

# Hazardous Waste Program

## Evaluation of the Toxic Use and Hazardous Waste Reduction Act

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State of Oregon  
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Quality



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## I. Summary

In 2003, the Oregon Department of Environmental Quality (DEQ) held five public meetings and sent out 2,500 surveys to answer two questions:

- Are the planning and toxic use reporting requirements of the Toxics Use and Hazardous Waste Reduction (TUHWR) Act still pertinent factors in reducing the use of toxic chemicals and hazardous waste?
- Are the services offered by DEQ business technical assistance program of value to the business community?

Based on the public meetings and numerous surveys, Oregon businesses, industries, environmental organizations and other interested parties provided the following comments:

- Businesses required to do TUHWR planning expressed that the effort was useful during the first years of the plan, but as reductions were made, the requirement became less useful. There is support for new businesses to do TUHWR planning;
- TUHWR planning requirement is a good tool for raising awareness, focusing on reduction targets and other internal processes support, even though most businesses that have done the planning believe they made as much reductions as possible;
- TUHWR reporting, via DEQ's Annual Pounds Report, is of use to some and of no use to others in their overall approach to reduce toxics and hazardous wastes. One concern is the inaccuracies associated with the lack of a per unit qualifier in the reporting. Some respondents view the report as a paperwork exercise that does not reflect either increases or decreases in toxic use or hazardous waste. Therefore, there is mixed support for discontinuing the Annual Pounds Report requirement;
- DEQ's on-site technical assistance, factsheets, guidance documents, training workshops and telephone assistance are an invaluable resource;
- Even though not ideal, the Hazardous Substance Possession Fee assessed by the State Fire Marshal is a suitable mechanism for funding Toxics Use and Hazardous Waste Reduction work; and
- DEQ should consider focusing the TUHWR planning and reporting requirements on the most toxic of the toxics.

## II. Background

In 1984, a chemical accident in Bhopal, India killed 2,000 people and injured many more. In response to this accident, the U.S. Congress passed the Emergency Planning and Community Right-to-Know Law (EPCRA) in 1986.<sup>1</sup> As part of EPCRA, certain businesses that use more than 10,000 pounds of one or more chemicals on the Toxics Release Inventory (TRI)<sup>2</sup> chemical list must report releases to the environment of those chemicals annually.

In 1989, the Oregon Legislature passed the TUHWR Act<sup>3</sup>, one of the first laws in the nation to mandate pollution prevention planning. Businesses and environmental organizations working in

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<sup>1</sup> For more information about the EPCRA program managed by the US Environmental Protection Agency's (EPA), refer to <http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/epcraOverview.htm>

<sup>2</sup> For more information the TRI program managed by the US EPA, refer to <http://www.epa.gov/tri/>

<sup>3</sup> For the Oregon statute, refer to <http://landru.leg.state.or.us/ors/465.html>

partnership developed and supported the Act. The DEQ, as directed by the Act, later promulgated the TUHWR Oregon Administrative Rules (OAR) 340-135.<sup>4</sup>

The TUHWR Act is a comprehensive approach to address pollution at its source by encouraging Oregon's businesses and institutions to make facility-wide changes that reduce or eliminate the use of toxics and generation of hazardous wastes; the list of toxics are the same as those chemicals on the 1996 TRI list. By requiring affected parties to develop TUHWR plans and annually monitor their progress, the Act also encourages Oregon facilities to continuously improve their operations. Reductions in toxics use and hazardous wastes associated with TUHWR plans also contribute to reducing management and disposal costs, minimized environmental risks, and eliminating potential health risks associated with using these chemicals.

The TUHWR Act is legal mandate for DEQ to provide technical assistance to help businesses develop their TUHWR plan. In 1991, a statutory change broadened DEQ's scope to offer technical assistance to all small businesses – not just TUHWR planners. The change allowed DEQ to partner with more Oregon businesses that further reduced or eliminated the use of toxics use and/or the generation of hazardous wastes.

In 1996, DEQ worked with stakeholders to review and make recommendations to update and streamline the 1989 law. The 1997 Oregon Legislature unanimously passed the recommendations to simplify plan requirements, exempt facilities that go beyond compliance with an environmental management system (hereafter, EMS), exempt facilities that implement consumer education programs for less toxic products, and exempt small quantity generators (hereafter, SQGs) of hazardous waste from submitting Annual Pounds Reports.

Since the last review of the TUHWR work occurred in 1996, DEQ initiated a program review to assess the TUHWR Act and its implementation. The agency must report back to the Oregon legislature in 2005 with its proposed changes.

### **III. What Does the Toxics Use and Hazardous Waste Reduction (TUHWR) Act Do?**

The TUHWR Act<sup>5</sup> established requirements for both businesses and DEQ. Businesses that are large toxic users (i.e., TRI reporters) and/or large quantity hazardous waste generator (LQGs) have requirements to:

- Evaluate chemical use and waste generation by developing a TUHWR plan that is kept on-site;
- Monitor progress towards meeting in-house reduction goals;
- Prepare an annual progress report that is kept on site; and
- Report annually to DEQ on the pounds of toxic chemicals used via an Annual Pounds Report.

Businesses that are small quantity generators (SQGs) of hazardous waste have requirements to:

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<sup>4</sup> For the OAR, refer to [http://arcweb.sos.state.or.us/rules/OARs\\_300/OAR\\_340/340\\_135.html](http://arcweb.sos.state.or.us/rules/OARs_300/OAR_340/340_135.html) For more information about the DEQ TUHWR Program, refer to <http://www.deq.state.or.us/wmc/tuwrap.html>

<sup>5</sup> For a more concise version what the Act requires of businesses, refer to DEQ's TUHWR factsheet at <http://www.deq.state.or.us/wmc/tuwrap/factsheets/TURHWRAFactSheet.pdf>

- Evaluate chemical use and waste generation by developing a TUHWR plan and keep it on site;
- Monitor progress toward meeting in-house reduction goals; and
- Develop an annual progress report and keep it on site.

These planning and reporting requirements are important tools in measuring reductions. Additionally, the TUHWR Act directs DEQ to:

- Provide technical assistance to businesses, including on-site visits, clearinghouse activities, telephone assistance, training workshops, publications, and evaluation of reduction measures;
- Coordinate its business technical assistance efforts with trade associations and local colleges;
- Follow up with toxics users who receive business technical assistance; and
- Coordinate with local agencies, particularly to ensure the safe removal and proper disposal of mercury light switches from motor vehicles.

The TUHWR Act specifically *prohibits* DEQ from conducting inspections or taking enforcement actions while performing business technical assistance activities, unless there is a “clear and immediate danger to public health or the environment”.

#### **IV. How Is the TUHWR Act Funded?**

The Hazardous Substance Possession Fee (HSPF), collected by the Office of the State Fire Marshal, funds the implementation of the 1989 TUHWR Act. The federal and state Oregon’s Community-Right-to-Know Program establishes the Office of State Fire Marshal’s authority to collect the HSPF. The fee is based on the type and amount of hazardous substances stored at a facility. Ever since the TUHWR Act passed, as per a legislative mandate, DEQ receives no more than \$500,000 of the HSPF annually.

#### **V. Why is DEQ Reviewing the TUHWR Act?**

Since the inception of the Act, many Oregon businesses have reduced their use of toxic substances and generation of hazardous wastes. DEQ believes the Act has helped businesses evaluate toxic substances used on-site and, when appropriate, to eliminate or switch to less toxic substances. In 2003, nearly fifteen years after the Act’s inception, DEQ initiated an evaluation of the Act and the work DEQ does to implement it. The specific evaluation goals included:

- Getting input from businesses with TUHWR planning and reporting requirements to learn if these requirements continue to encourage toxics use and hazardous wastes reduction;
- Gathering businesses’ opinion about the most effective and efficient ways to encourage future reductions of toxics use and hazardous wastes in Oregon; and
- Assessing how useful the current technical assistance services, such as on-site visits, telephone assistance, training workshops, publications, and reference materials, are to Oregon businesses.

DEQ achieved the three goals by:

- Holding five public meetings around the state with press releases sent to news media outlets (e.g., newspapers) in the state about the meetings;

- Mailing approximately 2,500 letters with meeting schedule, survey and a factsheet explaining the TUHWR Act; and
- Posting the same survey on the DEQ web site for submittal by Internet users.

## **VI. Public Meetings**

The DEQ held five public meetings in five locations around Oregon with only 13 attendees. The following sections summarize the attendees' comments.

### **Salem, November 10, 2003**

This meeting was attended by four people representing three large Oregon businesses. The TUHWR rules require the three businesses to develop a plan and submit an Annual Pounds Report for chemical use. None of them have ever requested DEQ to conduct an on site technical assistance visit.

*Plan Requirement* – Respondents' comments on the value of the TUHWR plan are:

- The plan helped in the first few years, but after the easy reductions were made, it did not seem particularly relevant. Reductions are all about economic conditions. A business will make changes if there is cost savings to it;
- One business did not think DEQ could help it reduce its hazardous waste or use of toxics because they have many process lines with very specific chemistries;
- Another business thought that the attitude in the industry had changed since the law was enacted. Further, their business management encouraged and promoted product evaluation for toxicity, proper management and reduction of all wastes, regardless of whether they are hazardous. It was engrained in the business and they would do it regardless if they had a plan;
- The other business felt its hazardous waste was not hazardous because it was being sent off as a feedstock in a smelting process, and it should not have to plan for such a waste; and
- There was a consensus that new businesses should be required to produce a plan to focus on improvements. Another suggested that DEQ focus the planning requirements on facilities with older equipment since they usually use more chemicals with the older machinery than the newer redesigned equipment.

*Annual Pounds Reporting Requirement* – The most common attitude about the annual reporting of toxic chemicals used at a facility (i.e., Annual Pound Report) is that the reporting of actual pounds used did not reflect a change in the use of toxics. Chemical usage is a function of economic activity, and there is no measurement of chemical use per item produced. Most businesses view this reporting requirement as duplicative of the TRI reporting.<sup>6</sup>

- One business reports annual pounds of toxics “used” because these chemicals are used in the air pollution control equipment and wastewater treatment processes and thought these chemicals did not reflect what was “used” to make their product. This business also reported chemicals that were by-products as a result of their production process (not intentionally used in the process). They did not feel these were appropriate to report. This business suggested that the list of TRI chemicals that are used to identify the toxic

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<sup>6</sup> TRI reporting only reports releases, not use.

chemicals is too broad and not all chemicals on the list are toxic. The list of chemicals should be revised to include only those that are toxic;

- Another business said DEQ should not require the Annual Pounds Report; the report has no meaningful use for the facility that is filling them out when it is just a compliance issue; and
- The final business did not voice an opinion.

*DEQ Technical Assistance* – Concerning the business assistance that DEQ offers, the group was generally supportive and gave the following comments:

- DEQ training has been of value to the business and their new staff;
- Business assistance should be given to new companies and companies with older equipment; and
- One business stressed the importance of DEQ knowing the regulations since it had been given incorrect information on a hazardous waste determination.<sup>7</sup>

### **Bend, November 13, 2003**

This meeting was attended by two persons, one representing an Oregon business subject to reporting and planning requirements and the other representing a member of the public.

*Planning Requirement* – The business said the TUHWR planning requirement had value due to the plan refocusing the business on toxics use and hazardous waste reduction through manufacturing process changes.

*Annual Pounds Reporting Requirement* – This business also said that Annual Pounds Reporting did not reflect either increases or decreases in toxics use, but rather reflected the fluctuations in the economy. He added that he already gave this information to the State Fire Marshal through the Hazardous Substance Possession Report. He also suggested a measurement that uses toxics or hazardous waste generated per item produced. He suggested the annual reporting be dropped or refocused to include only the most toxic of the toxic chemicals.

*DEQ Technical Assistance* – The business representative said that DEQ's business technical assistance helped his company reduce its hazardous waste. He especially liked the *Small Quantity Hazardous Waste Generator Handbook*. He suggested that small businesses are the ones who need DEQ assistance, not large ones who have staff to deal with environmental issues. However, he thought small businesses would not call and ask for this assistance and that "involuntary" business assistance from DEQ is OK. He also suggested that DEQ should focus on specific industries, and develop information specific to those industries or sectors.

The business representative expressed support for use of the fee collected by the State Fire Marshal's Hazardous Substance Possession Fee as a way to fund DEQ efforts. The citizen had no specific comments other than reducing toxics use and hazardous waste is a desirable end for Oregonians.

### **Medford, November 17, 2003**

No representatives from business or the public attended the meeting.

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<sup>7</sup> Based on a DEQ inquiry, the business may have been dealing with the Resource Conservation and Recovery Act (RCRA) hotline, a U.S. Environmental Protection Agency service – not DEQ.

### **Eugene, November 18, 2003**

Three people attended the meeting: One represented a university that generates hazardous waste, one was an Environmental Quality Commission member, and the third represented an environmental public interest group.

*Planning Requirement* – The university representative said the TUHWR plan has been of value to the university; he supported the development and continued updating of the plan. He also said they have a fluctuating hazardous waste generator status due to the chemicals used at the university. This year, he said, the university would be a large quantity generator since the art department decided to stop using glazes that contained lead, and replaced a running track that contained mercury.

*Annual Pounds Reporting Requirement* – The university representative said that the Annual Pounds Report is not of value to them since it is a calculation of how much total lead or mercury are in the wastes. He supported any alternative way of getting information about toxics use other than the Annual Pounds Report.

*DEQ Technical Assistance* – The member of the Commission asked about DEQ’s technical assistance to businesses that do planning and reporting. She also asked if those were the only persons that received technical assistance. DEQ answered, “No,” any business can contact DEQ and ask for assistance in reducing their toxic use or hazardous waste.

The member of the public interest group asked how the requirements of the Act compared to the City of Eugene’s community-right-to-know ordinance. This topic was discussed by the group. He also asked whether the private sector rather than DEQ had ever been considered to provide business technical assistance. DEQ responded that the agency has not specifically reviewed the privatization of TUHWR planning assistance.

### **Portland, November 20, 2003**

Four people attended the meeting: A representative of the U.S. Environmental Protection Agency (EPA), a consultant, a representative of a public interest group, and a representative of a port authority. None of the participants were TUHWR planners or reporters; although, the consultant prepares TUHWR plans and does Annual Pound Reports for various businesses. This group discussed the requirements of the Act and whether or not DEQ should change it.

*Planning Requirement* – Generally, the concept of planning was supported since it provides a basis for continual improvement.

*Annual Pounds Reporting Requirement* – Annual Pound Reports received less support because it is burdensome, and may not provide the clear information that shows improvement of increases. When it was discussed that Annual Pounds Reports may not be required, the representative from EPA asked what else the DEQ might do in its place. DEQ stated it would likely focus measurement on environmental results.

*DEQ Technical Assistance* – There was no response about this service.

## VII. TUHWR Survey and Responses

<b>Table 1. Responses to Question 1, “What type of business activity best describes your business?”</b>	
<b>Business Activity</b>	<b>No. of Businesses</b>
Auto services	19
Manufacturing with metal	18
Government	15
Wood products	13
General services	12
Sales retail/wholesale	11
Construction	9
Painting/coatings	9
Paper	9
Schools/universities	7
Hospitals/laboratories	6
Other	6
Printing	6
Transportation	6
Food production/processing	5
Metal manufacturing	5
Semiconductors/circuit boards	5
Transportation equipment	5
Plastics/Rubber	4
Manufacturing with wood	3
Chemical/petroleum distribution	3
No response	2
<b>TOTAL</b>	<b>178</b>

### A. General Survey Process

DEQ mailed out approximately 2,500 letters with meeting schedule, survey (attached) and factsheet to:

- Businesses with planning and reporting responsibilities under the Act,
- Recipients of DEQ business assistance, and
- All businesses that have notified DEQ of their hazardous waste activity.

### **Question 1, “What type of business activity best describes your business?”**

DEQ received 178 survey responses; DEQ received 15 of the surveys via the Internet. Table 1 is a tally of the answers to Question 1.

<b>Table 2. Responses to Question 1, “What type of business activity best describes your business?”</b>	
<b>Category*</b>	<b>Number of Responses</b>
LTU & No HW	1
LTU & LQG	14
LQG only	1
LQG & No LTU	14
LTU & SQG	10
SQG only	15
LTU & CEG	15
CEG only	95
CEG & No LTU	6
No HW	17
No response	2
<b>TOTAL</b>	<b>178</b>

**\*Abbreviations Key**

LTU-*Large Toxic Users*: Users of 10,000 pounds or more of toxic chemicals (on the TRI chemical list) who are required to prepare a Form R or Form A under the federal Toxics Release Inventory program.

LQG-*Large Quantity Generators*: Facilities that generate more than 2,200 pound of hazardous waste or more than 2.2 pounds of acutely hazardous waste in a calendar month.

SQG-*Small Quantity Generators*: Facilities that generate between 220 and 2,200 pounds of hazardous waste in a calendar month.

CEG-*Conditionally Exempt Small Quantity Generators*: Facilities that generate 220 pounds or less of hazardous waste in a calendar month.

No HW-No hazardous waste was generated by facility.

No LTU response: Facility did not answer the large toxic user question.

No HW response: Facility did not answer the hazardous waste generator question.

**Question 2, “What kind of hazardous (HW) generator is your business?” and Question 3, “Are you a Toxics Release Inventory (TRI) reporter?”**

Table 2 summarizes respondents’ answers to Questions 2 and 3. Of the 178 respondents, 58 (or 33%) must comply with the planning requirements of the TUHWR Act, and only 43 (or 24%) must complete the Annual Pounds Report on the pounds of toxic chemicals used at their facility. This assessment derives from how the respondents identified their hazardous waste generator category, or whether they identified themselves as a large toxic user on the survey.

B. Assessment of DEQ Business Assistance Services

**Question 4, "Which of the following services have been of greatest value to you?"**

Table 3 shows how the 178 respondents answered Question 4. Most respondents agree that DEQ’s on-site technical assistance visits, training, factsheets, and telephone assistance are the most useful services. Table 4 reflects a specific evaluation of two DEQ TUHWR services listed in Table 3. Table 4 represents only those respondents (58) in the survey sample required to do a TUHWR plan.

<b>Table 3. Responses to Question 4, "Which of the following services have been of greatest value to you?"</b>					
<b>DEQ Service</b>	<b>Very Useful to Useful</b>	<b>Somewhat Useful</b>	<b>Not Useful</b>	<b>Never Used</b>	<b>No Response</b>
On-site assistance from DEQ staff	49%	5%	4%	35%	6%
Factsheets and other guidance.	58%	17%	2%	13%	7%
DEQ training workshops	51%	10%	3%	28%	8%
Company planning for toxics use reduction*	23%	15%	13%	35%	12%
Annual reporting on toxic chemicals used**	25%	20%	19%	25%	11%
Telephone assistance from DEQ staff.	65%	8%	2%	21%	6%
DEQ summary reports on toxic usage in Oregon	13%	20%	13%	39%	13%

\*This requirement applies to only 33% of the respondents, thus, the higher percentage of never used and no response.

\*\* This requirement applies to only 24% of the respondents, thus, the higher percentage of never used and no response.

<b>Table 4. Responses from TUHWR Planners to Question 4, "Which of the following services have been of greatest value to you?"</b>					
<b>DEQ service</b>	<b>Very Useful to Useful</b>	<b>Somewhat Useful</b>	<b>Not Useful</b>	<b>Never Used</b>	<b>No Response</b>
Business planning for toxics use reduction	48%	19%	24%	11%	7%
Annual reporting on toxic chemicals used	32%	25%	25%	9%	7%

### C. Assessment of Toxic Use and Hazardous Waste Reduction Plans

*Question 5a. "Do you have a Toxic Use and Hazardous Waste Reduction Plan?"*

*Question 5b. "Has the TUHWR plan helped your company reduce the use of toxic chemicals or the generation of hazardous waste in your process?"*

*Question 5c. "Why or why not?"*

This series of questions likely confused respondents with the Oregon State Fire Marshal's reporting requirements. Based on the responses, drawing any conclusions is difficult. However, many respondents did have pertinent comments (Appendix B) about TUHWR planning.

Upon closer examination of the data in Table 5, of the:

- 79 affirmative responses, only 8 (or 10.1%) businesses *are subject* to the TUHWR planning requirements; and
- 96 negative responses, only 37 (or 38.5%) businesses *are subject* to the TUHWR planning requirements.

<b>Table 5. Responses to Question 5a, “Do you have a Toxic Use and Hazardous Waste Reduction Plan?” and to Question 5b, “Has the TUHWR plan helped your company reduce the use of toxic chemicals or the generation of hazardous waste in your process?”</b>		
<b>Question</b>	<b>Affirmative responses*</b>	<b>Negative responses*</b>
5a, “Do you have a TUHWR plan?”	79 Yes (45.1%)	96 No (54.9%)
5b, “Has the TUHWR plan helped your company reduce the use of toxic chemicals or the generation of hazardous waste in your process?”	7 No 0 Yes 72 No response	39 No 38 Yes 19 No response

\*The responses breakdown for Question 5b is a subset of those responding to Question 5a.

In summary, the large number of negative responses in Table 5 is understandable given that many of the companies *are not subject* to the TUHWR planning requirements. Since LTU’s, LQG’s and SQG’s are required to prepare plans; it appears based on responses that many respondents do not have a current plan. However, perhaps they may have developed a plan in the past and gave comments on that old plan. These "non planners" had definite ideas about whether the planning helped.

**Question 5c, “Why or why not” has the TUHWR plan helped your company reduce the use of toxic chemicals or the generation of hazardous waste in your process?**

Since the respondents who answered "No" to Question 5a had definite ideas about TUHWR planning, their responses to Question 5c are in Appendix B. Responses are organized according to whether planning requirements applied or not.

Appendix B contains comments on Question 5c from businesses that *are subject* to the TUHWR planning requirements, have *no TUHWR plan*, and stated the TUHWR plan *did not* help their business. A summary of their comments are:

- Reduced as much as possible (14)
- Motivated by in-house driver e.g., cost, initiative (9)
- Motivated by another external driver e.g. regulatory requirement (1)
- Don’t know or doesn’t apply (1)

Several respondents who said they reduced as much as possible noted that the toxic chemical(s) on the list are an inherent part of the process/product; for the business to further reduce toxics use, they would have to reduce the product/process output.

Appendix B contains comments on Question 5c from businesses that *are not subject* to the TUHWR planning requirements, have *no TUHWR plan*, and stated the TUHWR plan *did not* help their business. A summary of their comments are:

- Motivated by in-house driver e.g., cost, initiative (3)
- Reduced as much as possible/no longer applies (2)
- Did not ask or get help (1)
- Receives assistance from elsewhere (1)

- Don't know or doesn't apply (2)
- Just a paper exercise (1)

Appendix B contains comments on Question 5c from businesses that *are subject* to the TUHWR planning requirements, have *no TUHWR plan*, and stated the TUHWR plan *did* help their business. A summary of their comments are:

- Increased in-house awareness (6)
- Reduced as much as possible/no longer applies (5)
- Helped us reduce toxics and/or wastes (4)
- Motivated by in-house driver e.g., cost, initiative (1)

Appendix B also contains comments on Question 5c from businesses that *are not subject* to the TUHWR planning requirements, have *no TUHWR plan*, and stated the TUHWR plan *did* help their business. A summary of their comments are:

- Motivated by in-house driver e.g., cost, initiative (3)
- Helped us reduce toxics and/or wastes (2)
- Increased in-house awareness (2)
- Reduced as much as possible/no longer applies (1)

Based on the comments, several respondents may have done TUHWR planning in the past. The responses may indicate the businesses no longer have a current plan and/or have changed generator categories to where planning and the updates no longer apply.

#### D. Assessment of Annual Pounds Reports

*Question 6a. "Do you submit an Annual Pounds Report to DEQ?"*

*Question 6b. "Is it a meaningful measurement of toxic use and HW reduction for your business?"*

*Question 6c. "Why or why not?"*

*Question 6d. "How should reduction of toxic use or hazardous waste generation be measured?"*

This series of questions confused respondents. Many thought the Annual Pounds Report reported to DEQ is the Oregon State Fire Marshal's Hazardous Substance Report.<sup>8</sup> The only facilities required to complete the Annual Pounds Report are large quantity hazardous waste generators (LQG) or large toxic users (LTU).

Based on Table 6 and more specific responses to Questions 6a and 6b, the data shows that:

- Of the 172 responses, 67 (or 39.0%) submit an Annual Pounds Report and only 43 of those 67 must submit a report under the TUHWR requirement; the answers reflect confusion between the State Fire Marshal's hazardous substances reporting and DEQ's TUHWR reporting;
- Of the 67 respondents who do submit the Report, 34 (or 50.7%) replied that the Report is meaningful; the regulated community is evenly divided on this question;

<sup>8</sup> The respondents received the TUHWR survey after just receiving the State Fire Marshal's Hazardous Substance Report.

<b>Table 6. Responses to Question 6a, “Do you submit an Annual Pounds Report to DEQ?” and to Question 6b, “Is it a meaningful measurement of toxic use and HW reduction for your business?”</b>		
<b>Question</b>	<b>Affirmative responses*</b>	<b>Negative responses*</b>
6a. Does your company submit an Annual Pounds Report to DEQ?	Yes (67)	No (105)
Question 6b. Do you think reporting pounds of toxic substances is a meaningful measurement of toxic use and hazardous waste reduction for your business?	No (33) Yes (34) No response (0)	No (3) Yes (5) No response (97)

\*The responses breakdown for Question 6b is a subset of those responding to Question 6a.

- Of 105 negative respondents to Question 6a, 15 are LTUs, 90 CEGs, and 97 (or 92.4%) did not respond; this result likely correlates to the high number of CEGs and possibly LTUs that have DEQ administrative exemptions; and
- Of the 33 respondents who replied negatively to Question 6b as to why the Annual Pounds Report is not a meaningful measurement of toxic use and hazardous waste reduction for their business, 15 are SQG’s, 10 LTU’s and 8 had no hazardous waste.

**Question 6c, “Why or Why Not” is the DEQ Annual Pounds Report a meaningful measurement of toxic use and HW reduction for your business?”**

Businesses provided extensive responses to Question 6c. Appendix C contains comments on Question 6c from businesses that *are* required to submit Annual Pounds Reports that stated the Reports *were not* meaningful. A summary of their comments are:

- Already do this activity/reduced as much as possible (4)
- Motivated by in-house driver e.g., cost, initiative (3)
- Does not account for production (1)
- Redundant to other reporting requirements (1)
- Exempt for the reporting (1)

Appendix C also contains comments on Question 6c from businesses that *are not* required to submit Annual Pounds Reports that stated the Reports *were not* meaningful. A summary of their comments are:

- Does not account for production (5)
- Redundant to other reporting requirements (5)
- Reduce toxics, reduce product (4)
- Reduced as much as possible/no longer applies (3)
- Eliminate the reporting (2)
- Confused with Oregon State Fire Marshal reporting (2)
- Does not apply (1)
- Reduce toxics via manufacturers (1)
- Create a “stigma” toxics list (1)

Of the respondents who believe the Annual Pounds Report is meaningful, 17 are LQGs, 1 is an LTU, 5 are CEGs, and 11 had no hazardous waste. Appendix C contains the comments the comments from those required and not required to submit an Annual Pounds Report.

Appendix C contains comments on Question 6c from businesses that *are* required to submit Annual Pounds Reports that stated the Reports *were* meaningful. A summary of their comments are:

- Good inventory/educational/incentive document (5)
- Pounds Report is good method (3)
- Does not apply (1)

Appendix C contains comments on Question 6c from businesses that *are not* required to submit Annual Pounds Reports that stated the Reports *were* meaningful. A summary of their comments are:

- Pounds Report is good method (5)
- Confused with Oregon State Fire Marshal reporting (3)
- Reduced as much as possible/no longer applies (2)
- Increased in-house awareness (2)
- Reduce toxics, reduce product (1)
- Motivated by in-house driver e.g., cost, initiative (1)

### **Question 6d, “How should reduction of toxic use or hazardous waste generation be measured?”**

As for Question 6d, only the comments from LTUs and LQGs are in Appendix C. A summary of those comments are:

- Present approach is good (14)
- Use other indicator(s) for flexible approach e.g., production, personnel, exposure limit (6)
- Use other sources e.g., TRI, hazardous waste (3)
- Confused with other reporting e.g., Oregon State Fire Marshal (2)
- Modify approach e.g., include more businesses, increase TA (2)
- Don’t know (1)

Based on the summary above, about half agree that the present approach is a good reduction measure, and the other half believe that there are other ways to measure the reductions and generation rates.

### **E. Assessment of the Hazardous Substance Possession Fee**

*Question 7a. “Is the Hazardous Substance Possession Fee a good mechanism for funding the TUHWR work?”*

*Question 7b. “Why or why not?”*

*Question 7c. “How else should the TUHWR work be funded?”*

<b>Table 7. Responses to Question 7a, “Is the Hazardous Substance Possession Fee a good mechanism for funding the TUHWR work?”</b>			
<b>Question</b>	<b>Yes</b>	<b>No</b>	<b>No Response</b>
7a. Is the Hazardous Substance Possession Fee a good mechanism for funding the TUHWR work?”	108 (64.3%)	25 (14.9%)	35 (20.8%)

**Question 7a -“Is the Hazardous Substance Possession Fee a good mechanism for funding the TUHWR work?”**

In response to Question 7a, as shown in Table 7, a majority of the 168 respondents agree that the Oregon State Fire Marshal’s Hazardous Substance Possession Fee (HSPF) is a good mechanism for funding the TUHWR work. The large number of CEGs may be the reason for the no responses.

**Question 7b, “Why or why not?” is the Hazardous Substance Possession Fee a good mechanism for funding the TUHWR work?”**

The full responses to Question 7b the HSPF is a good mechanism for funding the TUHWR work are in Appendix D.

Appendix D also contains the comments on Question 7b from *TUHWR planners and reporters* that stated the Fire Marshal’s fee *is* a good funding mechanism. A summary of their comments are:

- Charge producers and users of toxics and waste generators only (9)
- Don’t change it (7)
- Change the fee structure e.g., toxicity, quantity (3)
- Increase fee (1)
- Change paperwork requirement (1)
- Big users (1)
- Find non-reporters (1)
- Don’t know (1)

Appendix D contains comments on Question 7b from *businesses not required* to plan or report that stated the Fire Marshal’s fee *is* a good funding mechanism. A summary of their comments are:

- Don’t change it/like user fee (39)
- Confused with other reporting e.g., Oregon State Fire Marshal (2)
- Expand to include others e.g. CEGs and SQGs (1)
- Supplement with general fund (1)
- Educate customers who ultimately pay (1)
- Don’t know or doesn’t apply (1)

Appendix D contains comments on 7b from *TUHWR planners and reporters* that stated the Fire Marshal’s fee *is not* a good funding mechanism. A summary of their comments are:

- Change the program e.g., sliding fee structure, fee charged (5)
- Eliminate the program (4)
- Not all hazardous substances are toxic or hazardous waste (3)
- Don't know (2)
- Get input from other agencies (1)
- Not broad enough to capture everyone (1)
- Focus on homeowners as well (1)

Appendix D contains comments on Question 7b from *businesses not required* to plan or report that stated the Fire Marshal's fee *is not* a good funding mechanism. A summary of their comments are:

- Change the program (e.g., specific toxic or chemical (2)
- Not all hazardous substances are toxic or hazardous waste (1)
- Don't want to pay (1)

### **Question 7c. "How else should the TUHWR work be funded?"**

When DEQ asked Question 7c, respondents provided diverse views, provided in Appendix D. Appendix D also contains comments from *TUHWR planners and reporters* about else to fund TUHWR Work. A summary of those comments are:

- Keep it the same (4)
- Don't know (3)
- Special state tax, fund, permit, license (3)
- DEQ fines (2)
- Specific sector: Chemical manufacturers (2)
- Don't care (1)
- Specific toxic or chemical (1)

Appendix D also contains comments on Question 7c from *business not required* to plan or report about else to fund TUHWR Work. A summary of those comments are:

- Special fee e.g., user, solid waste tipping (6)
- Keep it the same (4)
- Special state tax, fund, permit, license (3)
- DEQ fines (2)
- Don't know (2)
- Federal government, EPA (2)
- DEQ special fee (1)
- Specific sector: Chemical manufacturers (1)

## **VIII. Conclusions and Next Steps**

After five public meetings and 2,500 surveys, respondents from businesses, agencies, environmental organizations, and consultants have helped DEQ answer the two questions:

- Are the planning and toxic use reporting requirements of the Toxics Use and Hazardous Waste Reduction (TUHWR) Act still pertinent factors in reducing the use of toxic chemicals and hazardous waste?
- Are the services offered by DEQ business technical assistance program of value to the business community?

From the comments during the public meetings and from the surveys, DEQ acquired 5 general messages from businesses:

- Businesses required to do TUHWR planning expressed that the effort was useful during the first years of the plan, but as reductions were made, the requirement became less useful. There is support for new businesses to do TUHWR planning;
- TUHWR planning requirement is a good tool for raising awareness, focusing on reduction targets and other internal processes support, even though most businesses that have done the planning believe they made as much reductions as possible;
- TUHWR reporting, via DEQ's Annual Pounds Report, is of use to some and of no use to others in their overall approach to reduce toxics and hazardous wastes. One concern is the inaccuracies associated with the lack of a per unit qualifier in the reporting. Some respondents view the report as a paperwork exercise that does not reflect either increases or decreases in toxic use or hazardous waste. Therefore, there is mixed support for discontinuing the Annual Pounds Report requirement;
- DEQ's on-site technical assistance, factsheets, guidance documents, training workshops and telephone assistance are invaluable to businesses;
- Even though not ideal, the Hazardous Substance Possession Fee assessed by the State Fire Marshal is a suitable mechanism for funding Toxics Use and Hazardous Waste Reduction work; and
- DEQ should consider focusing the TUHWR planning and reporting requirements on the most toxic of the toxics.

### **Next Steps**

DEQ is convening a TUHWR Workgroup in Spring 2004 to provide feedback on the recommended changes to the TUHWR program. DEQ may develop a legislative proposal based on input from the workgroup. The proposed changes will be derived from the public meetings, surveys and DEQ staff familiar with the program. DEQ will widely-publicize the outcome of the evaluation and any legislative changes.



# Appendix A. DEQ Business Assistance and Toxic Use & Hazardous Waste Reduction Survey

November 2003

1. What type of business activity best describes your business?

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Auto services | <input type="checkbox"/> Chemical/Petroleum distribution | <input type="checkbox"/> Food Production/processing |
| <input type="checkbox"/> Government    | <input type="checkbox"/> Hospitals/laboratories          | <input type="checkbox"/> Manufacturing with wood    |
| <input type="checkbox"/> Paper         | <input type="checkbox"/> Painting /coatings              | <input type="checkbox"/> Manufacturing with metal   |
| <input type="checkbox"/> Plastics      | <input type="checkbox"/> Semiconductors/circuit boards   | <input type="checkbox"/> Sales retail/wholesale     |
| <input type="checkbox"/> Printing      | <input type="checkbox"/> Transportation                  | <input type="checkbox"/> Schools/university         |
| <input type="checkbox"/> Wood Products |  |   |

Other \_\_\_\_\_

**OPTIONAL** What is your business SIC code?

2. What kind of hazardous waste (HW) generator is your business? Please check the box.

Large Quantity HW Generator (LQG)
Small Quantity HW Generator (SQG)
Conditionally Except Small Quantity HW Generator (CEG)
My business does not generate hazardous waste.

3. Are you a Toxic Release Inventory (TRI) reporter? (Use, process, or otherwise manufacture over 10,000 lbs of a toxic substance.)  Yes  No

4. DEQ offers free HW business assistance services to all Oregon business. Which of the following services have been of greatest value to you?

Please rate the usefulness of these DEQ HW business services and TUHWR requirements.

DEQ Services	Very Useful	Useful	Somewhat Useful	Not Useful	Never Used
On-site assistance from DEQ Staff					
Factsheets and other guidance on managing or reducing toxic use					
DEQ sponsored training workshops					
Business planning for toxic use reduction					
Annual reporting of toxic substances used					
Telephone assistance from DEQ staff					
DEQ summary reports on toxic usage in Oregon					

5a. Do you have a Toxic Use & Hazardous Waste Reduction (TUHWR) plan?  Yes  No

*TRI reporters, LQG and SQG HW generators must prepare a TUHWR plan that addresses ways to reduce the use of toxic substances and the generation of hazardous waste.*

**5b.** If yes, has the TUHWR plan helped your company reduce the use of toxic substances or the generation of hazardous wastes in your processes?  Yes  No

**5c.** Why or why not?

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**6a.** Does your company submit an Annual Pounds report to DEQ?  Yes  No

*TRI reporters and LQGs must annually submit a report on the pounds of toxic substances used.*

**6b.** If yes, do you think reporting pounds of toxic substances is a meaningful measurement of toxic use and hazardous waste reduction for your business?  Yes  No

**6c.** Why or why not?

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**6d.** How should reduction of toxics used or hazardous waste generation be measured?

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**7.** DEQ's TUHWR work is funded by the Hazardous Substance Possession Fee assessed by the Office of the State Fire Marshal. About 50,000 Oregon companies report to the Fire Marshal under the Federal and State Community Right to Know Program. About 6,000 companies that store significant quantities of chemicals pay fees that support DEQ's TUHWR Work. The amount DEQ spends to do this work has been capped by the Oregon Legislature at \$500,000 each year since the law was passed in 1989.

**7a.** Is the Hazardous Substance Possession Fee a good mechanism for funding the TUHWR work?

Yes  No

**7b.** Why or why not?

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**7c.** How else should the TUHWR work be funded?

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Thank you for completing this survey. Your input will assist the DEQ in providing better service and updating the 1989 TUHWR requirements. Please return your completed survey by **December 1<sup>st</sup>** to:

**Attn: Elaine Glendening  
DEQ TUHWR Survey  
811 SW 6thAve.  
Portland, OR 97210-1390**

## Appendix B. Survey Question 5c Comments

<b>5c. Comments From LTU's LQG's and SQG's Subject To Planning Requirements That Have No Plan and That Stated The Plan Did Not Help Their Business</b>
1. We made a process change which eliminated a large quantity of chemicals but added 3 other chemicals. We are very vigilant about remaining a CEG.
2. The plan has nothing to do with our reduction; we are driven by our own internal goals and the market.
3. Our process uses virtually all of the toxic material with almost no waste.
4. Usage is driven by the amount of business you have most of the time. We changed some products to be less toxic but if you go from an 8 hour day to a 24 hour day usage will go up.
5. 1. CAA amendments of 1990 made many customers demand coating with less HAPPS (exchanging from toluene to acetone) 2. HW: cost of disposal has been the driver to reduce.
6. [Business] is always looking for new ways to reduce toxic substances use; however, we have reached a point where there is not a lot more that can be done to reduce the use further and still remain in business.
7. In general, we don't generate a lot and what we do generate is largely unavoidable (i.e. asbestos contaminated material after demo project.)
8. The only substance we report is styrene which goes into our product. The only way to reduce this is to produce less.
9. Toxic chemicals are our primary raw material for which no substitutes exist. Just about everything is recycled at the plant. Demand is the only thing that affects usage.
10. We have reduced due to company initiative. The plan itself has not helped; it is a summary of what we do.
11. We report phenol by way of the TRI form R report. The reportable phenol is a critical component in PRG adhesive that we use to make our products. There are no viable substitution or reduction opportunities for this phenol.
12. TUHWR has had no impact on any company facilities in Oregon. CEGs should not be required to complete this plan.
13. The plan helps to organize thoughts and processes to look for, but for the incompatible substances (toxic substances) in the raw material the plan is not useful.
14. Distributor/product limits, it's as low as it can technically get.
15. No, reduction would have occurred to save money, not reduce toxic use.
16. Has helped reduce waste generation. Toxic substances reductions can only be achieved by resin supplier.
17. .By far, our toxic substances generated are byproducts of our primary manufacturing process. We have no way to reduce their generation other than to reduce paper production.
18. Wood preservation considered toxic, we are using "less" toxic preservatives since discontinuing the use of restricted use pesticides but until "non-toxic" preservatives are developed we will not see great reductions in our toxic use. We have reduced.
19. The TUHWR is a redundant reporting effort. Our internal system is tailored to our business rather than generic. We have an internal EMS in place with management commitment. Our systems help drive our toxic use reduction.
20. We are already motivated to reduce the use of HW /toxic substances by cost. This is just another layer of bureaucracy
21. The primary driver for waste reduction is cost reduction, followed by a reduction in regulatory exposure. In many industries, use reduction is not possible even if use reduction is achieved. Reporting may not reflect the gains if production increase
22. Economics is the driver for change.
23. Initially, the plan helped us analyze our chemical use, but after the first three years it seemed unnecessary and unsuccessful. Maintaining the plans now seems like one more thing to do for DEQ, not the company.
24. TUHWR is a compliance formality. Manufacturing /business needs drive chemical process decision without regard to TUHWR.

<b>5c. Comments from Companies <i>Not Subject To Planning Requirements, That Have No Plan, and That Stated the Plan Did Not Help Their Business</i></b>
1. The waste generated at this facility comes from the cleaning and repair of transportation equipment.
2. The plan did not contribute to our waste and toxic use reductions. Maximizing our efficiency and working our equipment "bugs" showed best results for reductions.
3. It made us look at our wastes and consider them but I'm not sure we reduced (or are able to reduce.)
4. We would have reduced HW with or without plan.
5. Do not produce that much.
6. No one has called or asked us.
7. We would do the same actions with or without a plan.
8. Thermo Fluid environmental helps us with all our wastes.
9. After a company picks the TUR low hanging fruit it's hard to reduce -- changing process/chemicals are easier said than done.
10. We just wrote it for compliance, not a working document.

<b>5c. Comments from Companies <i>Not Subject To Planning Requirements, That Have No Plan, and That Stated the Plan Did Not Help Their Business</i></b>
1. Plan helped us go from LQG or SQG at 8 sites, to CESQG at all sites; no longer need plan.
2. I am the plan.
3. Initially the plan was very useful just in motivating our organization to address TUR issues.
4. Allowed us a method to reduce formalin waste through the use of a neutralizing solution.
5. Your field team helped us reduce our use of toxic substances.
6. Continuous improvement, substitution, reuse or recycling or reduction.
7. Yes, it helped us switch over to acrylic/water based products.
8. All staff are more consciences.
9. The plan increased awareness among many who would not otherwise know how much waste is generated, increasing support.
10. It has helped by not having to get rid of hazardous waste, but recycling it instead.
11. We use regeneration if possible.
12. Forces one to look at opportunities.
13. It provides visibility of TRI chemicals to staff that purchase chemicals.
14. Savings accomplished
15. Causes us to re-visit and re-focus annually.
16. The first couple of years it helped but since there haven't been any other areas for reductions.

<b>5c. Comments from Companies <i>Not Subject to Planning Requirements That Have No Plan and That Stated the Plan Helped Their Business</i></b>
1. It provides a mandatory annual review of process, chemicals used and wastes generated.
2. Even though we are a CEG we treat ourselves as an SQG. This makes sure we are well ahead of what we may need to do.
3. As a SQG, any reduction in waste disposal is a reduction in operating cost.
4. Tracking HW helps us see trends.
5. Made it necessary to examine all of our materials we use. Found things we didn't need to use and redundancy.
6. The planning process instilled waste reduction mindset throughout the facility.
7. The plan has helped on reducing the generation of hazardous waste, but has not helped on the use of toxic substances—no replacement product available yet.
8. We actually operate under an EMS, which mandates the plan/do/check/act cycle.

## Appendix C. Survey Questions 6c & 6d Comments

<b>6c. Comments from LTU's And LQG's Required To Submit Annual Pounds Reports That Responded The Reports Were Not Meaningful</b>
1. The primary driver for waste reduction is cost reduction, followed by a reduction in regulatory exposure. In many industries, use reduction is not possible even if use reduction is achieved. Reporting may not reflect the gains if production increase
2. Toxic substance use is production related and does not reflect HW reduction efforts.
3. We already look at this information when submitting the TRI and annual HW reports.
4. TUHWR is a compliance formality. Manufacturing /business needs drive chemical process decision without regard to TUHWR.
5. We use materials that are classified as toxics but it is more important as to whether we recycle and minimize releases. Unless we fundamentally change our raw materials, we have no reduction choices.
6. We report our toxic substance, epichlorohydrin. Our production demand controls the use of it. No one has yet found any substitute.
7. We manufacture materials that are considered hazardous. Most of the reduction occurs with small use items used in maintenance or laboratory.
8. We use chemical/toxics mostly in research labs. We have a wide variety and small quantities, so most of our toxics are exempt from reporting.
9. We report on highest use chemistries for which all possible reduction efforts have been made.
10. We pretty much reduced all we can.

<b>6c. Comments from Companies Not Required to Submit an Annual Pound Report That Responded The Reports Were Not Meaningful</b>
1. No, occasionally a quantity (large enough) is found to place the business in the small quantity generator status, and is not indicative of HW generation.
2. not relevant
3. (confused with sfm)
4. We use copper in our product (reported in TRI). It is an ingredient in the metals we use. We will not reduce the amount of this toxic since that would have a negative impact on profitability.
5. We don't have any substantial quantities of hazardous material (this responder thinks DEQ is the Fire Marshal)
6. It is helpful to have a measurement of how much waste is being generated; however, this measurement is primarily an indication of production levels rather than an indication of toxic substance reduction.
7. Might be relevant for LQGs but is simply a duplication of effort for TRI users.
8. Our larger usage has been because of expanded business, not being wasteful.
9. As stated above, our TRI report is not a waste material but goes into the product.
10. It is a duplication of the Form R (TRI) reporting.
11. It only indicates demand/production.
12. Most of our HW streams are on time events or very small accumulation amounts. Maybe it helps other facilities.
13. Listing TRI chemical such as phenol for the purpose of establishing meaningful reduction metrics does not work for the reasons previously described above.
14. Reports serve no purpose for Oregon business, our experience.
15. "Toxics" in TRI is a broad group. There should not be stigma in using certain "toxic" material (e.g. copper and other metals) but should focus on generation of waste.
16. Already report through form R -this is repetitive.
17. No, use is dependent on business conditions, they are meaningless.
18. Toxic substance reductions can only be achieved by resin supplier. It becomes an operations business decision.

19. See above - and also our 2002 pounds report cover letter (Weyerhaeuser Springfield) the numbers can swing dramatically year to year due to several technical factors that are not indicative of any real changes.
20. We already report use through our TRI reporting and report our hazardous waste generation in the Annual Hazardous waste report. From doing these each year we can see if the numbers are going up or down.
21. The toxic use is from burning used rubber tires so they are not landfilled.
22. The pounds report is redundant with the TRI. In addition, the TRI contains detailed information. Also annual pounds report does not normalize the data.
23. Waste of time. Business assistance /consulting are by far the most helpful in reducing waste.

<b>6c. Comments from LTU's And LQG's Required To Submit Annual Pounds Reports That Responded The Reports Were Meaningful</b>
1. We report when exceeding CEG amounts ( misunderstood question)
2. I can see all of the emissions on the annual report (TRI report???)
3. Actually, the current simpler report is a way for use to document reduction mentioned in 5c. Above.
4. Because it requires that we review our status on a regular basis, increasing our knowledge in this regard.
5. Good to inventory annual use and personnel changes.
6. Makes one aware of how much waste you are producing.
7. I see no other way of reporting it.
8. Pounds work good for us.
9. Reporting toxic substances tells about what is at the facility.

<b>6c. Comments from Companies Not Required to Submit an Annual Pound Report That Responded The Reports Were Meaningful</b>
1. This respondent thinks this is the Fire Marshal survey.
2. This respondent crossed out DEQ and wrote in Fire marshal. Confused about the question in 6
3. We now recycle everything in house. Antifreeze, air conditioning, and refrigerants we heat with waste oil. We want nothing hauled offsite if possible.
4. It is an important measure of accounting and accountability.
5. Makes you aware of chemical usage.
6. It shows trends. Often too many variables too analyze
7. Measurements in pounds are an accurate representation of our toxic use.
8. It targets large volumes purchased.
9. It is fairly simple, but paint shop waste is generated due to customer demand. So we will continue to generate in order to stay in business. Technology must step up and find a way to make less toxic,
10. Saving money.
11. This is the only meaningful method of measurement in our business
12. Yes-everyone had a feel for what a pound is. No-quantitative but not qualitative.
13. Using a standard measure allows analytical mapping and data manipulation.
14. Waste is waste. (confused with HW reporting)

**6d. Comments from LTU's and LQG's Required to Submit Annual Pounds Reports  
About How DEQ Should Measure TUHWR**

1. By looking at the TRI and Annual Hazardous Waste reports.
2. Coincidental unintentional manufacture of TRI/TUR chemicals should not be counted as "used". See attached letter. Releases associated with such manufacture are already reported in TRI.
3. DEQ should infer through annual RCRA waste generation reports and eliminate TURHWR reporting requirements.
4. It probably does provide info for DEQ and is easy to provide to DEQ. I think DEQ should continue collecting the information and analyzing it.
5. Not clear.
6. Perhaps providing for reporting as a percentage of production.
7. The way it is currently measured.
8. This program has been successful in reducing toxic use and hazardous waste in industry. The general public or homeowner can purchase products that should be removed from the market
9. Toxic chemical use and HW generation should be measured as a ratio of product generated.
10. Keep as is.
11. How much you generate from one year to the other.
12. It is relative to personnel number.
13. Not so much on how, but who. Too many small places (businesses) are never checked or report. To buy toxics you should have a permit or license or some other form to track it.
14. Pounds
15. Pounds are ok, as long as limitation are understood (e.g., how toxic etc)
16. Pounds or gallons
17. Reductions should also be reported in pounds to make comparison with the original amount meaningful.
18. The current method is adequate.
19. The pounds of toxics used and HW generated is probably the best way for reporting. The Annual pounds are only for toxic use.
20. Tough question: I guess by weight.
21. We use a ratio of: toxics used (lbs) / paint production (gal) for baseline year 1990 and every year since. Which has shown a decrease for 2002 compared to 1990, for example?
22. I know how it should not be measured...EPA methods require samples to be preserved which turns them into a HW, when 95% of the time after analysis they turn out to be clean waste. Neutralizing the preservative and the preserved sample should not be counted as hazardous waste.
23. I think it varies from business to business, one system probably does not fit all
24. Pounds and exposure limits
25. Current system is the best with adjustments to insure reliability & compliance.
26. DEQ should help businesses and small generators lessen through use of toxics
27. Leave it as it is.
28. Pounds, gallons

## Appendix D. Survey Question 7b and 7c Comments

<b>7b. Comments from TUHWR Planners or Reporters That Responded the Fire Marshal's Fee Is a Good Funding Mechanism.</b>
1. Certainly the companies involved with producing or using toxic substances should play an important role in funding their monitoring. However, all citizens have a role in making sure the monitoring is done.
2. Seems an effective source of funding. Not sure that it couldn't be more efficiently used.
3. Those that don't have toxic materials don't pay.
4. Yes, people who generate ought to pay. It's part of the cost of doing business.
5. However, it is clear that the fee structure is not fair to all Oregon companies.
6. In this manner it is funded by those who are the big users.
7. Those subject to the regulations pay the bill.
8. Because it provides an incentive to dispose of chemicals/toxics we no longer need or utilize.
9. Funding comes from generators
10. Good way to identify users of toxic materials and assign accountability for using these materials.
11. It may help or encourage people to reduce toxic substance use.
12. Seems appropriate to have those who possess hazardous substances fund a program aimed at reducing toxics.
13. Should be a higher fee system charged to track & insure compliance to insure safety compliance
14. Those people who have and use/generate hazardous chemicals are the ones who need TUHWRR.
15. Those who choose to use/possess hazardous materials/waste should pay for it.
16. Because those companies who use or store more, pay more.
17. Although one pound report is needed for one campus, multiple fees are assessed (per building) which seems redundant (e.g., extra paper)
18. Funding is paid for by the companies requiring the support, without fees being exorbitant.
19. I think that there are a lot of businesses not reporting and you need to seek them out. (confused with the sfm report)
20. Simply put, I do not have a better solution, nor do I wish to waste my time trying to find one.
21. So far we can afford it.
22. The business producing the waste should pay for the expenses incurred to regulate and account for HW.
23. The companies that are the producers of HW and toxic waste should have to pay.
24. This is fair.

<b>7b. Comments from Companies with No TUHWR Planning or Reporting Requirements That Responded the Fire Marshal's Fee Is a Good Funding Mechanism</b>
1. At least the monies are going directly to the program it is intended for and can be monitored to see if it pays for itself.
2. Because all business has to support Fire Marshal.
3. By using funds from H.S.P. fee, only companies that need to use TUHWR contribute to funding.
4. Companies that are LQG need the most help and should pay the most fees.
5. Companies that produce hazardous waste should accrue the cost to dispose of.
6. Companies that produce the chemicals should shoulder the costs related to monitoring.
7. Company's customers are ultimately paying the cost. Education to those customers and willingness for them to pay higher costs will be the biggest factor.
8. Eliminates a lot of bureaucracy.
9. Fee assessment allocates responsibility and cost of storing and dealing with hazardous substances with those involved with them.
10. Funding would come from companies who generate the most waste.

11. Generators should pay for program.
12. Given the states current budget woes, where else could the money come from?
13. If you play you must pay.
14. Industries that use these substances should pay associated costs, which are then reflected by costs of their product or services to users, one would hope.
15. It is a cost of doing business with toxic substances.
16. It is already established.
17. It is fair since these companies produce hazardous waste - it is good for our environment.
18. It places the funding cost with the users or generators, as it should be, and rewards those reduce use or generation.
19. It seems somewhat of a "user fee" in that the people involved are paying the bill.
20. it should be a users fee
21. It stops other tax payers from paying for these companies to be checked and maintained on the hazardous waste disposal and storage, keeping our environment safer.
22. It's a logical source.
23. Paid for by those using hazardous substances, provides motivation to reduce amounts. (This respondent said" I provide your factsheets to businesses who discharge to our sewer system--very helpful, thanks.)
24. Puts the financial burden on the companies using large quantities of hazardous materials. A stepped fee based on quantities of hazardous materials may help encourage reductions of hazardous materials.
25. Revenue based on usage/storage, keep as is.
26. Seems like a fair way of funding, the more I have, the more I pay ...
27. The "hazardous substance possession fee" is a good mechanism for funding the TUHWR, however, I believe the fees are charged for chemicals that do not belong on the list and /or the threshold for charging a fee is too low. An example is that we use to store ordinary bags of lime that were used in our ink separator for balancing the pH. We were charged a fee for having this product on our premises. I can understand a fee if the substance is truly hazardous and think a careful review should be completed to assure fees are representative of the hazards or risks involved.
28. The companies that store the chemicals pay the fees to support its work.
29. The fee comes from those who process or use chemicals. The assistance provided through this funding target the same group. These services are critical to small businesses who can not afford the expertise needed to work with the system.
30. The producers and users should pay the fees.
31. Theses a link and possibly shared information.
32. This should be a user generated fee, but, a portion should be absorbed by the "general fund" as all persons benefit from products produced and the reduction of toxic and hazardous materials.
33. Those companies that use hazardous substances should bear the cost of managing hazardous substances.
34. Those who generate it should be responsible for its containment.
35. To help program.
36. To help program.
37. We are a small firm that only produces a bottle of ammonia once a year from our blue print machine.
38. Works as well as any other business tax
39. It seems like a fair way to target chemical users to pay for the TUHWRR work.
40. I am not sure how else to do it. User pays seems fair.
41. It is as good as any method.
42. The companies that use toxic substances and /or generate the waste pay for the program.
43. We do want to reduce toxics. We could also have a portion of the fee be tied to waste generation.
44. It's linked to the specific users.
45. Should include SQGs and CEGs.

<b>7b. Comments from TUHWR Planners or Reporters That Responded the Fire Marshal's Fee Is Not a Good Funding Mechanism</b>
1. DEQ, FDA, USDA etc. should chime in.
2. Does not capture enough of the states employers.
3. Fire Marshal Fee should be geared to minimize or mitigate a haz mat release of highly Haz. Substances used by companies. Instead, TUHWR seems geared for all users of haz chemicals and therefore, each company on a sliding scale (depending upon volume, identity and its history of chemical releases) should be assessed a fee.
4. Hazardous substances are not always toxic substances or hazardous waste.
5. It doesn't seem that a lot of companies that report annually to the Fire Marshal would also be LQG or LTU. The reporting quantities are so much less-should all companies pay for a program required of a much smaller group of companies.
6. Not all hazardous substances are toxic.
7. Not certain - not familiar with the fee structure.
8. Sometimes storing HW doesn't mean you always dispose of it. You could be recycling it and in that case, what differences does it make if you reduce the amount?
9. The program needs a major overhaul to be of use to business or the public.
10. The program should not exist.
11. This program is unnecessary
12. Too much money is charged. We always pay the maximum cost.
13. Total waste of money and time
14. TUHWR adds no value to RCRA waste/compliance management. It is an added administrative and compliance formality.
15. We are billed based on our hazardous substance used the most which are paint pigments containing small amounts of crystalline silica. These pigments are lime, talc, mica. These may be hazardous but are not toxic!!
16. We do not have visibility to answer 7a or 7b
17. You are not making homeowners aware.

<b>7b. Comments from Companies with No TUHWR Planning or Reporting Requirements That Responded the Fire Marshal's Fee Is Not a Good Funding Mechanism.</b>
1. A major overhaul in TUHWR is needed, otherwise its just busy work for OR businesses.
2. Because we don't like paying it.
3. It seems to exempt a lot of "articles" but counts non toxic chemicals (e.g. argon, nitrogen)
4. Need to focus more on the category of material that the fee is assessed on.

<b>7c. Comments from Companies with TUHWR Planning or Reporting Requirements As to How Else to Fund TUHWR Work</b>
1. I don't know of any other avenues of funding the TUHWR work. We never seem to get much funding to dispose of spilled or dumped toxic wastes on the forest, but end up finding it all through soils and water (funds?) when we have the need.
2. Surcharge on toxic substances.
3. Don't change it.
4. Current system with possible fee modification to adequately fund the program.
5. Fines imposed by DEQ on violators.
6. Chemical manufacturers
7. Not sure.
8. This way is ok.
9. Tax or state funds.

10. Simply put, I do not have a better solution, nor do I wish to waste my time trying to find one.
11. Permits/licenses to purchase toxic chemical in large quantities, 5 gallon or more. Registration fee for small users.
12. Those who produce the chemicals should pay for this.
13. Through fines.
14. Taxes?? Additional charges to water usage.
15. Remove the cap set by the Oregon legislature.
16. Should not be- the rest of the world lives with tight budgets and forgoes annual raises when times get tight. What makes DEQ Employees special?

<b>7c. Comments from Companies with No TUHWR Planning or Reporting Requirements As to How Else to Fund TUHWR Work</b>
1. Assess a fee on retail sale of hazardous substances. So much HW generated by consumers is not tracked and not assessed a fee.
2. Sales tax on toxic substances imported into the state.
3. federal government
4. Metro tip fee or landfill fee
5. Fines, and Fees
6. I have been to several DEQ workshops, when I thought we had done the right things, I invited your staff to our location. Our company would pay something for your time and help. Thank you.
7. Companies that create the chemicals should pay the biggest percentage of cost for education and disposal.
8. User fee.
9. Not sure.
10. The amount allowed by the legislature seems small. Is it adequate to effectively do the job? Should /could fees be increased??
11. no change
12. Use fines from companies in violation.
13. It should be funded by the business involved, based on the amount of product they store.
14. Through a cooperative agreement/grant from EPA.
15. Sorry, can't help you on this one.
16. Fund the work from a fee assessed when toxic items are sold, used, purchased, or created.
17. We pay for the privilege of reporting RVR and SARA. Maybe the TUHWR should have its own fee, but seems more efficient to collect it with SARA.
18. See above, also, export levy on all products shipped off-shore that involves components generated by TUHWR reporters.
19. End user tax. Those who benefit from it should also be responsible.
20. The Oregon lottery
21. Surcharge on consumer hazmat type goods (So I'm dreaming . . .)