-

tinue to have an impact on production agriculture. Such trends included hypoxia in the Gulf of Mexico, proposed new water quality standards (nutrient criteria), proposed strategies for Animal Feeding Operations/Confined Animal Feeding Operations (AFO/CAFO), source water protection and 303(d) impaired waters and implication involving Total Maximum Daily Loads. The consensus was, obtaining improvements in nonpoint source pollution will likely involve greater reliance on regulations, which will undoubtedly have a large impact on costs of production and producers ability to operate freely.



In order to have reasonable regulatory requirements, scientifically defensible data will be required. Collecting meaningful data becomes extremely

important when making a case to regulators and helping producers make good environmental decisions. Producers should be able to quantify their environmental efforts and also receive credit for their enhanced environmental performance. Policy should be developed on a science-based approach, one that everyone involved (producers and regulators) could afford and work with.

Wolf also highlighted information about ISA's proposed pilot initiative called Certified Environmental Management Systems for Agriculture (CEMSA). The objective of the three-year initiative is to design, develop, implement and evaluate a systematic framework with 150 top Iowa producers that integrates and aligns environmental objectives with the business of farming. This will be a voluntary process modeled after the ISO 14001 EMS framework and will include a continuous cycle of planning, implementing, reviewing and improving actions for higher performance. The project will integrate production technology research for technical transfer helping capture efficiencies in farm management. The end result creates valuable added oppor-

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Cradle to Grave

Managing your Solvent Management Service

By Sue Sommerfelt
Iowa Waste Reduction Specialist

Solvent parts cleaning is the most common technique used to clean automotive parts. Most solvents exhibit a flashpoint below 140 degrees Fahrenheit or contain contaminants that cause it to

become toxic. Those solvents become an ignitable or toxic hazardous waste once they are no longer useable as a cleaning fluid and require disposal. Managing hazardous waste (spent solvent) has a significant impact on the total amount of hazardous waste generated at the facility directly affecting the level of regulation.

Many shops use a solvent management service. Some services claim that the solvent is their waste once it is spent. Unfortunately, the Environmental Protection Agency (EPA) does not agree. The EPA, the governing body for hazardous waste in the state of Iowa, says that solvent used and removed from a facility is, in fact, a waste generated by that facility. The waste is subject to the regulation for hazardous waste under the Resource Conservation and Recovery Act (RCRA).

Does your solvent management company routinely list a full barrel of waste solvent when they change out your parts washer? If so, the amount of hazardous waste generated at your facility may be grossly overstated.

A parts washer sink sitting on a 55-gallon drum would be about 2/3 full of solvent (38-45 gallons); thus there is room for the pump to reside in the barrel. Dirty solvent weighs approximately

7.2 pounds per gallon. By overstating the generation rate of spent solvent (i.e., reporting 55 gallons rather than actual volume remaining in the drum) an additional 72-122 pounds of hazardous weight appears to have been generated at the facility at each pick-up. When someone at the facility signs the hazardous waste manifest, they are certifying the amount generated.

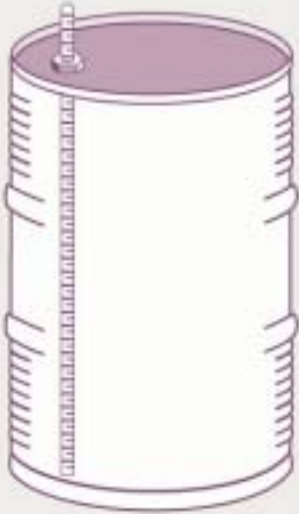
The amount of hazardous waste generated each month and stored on-site at the facility determines the Generator Status of the facility. The Generator Status directly dictates the level of regulation for the facility. A Conditionally Exempt Small Quantity Generator (CESQG) can generate up to 220 pounds of hazardous waste in a month. A Small Quantity Generator (SQG) can generate from 220 to 2,200 pounds per month. Additionally on site storage limitations also apply.

A 30-gallon barrel of solvent weighs approximately 216 pounds. A barrel that is only 2/3 full containing 22 gallons of solvent weighs about 158 pounds. The difference in the actual amount generated and the routine practice of manifesting full barrels off-site could exclude some facilities from the CESQG regulatory category that is regulated the least.

So manage your solvent by managing your solvent management service. Ask for an accurate weight estimation of your spent solvent and don't sign a manifest that is not accurate. Contact the Iowa Waste Reduction Center, 1-800-422-3109, for free and confidential waste management assistance.

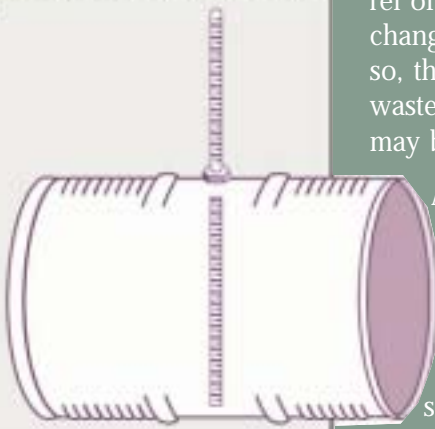
Estimating Contents of a Vertical Drum

Inches	Gallons
31	51
30	52
29	50
28	46-1/2
27	47
26	45
25	43-1/2
24	41-1/2
23	40
22	38
21	36-1/2
20	34-1/2
19	33
18	31-1/2
17	29-1/2
16	27-1/2
15	26
14	24-1/2
13	22-1/2
12	21
11	19
10	17-1/2



Estimating Contents of a Horizontal Drum

Inches	Gallons
20	55
19	53-1/2
18	50
17	47-1/2
16	44-1/2
15	41-1/2
14	38-1/2
13	35
12	32
11	28-1/2
10	25
9	22
8	18-1/2
7	15-1/2
6	12-1/2
5	9-1/2



EMS

(continued from front page)

tunities such as aggregation of data and producer certification.

Carter discussed the components of an ISO 14001 EMS and the benefits of implementation. There are several components of an EMS, which fall under the general headings of the plan, do, check and act cycles. Planning involves understanding the environmental goals of the organization and the steps needed to move toward these goals.

There are many advantages to implementing an environmental management system (EMS). An EMS provides a systematic approach for managing environmental issues. It enhances the integration of tools, programs and systems already in use in an organization. It also eliminates redundancy. Under an EMS, producers could include existing programs such as conservation plans and manure management plans.

An EMS increases efficiency and profitability by providing a structure to ensure goals and objectives are being met, and a system to evaluate cost and reduces unne-

cessary expenditures. Financial considerations are beginning to be given to organizations implementing EMS through lower insurance rates and lower interest rates on loans. An EMS can also improve stakeholder relationships.

Stakeholders for producers can include regulators, insurance companies, lending institutions, neighbors and customers. An EMS provides for effective communication by making a statement about the environment and building trust through communication. For example, one Australian producer credits a new and substantial contract to the existence of his EMS.

ISA's environmental program can assist growers by providing information and service to them. The CEMSA project is just one of the new emerging programs that can add value to growers through improving environmental performance, giving credit to producers for that improved performance, collecting scientifically defensible data and helping shape environmental regulations.

For more information contact Roger Wolf at rwolf@iasoybeans.com or Marci Carter at marci.carter@uni.edu.

DNR Releases Asbestos Video Regulating Compliance Video

"Asbestos the Miracle Mineral: Complying with the Asbestos NESHAP" video includes remodeling, demolition, training fires and asbestos NESHAP regulations.

The Department of Natural Resources (DNR) has released a new 30-minute video helping businesses comply with asbestos NESHAP rules and regulations. The video's highlights show businesses how to get the most from hired asbestos removal contractors while avoiding the most common mistakes and violations.

"The video helps people avoid noncompliance by providing a good overview of the asbestos program and assisting filing demolition and renovation paperwork correctly," said DNR's asbestos coordinator, Marion Burnside. "It helps those who hire asbestos abatement companies ensure they get what they pay for."

Included in the video:

- ❖ What constitutes inspecting
- ❖ Measuring and classifying asbestos materials

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Components of an EMS

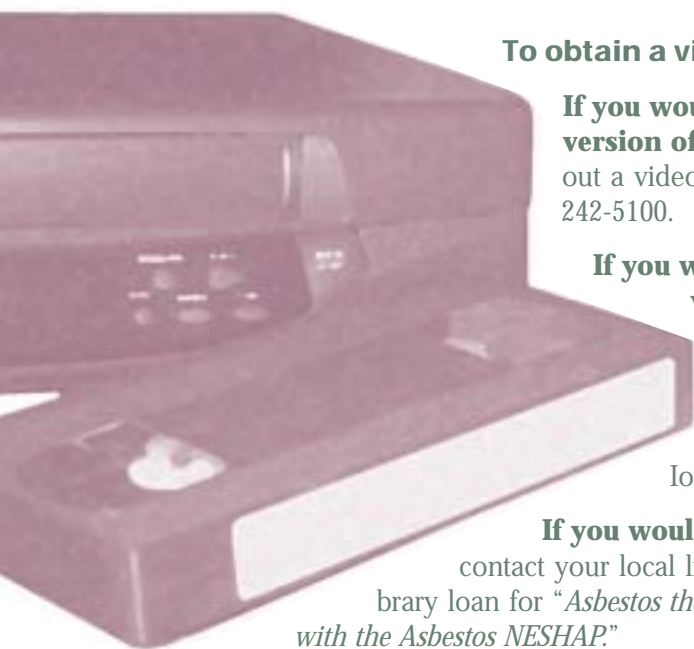
1 Planning The creation of an environmental policy statement which reflects the attitude of the organization toward the environment, identifying aspects or activities of the organization that have an environmental impact and rating those aspects according to their significant environmental impact. For example, typical aspects for a row crop producer would include tillage, nutrient	management and water runoff. Once an organization understands the impact its activities have on the environment, it can establish objectives and targets to change those impacts.	an organization and with outside interested parties such as neighbors, regulators, and customers, documentation and record keeping and emergency preparedness and response.	actions taken to correct and prevent occurrences of nonconformance; and finally, periodically auditing the system.
2 Do Establishes the programs and resources to achieve the desired results. This includes setting up structure and responsibility, training, communication both within		3 Check The system is evaluated to ensure goals are being met. This includes monitoring and measurement of objectives and targets, identifying nonconformance and the	4 Act Improves the system when and if it is needed through periodic reviews of the system, reviewing audit results, nonconformance and corrective actions, tracking progress of objectives and targets and reviewing any communications can improve the system.

NESHAP Video

(continued from previous page)

- ❖ Proper filing of renovation and demolition notification forms
- ❖ Illustrations of differences between demolition, renovation and classification

If you have any questions regarding the asbestos program, contact Marion Burnside at (515) 281-8443.



To obtain a video:

If you would like to obtain your own version of the video you may check out a video by calling the DNR at (515) 242-5100.

If you would like to purchase the video, send a \$5.00 check, made payable to Iowa DNR, to Anita Petty, DNR Air Quality, 7900 Hickman Road Suite 1, Urbandale, Iowa 50322.

If you would like to borrow the video, contact your local library to ask for an interlibrary loan for *"Asbestos the Miracle Mineral: Complying with the Asbestos NESHAP."*

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Iowa Waste Reduction Center
Creating Tools for Small Business

SMALL BUSINESS POLLUTION PREVENTION CENTER

SPRAY TECHNIQUE ANALYSIS AND RESEARCH PROGRAM

IOWA AIR EMISSIONS ASSISTANCE PROGRAM

IOWA WASTE EXCHANGE

MOBILE OUTREACH FOR POLLUTION PREVENTION

POLLUTION PREVENTION FOR PAINTING AND COATING COMPLIANCE ENHANCEMENT

Articles in

the CLOSED LOOP
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As a courtesy, please contact the IWRC.

Chad Gookin & Amber Thill,
Editors (800) 422-3109

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- Iowa Waste Reduction Center/ University of Northern Iowa
- Iowa Department of Economic Development/Recycle Iowa
- Iowa Department of Natural Resources
- Iowa Community Colleges
- Local Councils of Government
- Iowa Solid Waste Agencies

Iowa Waste Exchange welcomes Kathy Millard



By Jeff Beneke
*Iowa Waste
Reduction Specialist*

The Iowa Waste Exchange (IWE) would like to welcome Kathy Millard as the new IWE Area

Resource Specialist for the Mason City area. Millard will reside out of the North Iowa Area Community College (NIACC) office, and joins other IWE Area Resource Specialists in providing Iowa business and industry with waste management alternatives and assistance that result in both economic and environmental benefits.

Millard earned her Bachelor of Arts degree from the University of Northern Iowa. For the past four years, she has been the Workforce Development Coordinator at NIACC, where she was responsible for coordinating the continuing education and training programs for business and industry within the NIACC service area.

Millard will be responsible for ten counties (Area C) including Kossuth, Winnebago, Worth Mitchell, Hancock, Cerro Gordo, Floyd, Franklin and Hardin counties as well as a portion of Wright county.

Feel free to contact Millard at 641/422-4379.

Success Story

Iowa Waste Exchange Has Successful Fiscal Year 2001

By Jeff Beneke
Iowa Waste Reduction Specialist

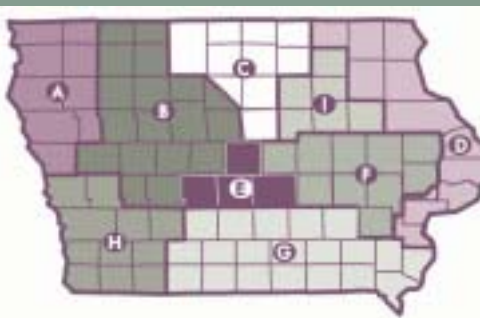
The Iowa Waste Exchange (IWE) wrapped up another successful year June 30, 2001. By providing a free and confidential service that actively promotes the reuse and recycling of Iowa's business and industry waste, the IWE assisted businesses in diverting more than 135,720 tons of material from disposal sites. In addition to avoiding disposal costs, participating companies realized savings from avoided raw material purchases, freed-up storage space and reduced transportation costs.

Since its inception in 1990, IWE has diverted over 640,000 tons of waste materials from disposal and saved Iowa businesses over \$16,000,000 in avoided disposal costs.

IWE consists of ten Area Resource Specialists in nine regions across Iowa. Each Specialist resides at either a Community College or Council of Government's office.

In Fiscal Year 2002, Recycle Iowa and its program partners, the Iowa Waste Reduction Center, the Iowa Department of Natural Resources and the Iowa Department of Economic Development have set goals which include statewide diversion of 75,000 tons of waste, and a focus on diverting specific commodity targets such as wood waste, paper, construction and demolition and organic waste.

Iowa Waste Exchange Regions and Specialists



A:
PERRY NELSON
Western Iowa Tech
Community College
(712) 274-8733 ext. 1560

B:
FRED KESTEN
Region XII Council of
Governments
(712) 792-9914

C:
KATHY MILLARD
North Iowa Area
Community College
(641) 422-4379

D:
JULIE PLUMMER
Eastern Iowa Community
College District
(563) 336-3319

E:
DENNIS HAYWORTH
DMACC - Economic
Development Center
(515) 964-6346

F:
RICK MEYERS
(Linn County only)
and

JOHN KOCH
Kirkwood Training and
Outreach Services
(319) 398-5665,
(319) 398-4904

G:
JIM REIMER
Indian Hills Community
College
(641) 683-5269

H:
BILL PENDGRAFT
Iowa Western
Community College
(712) 325-3309 ext. 3309

I:
JODI JEANES
Iowa Northland Regional
Council of Governments
(319) 235-0311

**GENERAL
INFORMATION:**

If you are not sure
who to contact,
call or write

IOWA WASTE REDUCTION CENTER: or
1005 Technology Parkway ❖ Cedar Falls, IA 50613-6951
800/422-3109 or 319/273-8905

RECYCLE IOWA:
200 East Grand Avenue ❖ Des Moines, IA 503
800/532/1216

A **Corny** Problem Solved

By Rick Meyers

IWE Resource Specialist, Area F

For one Cedar Rapids Company, it was a growing problem. For Kirkwood Community College, it was a welcomed gift.

Earlier this year, Rick Meyers, Iowa Waste Exchange (IWE) Area Resource Specialist, found a home for Mid-Iowa Grain Inspection's corn waste in the college's beef production feedlot.

Concerns about the presence of StarLink® grain in shipments to processing plants prompted the added business for Mid-Iowa Grain Inspection. The extensive testing for StarLink® corn varieties was prompted by research showing possible human allergic responses to the genetically modified grain. StarLink® corn was disapproved for human consumption based on those findings.

Co-owner of the company, Mike Polaski, found the booming business was creating a big pile of debris. "The extra testing for StarLink® corn picked up in the fall of 2000. We were up to 300 or 400 tests a day," Polaski said.

Each probed sample of grain tested by Mid-Iowa amounted to a handful or two of corn. "We have to put each sample through a wet milling test. We were ending up with 25 or 30 gallons of the material per day." Polaski said.

As the business volume grew, the first beneficiaries were local wildlife. Birds, squirrels and deer in the area of the company's plant all took advantage of the piles of tested corn. Backlogged grain quickly became more than the local fauna could eat. While not approved for human consumption, all samples were deemed safe for animal feeds.

Add to this growing issue the inevitable effects of Mother Nature. "With the corn being ground and wet as part of the testing process, it started to ferment and was a host to fungi. We wanted to be good neighbors, so we needed to deal with it," Polaski said.

A call from the company's hauling service to Bluestem Solid Waste Agency started the search for creative alternatives. Bluestem called in

Meyers to meet with Polaski. "We talked about several options, and it became clear to us that using the waste corn as a resource rather than waste would not only be convenient but cost-effective too," Meyers said.

Meyers put Polaski in touch with Kirkwood's Agricultural Science Instructor, Terry Chapman. The use of the corn as a beef cattle feed additive appealed to Chapman. Polaski and he worked out an arrangement to have Kirkwood pick up the corn on a regular basis, bring it to the college's Beef Center and transfer it directly to livestock feed troughs.

Meyers feels the solution has benefits for all concerned. "Mid-Iowa Grain was looking at increased landfill fees if they transported the grain out as part of the company's waste. This way, the Kirkwood program benefits from lower feed costs and the company avoids more waste hauling costs. And when we avoid more of anything going into our landfills, everyone benefits," he said.

According to Meyers, the landfill alternative has a substantial result. "We estimate the grain diverted to the Kirkwood feedlot will be over 35,000 pounds a year," he said.

IWE web site: Interactive and user-friendly

By Chad Gookin

Public Relations Specialist

The Iowa Waste Exchange (IWE) portion of the Iowa Waste Reduction Center's web site, www.iwrc.org/exchange, was revamped to be more interactive and user-friendly.



The web site makeover provides a number of new features and has been up and running since June. It includes material listings similar to those found in the **Closed Loop**.

One benefit the web site offers is the capability of frequent material listing updates. Most of the materials listed are items that need to find a home as soon as possible in order to avoid being landfilled.

Most material items include a photo option. These visual elements can be very useful when determining if a particular item would be fill a certain need a business may have.

Complete contact information of each IWE Resource Specialist is readily available on the web site as well. To visit the IWE web site, go to www.iwrc.org/exchange.

The Iowa Waste Exchange is a cooperative effort of Recycle Iowa/ Iowa Department of Economic Development, the Iowa Waste Reduction Center, the Iowa Department of Natural Resources, Iowa community Colleges, Local Councils of Government and Iowa Solid Waste Agencies. The Exchange will not determine what may constitute a hazardous substance or create a hazardous situation. The Exchange will not make judgements with respect to any legal requirements, particularly for the storage, transportation, treatment or disposal of what may be defined as hazardous substances. For information about hazardous waste reduction and/or proper disposal, call the Department of Natural Resources Waste Management Assistance Division at (800) 367-1025 or the IWRC at (800) 422-3109.