Portland Clean Air
HSIS DATA PROJECT

Introduction

HSIS data provides, in many ways, the most comprehensive report of hazardous chemicals being used by industry in Oregon.

Environmental Protection Agency Toxic Release Inventory reports on only 34 air polluters, among the worst air polluters inMultnomah County about as many in Washington County. This number excludes a small number of other industries that trigger EPA program rules but release little air pollution.

More comprehensive information can be obtained from Department of Environmental Quality Air Contaminant Discharge Permits which report on the chemical air pollutionreleased by 376 industries in Multnomah and Washington Counties. This number excludes gas stations and dry cleaners which also require an ACDP.

The most complete report of hazardous chemicals being used by Oregon industry is Hazardous Substance Information System (HSIS) software from the Oregon Office of State Fire Marshall. HSISprovides chemical storage information on 1025 industries in Multnomah and Washington Counties. This number excludes gas stations and other industries that store gas, batteries, and other less hazardous chemicals.

What is HSIS?

There are currently four ways to access hazardous substance information about Oregon industries from the Office of State Fire Marshall's Community Right to Know Program.
1. Facility Substance Report (by request),
2. Custom Report (by request),
3. Hazardous Substance Searchable Database
4.HSIS Software which is downloaded from their website.

In 1985, the Oregon Legislature passed the Oregon Community Right to Know (CR2K) and Protection Act. The purpose of this law is to provide first responders and the public with information about hazardous substances in their response areas and neighborhoods. The law directs the Office of State Fire Marshal (OSFM) to survey business and government facilities for information about the presence of hazardous substances and to collect information about incidents involving hazardous substances.

In 1986, Congress passed the Superfund Amendment and Reauthorization Act (SARA). Title III of this legislation is the Emergency Planning and Community Right to Know Act (EPCRA) which is overseen by the Environmental Protection Agency (EPA). Facilities that provide all information required by Oregon CR2K reporting requirements are considered by EPA as complying with several sections of EPCRA, including notification to the State Emergency Response Commission (SERC), Local Emergency Planning Committee (LEPC) and local fire departments.

Once collected, this information is provided to emergency responders and emergency planners to assist them with hazardous materials pre-emergency planning and response. The information is also available to the general public in order to aid in familiarity with the hazardous materials in their communities.

How PCA Got the HSIS Data

I went to: http://www.sfm.state.or.us/CR2K_SubDB/SubstanceSearch.htm

A sign in name and password is required first and can obtained through the site.

There is no way to do a geographic search nor to export the data.

I called the number on the page (503) 934-8353, this connected me to:

Shelly Kendrick, Information Assistant
Community Right to Know Program
Oregon Office of State Fire Marshal
Oregon State Police

She sent me a the CR2K Information Request form: http://www.oregon.gov/osp/SFM/docs/CR2K/CR2KInfoRequestForm.pdf

In response to the form Shelly sent me a password to:

http://www.oregon.gov/osp/SFM/pages/cr2k_infoavailable.aspx

There I downloaded HSIS software which requires a full version of Access 2010 or later. It comes with Access 2010 Runtime but that is not sufficient to export data.

I downloaded a free trial of Access 2016 at: https://products.office.com/en-us/try

The software didn't work so I called Shelly, she explained:

1. create a file called HSIS at the root to the C drive.
2. place all downloaded files for HSIS database in the HSIS folder on C.
3. Open HSISPublic.accdb
4. Go to "Searches and Reports"
5. Go to "Export"
6. Under "Table to Export" Choose tblHSISFacility
7. Under "Path and File" choose HSISExport.accdb which is in the HSIS folder at the root of C
8. Press the "Export" button
9. Do steps 6-8 again but this time choose tblHSISFacilityChems
10. Open HSISExport.accdb

This created an Access database with two tables. One has facility information and the other has chemical storage information.

Seth then wrote scripts that combined the data into one table using the FacilityID column which both tables share in common.

This produced the tab delineated dataset which you can download at:
http://portlandcleanair.org/files/merge/
The file is called joined.tab
This file can easily be imported into any spreadsheet program such as Microsoft Excel

I removed all counties including only Multnomah to create Mult joined HSIS.xls

How PCA is Portraying the HSIS Data

I made a preliminary map plotted on Google maps:

https://www.google.com/maps/d/edit?mid=zJ2Zx6muOXpU.k-6Ehc1ha8KU&usp=sharing

This map only has facilities but no chemical information. If it had the chemical information it would have a redundant symbol for each chemical as each has its own line in the spreadsheet.

Instead Seth is working to make a separate webpage for each facility. The webpage will have chemicals onsite, MSDS links, and other HSIS info available for that facility. The Google map will have a weblink for each facility available when you click a symbol similar to the PCA ACDP map on our front page portlandcleanair.org

How Complete is HSIS Data?

HSIS has three auditor making random inspections offacilities, they have a hotline for industry to help them report correctly; HSIS has a chemical specialist available for industry; there are penalties for noncompliance.

Fire Marshalls have an interest to know what chemicals are onsite for the safety of fire fighters. Fire Marshalls are aware of compliance and report new businesses to HSIS.

New businesses must obtain licenses at Oregon License Directory operated by the Secretary of State at:
http://sos.oregon.gov/business/Pages/check-state-license-requirements.aspx
This system reports back to HSIS so they can send inventory forms of onsite chemical storage.

In many ways, HSIS data appears to be far more complete than Department of Environmental Quality (DEQ) Air Contaminant Discharge Permit (ACDP) data.

There are 12515 facilities in HSIS statewide
In Multnomah and Washington County there are 2955 facilities.

We removed the following chemicals names from out final online geographical search:
See Portland Clean Air "HSIS edit list by PCA" at the data section of portlandcleanair.org for all substances removed to create joined.edited2.tab

Multnomah County has 251 facilities with ACDPs excluding gas stations and dry cleaners, Washington County has 124 facilities with ACDPs excluding gas station and dry cleaners. So total ACDPs in Washington and Multnomah Counties is 376. So there are almost three times as many HSIS facilities as there are DEQ permitted facilities with

Hazardous chemicals onsite. For example,Uroboros Glass in Portland, in the news for significant emissions of cadmium and arsenic has never been required to obtain a DEQ permit. Uroboros does have a HSIS listing.

One field we will include is whether the facility has a site plan. The field is a yes or no. A site plan is a written emergency plan for chemical spill emergencies.

Chemical storage not included in PCA's version of HSIS data

Some HSIS data is removed as confidential. PCA did not include any confidential data. There are two reasons a chemical is listed as confidential:

Trade secrets:
If an industry is allowed to protect chemical storage from being public information because this would jeopardize an industrial trade secret, then the chemical is listed instead as:
tradesecrethaz class and a number such as 6.3
So for example is an industry does not list hexane because doing so would reveal a trade secret then the Fire Marshall would see it listed as hexane because the Fire Marshall has a copy of the confidential HSIS. The public would see the chemical listed as tradesecrethaz class and a number

National Security:
After 911 the law changed and HSIS chemicals were made confidential if the chemicals are: explosives, poison gasses (weapons of war like chlorine gas), etiologics (infectious agents), and radioactive materials.

Works Cited:

Oregon State Police - Oregon Office of State Fire Marshall. 2016. *CR2K Information Access.* Found online at:
https://www.oregon.gov/osp/SFM/pages/cr2k_infoavailable.aspx
and
Community Right to Know. Found online at:
http://www.oregon.gov/OSP/SFM/Pages/CR2K_Home.aspx