

**From:** Laurie Dougherty <lauriedougherty@gmail.com>  
**Sent:** Tuesday, October 29, 2013 9:09 PM  
**To:** EFSEC (UTC)  
**Subject:** Comment on Tesoro Savage proposed oil terminal in Vancouver, WA  
  
**Categories:** Comment, Blue Category

Laurie Dougherty 462 20th St. SE Salem, OR  
617-504-0016 [lauriedougherty@gmail.com](mailto:lauriedougherty@gmail.com)

I have lived in Oregon for two years, however my daughter has lived in the Pacific Northwest for two decades and I visited Washington and Oregon many times before moving here. When I retired I was happy to come to such a beautiful region with such a history of innovative environmental policy.

I am very concerned about the climate change impacts of ramping up oil production. I'm also very concerned about the risk of oil spills along the Columbia River which would be disastrous to fisheries, recreation and other commerce on the river. I have traveled across country by Amtrak several times and will do so again next month to visit my son for Thanksgiving., traveling along the same BNSF tracks that carry Bakken Shield oil from North Dakota. Even before the increased capacity that this project would bring, I've seen hundreds of oil tanker cars on the route on sidings and in rail yards. I'm very concerned about the risk of train wrecks involving Bakken Shield oil, the same oil that devastated the Quebec town of Lac Megantic in an explosive train wreck last summer.

Just yesterday the governors of Washington, Oregon and California and provincial officials from British Columbia signed a plan to join together to fight climate change and build a clean energy economy. This is a big step in the right direction. The Tesoro Savage project would be a huge step in the wrong direction. I urge you to give comprehensive consideration to the harmful impacts of this proposal. Thank you

## Docket EF-131590

Tesoro Savage CBR  
Scoping Comment  
#152

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**From:** Friends of the Columbia Gorge <Advocacy@GorgeFriends.org> on behalf of Rita Heinz <ritaheinz@hotmail.com>  
**Sent:** Tuesday, October 29, 2013 10:01 PM  
**To:** EFSEC (UTC)  
**Subject:** Docket No. EF-131590 Application No. 2013-01 Tesoro Savage Vancouver Energy Distribution Terminal Comments  
**Categories:** Comment, Blue Category

Oct 30, 2013

Energy Facility Site Evaluation Council  
WA

Dear Site Evaluation Council,

Please deny the permit for the Tesoro Savage Vancouver Energy Distribution Terminal.

Please have the courage to say no to this massive push on dirty fossil fuels. Someone has to stop the insanity. The proposed Tesoro Savage project would transport 360,000 barrels of oil per day through the Columbia River Gorge National Scenic Area. I have grave concerns about this proposal and its impact on the Columbia River Gorge National Scenic Area. The scope of review under the State Environmental Policy Act (SEPA) must include the following:

What is the purpose of the project? The purpose statement must not be narrowly worded to only include the construction of an oil terminal for distribution of oil through the region. The purpose should be broad enough to include providing for the energy needs of the region and providing opportunities for appropriate waterfront development that benefits the local community.

Is there a need for this project? There is not. This proposal, in conjunction with other existing and pending oil terminals, would result in a glut of oil in the Northwest that would far exceed current consumption. There are alternative waterfront development opportunities that would create jobs and generate greater benefits for the local community.

What are the alternatives? A "no action" alternative; an alternative relying on other oil terminals that already exist, are in the permitting process or under construction; and reducing reliance on fossil fuels all must be considered as viable alternatives. Transport routes that do not pass through congressionally protected areas, like the Columbia River Gorge also must be included in the alternatives analyses. The EIS should also consider reasonably foreseeable waterfront development opportunities that would be incompatible with an oil terminal, such as mixed use development with waterfront amenities.

What are the direct, indirect and cumulative effects of the proposal, including transportation impacts on the Columbia River Gorge National Scenic Area, such as:

- Increased air pollution from train diesel emission. The Gorge already suffered from smog and visibility impairment up to 95% of the time.
- Rail expansion into sensitive areas. Rail lines in the Gorge are currently near capacity. This proposal and other oils by rail and coal export proposals would result in rail infrastructure expansion into sensitive areas in the Gorge, including

wetlands, fish and wildlife habitat, rare plant habitat, and cultural resource sites. These likely impacts must be included in the scope of review.

- Likelihood of accidents. Current coal train traffic in the Gorge has resulted in massive amounts of coal dust escaping the open topped rail cars, which weakens the train ballast and causes accidents. The U.S. Surface Transportation Board has determined that coal dust is a "pernicious ballast foulant," weakening rail lines and resulting in derailments. The likelihood of oil train derailments, the likely effects on Gorge resources and the impacts on communities must be analyzed.

- Adverse effects to resources protected by the Columbia River Gorge National Scenic Area Act. The project's indirect and cumulative effects on the scenic, natural, cultural and recreation resources of the Columbia River Gorge National Scenic Area must be included in the scope of review.

In conclusion, SEPA requires that the EIS address impacts to sensitive or special areas, such as the Columbia River Gorge, and the degree that the proposal would conflict with state, local, and federal protections for the environment, such as the Columbia River Gorge National Scenic Area Act. WAC 197-11-330(3)(e)(i), (iii). State law also requires the Governor and all state agencies to carry out their respective functions in accordance with the Columbia River Gorge National Scenic Area Act.

RCW 43.97.025. EFSEC and the Governor are required to review projects for their impacts on the Columbia River Gorge and to take actions to avoid those impacts.

Thank you for considering these comments and including them into the official record.

Sincerely,

Ms. Rita Heinz  
210 Suncrest Rd Unit 3  
Talent, OR 97540-8620

**Docket EF-131590**

Tesoro Savage CBR  
Scoping Comment  
#153

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**From:** Robin Thomas <robint@pacifier.com>  
**Sent:** Tuesday, October 29, 2013 10:06 PM  
**To:** EFSEC (UTC)  
**Subject:** Testimony from EFSEC Hearing at Clark College 10/29/13  
**Attachments:** Opposition to Oil Transfer Terminal .docx  
  
**Categories:** Comment, Blue Category

Attached is a copy of my testimony from tonight's hearing. I appreciated the opportunity to testify.

Signed,

Robin C. Thomas

## **Testimony –Opposition to Oil Transfer Terminal 10/29/13**

Hello, my name is Robin Thomas and I've lived at 3912 Clark Ave in Vancouver for the last 13 years.

I am here today to strongly urge the EFSEC to deny a permit to Tesoro Savage to create a "pipeline on wheels" that would transport 360,000 barrels of crude oil per day into the Port of Vancouver. This would require at least four 1 ½ mile long trains per day in addition to the current rail traffic coming in & out of our city.

The increased train traffic alone would seriously impact the waterfront development along our Renaissance Trail, and would expose walkers, bikers, joggers, infants, & children in strollers crossing our Vancouver Land Bridge to incessant noise pollution, diesel fuel exhaust, and restricted views of the Columbia River.

The Renaissance Trail and the Vancouver Land Bridge are popular and unique recreational sites that required significant investment of public and private funds. They are heavily used by both residents and tourists year round, and they deserve preservation and enhancement, not environmental degradation. The current trains create significant noise pollution and distraction and frequently block views of the Columbia from the Land Bridge already. A significant increase in train traffic could seriously impact the recreational & historical value of this unique site .

While these concerns may seem minor compared to the increase in global warming and toxic air pollution that the oil trains would create, the Land Bridge and the Renaissance Trail are part of the heart and soul of our community, and they need to be protected and preserved for future generations.

Lastly, the proposed 32 acre Vancouver water front development east of the Port of Vancouver includes plans for 3,300 residential units, 250,000 square feet of retail space, and one million square feet of office space. This seems completely incompatible with the amount of train traffic that would traverse the new development en route to what would be the largest crude oil terminal in the Pacific Northwest.

(I didn't read the last paragraph, as someone else had already made this argument. )

I said, "I agree with the 3<sup>rd</sup> speaker about the incompatibility of the proposed Vancouver water front development with the plan to build an oil transfer terminal just east of this proposed development."

Please consider the above concerns as you proceed with the scoping process. Thank you.

Robin C. Thomas

**From:** Robert Hughes <bugssrah@msn.com>  
**Sent:** Tuesday, October 29, 2013 10:16 PM  
**To:** EFSEC (UTC)  
**Subject:** Not Everyone in Vancouver says 'no' to the Tesoro Savage application

**Categories:** Comment, Blue Category

I attended the Scoping Meeting tonight at Clark College and wanted to share with you that not everyone there felt antagonistic to this project.

Some of us know that Norway has successfully said "yes" to building an economy around oil production and has not lost it's natural beauty or grandeur; some of us know that Paris or London in the late 1890's was filthy and is clean today . . .in fact, even in the 1990's we were having those days we were told not to go outside in many cities right here! Things are BETTER today, and we should recognize that our regulations are working.

There are many of us out here who have faith in the system and understand that before the project is built it will have to pass strict regulations and have state-of-the-art mitigation plans. Many of my neighbors are supportive of the project and the possibilities it brings to the area.

Robert and Ruth Ann Hughes  
2710 Grant Street  
Vancouver, WA  
360-903-1462

**From:** Friends of the Columbia Gorge <Advocacy@GorgeFriends.org> on behalf of Robert Swope <frhn@nwinfo.net>  
**Sent:** Tuesday, October 29, 2013 10:31 PM  
**To:** EFSEC (UTC)  
**Subject:** Docket No. EF-131590 Application No. 2013-01 Tesoro Savage Vancouver Energy Distribution Terminal Comments  
  
**Categories:** Comment, Blue Category

Oct 30, 2013

Energy Facility Site Evaluation Council  
WA

Dear Site Evaluation Council,

Please deny the permit for the Tesoro Savage Vancouver Energy Distribution Terminal.

The proposed Tesoro Savage project would transport 360,000 barrels of oil per day through the Columbia River Gorge National Scenic Area. I have grave concerns about this proposal and its impact on the Columbia River Gorge National Scenic Area. The scope of review under the State Environmental Policy Act (SEPA) must include the following:

What is the purpose of the project? The purpose statement must not be narrowly worded to only include the construction of an oil terminal for distribution of oil through the region. The purpose should be broad enough to include providing for the energy needs of the region and providing opportunities for appropriate waterfront development that benefits the local community.

Is there a need for this project? There is not. This proposal, in conjunction with other existing and pending oil terminals, would result in a glut of oil in the Northwest that would far exceed current consumption. There are alternative waterfront development opportunities that would create jobs and generate greater benefits for the local community.

What are the alternatives? A "no action" alternative; an alternative relying on other oil terminals that already exist, are in the permitting process or under construction; and reducing reliance on fossil fuels all must be considered as viable alternatives. Transport routes that do not pass through congressionally protected areas, like the Columbia River Gorge also must be included in the alternatives analyses. The EIS should also consider reasonably foreseeable waterfront development opportunities that would be incompatible with an oil terminal, such as mixed use development with waterfront amenities.

What are the direct, indirect and cumulative effects of the proposal, including transportation impacts on the Columbia River Gorge National Scenic Area, such as:

- Increased air pollution from train diesel emission. The Gorge already suffered from smog and visibility impairment up to 95% of the time.
- Rail expansion into sensitive areas. Rail lines in the Gorge are currently near capacity. This proposal and other oils by rail and coal export proposals would result in rail infrastructure expansion into sensitive areas in the Gorge, including

wetlands, fish and wildlife habitat, rare plant habitat, and cultural resource sites. These likely impacts must be included in the scope of review.

- Likelihood of accidents. Current coal train traffic in the Gorge has resulted in massive amounts of coal dust escaping the open topped rail cars, which weakens the train ballast and causes accidents. The U.S. Surface Transportation Board has determined that coal dust is a "pernicious ballast foulant," weakening rail lines and resulting in derailments. The likelihood of oil train derailments, the likely effects on Gorge resources and the impacts on communities must be analyzed.

- Adverse effects to resources protected by the Columbia River Gorge National Scenic Area Act. The project's indirect and cumulative effects on the scenic, natural, cultural and recreation resources of the Columbia River Gorge National Scenic Area must be included in the scope of review.

In conclusion, SEPA requires that the EIS address impacts to sensitive or special areas, such as the Columbia River Gorge, and the degree that the proposal would conflict with state, local, and federal protections for the environment, such as the Columbia River Gorge National Scenic Area Act. WAC 197-11-330(3)(e)(i), (iii). State law also requires the Governor and all state agencies to carry out their respective functions in accordance with the Columbia River Gorge National Scenic Area Act.

RCW 43.97.025. EFSEC and the Governor are required to review projects for their impacts on the Columbia River Gorge and to take actions to avoid those impacts.

Thank you for considering these comments and including them into the official record.

Sincerely,

Mr. Robert Swope  
16191 Tieton Dr  
Yakima, WA 98908-8021  
(509) 965-2561

## Docket EF-131590

Tesoro Savage CBR  
Scoping Comment  
#156

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**From:** Friends of the Columbia Gorge <Advocacy@GorgeFriends.org> on behalf of Marjorie Johnson <mejohanson41@aol.com>  
**Sent:** Tuesday, October 29, 2013 11:01 PM  
**To:** EFSEC (UTC)  
**Subject:** Docket No. EF-131590 Application No. 2013-01 Tesoro Savage Vancouver Energy Distribution Terminal Comments

**Categories:** Comment, Blue Category

Oct 30, 2013

Energy Facility Site Evaluation Council  
WA

Dear Site Evaluation Council,

Please deny the permit for the Tesoro Savage Vancouver Energy Distribution Terminal.

The proposed Tesoro Savage project would transport 360,000 barrels of oil per day through the Columbia River Gorge National Scenic Area. I have grave concerns about this proposal and its impact on the Columbia River Gorge National Scenic Area. The scope of review under the State Environmental Policy Act (SEPA) must include the following:

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Is there a need for this project? There is not. This proposal, in conjunction with other existing and pending oil terminals, would result in a glut of oil in the Northwest that would far exceed current consumption. There are alternative waterfront development opportunities that would create jobs and generate greater benefits for the local community.

What are the alternatives? A "no action" alternative; an alternative relying on other oil terminals that already exist, are in the permitting process or under construction; and reducing reliance on fossil fuels all must be considered as viable alternatives. Transport routes that do not pass through congressionally protected areas, like the Columbia River Gorge also must be included in the alternatives analyses. The EIS should also consider reasonably foreseeable waterfront development opportunities that would be incompatible with an oil terminal, such as mixed use development with waterfront amenities.

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RCW 43.97.025. EFSEC and the Governor are required to review projects for their impacts on the Columbia River Gorge and to take actions to avoid those impacts.

I personally do not see the value in lost natural resources which would be our beautiful Columbia River to a devastating OIL SPILL. We fish the best Salmon out of the Columbia, have many visitors just come to the Gorge to view it's beauty and enjoy its parks and recreation opportunities. Do you think they will come is all they hear is train whistles, hold up on track crossings, oil slicks on the river, polluted fish, etc. etc.??? This is a bad bad idea and no amount of temporary jobs can justify something that will affect the millions of our future generations in a negative way. Please do not let this Big Oil project go forward. Thank you for listening, please do not let this hazard poisonous "waste" flow down our Columbia Gorge.

Thank you for considering these comments and including them into the official record.

Sincerely,

Ms. Marjorie Johnson  
640 NW Freeman Ave  
Hillsboro, OR 97124-2833  
(503) 640-4682

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**From:** Friends of the Columbia Gorge <Advocacy@GorgeFriends.org> on behalf of Kathy Lane <ladylane99@hotmail.com>  
**Sent:** Tuesday, October 29, 2013 11:31 PM  
**To:** EFSEC (UTC)  
**Subject:** Docket No. EF-131590 Application No. 2013-01 Tesoro Savage Vancouver Energy Distribution Terminal Comments  
  
**Categories:** Comment, Blue Category

Oct 30, 2013

Energy Facility Site Evaluation Council  
WA

Dear Site Evaluation Council,

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Thank you for considering these comments and including them into the official record.

Sincerely,

Ms. Kathy Lane  
1906 C St  
Vancouver, WA 98663-3330

**From:** Friends of the Columbia Gorge <Advocacy@GorgeFriends.org> on behalf of Brian Anderson <brianmichaelanderson@yahoo.com>  
**Sent:** Tuesday, October 29, 2013 11:31 PM  
**To:** EFSEC (UTC)  
**Subject:** Docket No. EF-131590 Application No. 2013-01 Tesoro Savage Vancouver Energy Distribution Terminal Comments  
  
**Categories:** Comment, Blue Category, Yellow Category

Oct 30, 2013

Energy Facility Site Evaluation Council  
WA

Dear Site Evaluation Council,

Please deny the permit for the Tesoro Savage Vancouver Energy Distribution Terminal.

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RCW 43.97.025. EFSEC and the Governor are required to review projects for their impacts on the Columbia River Gorge and to take actions to avoid those impacts.

Thank you for considering these comments and including them into the official record.

Sincerely,

Mr. Brian Anderson  
1848 SE 35th Ave  
Portland, OR 97214-5041



## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

## Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013Name: Cynthia Thornton-TangAddress: 218 NW 41st St, Vancouver, WA 98660  
(Please include your Zip!)

RECEIVED

OCT 29 2013

ENERGY FACILITY SITE  
EVALUATION COUNCILPlease write any comments you have with respect to the  
Tesoro Savage Vancouver Energy Distribution Terminal  
Informational & Scoping CommentsLeave this sheet in the Comment Box today, or mail it to:  
EFSEC, PO Box 43172, Olympia, WA 98504-3172.

Comment letters must be postmarked by Monday, November 18, 2013.

- Will there be an escrow fund set up for clean up costs once the port transitions away from an oil terminal?
- Will there be back up plans for the safety of the terminal in the case of flood, earthquake, or fire? If relying on a back up generator, <sup>how</sup> will that be protected?
- Will there be a mandate that all spills, whether in transit over land, on site, or in the river or ocean are reported and <sup>the reports are</sup> available to the public? <sup>Who would be the clean up crew?</sup> How would the fines be levied?
- Will there be an escrow account set up in the event of a spill or other accident?

Use the back of this form if you need more room for your comments.

For more information about EFSEC's review of these project changes, please contact:  
Sonia Bumpus, EFSEC Siting Specialist, PO Box 43172, Olympia, WA 98504-3172,  
call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).

- Are the railway cars the same as involved in the explosion in Canada? If the railway cars are not double hulled, when will they be replaced & who will pay for this?
- Will the Tesoro Savage & the port still find this profitable if there is a carbon tax?
- Will the oil be exported out of the country?
- Is this the safest way to transport the oil?
- Could the equivalent number of jobs be created in this region if the port land was used by a different tenant?
- How will disruptions to communities be handled where there are street level crossings?
- Will a value be set for the natural resources of this area or the wildlife? ~~so that~~ If there was a spill, there would be compensation to the public who make their living by having our resources and wildlife? Would there be compensation for loss of a legacy?



## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

## Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013

Name:

Soren ANDERSEN

Address:

2914 E. McLoughlin Vanc, 98601

(Please include your Zip!)

Please write any comments you have with respect to the  
Tesoro Savage Vancouver Energy Distribution Terminal  
Informational & Scoping CommentsLeave this sheet in the Comment Box today, or mail it to:  
EFSEC, PO Box 43172, Olympia, WA 98504-3172.

Comment letters must be postmarked by Monday, November 18, 2013.

I DO NOT WANT ANY OIL OR  
COAL EXPORTS.

RECEIVED

OCT 29 2013

ENERGY FACILITY SITE  
EVALUATION COUNCIL*Use the back of this form if you need more room for your comments.*For more information about EFSEC's review of these project changes, please contact:  
Sonia Bumpus, EFSEC Siting Specialist, PO Box 43172, Olympia, WA 98504-3172,  
call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).



## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013

Name:

CAROL ROSE

Address:

8209 NW 12 AVE, VANCOUVER

(Please include your Zip!)

98665

RECEIVED

OCT 29 2013

ENERGY FACILITY SITE  
EVALUATION COUNCILPlease write any comments you have with respect to the  
Tesoro Savage Vancouver Energy Distribution Terminal  
Informational & Scoping CommentsLeave this sheet in the Comment Box today, or mail it to:  
EFSEC, PO Box 43172, Olympia, WA 98504-3172.

Comment letters must be postmarked by Monday, November 18, 2013.

The Columbia River is already  
in danger due to Hanford.  
How can our state put the  
oil danger on the Columbia.  
Gov. Inslee just signed an  
environmental agreement with  
B.C, Cal, & Oregon. Surely he won't  
approve this. This is adding oil  
& coal to a disaster waiting to  
happen. Fracked oil is most dangerous

Use the back of this form if you need more room for your comments.

For more information about EFSEC's review of these project changes, please contact:  
Sonia Bumpus, EFSEC Siting Specialist, PO Box 43172, Olympia, WA 98504-3172,  
call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).

Port of Vancouver/energy facility site evaluation Council Tesoro Savage Vancouver energy distribution terminal  
introductory and scoping comments  
application number 2013 -- 01  
Docket number EF --131590

RECEIVED

OCT 29 2013

ENERGY FACILITY SITE  
EVALUATION COUNCIL**I introductory comments**

welcome to Vancouver  
reasonable accommodation- thank you



John Karpinski -- credentials

Who's Who in American Law (at least) 2003 to present

Won 2 Washington Supreme Court cases on the same day -- 9/9/99

- *Concerned Ratepayers Ass'n v. Public Utility Dist. No. 1 of Clark County, Wash.*, 138 Wn.2d 950, 983 P.2d 635 (Wash. 1999)
- *Currens v. Sleek*, 138 Wn.2d 858, 983 P.2d 626 (Wash. 1999)

Defeated Williams GSX natural gas pipeline through San Juan Co underwater nature preserve 2004

**II Objections/scoping comments for the record**

- My comments focus on SEPA, but equally relevant to NEPA

**A) PORT CANNOT TAKE ANY ACTION THAT WILL LIMIT THE CHOICE OF REASONABLE ALTERNATIVES DURING SEPA REVIEW**

I) object to the Port of Vancouver entering into a lease with Tesoro prior to final EIS as a violation of WAC 197 -- 11 -- 070

**WAC 197-11-070 Limitations on actions during SEPA process**

(1) Until the responsible official issues a final determination of nonsignificance or final environmental impact statement, **no action concerning the proposal shall be taken** by a governmental agency that would:

- (a) Have an adverse environmental impact; or
- (b) **Limit the choice of reasonable alternatives.**

**B) LEASES NOT EXEMPT FROM SEPA**

WAC 197 -- 11 -- 800 (5)(c)Categorical exemptions

(5) **Purchase or sale of real property.** The following real property transactions by an agency shall be exempt:

(c) The lease of real property **when the use of the property for the term of the lease will remain essentially the same as the existing use**, or when the use under the lease is otherwise exempted by this chapter.

## C) PORT LEASE IS AN ACTION UNDER SEPA...A PUBLIC ACTION.

1) lease is an action under WAC 197-11-704

**(1) "Actions" include, as further specified below.**

(a) New and continuing activities (including projects and programs) entirely or partly financed, assisted, conducted, regulated, licensed, or approved by agencies;

(b) New or revised agency rules, regulations, plans, policies, or procedures; and

(c) Legislative proposals.

(2) Actions fall within one of two categories:

(a) **Project actions.** A project action involves a decision on a specific project, such as a construction or management activity located in a defined geographic area. Projects include and are limited to **agency decisions to:**

(i) License, fund, or undertake any activity that will directly modify the environment, whether the activity will be conducted by the agency, an applicant, or under contract.

(ii) Purchase, sell, **lease**, transfer, or exchange natural resources, including **publicly owned land, whether or not the environment is directly modified.**

## 2) Lease is a public proposal under WAC 197-11-784

"Proposal" means a proposed action. A proposal includes both **actions** and regulatory decisions **of agencies** as well as any actions proposed by applicants.

## D) NO ACTION ALTERNATIVE REQUIRED BY SEPA, obviated by lease

WAC 197-11-440 EIS contents

**(5) Alternatives including the proposed action.**

(a) This section of the EIS describes and presents the proposal (or preferred alternative, if one or more exists) and alternative courses of action.

(b) Reasonable alternatives shall include actions that could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation.

(i) The word "reasonable" is intended to limit the number and range of alternatives, as well as the amount of detailed analysis for each alternative.

**(ii) The "no-action" alternative shall be evaluated and compared to other alternatives.**

(iii) Reasonable alternatives may be those over which an agency with jurisdiction has authority to control impacts either directly, or indirectly through requirement of mitigation measures.

(c) This section of the EIS shall:

(i) Describe the objective(s), proponent(s), and principal features of reasonable alternatives. Include the proposed action, including mitigation measures that are part of the proposal.

(ii) Describe the location of the alternatives including the proposed action, so that a lay person can understand it. Include a map, street address, if any, and legal description (unless long or in metes and bounds).

(iii) Identify any phases of the proposal, their timing, and previous or future environmental analysis on this or related proposals, if known.

(iv) Tailor the level of detail of descriptions to the significance of environmental impacts. The lead agency should retain any detailed engineering drawings and technical data, that have been submitted, in agency files and make them available on request.

(v) Devote sufficiently detailed analysis to each reasonable alternative to permit a comparative evaluation of the alternatives including the proposed action. The amount of space devoted to each alternative may vary. One alternative (including the proposed action) may be used as a benchmark for comparing alternatives. The EIS may indicate the main reasons for eliminating alternatives from detailed study.

(vi) Present a comparison of the environmental impacts of the reasonable alternatives, and **include the no action alternative**. Although graphics may be helpful, a matrix or chart is not required. A range of alternatives or a few representative alternatives, rather than every possible reasonable variation, may be discussed.

(vii) Discuss the benefits and disadvantages of reserving for some future time the implementation of the proposal, as compared with possible approval at this time. The agency perspective should be that each generation is, in effect, a trustee of the environment for succeeding generations. Particular attention should be given to the possibility of **foreclosing future options by implementing the proposal**.

#### **E) Lease in violation of SEPA is an *Ultra vires* act**

Noel v. Cole, 98 Wash. 2d 375, 655 P.2d 245 (1982) Gov't approval issued in violation of SEPA is ultra vires

#### **F) SCOPING NOTICE FROM EFSEC FAILS TO REQUIRE COMPREHENSIVE REVIEW**

**1) fails to include impacts including**, but not limited to

- Exporting oil impacts
  - Only need for a deep water port is for oil export
  - If claim only domestic use, put condition that any change to export must go through another full EFSEC review, SEPA and NEPA EIS
- Extra jurisdictional impacts
- WAC 197 -- 11 -- 060 4 b
  - Includes entire transportation system
- indirect impacts including the precedent of future dirty energy related projects
- WAC 197 -- 11 -- 060 4 d
- cumulative impacts
- WAC 197 -- 11 -- 060 4 d
- catastrophic impacts...like explosions/dead people/spills who live everywhere the rail line, and river/ocean spills
- WAC 197- 11 -794
  -

(1) "Significant" as used in SEPA means a **reasonable likelihood of more than a**

**moderate adverse impact on environmental quality.**

(2) Significance involves context and intensity (WAC 197-11-330) and does not lend itself to a formula or quantifiable test. The context may vary with the physical setting. Intensity depends on the magnitude and duration of an impact.

The severity of an impact should be weighed along with the likelihood of its occurrence. An **impact may be significant if its chance of occurrence is not great, but the resulting environmental impact would be severe if it occurred.**

## **2) fails to discuss required alternatives**

- No action/no lease alternative
- Other potential uses that create equal or greater # jobs at a lesser environmental impact

## **G.Object to the failure to circulate the EFSEC scoping notice to the mailing list the port of Vancouver**

**III Objections Re: Port of Vancouver -objection to participation of Jerry Oliver in any proceedings re: project.**

**A) Must raise procedural objections as soon as possible.**

**B) Jerry Oliver has a pecuniary interest in project and precedent of project**

## **1) Commissioners agree to tie their salaries to Port of Vancouver revenues**

As stated in the Columbian,:

By Aaron Corvin, Columbian port & economy reporter

Published: October 22, 2013, 7:52 PM

The Port of Vancouver's elected commissioners unanimously approved a resolution Tuesday that provides commissioners salary increases tied to the port's financial performance.

Currently, a port commissioner receives a salary of \$635 per month — or \$7,620 annually — which is adjusted for inflation every five years. Under the new policy, those salaries would rise further based on increases in the port's operating revenue. If, for example, the port reaches revenue of \$35 million to \$50 million, commissioners could receive \$800 per month, or \$9,600 annually. If revenue hit the \$50 million to \$70 million range, pay would increase to \$1,000 per month, or \$12,000 annually, and so on. Conversely, dropping revenue would reduce pay.

The port anticipates operating revenue of \$34.08 million for 2014, so a pay raise would not kick in yet under the proposed change.

## **2) Jerry Oliver is running opposed for reelection.**



## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

## Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013Name: ANGELA VAKSHOLTZ - ANDERSENAddress: 2914 E. McLOUGHLIN BLVD., VANCOUVER, WA  
(Please include your Zip!) 98661

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OCT 29 2013

Please write any comments you have with respect to the  
Tesoro Savage Vancouver Energy Distribution Terminal  
Informational & Scoping CommentsENERGY FACILITY SITE  
EVALUATION COUNCILLeave this sheet in the Comment Box today, or mail it to:  
EFSEC, PO Box 43172, Olympia, WA 98504-3172.  
Comment letters must be postmarked by Monday, November 18, 2013.

I am strongly opposed to the Tesoro Distribution Terminal. The economic costs far exceed the gains the terminal provides.

Consider - Health costs - how many people living along train tracks will develop asthma? ADD or autism in unborn children?

Environmental costs - It's only a matter of time before we experience a derailment fires, ->

Use the back of this form if you need more room for your comments.

For more information about EFSEC's review of these project changes, please contact:  
Sonia Bumpus, EFSEC Siting Specialist, PO Box 43172, Olympia, WA 98504-3172,  
call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).

explosions and oil spills. All of this = massive property costs and needless environmental clean up.

\* Shipping massive quantities of oil over the Columbia River Bar is a massive problem waiting to happen.

- We've spent huge amounts of money on salmon habitat restoration. These gains would be lost in an oil disaster.

- Our governor has just signed a pact with Oregon, California & B.C. - This terminal is in direct opposition to their commitment to climate change.

- Vancouver has spent thousands of dollars on renewing the new waterfront - This terminal is dirty and undermines the healthy community planned for this area.

- TESORO = HORRIBLE, COSTLY IDEA!



## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

## Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013

Name:

THOMAS SHARF

Address:

813 NE 130TH ST VANCOUVER 98684

(Please include your Zip!)

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EVALUATION COUNCILPlease write any comments you have with respect to the  
Tesoro Savage Vancouver Energy Distribution Terminal  
Informational & Scoping Comments

Leave this sheet in the Comment Box today, or mail it to:

EFSEC, PO Box 43172, Olympia, WA 98504-3172.

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THE MOUTH OF THE COLUMBIA RIVER IS  
ONE OF THE MOST DANGEROUS SHIP'S PASSAGES  
IN THE WORLD. A TANKER ACCIDENT THERE  
COULD DESTROY HUNDREDS OF MILES OF  
WA & OR COASTLINE.

THE SCOPE OF ENVIRONMENTAL IMPACT  
MUST TAKE INTO ACCOUNT THE ENTIRE  
TRANSPORTATION CORRIDOR THAT THE  
OIL WILL TRAVERSE.

Use the back of this form if you need more room for your comments.

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call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).



## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

## Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013

Name:

Elizabeth Graser-Lindsey

Address:

21341 S. Ferguson Rd. Beavercreek, OR  
(Please include your Zip!)

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Please write any comments you have with respect to the

OCT 29 2013 Tesoro Savage Vancouver Energy Distribution Terminal

ENERGY FACILITY SITE INFORMATIONAL & SCOPING COMMENTS  
EVALUATION COUNCIL

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EFSEC, PO Box 43172, Olympia, WA 98504-3172.

Comment letters must be postmarked by Monday, November 18, 2013.

1. Freight routes & the rails are crowded in this region & should not be tied up for export use when there is inadequate for local passenger & regional freight needs
2. Salmon are already severely endangered & do not need additional hazards particularly oil spills. Other fish are also endangered.
3. Our water needs to remain pure & should not be contaminated by leaks
4. Oil carried could change over the years →

Use the back of this form if you need more room for your comments.

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Sonia Bumpus, EFSEC Siting Specialist, PO Box 43172, Olympia, WA 98504-3172,  
call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).

- and corrosive ones can lead to extra leaks
5. Local towns are endangered when they are split in half by rail and people can't get where they need to go & emergency vehicles can't reach emergencies,
6. How can there be oil trains if the rails are filled w/ coal trains?
7. My children's lives matter. I don't want climate change elevating temperatures & threatening us w/ crop failure & famine; I don't want municipal snow packs depleted; I don't want storms & sea level rise; I don't want new insect pests such as West Nile virus



## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

## Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013

Name:

ANDREW STONE

Address:

238 N. BEECH, PORTLAND OR 97227

(Please include your Zip!)

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Please write any comments you have with respect to the  
Tesoro Savage Vancouver Energy Distribution Terminal  
Informational & Scoping CommentsENERGY FACILITY SITE  
EVALUATION COUNCILLeave this sheet in the Comment Box today, or mail it to:  
EFSEC, PO Box 43172, Olympia, WA 98504-3172.

Comment letters must be postmarked by Monday, November 18, 2013.

I live closer to the terminal than much of Vancouver. I work, recreate in and eat food from the rail corridor.

Who would this terminal benefit? Would Tesoro put local b-shops and communities at risk with an export Terminal? Would they export Canadian Oil to Asia?

Even if it is ONLY for American oil - why ship it from here?

There are other alternatives. We gain 70 jobs. ~~we~~ we risk - there will be derailers and spills. Tesoro acknowledges this. What is the cumulative effect over time on all communities along the rail corridor of diesel soot, rail upgrades

Use the back of this form if you need more room for your comments.

For more information about EFSEC's review of these project changes, please contact:  
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call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).

into sensitive areas, the impact on Washington and the region of spills and derailments on ecology, on local health, on food systems (ranch, farm, orchard, vineyard near rail corridor), on fish including ~~Endangered~~ <sup>protected</sup> threatened/Salmon, and on the protected Columbia River Gorge Scenic Area.

Please consider Regional costs and benefits in this evaluation.

Oct. 29, 2013

Stephen Posner  
Interim manager  
Energy Facility Site Evaluation Council  
1300 S. Evergreen Park Dr. SW  
Olympia, WA 98504-3172

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OCT 29 2013

ENERGY FACILITY SITE  
EVALUATION COUNCIL

RE: Tesoro Savage Vancouver Energy Distribution Terminal

Dear Mr. Posner,

Thank you for hosting a public meeting regarding scoping of a proposed oil distribution terminal at the Port of Vancouver.

The scoping portion of a public process is normally just the initial phase, but in this case I believe it is the most important of all. That's because the scope of this decision affects not only the Vancouver community where this facility will be sited, nor will it be limited to the remarkable landscape of the Columbia River Gorge through which 380,000 barrels of oil will be shipped daily. Rather, this decision can and must be considered within the scope of atmospheric loading of carbon that is profoundly changing the planet our state leaders profess to care about.

Yesterday in San Francisco, Governor Inslee signed an agreement with Oregon, California and British Columbia, to promote the development of a clean-energy economy. Improving energy-efficiency and promoting renewable energy is commendable but also important for our self-interest. The West Coast is especially susceptible to climate change, including rising sea levels, more vigorous and frequent storms, changes in water supply, and acidification of our oceans. To his credit, Governor Inslee has long been a proponent of energy efficiency and limiting the emission of greenhouse gases.

Because we are blessed with an abundant network of hydroelectric dams, Washington's carbon contribution is small relative to other coal-dependent regions of the country, so we rarely get a chance to curb the large-scale carbon contributions whose impact we must live with. **This is a rare opportunity for the Evergreen State to put up or shut up.**

It makes no sense for Governor Inslee to attempt to stimulate a clean-energy economy on one hand, while easing the supply of the dirtiest form of fossil fuel extraction on the other hand -- at the same time undermining the city of Vancouver's efforts to revitalize our waterfront with all the attendant problems of an oil-export hub. And for what? For 110 full-time jobs in a county of half-a-million people. Surely, the Port of Vancouver can find other avenues to enhance Clark County's economy that doesn't involve sacrificing our community's aspirations at the cost of the global environment.

Scoping this problem is the key. If EFSEC is to make a recommendation to Governor Inslee, it cannot focus myopically on what the proponent calls the incremental effect on global climate change. The council can't slough this off as if-we-don't-someone-else-will, as the Port of Vancouver commission has. Fortunately, EFSEC is in position to take into account a broader point of view.

Thank you for considering my comments.

Sincerely,

A handwritten signature in black ink, appearing to read 'Erik Robinson', followed by a long horizontal line.

Erik Robinson

6510 NW Lupin St.

Vancouver, WA 98663

Statement to the Energy Facility Site Evaluation Council about the Tesoro-Savage oil export terminal

My name is Kate Ketcham. I am a nurse and resident of downtown Vancouver. I object the siting of a Tesoro-Savage oil export terminal at the Port of Vancouver. What I have noticed is that much of the testimony and many of the safety systems for the terminal revolve around high visibility, low frequency events. My concern is about air and water quality degradation along the length of the oil transportation system to and from the proposed oil export terminal. I am concerned about the effects to air and water quality from high frequency, low visibility events. Specifically, I am concerned about the cumulative effects of small leaks, drips, vapor releases, overfills and other common incidents. I urge you to consider the entire length of the delivery system from rail car to barge or ship in your scoping. I am not an expert, but I have done some research. Even a little research reveals many opportunities for high frequency, low visibility incidents that cumulatively may cause environmental degradation.

The proposed Tesoro-Savage oil export terminal will be located near a population center, several wildlife refuges and endangered fish habitat. I believe the potential for adverse environmental impacts due to the cumulative effects of oil loss and vapor losses along the entire oil export delivery path is significant and urge the Council to recommend that the Governor reject the Tesoro-Savage oil export terminal proposal.

For example a few drips from a rail car valve are insignificant but multiplied over tens of thousands of cars in hundreds of trains these drips become gallons that have the potential to significantly contaminate water tables, rivers and streams harming endangered fish and other wildlife along the entire length of the route. While the tank farm will surely have non-permeable linings and dikes to contain oil spills, rail lines will not. Rainwater runoff will carry oil. I urge the Council to consider the cumulative effects to water tables, rivers and streams of small incidents along the entire rail line.

As I understand it, oil will be transferred from railcars to holding tanks, then onto barges and may then be transferred to ships. Each of the three or four transfers holds the potential for drips, overfills, vapor releases and accidental spills. There will be tens of thousands of transfers. Many incidents will be outside of dykes and containment systems. My review of the Washington Department of Ecology Prevention Recommendations on Bulk Oil Transfer Operations 1998-2005 leads me to believe that these kinds of incidents are not uncommon. Several barge companies and contractors will be likely be involved, some more knowledgeable, alert and well-trained than others. Given experience at facilities such as Cherry Point, accidents are predictable. Multiplied by thousands of transfers, small incidents will result in significant environmental damage. I urge the Council to consider the cumulative effect of transfer incidents to Columbia River water quality when making their recommendations.

Air quality is another concern. Although the tank farm will surely be equipped with some vapor recovery systems, releases outside recovery systems are likely. An example is small releases of vapor when valves are opened and closed. Air toxins like benzene, aromatic hydrocarbons and sulfur oxides will be released in small quantities with each transfer. These small releases are not infrequent and are predictable. There will be thousands of opportunities for small releases of vapor. Air quality is already a concern in the Columbia River air shed and Portland Metropolitan area especially during temperature inversions. I request that the EFSEC evaluate the environmental impact of cumulative small vapor releases on the air quality of Vancouver, the metropolitan area and the Columbia River air shed.

In conclusion, I believe there is significant potential for damage to water and air quality when cumulative small vapor and oil loss incidents along the entire oil delivery system are considered. I believe these low visibility, high frequency events will result in significant impacts on the health of the environment for wildlife, fish and the residents of Washington State. I urge you to recommend that the Governor reject the Tesoro-Savage oil export terminal proposal.

Respectfully submitted

  
Kathryn Ketcham  
123 W. 30<sup>th</sup> St., Vancouver, WA 98660

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ENERGY FACILITY SITE  
EVALUATION COUNCIL

Tesoro Savage CBR  
Scoping Comment  
#169

PHILIP W. DURKEE  
307 ARIZONA COURT • VANCOUVER, WASHINGTON 98661 • (360) 695-8185

October 29, 2013

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The State of Washington  
Energy Facility Site Evaluation Council  
PO Box 43172  
Olympia, Washington 98504-3172

OCT 29 2013

**ENERGY FACILITY SITE  
EVALUATION COUNCIL**

Tesoro Savage Vancouver Energy Distribution Terminal; Public Comments

Thank you for allowing me to speak at the October 28, 2013 initial meeting but not being use to public speaking I have decided to make further comments that I could not make the evening before. I will focus on only one aspect that I feel disqualifies this project. I am surprised that Tesoro Savage had selected the Port of Vancouver, Washington in the first place. The Port is a bottleneck for smooth product transportation by sea. The Port of Vancouver sits 90 miles away from the Pacific Ocean. The river channels are narrow and ships transiting must pass close. I had the occasion to serve in the US Navy as a qualified Officer of the Deck on a ship similar in length and width to the vessels that will be used in transporting oil and ships of this nature are hard to stop and difficult to maneuver in almost any situation but in inland waters this presents a particular problem. Tesoro Savage will say that the ships being used are of the highest quality and manned by American crews. But the ships using the Columbia River are all not so qualified. Ships plying the Columbia come from all Pacific Rim Countries and are of questionable quality and crewed by maybe not so qualified crews. The difference now becomes apparent that the ships are not all carrying wood and grain products from the Northwest, but they are now carrying oil. If an accident should occur containment of an oil spill even from double bottom ships is an ever present possibility. Containment of oil in a river system will require traffic to be stopped in both directions until the clean-up is complete if at all. Once oil enters the estuaries of the various tributaries to the Columbia River, oil will be very hard to clean up; the effect on juvenile salmon fish using the estuaries for growth before entering the ocean will be dealt a death blow. The Pacific Northwest has spent millions of dollars in fish restoration and risking salmon recovery for short term profit, I believe, is not worth the price. What about low water in the river system. The Columbia River depends on Canadian snows and the water is also controlled by water users down the Columbia River system. Fish passage regulations now in place will require even further allocation restrictions. If global warming has an effect, who gets the water? Farms, Fish or Ships? What if the Columbia River Bar is closed because of winter storms? It has been closed in 2007 for at least 48 hours. Ships cannot move out to the ocean smoothly but must wait for a "Columbia River Bar Pilot" to take them safely across the Columbia River Bar. If ships must wait, they will have to anchor in the channel and wait their turn thus risking a possible collision from another ship maneuvering. If there is a delay in moving ships in and out of the Columbia River what about the trains coming into Vancouver. Trains carrying Oil, Coal, other products and Amtrak requesting space on just two tracks in Vancouver. I doubt that there is enough sidetrack in the Port of Vancouver to accommodate all the possible trains should the oil by ship transportation be delayed. The effect of having multiple trains stacked up in the system I feel will become detrimental to Vancouver and its continued growth. It all comes down to the main question, is the small profit in money and jobs that will come to Vancouver worth the risk? I say NO! Other ports will have to share in the burden from the inclusion of more ships in the river. Port of Portland, Longview, Kalama, and Astoria just to name a few.

Thank you  
Philip Durkee



## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013Name: Carol CavallaroAddress: 5835 SW Nevada Ct PDX  
(Please include your Zip!)

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ENERGY FACILITY SITE  
EVALUATION COUNCILPlease write any comments you have with respect to the  
Tesoro Savage Vancouver Energy Distribution Terminal  
Informational & Scoping CommentsLeave this sheet in the Comment Box today, or mail it to:  
EFSEC, PO Box 43172, Olympia, WA 98504-3172.

Comment letters must be postmarked by Monday, November 18, 2013.

I have worked here in Vancouver for 35 years, I have seen a downtown that worse ugly and unsafe. Over the years Vancouver has become a place where quality in living has increased due to fine decisions made at several levels. Many people come here for vacation and entertainment. You have a beautiful Renaissance Rivertrail, upbeat downtown and SO MUCH to protect for economic reasons. Please continue this approach. It supplies many jobs and will continue as you follow this trend. Environment impacts are obvious but Can Vancouver really

Use the back of this form if you need more room for your comments.

For more information about EFSEC's review of these project changes, please contact:  
Sonia Bumpus, EFSEC Siting Specialist, PO Box 43172, Olympia, WA 98504-3172,  
call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).

afford to ~~demo~~ ruin it's tourist business, it's  
livability (and thus <sup>property</sup> taxes from the loss of residents along  
This gorgeous river.

Please do not <sup>let</sup> Vancouver ~~go~~ downhill, it  
is just too nice.

- Concerns also include  
all the usual)

Safety

pollution

Taxes ~~are~~ decline

loss of jobs

loss of livability

gain in illness

gain in homeless

503-246-5294

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Docket EF-131590

Tesoro Savage CBR  
Scoping Comment  
#171

Mitchell  
Meacham

OCT 29 2013

ENERGY FACILITY SITE  
EVALUATION COUNCIL

NO Oil Terminal

Hello my fellow North westerners, my name is Mitchell Meacham and I am a sixteen year old student at Camas High School. The Philosopher Edmund Burke stated that the only thing necessary for evil is for good men to do nothing. The Tesoro-Savage oil terminal which is proposed to be built in Vancouver is an evil, from its beginnings with fracking In North Dakota, to rail transport, the movement of oil over water, and ending with the burning of the oil to pollute our earth. ~~This is a dangerous and costly process which we can no longer afford to do nothing about.~~

Throughout America, the process of fracking is being used to gain access to oil. What the oil companies don't want you to know is that fracking is polluting aquifers with dangerous chemicals, and releasing harmful gasses into American communities. Next the oil is transported by rail. These oil trains are not only a nuisance as they thunder through our home towns but are also extremely dangerous. This year alone there have been two oil train accidents, an oil train in a rural area derailed and exploded, another derailed destroying 30 buildings and causing 47 deaths. Are we willing to allow this sort of tragedy in Stevenson, Washougal, Camas, or Vancouver?

Of course not, but Tesoro is. After going through the proposed terminal, the oil will take a boat ride down the Columbia. If one of these ships were to wreck it would be a disaster, decimating the lower Columbia River ecosystem. The oil will eventually go to refineries which are also dangerous. There were 28 refinery fires in the 140 US refineries in 2012 alone.

(Possible Insert)

~~You Might be wondering what all of these things could possibly mean to each and every one of you. I can't say in three minutes how many negative effects there will be from this single terminal, there are just too many. What I can say is that this terminal would release toxic chemicals and fumes into our community. This terminal would promote the burning of fossil fuels which we do not need. And this terminal would endanger us by bringing explosive material by the hundreds of thousands of barrels per day through our towns. Disaster is not if, it is when, ask the families of the Canadians who died last summer.~~

Continued

Tesoro is a company which claims to pride itself on safety, a claim which is grossly untrue. A month ago a

Tesoro pipeline spilled 20,600 barrels, that's over 865,000 gallons, of oil into North Dakota. Also, the Tesoro refinery in Anacortes caught fire in 2010 killing <sup>seven</sup> ~~four~~.

Tesoro-Savage is feeding us a bad deal which is endangering our communities, homes, and families. I urge <sup>EFSEC</sup> ~~the department of energy~~ to take a wide scope of the effects of this terminal as you will find it will negatively affect everything it touches along the entire process. Every person is guilty of the good they did not do; so we must do what is right and say no to environmental degradation, say no to big oil, say no to Tesoro, and say no to this terminal. Thank you.

Proposals are on the table to build two coal export terminals in Washington and now an oil terminal in Vancouver, all possibly serviced by one rail line at a distance of as much as 1500 miles, and all to pass through Vancouver. It is projected that 25 mile-long trains each day would be required to serve both of the coal export terminals. The projections for this oil terminal are 8-12 trains/day. All of these trains pass through a National Scenic area along the Columbia River, a Pacific Northwest treasure with the greatest flow of any North American river draining into the Pacific, and home to an important food supply, source of electricity and water.

The Statewide Rail Capacity and System Need Study completed in 2007 found that the BNSF's Vancouver-Pasco line was already at 70% of practical capacity even then. Agricultural producers in the interior of the state also rely on regular low-volume service. Clearly, this proposed increase in traffic would challenge the capacity of that rail line.

In addition, oil terminals are known to contaminate sites they inhabit. A few minutes online proves that and outlines why. Washington already has 49 Super Fund sites, indicating that we haven't done a great job monitoring potentially environmentally hazardous operations in the past. Pushing existing rail capacity to a point where derailments such as the recent Canadian disasters and those less dramatic ones that would still spill huge quantities of petrochemicals into the Columbia are increasingly likely. Using river front property for storage and transshipment of a known hazardous product with a likelihood of above and below ground water contamination in combination with problematic rail capacity makes this a very bad idea.

The message we are getting is that if there is anything left in the ground that we haven't exploited we need to do it as fast as possible. Greed and profit are kings. Forget future generations. That is yet another problem for our grandchildren to attempt to solve. They will need to be prepared to possibly add at least three more superfund sites to that long list.

*Deanne Kocer*

*17818 NE 201st Ct*

*Brush Prairie WA 98606*

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ENERGY FACILITY SITE  
EVALUATION COUNCIL



## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

## Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013Name: Gisela S. RayAddress: 85 SE 16th Court, Gresham OR, 97030  
(Please include your Zip!)

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OCT 29 2013 Tesoro Savage Vancouver Energy Distribution TerminalENERGY FACILITY SITE Informational & Scoping Comments  
EVALUATION COUNCIL

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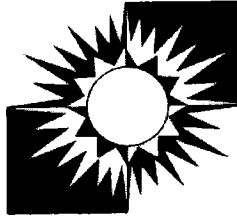
EFSEC, PO Box 43172, Olympia, WA 98504-3172.

Comment letters must be postmarked by Monday, November 18, 2013.

I am very much opposed to sending oil  
trains through the Columbia Gorge (or from  
anywhere for that matter) to a terminal  
in Vancouver, WA. The potential  
environmental damage to the river (spills!)  
& the valley - a powerful tourist attraction -  
is very great. In light of the climate  
change (already making itself known) makes  
we should concentrate on renewables, not  
on more carbon fuel infrastructure

Use the back of this form if you need more room for your comments.

For more information about EFSEC's review of these project changes, please contact:  
Sonia Bumpus, EFSEC Siting Specialist, PO Box 43172, Olympia, WA 98504-3172,  
call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).



## The Oregon Conservancy Foundation

19140 SE Bakers Ferry Rd., Boring Oregon 97009-9158

P. O. Box 982, Clackamas, Oregon 97015

Email: [cnsvncy@cascadeaccess.com](mailto:cnsvncy@cascadeaccess.com)

Phone: (503) 637- 6130 Cell Phone: (971) 221-4179

[www.orconservancy.org](http://www.orconservancy.org)

October 9, 2013

### Before the Washington State Energy Facility Site Evaluation Council (EFSEC)

#### Public Comment of the Oregon Conservancy Foundation

The most significant oversight in the preparation of an Environmental Impact Statement (EIS) for the proposed Tesoro Savage petroleum terminal at the Port of Vancouver would be the failure to consider:

- Increased consumption of fossil fuel,
- Increased emissions of carbon dioxide, and
- Catastrophic Climate Change!

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The sole purpose for transporting oil by rail from North Dakota to the Port of Vancouver is to relentlessly press forward with the consumption of fossil fuel, which will have multiple adverse impacts affecting not only Vancouver but the Pacific Northwest and all of planet Earth.

The Intergovernmental Panel on Climate Change (IPCC) is now in the process of issuing their fifth assessment report on climate change. The first published report is entitled "Climate Change 2013, The Physical Science Basis." The IPCC's "Headline Statements from the Summary for Policymakers" contains a list of its significant findings of which the following are some major excerpts:

- *The atmospheric concentrations of carbon dioxide (CO<sup>2</sup>), methane, and nitrous oxide have increased to levels unprecedented in at least the last 800,000 years. CO<sup>2</sup> concentrations have increased by 40% since pre-industrial times, primarily from fossil fuel emissions and secondarily from net land use change emissions. The ocean has absorbed about 30% of the emitted anthropogenic carbon dioxide, causing ocean acidification.*
- *Human influence has been detected in warming of the atmosphere and the ocean, in changes in the global water cycle, in reductions in snow and ice, in global mean sea level rise, and in changes in some climate extremes. This evidence for human influence has grown since AR4. It is extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century.*
- *Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions.*

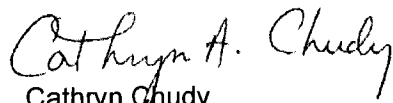
Any EIS must include all of the environmental, health and economic impacts of transporting 360,000 barrels of fracked crude oil by rail each day from North Dakota along the Columbia River. There must be risk assessments for threatened and endangered species, a programmatic EIS that considers cumulative regional rail impacts for coal as well as oil terminals, and an analysis of the vessel traffic impacts of all terminal proposals on the Columbia River. It is also imperative to consider the collective global impacts of multiple fossil fuel terminal projects on ocean acidification, acid rain, mercury emissions, and climate change.


We do not exist in a vacuum. What we do here links inexorably with what happens beyond the confines of our location. Your mandate requires you to "balance" demand for new energy facilities with the broad interests of the public, including protection of environmental quality and safety. You have it within your authority and you owe it to concerned citizens to ensure that your study will encompass the wider impacts that will be felt not only locally and regionally but outwardly in the world for centuries to come.

Climate change is upon us. We are its driving force, and we no longer can ignore the role we play in the survival of our planet. The price of business as usual is too great. It can no longer be supported by growth for the sake of growth, planned obsolescence, and the mindless consumption of resources and goods. The burden for change falls on us all and demands a greater consciousness in the way we live and protect life on Earth.

We thank you for taking these comments under consideration.

Respectfully,

  
Cathryn Chudy  
Board of Directors

  
Lloyd K. Marbet  
Executive Director  
Oregon Conservancy Foundation



Washington State Energy Facility Site Evaluation Council

COMMENT FORM

Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013

Name: Amille Jackson

Address: 13715 SW Devonshire Dr BEAVERTON OR  
(Please include your Zip!) 97005

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EFSEC, PO Box 43172, Olympia, WA 98504-3172.

Comment letters must be postmarked by Monday, November 18, 2013.

Tesoro lied about North Dakota. They do not  
tell the truth and try to hide the damage they  
have done. The pipe that broke in North Dakota  
they claim was inspected. Why did it break and  
what happens to the contaminated soil?

Use the back of this form if you need more room for your comments.

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call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).

Good evening.

I'm a long-time firefighter, currently a battalion chief here in Vancouver. To be clear I am here tonight to share my personal perspective and not on behalf of my employer. But I was shocked when I heard of the Port of Vancouver's decision to move forward with the Tesoro Savage proposal so soon after the fiery train disaster in Quebec.

What worries me most, however, is the threat to our shared human habitat. Climate change is a slow motion runaway train. All the CO2 we've been putting into our atmosphere has exceeded the natural system's ability to buffer it. Storms have become more powerful, drought more persistent. Wildfires rage across the west and around the globe. Sea levels are rising. The acidification of our oceans already threatens fisheries on the Hood Canal and at Willapa Bay. The overwhelming consensus of our scientists is that we are rapidly running out of time to do something to change the trajectory. I don't think we really understand the forces we have set in motion.

But even if we don't know where this runaway train will end up there are some things we can do.

Now is the time for us to transition away from oil. We need to safeguard our air and water and to stabilize the climate system that supports our food production. For too long we have used the atmosphere and natural systems as a trash heap onto which we dump fossil fuel byproducts. We can do this no longer..

We want our community leaders to focus on the development of energy solutions. We cannot afford projects that seek only to burn more and more oil.

We need a system that puts a cap and a price on carbon emissions. We should withdraw public subsidy for oil companies. We simply cannot accept a project like the Tesoro Savage oil train facility right here in Vancouver. No way. Enough is enough. I urge you to reject the proposal.

David Seabrook  
26106 N.E. 227th St.  
Battle Ground, WA 98604

October 29, 2013

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Photo Credit (National Geographic July 2013) Explosion due to oil train derailment in Lac Megantic Quebec, destroys the downtown and kills 47 people.

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October 29, 2013

Dina Roberts

Citizen, Vancouver, Washington

Testimony – Opposing Tesoro and Port of Vancouver Oil Terminal

I am lucky to call Vancouver, Washington my home. I made my biggest personal economic decision to buy a home in an historic neighbor near downtown, and less than a mile from the rail lines and proposed terminal. When I bought my home, I invested in a community. This community, Vancouver, Washington has just been listed in the top 100 Best Places to Live in America ([www.livability.com](http://www.livability.com)).

We are currently number 96, moving up I think, unless you okay this bad decision by the Port. I have seen a slow and steady renewal in the downtown even during the recession and especially now with more people wanting to live in the downtown area of our city.

The photo above is of a beautiful city, although smaller city, than ours, which was partially destroyed when oil tanks derailed and exploded, taking much of the historic downtown region with it. I hate to even image the possibility of our town going up in black, toxic smoke, but that is actually what could happen if this project is approved.

Numerous groups have raised concern about the increasing volume of oil that is being moved by rail, in tanks that aren't designed well for such highly explosive and toxic substances. Even a study done by the US Department of Transportation found that the risk of train spill is six times higher than even the risk of pipeline spills, and we are all becoming increasingly aware of those devastating spills, think Yellowstone River in Montana and the recent spill in Central Arkansas.

Often times these pipelines can be put in places that are away from high human populations, but this is not the case with the rail lines in our country, our state and our region. These rail lines that would carry thousands of gallons of hazardous oil a day will pass right next to the Columbia River and through our Federally designated Columbia River Scenic Corridor. More importantly these tanks will bring a highly explosive material through this, our town, one of the oldest continuous settlements in the Northwest.

I find the risk unacceptable and this proposal highly flawed. Why wasn't a risk assessment analysis done before the proposal was okayed by the Port? Where was citizen input from the City of Vancouver and the other cities and towns along the rail route?

I ask you to reject this proposal on behalf of the health of our environment and our community. The risks far outweigh the benefits.

Thank you for your time, and please, do the right thing.

Dr. Dina Roberts

Questions I have -

How does the Port approve a lease of this size without lengthy dialogue with the community most impacted? (City of Vancouver)

How will this project impact endangered Salmon and Columbia White-tailed Deer?  
Not to mention our climate & the liability of our city, state, and planet?



Washington State Energy Facility Site Evaluation Council

COMMENT FORM

Tesoro Savage Vancouver Energy Distribution Terminal

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Name: \_\_\_\_\_

Address: \_\_\_\_\_

(Please include your Zip!)

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I never cease to be amazed at  
how much greed will warp morals & human  
values. Agree with MR. Karpzenski, MR.  
Ackley, Christine Woodward, George Jacobs, Linda Garcia,  
Dave Seabrook, MR Crow, Ms. Ace, MR. Eversol, Don  
Orange, the kid, the longshoremen, Jane Nickoli

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EFSEC Tesoro/Savage Oil Terminal Hearing  
October 29, 2013  
Clark College  
Vancouver WA.

Thank you for hosting this hearing and thank you for your service to the State of Washington. My name is Stephen Hulick and my wife and I live at 16607 N.E. 197<sup>th</sup> Avenue, Brush Prairie WA. 98606.

Please consider all the aspects of this proposal, from the Bakken formation extraction by hydraulic fracking to the burning of the manufactured product. Please weigh the benefits vs. the negative impacts.

I am opposed to this project for more reasons than I can state in three minutes, however here are some of the more important reasons:

1. This is a massive proposal! It will contribute greatly to climate change. If approved it will add CO2 to the atmosphere, increasing global temperature, and add to the acidification of the oceans. Dry farming would be severely impacted. Bill McKibben of 350.org stated recently that an increase of 1 degree in the global temperature will reduce the wheat yield in eastern Washington by 10%. Regarding the oceans, The Center for Biological Diversity has recently sued the E.P.A. over effects of acidification on sea life and oysters in the waters off the coast of Washington and Oregon. Some Washington oyster growers have already gone out of business due to increased water acidity.

If climate change continues, daily life as we know it will be gone. A greater and greater amount of public funds will go only to disaster relief.

2. The use of DOT 111 rail cars to transport the oil will result in undue danger to the public and the environment. These cars are known to be unsafe. This fracked oil is highly volatile, explosive and corrosive. Bakken crude and DOT 111 cars were involved in the Lac Megantic disaster. At the October 22, 2013, Port of Vancouver hearing, BNSF stated that 1,100 new rail cars suited to this crude will be built for this project. By my calculations, that number will be less than half of the cars needed to carry the proposed volume. Therefore, the remainder will be carried in DOT 111s. It puts in jeopardy all those along the route of over 1,000 miles, and especially endangers the Columbia Gorge habitat. The Gorge is vital to the well being of millions of people.

3. At the proposed Vancouver terminal, the handling and storage will bring increased air pollution, and will constitute a grave danger to Vancouver. Just consider six tanks each containing 380,000 bbl. of Bakken crude and what could happen. That's a total of 2,280,000 bbl. or 95,760,000 gal. The risk of catastrophic accident or attack is too great and should not be imposed on the community.

We as a nation should be striving toward renewable sources of energy. Enhanced solar technology and infrastructure, wind energy and increased conservation should be our goals. The fact that fracking is being done shows that U.S. reserves are lessening and that we are using desperate and destructive measures to continue use of fossil fuels. That should be our signal to be pragmatic and pursue other less destructive means of energy production. Or, we can continue the course and bear the consequences.

Thank you.



Stephen J. Hulick

Good evening. I'm Pat Freiberg, I live at 8327 NE 54<sup>th</sup> St in Vancouver. I came here 43 years ago, raised my children in Vancouver and have young adult grandchildren living in Clark County.

Before arthritis set in I used to be an avid hiker and for decades I hiked both sides of the Columbia River Gorge, about 100 miles from the Sandy River to Biggs Junction. The gorge as we know it today was carved out by a series of prehistoric floods originating in Missoula, Montana. About 40 miles east of here, Wind Mountain, on the Washington side, was once attached to the Cascades on the Oregon side. It didn't give way easily to the scouring floods. Today this is an unstable area where the BNSF tracks run between a slowly shifting Wind Mountain and the Columbia River. I understand that the BNSF trains slow down dramatically while traversing around Wind Mountain because the slope is so steep nothing grows on it and falling rocks are a frequent occurrence.

This instability extends across the river to Interstate 84 on the Oregon side. I-84 slowly buckles over time as the ground beneath it shifts and the adjacent mountain slides rock by stone onto the interstate during storms. In fact, this situation has caused closure of Interstate 84 at least twice in the time I've lived here. I-84 requires frequent roadwork and repaving of buckling in this area. If I had to predict a likely spot for train derailment and oil spill into the Columbia, it would be at the BNSF tracks circling around Wind Mountain.

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Did you know that Tesoro Savage uses a contractor for cleanup? This leaves me wondering who's responsible for the expense of cleanup, Tesoro Savage or a contractor with a much shallower pocket.

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I spoke with the cleanup company representatives who proudly showed me their equipment. It's a floating boom that has absorbent pads attached and dangling below. This is the same method that was used so unsuccessfully by BP in the Gulf in 2010 and by Exxon Valdez 30 years ago in Alaska.

While subsidized oil companies have invested heavily in new drilling technology, bringing us the world of fracking, they've invested little to -0- in cleanup

technology. Even my household equipment is more sophisticated. If I spill a carton of orange juice on the kitchen floor, I can reach for the roll of paper towels or I can plug in my Shark and vacuum up most of the spillage. Isn't it reasonable to expect a billion dollar subsidized oil industry to have clean up technology equal to a household appliance?

I say no to this siting. It presents known and predictable dangers to our beloved and often troubled river. If an oil spill should occur, Tesoro Savage is not equipped to adequately clean up a spill or deal with the resulting environmental damage.

Thank you,

Patricia Freiberg



## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

## Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013Name: Adam GayaAddress: 4746 18<sup>th</sup> Ave NE, Seattle, WA, 98105  
(Please include your Zip!)**RECEIVED**  
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My name is Adam Gaya and I live in Seattle.  
Listening to many of the comments tonight I would  
first like to echo concerns about air pollution  
around the project's site, the threat of oil spills,  
the export nature of this project, and marine impacts  
on the Columbia river.

I am particularly concerned about the  
cumulative impacts of this project, both in terms  
its effect on facilitating extraction of Bakken  
oil and potentially tar sands crude and

Use the back of this form if you need more room for your comments.

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call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).

The impact of burning those Fossil Fuels on local communities and Global climate change.

A significant part of this project's cumulative impact is rail transit of crude oil. The impacts of this increased rail transit, ~~in~~ diesel pollution, Noise pollution, traffic congestion and the catastrophic impacts of an oil train accident including spill and explosion must be studied for every community trains will pass ~~thru~~ through. And those impacts should be evaluated cumulatively with all other oil by rail and coal by rail proposal in Oregon and Washington. The accident risks for rail cars must Evaluate all types of product that could potentially be delivered to the Port including Bbls of Heavy crude and Tar sands as well as Diluents and other chemicals potentially mixed with crude.

When this comprehensive evaluation is made alongside all other proposed projects it should be clear that this permit should be ~~denied~~ denied.



## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

## Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013

Name: Elizabeth Graver-Lindoy

Address: 21341 S. Ferguson Rd Beaver Creek WA 97007  
(Please include your Zip!)

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1. This project should not release benzene & other toxic chemicals into neighborhood air. Human health matters. On site studies are critical as air patterns are site specific. These patterns will change w/ climate change.
2. Global warming will increase <sup>ocean</sup> river water levels and storm surge could come up the river as warming intensifies.
3. Climate change acidifies the ocean which harms salmon in the ocean.

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4. Fossil fuels are being depleted so that more & more dangerous fossil fuels are being mined. This makes spills & disasters more common.  
(more difficult mining - deeper drilling, fracturing, deep water, deep arctic)

This expert increases the harm to US oil consumers because there will be more oil-related disasters associated w/ hard-to-reach oil.

5. Leaks can ruin the important agriculture

6. Leaks could damage the fishing industry.

7. The public suffers the costs of disasters through health insurance <sup>premiums having to cover oil-related illness</sup> suffering through <sup>from poisoning acute & chronic</sup> loss of use of land & water bodies, loss of fishery safety, costs of clean up, or loss of resources permanent ruined.

8. This project will repel other industry & residents, harming the economy.

9. Higher temperatures will destroy crop yields.

Good evening! My name is Sarah Collmer and I am a citizen of Vancouver, a mother, and a member of Clark County Clean Air.

We must necessarily admit that climate change alone is more than substantial reason to stop the proposed Tesoro-Savage Oil Terminal, but there are myriad reasons to terminate this project. Consider, for example, the recent oil leak from a Tesoro pipeline in North Dakota, which has devastated at least 20 acres with over 20,600 barrels of oil. After suspiciously delayed disclosure and measurement efforts in the spill, Tesoro claims that it will, eventually, remediate the land to the same condition as before. This remains to be seen. Of particular relevance to our region, however, is what Eric Haugstad, director of contingency planning and response for Tesoro, has said of the spill in North Dakota: “As unfortunate as it is, having it happen here in this type of soil is actually very beneficial with a clay layer and not hitting water...If you hit water, whether it be groundwater or a river, it would have been much worse.”<sup>1</sup> Given the disastrous effects on land, what would happen if such a spill occurred on or near the Columbia River as oil traveled by rail or barge? Perhaps some may argue, forgetting the recent, tragic oil train derailment in Quebec, that Tesoro’s trains wouldn’t threaten the Columbia River and the lives it sustains and supports. However, Tesoro’s own people, its abysmal record tell us differently.<sup>2,3</sup> What would be the results of a train derailment and/or spill in the Columbia River? How difficult, if not impossible, would mitigation be? How long would such mitigation take, and what further problems may it incur? If Tesoro’s own official admits that such a spill on or near water would be “much worse,” couldn’t we conclude that it would be, in fact, catastrophic?

I urge you to do a comprehensive review of this project, considering the destructive and long-lasting environmental, health, and economic impacts from fracking to climate change. Consider, too, the cumulative effects of all of the proposed trafficking of fossil fuel – coal and oil – in the region. We do not want to find out, first hand, how “much worse” a spill would be in the Columbia. Do not sacrifice our children, our community, and our environment for the profits of an indifferent few.

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<sup>1</sup> “Tesoro crews work to recover oil from Tioga spill”, *Prairie Business*, 10/18/13  
[http://www.prairiebizmag.com/event/article/id/16427/publisher\\_ID/46/](http://www.prairiebizmag.com/event/article/id/16427/publisher_ID/46/)

<sup>2</sup> See “Oil Spill in North Dakota Raises Detection Concerns”, *The New York Times*, 10/23/13  
[http://www.nytimes.com/2013/10/24/us/oil-spill-in-north-dakota-raises-detection-concerns.html?\\_r=0](http://www.nytimes.com/2013/10/24/us/oil-spill-in-north-dakota-raises-detection-concerns.html?_r=0)

<sup>3</sup> See “State says Tesoro ‘willfully violated’ safety rules, which led to fatal explosion”, *Seattle King 5 News*, king5.com, 10/4/10, <http://www.king5.com/news/local/State-says-Tesoro-willfully-violated-safety-rules-which-led-to-fatal-explosion-104290704.html>

In the scope of the Environmental Impact Study I have five recommendations:

1. That it be inclusive of the full length of the system required for transport; from oil field to terminal, piping, storage, and shipment to subsequent destinations. *Anything less is incomplete & inaccurate*
2. That health studies for the full length of the system required for transport are taken into account. a. Health of humans, i.e. cancer rates and respiratory illnesses. b. Health of towns and cities, i.e. traffic, rail crossings, affect of increased illness on the community, and having in place effective disaster plans. c. Health of the larger ecosystems in the undeveloped areas, rural land and water bodies along which the oil will travel, i.e. pollution, spills, toxic fumes, etc.
3. That disaster plans for all areas along the course of travel be addressed for spills, derailment, fire, and explosion. With increasing coal transport, include a scenario for a combined conflagration of coal and oil.
4. Looking a little further out, Potash seems to be heading to the Port of Vancouver. How does Potash affect the outcome of toxicity and flammability with oil, and, with a threesome including potash, coal and oil?
5. This EIS needs to examine the larger issues of Vancouver's emergence as a proposed convergence zone of hazardous industrial toxins.

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It is still a bit baffling that we have these discussions, though I appreciate the opportunity to speak. How is it that study is needed to determine the effects of an oil spill in the Columbia River or of an explosion such as the incident in Québec, should they occur **anywhere** along the route from the oil fields to Vancouver?

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The toxicity of oil is known. Whether it is raw, refined, processed, or burned, oil products are toxic to humans, animals, plants, land, and water bodies. Where it is brought out of the ground, where its fumes reach our lungs, where cities are decimated by fire, where particles of oil burned destroy the balance of life on earth, the **effects of oil are known.**

That a few much-needed jobs are created with this proposal does not change the nature of oil and it's deleterious effect on everything it comes in contact with.

*Taking care of what we have is far cheaper, more effective, wiser & healthier than any disaster response, or restoration effort.*

Jane Nicolai  
Vancouver, WA  
10/29/13



1000 places to live

~~King and his~~  
• Kuvserd  
• Eileen Kowau  
• Dave Seeborn - Forest Edux guy  
• Cager  
• Anna Rebut • Robin Dennis • Ken Ferguson

4 mi wind study  
graffy salmon  
Eric Lebrault

Diana Koser #35



## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

## Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013Name: Patricia BellamyAddress: 3214 NE Cesar E Chavez Blvd. PDX Oregon  
(Please include your Zip!) 97212**RECEIVED**  
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Please do not give permit to allow this project to move forward. Transporting oil via rail is dangerous from real concerns from diesel pollution and potential risks from derailment, fire, water pollution and community disruption by transportation disruption. This is a regional issue not just Washington's issue. Bottom line is increase in CO<sub>2</sub> in our atmosphere and global climate change in use of combustion of this fossil fuel.

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COMMENT FORM

Tesoro Savage Vancouver Energy Distribution Terminal

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Name: Martee Dean RNP

Address: 4613 NE Killingsworth #2, Pdx 97218  
(Please include your Zip!)

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As a <sup>pediatric</sup> nurse practitioner I am concerned about the health effects of the crude oil on pediatric patients especially with asthma - with the diesel fumes <sup>particulate matter</sup> the decrease in the emergency response ability is finally and most important their future sustainability in an environment in peril of shortage of clean air, water due to climate change from fossil fuels.

Use the back of this form if you need more room for your comments.

For more information about EFSEC's review of these project changes, please contact:  
Sonia Bumpus, EFSEC Siting Specialist, PO Box 43172, Olympia, WA 98504-3172,  
call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).

**Testimony for the Vancouver/Clark College Scoping Hearing regarding the Proposed Oil Terminal in Vancouver. 10-29-2013.**

My name is Jeff Stookey. I am a fourth generation Washingtonian, born and raised in the Okanogan Valley, and a 20-year resident of Portland, Oregon.

I am opposed to the proposed Vancouver oil terminal because of my concerns about the impacts on this beautiful blue-green planet we all inhabit.

Today we face nothing less than a global crisis: climate disruption and an end to life on Earth as we have known it--all at the hands of the fossil fuel industry which is driven by unprecedented greed and short-sighted delusion.

Bill McKibben and his friends at 350.org have shown us the math: the nations of the world agreed that a 2 degree rise in the Earth's average temperature is an upper limit in order to sustain life as we know it. Burning 565 billion tons of carbon will cause a 2 degree rise in temperatures. The *current* reserves of the fossil fuel industry equal 2,795 billion tons of carbon--five times the amount that will doom us to unacceptable temperatures and climate disaster.

*Right now* we are experiencing record-setting droughts, wild fires, polar and glacier melting, and extreme weather (exemplified by hurricane Sandy). If ever we have received a wake up call, this is it. I strongly recommend that everyone see the new documentary movie *Chasing Ice* by James Balog. It shows dramatic time-lapse footage of glaciers melting away before our eyes, emphasizing the foolishness of continuing to deny that climate change is occurring.

Besides, we do not need additional oil from fossil fuels.

We currently have all the scientific and technical knowledge and the physical resources to get all of the energy we need from renewables, according to Mark Z. Jacobson, Director of the Atmosphere/Energy Program and Professor of Civil and Environmental Engineering at Stanford University.

Former Irish President and Climate Justice Advocate Mary Robinson says, "...it's very clear that as we move to low carbon, it will actually be job creating."

Feed-in-tariffs--which have helped put Germany and Ontario, Canada at the forefront of the transition to green energy--are an important policy tool to incentivize this transition, creating jobs that manufacture and install wind generators and solar panels. (I encourage you to visit the website for Oregonians for Renewable Energy Progress (OREP) for more information on Feed-in-tariffs.)

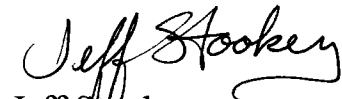
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America's path to prosperity lies in a rapid switch-over to abundant, homegrown, renewable energy to power our homes, businesses, and vehicles-- NOT in facilitating mining and exporting of dirty, polluting coal, which represents a retreat from the 21st Century economy. Renewable energy already employs 2.7 million workers (more than the fossil fuel industry) and studies have shown that green energy will continue to create far more jobs than the fossil fuel industries. [see: *Sizing the Clean Economy, A National and Regional Green Jobs Assessment* by the Metropolitan Policy Program at the Brookings Institute, 2011.] A U.S.-led, green, industrial revolution will move our economy forward, create millions of new jobs, and help ensure a livable planet for future generations.

Global climate change is here. Future generations are watching to see what actions we take to reverse it.



Jeff Stookey  
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Portland, OR 97232  
503-232-6867  
[jstookey108@gmail.com](mailto:jstookey108@gmail.com)

**VANCOUVER AUDUBON SOCIETY STATEMENT OF CONCERN**

October, 2013

**RE: TESORO-SAVAGE PROPOSED OIL TERMINAL AT THE PORT OF VANCOUVER**

The Vancouver Audubon Society Board of Directors have deep concerns about the proposed oil terminal at the Port of Vancouver. As the proposal advances to the state Energy Facility Site Evaluation Council for scoping the depth of the Environmental Impact Statement (EIS) we wish to list concerns for study.

**GLOBAL WARMING**

Our biggest concern is global warming. The recently released report from the Intergovernmental Panel on Climate Change (IPCC) shows that the situation is dire. We must kick our addiction to oil.

The difficulty we as a civilization face is: that which has enabled so many to prosper, oil and coal, is that which could well destroy civilization. The writer, Bill McKibben, in a well-researched article that appeared a year ago used the device of three numbers to illustrate our problem.

The first is 2 degrees Celsius. That is the temperature increase beyond which the world must not increase if we are to avoid the worst of worst catastrophes. The world has already increased the temperature .08 degrees. We are already seeing effects from an unstable climate. The second number is 565 gigatons. This is the number of gigatons of carbon the world can put into the atmosphere and still remain below 2 degrees Celsius. If we keep increasing carbon production at the rate we are doing, we will blow through that 565 gigatons in (McKibben said) 16 years (15 years now). The third number is 2,795 gigatons. That is the amount of carbon contained in the oil and coal reserves now carried on the books of the fossil fuel industry. That would include the carbon in the Bakken oil that is proposed to be shipped through the Port of Vancouver.

The Environmental Impact Statement for this proposal must include a discussion of its effects on climate change. Although the amount of carbon in the Bakken oil to be shipped through the Port of Vancouver by itself may not put the world over the tipping point, the EIS must still consider the cumulative effects of this oil on the total carbon load in the atmosphere. The amount of oil shipped can be estimated. It surely should not be impossible to find the carbon content of the Bakken oil. This must be in the EIS.

**DISASTER POTENTIAL**

The recent oil train disaster in Lac-Megantic, Quebec led to 47 deaths. That oil train came from the same Bakken oil fields as this proposed project. This month a derailment occurred in Edmonton and a pipeline burst in North Dakota. Considering all the safety hazards and the massive number of check points needed to operate safely, the obvious possibility of a crucial step being missed is not a question of "if" but "when". This is an explosive cargo. It would move along 200 miles of river shoreline. Ecosystems are at risk should an oil train derail or explode. Disaster could disrupt communities for days, weeks, months. Vancouver, just two years ago, witnessed the tragic oil spill from an abandoned cargo ship that took many months and millions of dollars of government funds to cleanup. The Columbia River was polluted with immeasurable damages.

**TESORO-SAVAGE SAFETY RECORD**

Tesoro ranks in the top 50 toxic-air polluters. They have been cited for over 4000 violations. They were fined \$1.1 million for violations at refineries in Washington and three other states; this is the largest fine

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of this type in the 40 year history of EPA clean fuels programs. A 2010 explosion at the Tesoro Anacortes refinery killed 7 and a \$2.39 million fine was levied by Washington State L & I. The blast was "entirely preventable" and reports showed 39 "willful" violations and 5 "serious" violations of workplace safety and health regulations. This is not a record that inspires public trust.

### **LOSS OF HABITAT**

The proposed rail traffic would have impact on wildlife, fisheries, and bird populations. The route goes thru east-west bird migration corridors. While those populations currently cohabitate with rail traffic east of Vancouver thru and past Steigerwald, Franz Lake, and Pierce National Wildlife Refuges, the doubling or tripling of train traffic through that corridor could be disruptive to the waterfowl the refuge is designed to protect: especially geese and ducks. If wintering birds are disrupted too much from feeding and made to fly too many times, they use up energy needed for their migration.

### **BAKKEN CRUDE**

Bakken Crude oil emerges from the earth by way of hydraulic fracturing or "fracking" a controversial process that destroys the habitat and water quality from the lands it comes from. The water spoils from this type of drilling are contaminated. The land is destabilized and loses some of its shock absorber ability. This leaves the earth more vulnerable to earth quakes. Bakken crude has high content of hydrogen sulfide whose vapors carry threat of explosion.

### **RAIL VOLUME & CONGESTION:**

The proposal as presented includes as many as 12 oil tank car trains per day coming west and south from North Dakota, through Northern Idaho, Eastern Washington and along the Columbia River to Vancouver. This rail traffic presumably would add to the current load these rails must hold from traditional rail customers, including Agricultural products. Rail traffic already causes air pollution, obstructs communities and divides them, one side of the tracks from the other. The additional traffic will likely cause delays for all rail customers as competition for rail times and schedules gets more complicated. Should the proposal for shipping coal through the Columbia Gorge to Longview ever come to pass, the amount of rail traffic would double or triple the current load. The above named effects would rise accordingly. The Tesoro-Savage project projects 3426 train trips per year.

### **SHIPPING TRAFFIC**

The proposal estimates 730 ship transits to/from the facility /year. Tesoro reports they will cause new source pollutants potential of 136,000 metric tons of greenhouse gases annually. The non-profit advocacy group, Columbia River Keeper, estimates the figure to be far more: 59.64 million metric tons of CO2 per year. This disparity in figures needs serious study and review.

Please take all the time you need to evaluate every aspect noted and if the results don't merit approval, reject this proposal.

Robert P. Rowe  
2010 SE 140<sup>th</sup> Avenue  
Vancouver, WA 98683  
for Vancouver Audubon Society

The explosive nature of the Bakken oil in the Quebec accident indicates it's much more volatile than described in the MSDS for *drilled* crude oil. Apparently the MSDS for drilled crude is setting the handling standard for the oil to be transferred here in Vancouver. What means will be taken to assure that the transporting and loading techniques here in Vancouver will be enhanced to prevent any threat from this volatility?

THE MITIGATION PROCEDURES PUT IN PLACE  
NEED TO BE EQUAL TO THE ~~THE~~ TRUE HAZARD  
LEVELS.

PETER ALLER  
3901 NE 172ND AVE  
VANCOUVER, WA 98682

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~~Ed Sel Tower~~

Good Evening

My name is Cecelia Kessel—a grandparent of 4, a former teacher and a long time Vancouver resident. I am hugely concerned about the proposed Tesoro Savage plan to send 380,000 barrels of crude oil daily to the Port of Vancouver – this will be the largest oil handling operation in the Northwest. This will require 4 to 6 trains in and out of port every single day—through the incomparable Columbia River Gorge—through family-friendly Vancouver and on to China. I am asking the FTS&C to exhaustively examine every potential aspect of this proposal—from the initial extraction of the oil to the point of its combustion when the CO2 is released into the air we all breath. It seems Vancouver has become the epicenter of the fossil fuel wars-- as Vancouver is also threatened with a Millennium proposed coal shipping terminal in Longview, WA. The negative confluence of these 2 mega-threats will inexorably ~~and negatively~~ alter the livability of the area as well as the livability of the planet. Our community can not accept these assaults.

To quote Washington Governor Jay Inslee: “We are the first generation to feel the sting of climate change and we are the last generation who can do something about it.” This is our opportunity and yours to do something about it.

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**EFSEC Testimony: Tesoro/Savage Oil Terminal**

According to the Federal Railroad Administration, there were 292 derailments by Burlington Northern trains last year. In July of last year, one of these derailments was loaded with coal and 30 coal cars turned on their sides in Pasco, WA. If 30 cars containing over 800,000 gallons of fracked oil overturned and spilled oil into the Columbia River east of Vancouver, it would be important to know what the effects to fish and wildlife and to the environment would be. Also, how would the machinery at a dam be affected if the derailment occurred upstream to one of the dams? Since there are very swift currents in the Columbia River, how could the oil effectively be cleaned up?

If the tracks are blocked due to a derailment, what would be the impact to other freight trains traversing the route? It is my understanding that about 30 trains traverse the route along the north side of the Columbia River every day. And, if proposed terminals are permitted for coal and oil, many more trains would be on the tracks, double the number that are currently using these tracks. I am submitting a copy of the news article about the Pasco derailment, the Federal Railroad Administration derailment statistic, as well as some photos of a few of the tracks used by both eastbound and westbound trains along the Columbia River.

The scope of any study for this proposal should definitely include the Federal Railroad Administration and the National Transportation Safety Board. Studies have been done on DOT-111 tank cars and found them to be generally ineffective in preventing impact damage. I am including copies of power point slides given as part of a presentation by Paul Stancil of the National Transportation Safety Board regarding the inadequacies of this type of tank car. Using DOT-111 tank cars to transport hundreds of thousands of barrels of fracked crude oil every day should be prohibited.

Storing approximately 90 MILLION gallons of fracked oil at the Port of Vancouver should give us all pause for thought. How large would the blast zone be in the event of a fire or explosion? Would it obliterate the downtown area of Vancouver? And, how does the venting of these storage tanks affect greenhouse gas emissions. And, what would happen to these storage tanks and the above-ground pipelines in the event of a large earthquake? The scope of any study needs to address all of these issues.

Marion Ward  
10400 NE 82<sup>nd</sup> Ave. #19  
Vancouver, WA 98662

October 29, 2013

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July 3, 2012 in Region

## Coal train derails in Columbia River Gorge

Associated Press

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Tags: Burlington Northern Santa Fe Railway coal train derailment

PASCO — A railroad spokesman says about 30 cars of a 125-car coal train bound from Wyoming's Powder River Basin to British Columbia have derailed along a Columbia River Gorge route east of Pasco, blocking a main rail line.

Burlington Northern Santa Fe spokesman Gus Melonas said no injuries were reported in the Monday evening derailment.

He says the majority of the derailed cars ended up on their sides and an undetermined amount of coal spilled. Melonas says no environmental threat was reported.

Railroad officials are on site and the cause of the derailment is under investigation.

Melonas says more than 30 trains use that track daily. Heavy equipment was being dispatched from Pasco to shove the rail cars off the line so crews can replace the damaged tracks. BNSF hopes to reopen the rail line as soon as today.

Melonas says some rail traffic is being rerouted via Wenatchee, as well as the Seattle to Vancouver, Wash., route.

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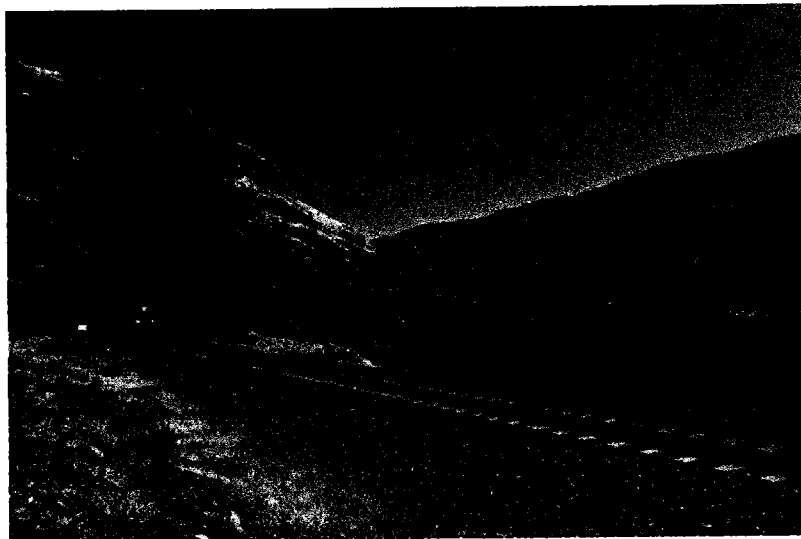
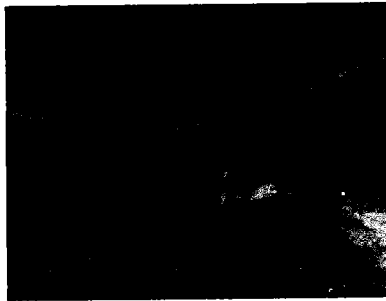
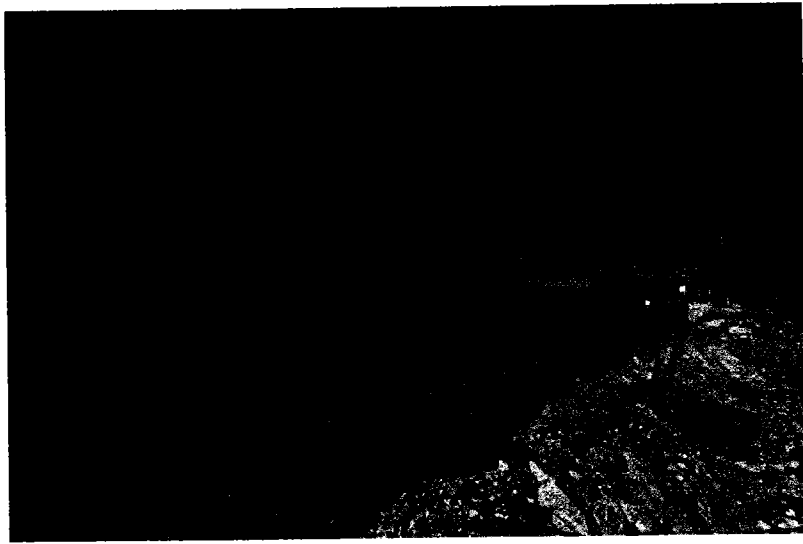
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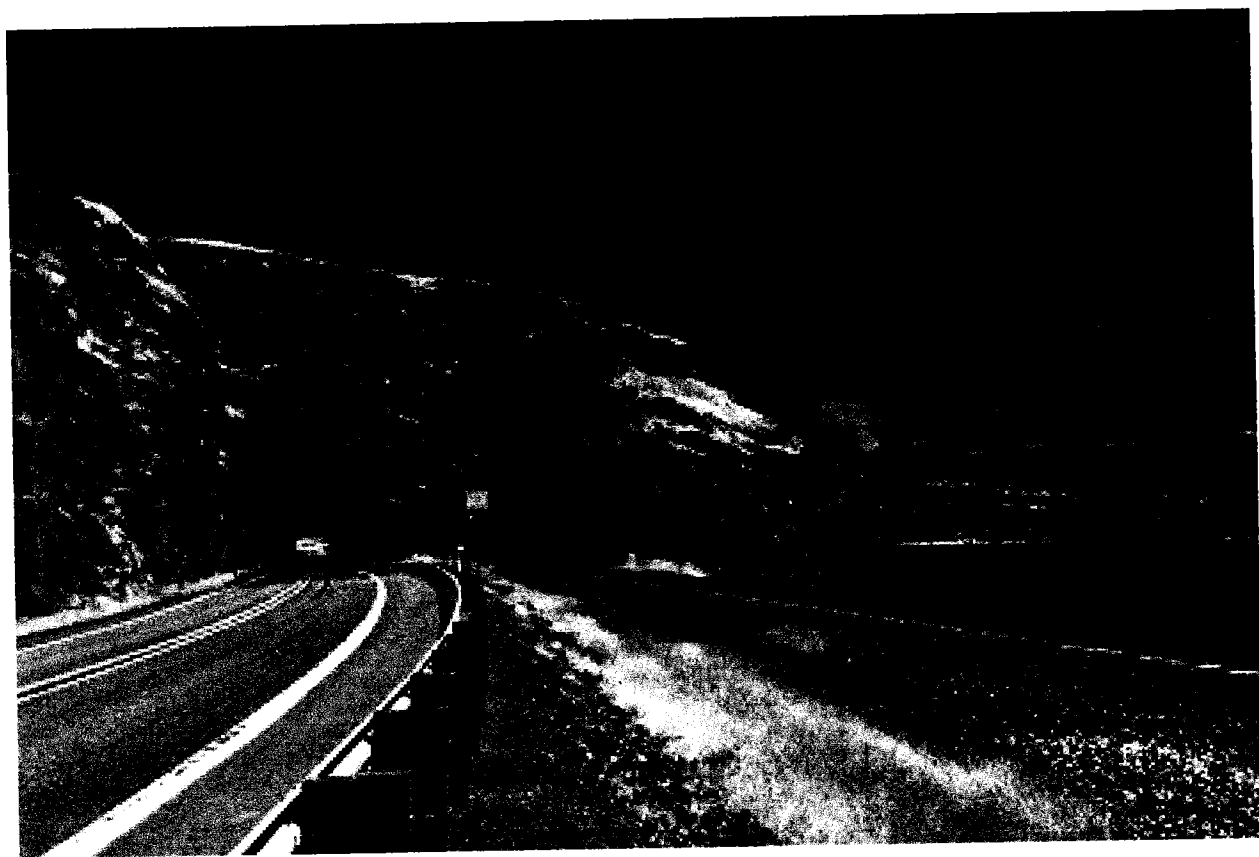
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**Federal Railroad Administration  
Office of Safety Analysis**

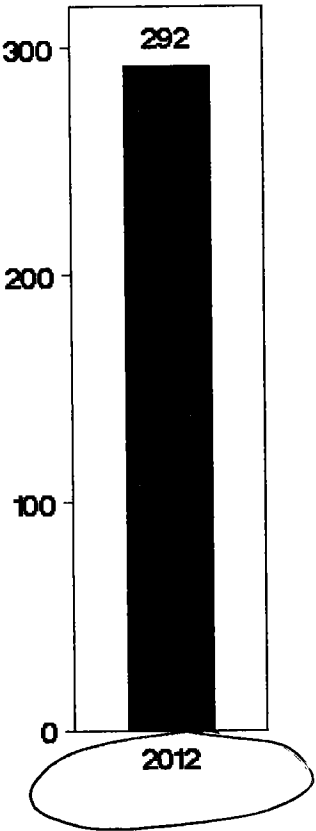
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**1.03 - Overview Charts By Railroad**

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**DERAILMENTS**  
**FOR BNSF Rwy Co. [BNSF], January — December (ALL YEARS)**



**Excludes highway—rail**



**NTSB** National Transportation Safety Board

*Office of Railroad, Pipeline and  
Hazardous Materials Safety*

## **DOT-111 Tank Car Design**

**Paul L. Stancil, CHMM**

## Previous Investigations

- 1991 Safety Study
- 1992 Superior, Wisconsin
- 2003 Tamaroa, Illinois
- 2006 New Brighton, Pennsylvania
- High incidence of tank failure

## Need for Better Tank Cars

- 69% of tank cars are DOT-111
- Transports wide spectrum of hazmat commodities
- 40,000 DOT-111's used to transport denatured fuel ethanol
- Ethanol is the most frequently transported hazardous material





# Top Fittings Protection

- DOT-111 housings not effective in preventing impact damage



NTSB

# Post Accident AAR Actions

- All new DOT-111 for ethanol and crude oil service beginning October 1, 2011:
  - Increase head and shell thickness
  - Normalized steel
  - ½-inch thick head shield
  - Top fitting protection

# Hazmat Unit Train Operations

- Certain hazardous materials are transported by unit train
- Virtual pipeline
- Risks are greater because of high concentration of hazardous materials
- Increasing number of unit train shipments

## Existing Tank Cars Not Addressed

- AAR actions do not address existing fleet
- Impediments to retrofitting or phase out
- Long service life
- Safety benefits not realized if old and new tank cars are commingled

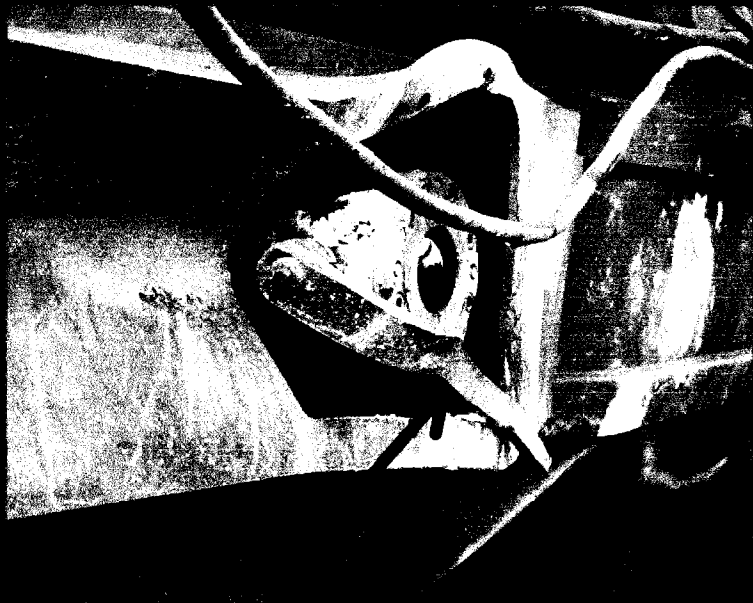
# DOT-111 Design Inadequacies

- Tank head and shell puncture resistance systems and increased materials thickness may have reduced the severity of the accident
- Housings for protection of DOT-111 top fittings are inadequate to withstand the forces of a derailment

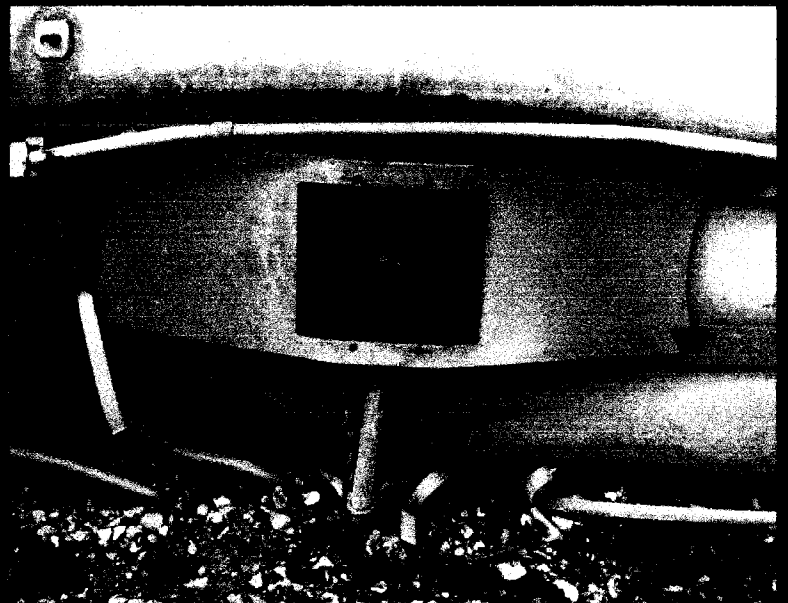
## Bottom Outlet Valves

- 3 bottom outlet valves opened and released product
- Handles supposed to remain closed during transit and break free in an accident
- Alternatively handles can be located above the skid structure

# Operating Handle Failures



CIT Configuration



GE/Trinity Configuration

## Operating Handle Failures (Cont.)

- Valve operating mechanisms compliant with current design requirements
- Handles became caught by objects and debris and caused valves to open
- Operating handles too robust and did not break free on impact
- Existing standards and regulations insufficient to ensure that bottom outlet valves remain closed during accidents

TESTIMONY      SCOPING HEARING - OIL TERMINAL  
PORT OF VANCOUVER      10/29/13

As you know, Washougal is sort of strung out along the Columbia River and therefor along the railroad tracks. A lot of Washougal is within about a quarter mile of the tracks including the high, middle, and elementary schools, our downtown, parks and sports fields, the Washougal River, a national wildlife refuge, and many, many residences. The City of Washougal has over the past few years worked very hard to renovate the downtown area attracting new and vibrant businesses in addition to old, respected ones like Pendleton Woolen Mills. I'm lucky enough to be on the parks board and it has been fun and exciting to watch all this happening.

If there is any kind of accident or spill with these oil trains, it will have a direct, harmful impact on hundreds of people.

I ask that in your EIS you consider the communities along the rail tracks all the way back to North Dakota where this oil comes from.

And I think you should consider the cumulative effects of this terminal. Within the last year, we have heard proposals for 2 coal terminals. If approved, each will require many trainloads of coal a day passing through these communities and our rail traffic will skyrocket. Washougal has 5 at grade crossings and only one overpass. We could have over 30 coal trains a day plus these.

What effect will all this have on our very livable community? I do not think people or businesses will be drawn to locate in a city where the downtown and the schools and the library and the post office are difficult to reach because of traffic congestion caused by train after train passing through. Further, people perceive oil trains as a danger to our community and fear that even a very light dusting of coal dust on the rails could cause a serious derailment.

I think that this huge oil terminal would have an adverse effect on the livability and property values in our community and I think your EIS should be very broad and consider all the difficulties that communities like Washougal will face as a result of this proposal. Thank you.

Diana L. Gordon  
642 I Street  
Washougal, WA 98671  
360-835-7748    tndgardens@comcast.net

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## BAKKEN CRUDE OIL

I am a Nurse Practitioner and part of the Community Emergency Response Team, I am worried about the emergencies that could occur if we bring 400,000 barrels of crude oil into Port Vancouver by train and then onto ships.

This summer the town of Lac Megantic exploded in a train derailment of crude oil, Last week another train derailed and exploded in Alberta and a third derailed in Saskatchewan Sept 25th. Inspectors are realizing that the material is more explosive than they had realized and the tracks and trains are not up to the safety standard needed to carry this explosive material.

What are you going to do if one of the crude oil trains derails into the Columbia River and pollutes it and the salmon that inhabit it? What are you going to prevent the forests in the gorge from catching on fire if there is a major derailment and explosion in the summer, or if it derails and explodes in Camas, or in Vancouver and lives and main street are lost like they were in Lac Megantic. Who is going to remedy this? What about the consequences of a huge container ship of your crude oil, like the Exxon Valdez, crossing the most dangerous bar in the west coast- we could have another huge spill that could ruin our fishing and tourist industry.

We asked this of DEQ in Oregon how to cleanup after a derailment spill into the Columbia or a fire in the gorge and they said they were not prepared, are you prepared? If not, think about mitigating the losses you could have and rethink this bad idea.

The Pacific NW is famous for its scenery, forests and waters and livability and green innovations. Use the port to ship out wind turbines, solar panels not this environmental disaster.

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*Maile D...*  
4613 NE Killough #2  
97218

10/29/13

Docket EF-131590

Tesoro Savage CBR  
Scoping Comment  
#194

EFSEC HEARING

To the Panel

I am here today to comment on what the scope of the EIS should be for this ill conceived project. Looking into the recent spate of derailments involving oil and gas tankers in Canada, I was dismayed to read that the expected success rate for hazardous materials to reach their destinations was an impressive 99%. But given the expected traffic of 5 fully loaded, trains per day or over 1800 trains per year coming from North Dakota, we might expect up to 18 derailments per year. It would only take one of those trains to slide into the Columbia to undo millions of dollars worth of salmon restoration efforts and destroy a tourist icon that is world renowned.

What are we thinking? The future will not be built on fossil fuels. It will be clean renewable energy or it will be hell. The headlong rush to make the Columbia Gorge a chute for dirty fossil fuels is part of a desperate attempt by energy companies to cash in before that transition takes place. Future generations are relying on us to back away from the brink. Opening the Northwest to the flood of fracked and tar sands oil will not only delay a clean energy future but completely tarnish our reputation as leaders in the move toward sustainability. The most comprehensive EIS possible is in order here.

Thanks for your attention.

Michael Horner  
4329 SE 64th Ave.  
Portland, OR 97206

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Thanks for allowing me to testify today. My name is Mireah Meskeel and I've lived across<sup>river</sup> in Portland all of my life. I oppose this oil terminal in Vancouver or anywhere in the NW. I urge you to expand the scope for the EIS and perform a comprehensive study for this project and all other fossil fuel export facilities in this state. This facility, and similar proposals will have environmental impacts from where these fossil fuels are extracted, along the rail-line they will be travel on, here in the urban center of Vancouver, along the Columbia River to the Pacific, along the west coast in transit to a refinery, and finally wherever it ends up being burned as fuel. And all of these impacts need to be studied in a comprehensive manner. This study needs to include an extensive risk assessment for threatened and endangered species along the entire route.

We have spent millions upon millions of our tax dollars to restore habitat for listed species, especially on the Columbia River. What will happen to this investment in the event of a spill? What will happen when listed <sup>public</sup> salmon are engulfed in a cloud of spilled oil along their migration? What will happen to the recently listed Streaked Horned larks when a large percentage of their already scarce habitat is contaminated by a spill on the Columbia? These ~~more~~ scenarios, and many others need to be considered. ~~before~~

We need to protect our <sup>public</sup> investments in recovering these species. We need to protect our natural resources and public health. We need to protect all of futures.

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**November 29th, 2013**

OCT 29 2013

**Dear Council Members,**

ENERGY FACILITY SITE  
EVALUATION COUNCIL

**Thank you for holding this hearing and thank you for the opportunity to speak.**

**My name is Nicolette O'Connor. I am a Vancouver homeowner, recreational kayaker and hiker.**

**The proposed Tesoro Savage project is not in the best interest of Vancouver nor the Pacific Northwest.**

**This project will negatively impact our air and water quality and contribute to Climate Change.**

**The site of the proposed project is located just outside of the urban area and will be just a few miles east of two popular recreational areas: Frenchmen's Bar and Vancouver Lake.**

**During the summer months and on holidays, I kayak at Vancouver Lake. And during the summer months and on holidays, my friends spend time at Frenchmen's Bar and/or Vancouver Lake with their children and grandchildren.**

**If this proposed facility is approved, we will all travel past this industrial site breathing in its toxic fumes.**

**As you are well aware, it is estimated that four unit trains per day carrying 360,000 to 380,000 barrels of crude oil will travel though the Columbia River Gorge.**

**The Columbia River Gorge is a National Treasure and needs our protection. All of the towns along the train routes as well as the wilderness areas are at risk of environment trauma or tragedy when derailment occurs.**

**My specific requests are that the scope of the Environmental Impact Study be broad and will systematically study all of the environmental risks involved in extraction of these volatile organic compounds, all of the environmental risks involved in the transportation of these volatile organic compounds, all of the environmental risks involved in the refinement of these volatile organic compounds as well as the global environmental**

**impacts that the burning of these volatile organic compounds will have on our planet.**

**I request that extensive air and water quality studies are performed that will extrapolate the parts per million of toxic particles that will be released into our atmosphere and into our waterways when these volatile products are unloaded from the rail cars into the holding tanks.**

**I request that extensive air and water quality studies are performed that will extrapolate the parts per million of toxic particles that will be released into our atmosphere and into our waterways during the storage process of these volatile products.**

**I request that extensive air and water quality studies are performed that will extrapolate the parts per million of toxic particles that will be released into our atmosphere and into our waterways when these volatile products are transferred from the storage tanks into the transport ships.**

**As you are aware these ships will not pull into port with empty storage tanks. Their tanks will be filled with gas that will need to be vented. During this venting process toxic particles will again enter into our atmosphere and into our waterways.**

**These are my request that thorough and extensive environmental studies are performed so that the people and public officers who live, work and play along the rail lines and in this city have a clear understanding of the toxic environmental dangers that Tesoro Savage and the Port of Vancouver would like to impose upon the people of the Northwest.**

**Thank you,**

**Nicolette O'Connor  
Vancouver, WA 98661  
nicolette.oconnor@yahoo.com**

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## Washington State Energy Facility Site Evaluation Council

## COMMENT FORM

ENERGY FACILITY SITE  
EVALUATION COUNCIL

Tesoro Savage Vancouver Energy Distribution Terminal

Public Informational & Scoping Meeting – Vancouver, Washington,  
October 28 & 29, 2013

Name:

Den Mark Wichar

Address:

200 W 25 St, Vancouver WA  
(Please include your Zip!) 98660Please write any comments you have with respect to the  
Tesoro Savage Vancouver Energy Distribution Terminal  
Informational & Scoping CommentsLeave this sheet in the Comment Box today, or mail it to:  
EFSEC, PO Box 43172, Olympia, WA 98504-3172.

Comment letters must be postmarked by Monday, November 18, 2013.

No to this project. It  
is dangerous & totally  
unnecessary, benefiting  
only Tesoro & Savage, while  
harming the city, the  
region, & the entire  
planet.

Use the back of this form if you need more room for your comments.

For more information about EFSEC's review of these project changes, please contact:  
Sonia Bumpus, EFSEC Siting Specialist, PO Box 43172, Olympia, WA 98504-3172,  
call (360) 664-1363, or e-mail [efsec@utc.wa.gov](mailto:efsec@utc.wa.gov).

- Dave Miller, 3509 NW 3rd Ave Camas, WA 98607 [davem98607@yahoo.com](mailto:davem98607@yahoo.com)
- I would like to speak for the wildlife and habitats of the gorge, especially the wildlife of the Steigerwald Lake, Franz Lake and Pierce National Wildlife Refuges, where I volunteer.
- My concerns:

- Wildlife are frequently killed by trains in the gorge.
  - I have done GPS surveys along the tracks at the Pierce refuge. In just 2-1/2 miles I found the remains of at least 45 large animals killed by trains – mostly elk, but also deer, raptors, coyote, etc.

- Increasing train traffic will also increase the amount of wildlife killed by trains.

- This project would increase the oil train traffic through the gorge from about 120 cars per day to 1,246 cars per day – which is more than **10 times** the current oil train traffic.
- When combined with all the coal export proposals, the number of cars for coal & oil goes from 207 per day to 4,037 per day – **20 times** the current coal & oil traffic.
- And of course there are other freight and passenger trains using the tracks.

- Increased train traffic will severely impede or stop wildlife migrations.

- This amount of train traffic will mean that there will be a train on the tracks nearly <sup>all the</sup> of time. This will prevent wildlife from migrating across the tracks like they do currently. **The tracks in effect become a 1200 mile long wall.**

- Cumulative effects

- The cumulative impact of ALL of these proposals needs to be considered together – not each one individually.

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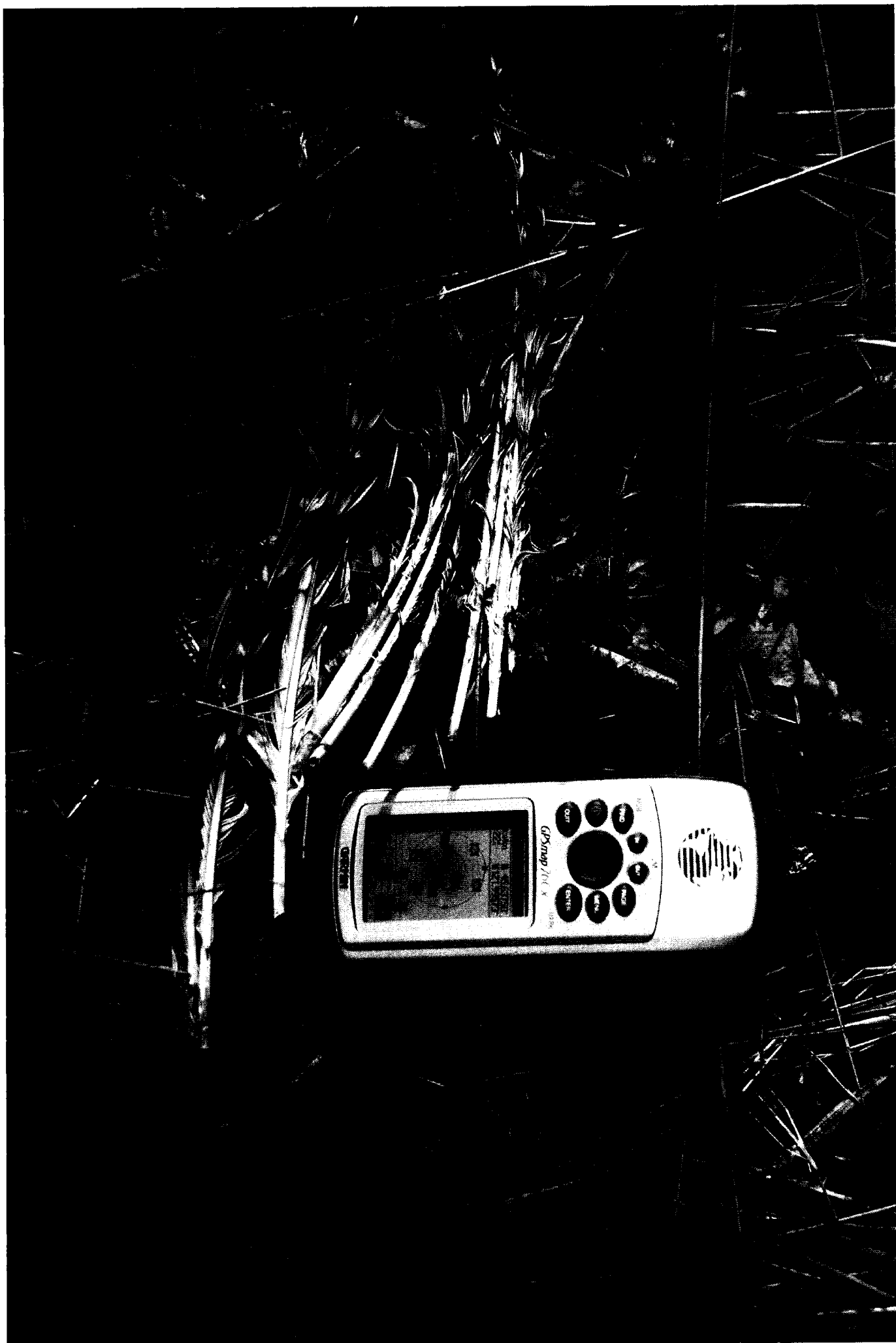


















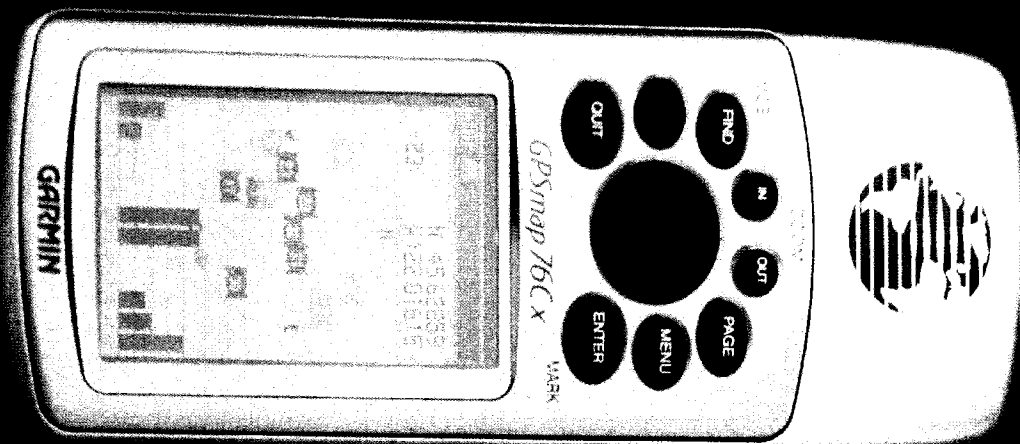










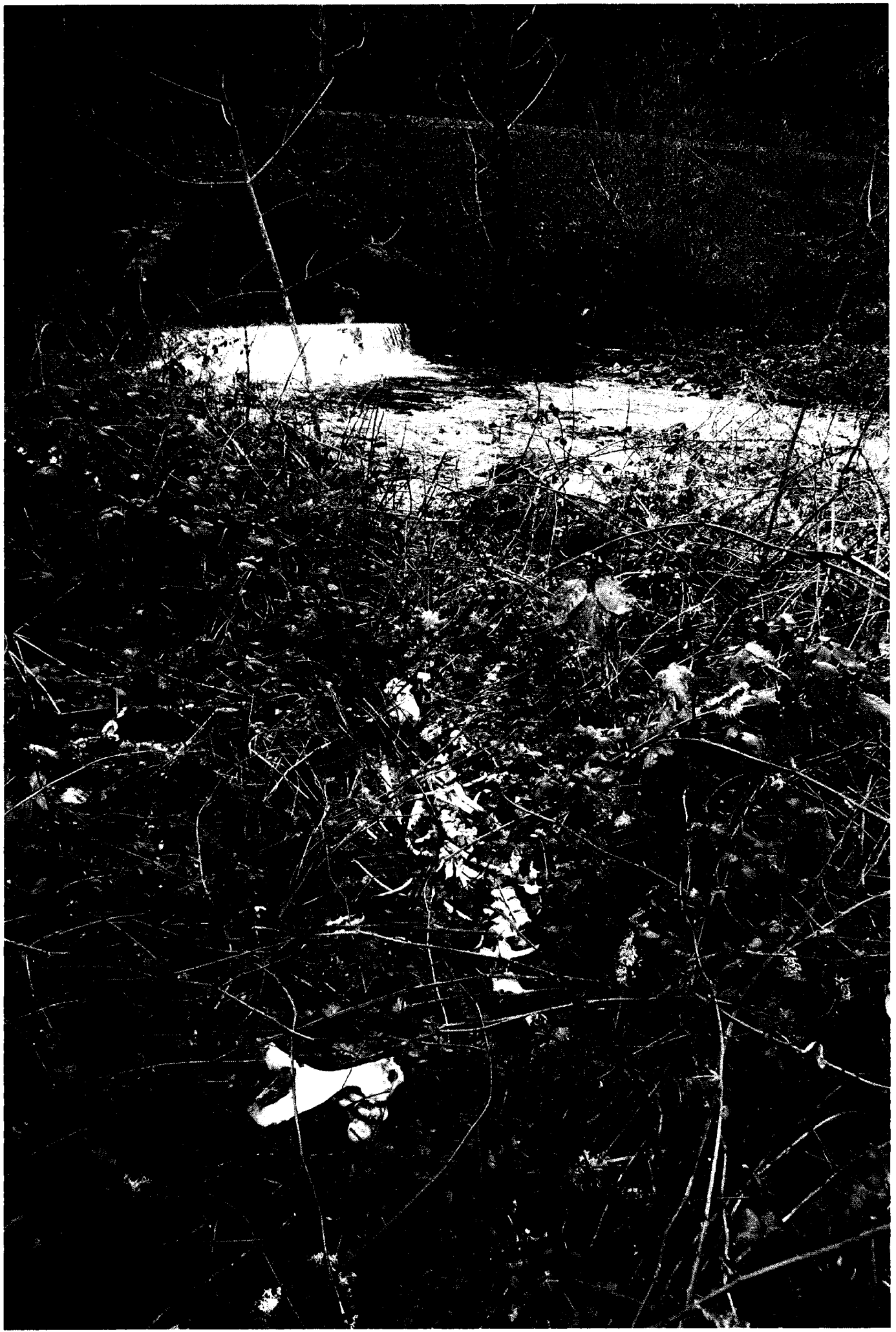
Image © 2012 GeoEye  
© 2012 Google

45° 37' 53.24" N 122° 00' 23.08" W Elev 87 ft

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Eye alt 16043 ft

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OCT 29 2013

ENERGY FACILITY SITE  
EVALUATION COUNCIL

Our state is at a crossroads. We can continue using fossil fuels, "business as usual" and build a crude oil terminal here in Vancouver. But at what cost? Ocean acidification will increase and our oceans will be dead in less than 100 years. Even worse, climate change will get worse and the human race will become extinct. Long before humans finally die off, they will be fighting over land, food and water.

I believe your choice is clear. You must study the impact this oil terminal will have on our oceans and climate change. Future generations are counting on you to do the right thing.



Date: October, 29, 2013

To: The Energy Facility Site Evaluation Council (EFSEC)

Public Comment on the proposed: Port of Vancouver Tesoro Savage Crude Oil Terminal

From: Virginia Nugent 5111 NE 125th St Vancouver WA

To back up my public comments I am submitting the following information for your thoughtful consideration:

1. A copy of my oral public testimony October 29th Scoping Hearing for the Port of Vancouver oil terminal proposal.
2. April 16, 2013 article, Panel: Ocean Acidification Threatening Sea Life Here, published in the Peninsula Daily News.
3. Christine O. Gregoire's November 27, 2012, Executive Order 12-07 Washington's Response to Ocean Acidification.
4. An Article titled, Threat To Oceans Isn't Fiction, by **Representative Jay Inslee**.
5. A fact sheet from the video, Acid Test: The Global challenge of Ocean Acidification. Produced by the Natural Resources Defense Council.
7. An article titled, Ocean Acidification Threatens Marine Life, The Seattle Times, 10-2013
6. Fast Facts: Coral Reefs are being Lost Twice as Fast as Rainforests.

Date: October, 29, 2013

To: The Energy Facility Site Evaluation Council (EFSEC)

Public Comment on the proposed: Port of Vancouver Tesoro Savage Crude Oil Terminal  
From Virginia Nugent 5111 NE 125th St Vancouver WA

As a mother and grandmother I'd like to speak on behalf of future generations and urge you to study the impact that a crude oil terminal in Vancouver will have on climate change, ocean acidification, and our state's shellfish industry. I have always been awestruck by the vastness of the ocean and the beauty of the life it contains. I thought this treasure on earth, would last forever. Sadly, I was wrong.

Three hundred million years ago, the ocean became too acidic, and sea life worldwide, was wiped out. This became known as the Great Mass Extinction. It could happen again. Burning fossil fuels, releases CO<sub>2</sub>, causing our oceans to become more acidic. Ocean acidity is increasing at the fastest rate in at least 300 million years. In 100 years our oceans could be dead. How can we possibly explain to future generations that we destroyed a marine ecosystem that took 30 million years to evolve?

Increased ocean acidity prevents oyster larvae from forming their shells. In 2005, oyster larvae started dying by the billions along the Pacific Northwest Coast. Are we willing to sacrifice our state's \$270,000,000 shellfish industry that provides 3,200 good jobs, for a crude oil terminal?

Our state should set an example to the nation and the world by saying "NO", to increased use of fossil fuels, and instead lead the way toward a green energy future.

Thank you.

Virginia Nugent

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To print this article open the file menu and choose Print.

Article published Apr 16, 2013

## **Panel: Ocean acidification threatening sea life here**

By Rob Ollikainen

Peninsula Daily News

PORT ANGELES — Acidification of the world's oceans could have a profound effect on the North Olympic Peninsula, a panel of experts told Clallam County commissioners Monday.

Caused by carbon dioxide from the burning of fossil fuels, ocean acidification can destroy shells of crabs, clams, oysters and scores of creatures at the bottom of the food chain.

The Strait of Juan de Fuca, Puget Sound and outer coast of Washington are particularly vulnerable because acidic water is upwelled off the coast every spring and summer.

The state supports 42,000 jobs in the seafood industry.

"There is no silver bullet," said panelist Eric Swenson, Seattle-based communications and outreach director for the Global Ocean Health Program.

"It's a whole number of lead bullets that are going to make this happen."

Swenson was joined by members of the Washington State Blue Ribbon Panel on Ocean Acidification, which recently reported that 80 percent of the oyster larvae in some hatcheries were killed by acidification.

The Clallam Marine Resources Committee invited the governor-appointed panel to speak at the commissioners' work session.

The same panel was scheduled to make a presentation at the Port Angeles Senior Center Monday night.

After the work session, Swenson said that raw sewage from Victoria is not contributing to acidification in the Strait.

"There is no real effect on the quality of ocean water that comes out of Victoria," he said.

"If there were 10 Victorias, maybe there would be a problem. But the power of the currents and what comes through, they've got a good cause for the fact that they're not causing any harm to the ocean."

Ed Bowlby, a marine resource committee member and research coordinator for the Olympic Coast National Marine Sanctuary, said that "it may be a different story" on the north side of the Strait, adding: "We haven't seen any effects here."

Brad Warren, director of the Global Ocean Health Program, used his time to summarize the panel's work and present its recommendations.

Swenson said there is little doubt that ocean acidification is being caused by humans.

"Just like DNA evidence, there are fingerprints left on the isotopes, and the ratio between carbon 12 and carbon 13 is definitive," he said.

"It shows that this came from burning fuel, and therefore our fingerprints are all over the carbon."

The water being upwelled off the coast came from the surface of the South China Sea about 40 years ago.

"We've got 40 years or so of bad water ahead of us, or increasingly bad water, because of our increasing emissions of CO<sup>2</sup>," Swenson said.

"We can't do anything about that except strive to protect the resources we have, and try and adapt to what we know is coming our way. What we must do, on the big problem, is reduce our CO<sup>2</sup> significantly."

Acidification is measured on a pH scale of 0 to 14, with neutral water being a 7 and battery acid rating 0.

"We're are [at] about 8.1 right now," Swenson said.

"Before they started out with the industrial revolution, they were about 8.2. That seems like a minuscule drop, but this is a logarithmic scale. So that drop of 0.1 percent equals a 30 percent increase in acidity."

A University of Washington professor began studying the effects of acidification at Tatoosh Island about 30 years ago.

In 2000, the work was passed onto researchers from the University of Chicago, who became "alarmed at what they're finding," Swenson said.

The panel found that more than 30 percent of the marine species in the Strait of Juan de Fuca and Puget Sound are vulnerable to acidification.

"The calcifiers are the first to be hit," Swenson said.

"In addition to the disruption of the food chain, there is a direct effect on fin fish."

Among the vulnerable species is the pteropod, a shelled snail whose demise would cause "important ripple effects on the wider food chain," said Nina Bednarsek, a National Oceanic and Atmospheric Administration scientist.

"This would be one of the first species to be severely affected by the ocean acidification,"

Bednarsek said, while showing slides of rapidly deteriorating pteropod shells.

Other speakers included Betsy Peabody, founder of the Puget Sound Restoration Fund, and John Forster, a Port Angeles consultant who is exploring seaweed aquaculture as a means to “make a meaningful contribution to the food supply” while reducing local carbon levels.

Former Gov. Christine Gregoire appointed the 28-member panel on ocean acidification in February 2012.

To see its findings and 42 recommendations, which were presented in November in Seattle, visit <http://tinyurl.com/oceanacidificationreport>.

Reporter Rob Ollikainen can be reached at 360-452-2345, ext. 5072, or at [rollikainen@peninsuladailynews.com](mailto:rollikainen@peninsuladailynews.com).

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CHRISTINE O. GREGOIRE  
Governor



STATE OF WASHINGTON  
OFFICE OF THE GOVERNOR

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**EXECUTIVE ORDER 12-07**

**WASHINGTON'S RESPONSE TO OCEAN ACIDIFICATION**

**WHEREAS**, acidification of the world's oceans, measured by the lowering pH numbers and caused primarily by increasing levels of carbon dioxide in the atmosphere, has arrived on the West Coast sooner than predicted and is already reaching levels that are corrosive for shellfish and other marine organisms; and

**WHEREAS**, Washington's marine waters are particularly vulnerable to ocean acidification because they experience the effects of global carbon dioxide absorbed by the oceans in addition to regional and local factors. One of the most important regional factors is coastal upwelling, which occurs when strong northerly winds blow across the Pacific Ocean, bringing deeper water up to the surface, along the Washington coast, into coastal estuaries like Willapa Bay and Grays Harbor, and the Puget Sound basin. Today's upwelled water is rich in carbon dioxide and low in pH and oxygen, and was in contact with the atmospheric concentration of carbon dioxide from 30 to 50 years ago, meaning we will continue to see acidification for several decades after global carbon dioxide emissions begin to fall; and

**WHEREAS**, acidification near the coasts, and particularly in highly populated and developed areas, is often exacerbated by local sources of pollutants, such as nutrients and organic material, that generate additional carbon dioxide in marine waters; and

**WHEREAS**, between 2005 and 2009, the Pacific Northwest oyster hatcheries experienced disastrous production failures when billions of their youngest oysters, the larvae, died due to acidified seawater that dissolved shells or prevented their formation; and

**WHEREAS**, Washington is the country's top provider of farmed oysters, clams, and mussels. Our shellfish growers employ directly and indirectly more than 3,200 people around the state and provide an annual total economic contribution of \$270 million statewide. The increasing levels of acidification in Washington's marine waters pose serious and immediate threats to our shellfish resources, and the revenue and jobs supported by the shellfish industry; and

**WHEREAS**, ocean acidification has important implications to Washington's tribal communities and fishermen who increasingly depend on shellfish species to support their families; and

**WHEREAS**, increasing levels of acidity also have implications for the broader marine ecosystem because many organisms that are important food sources for species such as salmon, whales, and seabirds, are dependent on their ability to form and maintain shells, skeletons, or other hard parts; and

**WHEREAS**, Washington is a national leader in addressing the problem of ocean acidification. World-class scientists are already working on ocean acidification; state agencies, businesses, tribes, and others are implementing innovative approaches to reduce carbon dioxide and nutrient runoff; federal partners are engaged on solutions to ocean acidification; the shellfish industry is committed to protecting ecosystems and cultivated resources; and diverse nonprofit organizations are ready to give voice to the problem; and

**WHEREAS**, to chart a course for addressing the effects of ocean acidification on Washington's shellfish resources and other marine organisms, I convened the Washington State Ocean Acidification Blue Ribbon Panel comprised of scientific experts, industry representatives, public opinion leaders, and state, local, federal, and tribal policy makers; and

**WHEREAS**, the Panel produced a *Scientific Summary of Ocean Acidification in Washington State Marine Waters* and a set of recommended actions in a document titled *Ocean Acidification: From Knowledge to Action – Washington's Strategic Response to Changing Ocean Chemistry*, documenting the understanding of ocean acidification in Washington, and recommending actions to reduce contributions to the problem, help the shellfish industry adapt to changes, advance our knowledge about acidification in Washington's marine waters, and educate and engage stakeholders, the public and decision makers in addressing the problem; and

**WHEREAS**, it is critical to our economic and environmental future that effective and immediate actions be implemented in a well-coordinated way and that we work collaboratively with federal, tribal, state, and local governments, universities, the shellfish industry, businesses, the agricultural sector, and the conservation/environmental community to address this emerging threat.

**NOW, THEREFORE, I, Christine O. Gregoire, Governor of the state of Washington by virtue of the power invested in me by the Constitution and statutes of the state of Washington do, effective immediately, hereby order and direct:**

1. The Office of the Governor and the cabinet agencies that report to the Governor to advocate for reductions in emissions of carbon dioxide at a global, national, and regional level. The Office of the Governor and cabinet agencies shall work on this effort with federal and regional partners (including at a minimum Oregon, California, and the Province of British Columbia) and shall consult with affected public and private entities.

2. The Director of the Department of Ecology to:

- a) Coordinate effective implementation of the Blue Ribbon Panel's recommendations. In doing so, the Department shall work with other state agencies, the Commissioner of Public Lands, the University of Washington, the National Oceanic and Atmospheric Agency (NOAA), the Environmental Protection Agency (EPA), Tribes, non-governmental organizations, and the shellfish industry. This effort will require coordination of numerous activities at the national and regional level aimed at protecting and restoring the health of our marine waters.

- b) **Work with the University of Washington (UW), the Commissioner of Public Lands, NOAA and other state agencies to establish a coordinating mechanism to: continue the focused and productive interaction between scientists and decision makers to enhance Washington's ability to respond to the problem of acidification; promote sharing of scientific information; and secure efficiencies in implementing the Panel's recommendations. In doing so the Department shall build on existing efforts such as the Puget Sound Strategic Science Plan, the UW coastal and marine research programs, NOAA Ocean Acidification Program, California Current Acidification Network, Pacific Shellfish Institute, and other related efforts.**
- c) **Craft and execute a memorandum of understanding or other mechanisms among key state and federal agencies, including Departments of Natural Resources and Fish and Wildlife, NOAA, EPA, and U.S. Department of Interior, to support data sharing, collaboration, and leveraging and prioritizing of funds.**
- d) **Work with the University of Washington to deliver the technical analysis recommended by the panel on the relative importance to ocean acidification of local land-based sources of nutrients and organic carbon and local air emissions.**
- e) **Reduce nutrients and organic carbon in locations where these pollutants alone, or in combination with other pollutants, are causing or contributing to multiple water quality problems in our marine waters. This effort shall be coordinated with the Directors of the Department of Agriculture and Department of Health, and the Executive Director of the Conservation Commission. In implementing this directive, Ecology with its partners shall prioritize watersheds with the most significant water quality problems, regardless of the source(s) – urban storm water, septic tanks, large and small sewage treatment facilities, or rural runoff from agricultural lands. This effort shall be carried out in consultation with other agencies, affected local and tribal governments, federal agencies, landowners, and the environmental community. These efforts shall:**
  - i. **build on existing programs;**
  - ii. **utilize, where appropriate, the voluntary stewardship program established by RCW 36.70A.710; and**
  - iii. **utilize other approaches, including technical assistance, funding, permitting and enforcement, where most appropriate and effective.**
- f) **Formally request that EPA begin the assessment of water quality criteria relevant to ocean acidification and encourage EPA to work with scientists from NOAA, Ecology, and other agencies in carrying out this effort.**
- g) **In consultation with the Department of Commerce and Department of Transportation, review unimplemented actions recommended by the Climate Action Team and identified in the State Energy Strategy and, where appropriate, propose a path forward to implement additional actions to reduce atmospheric**

carbon dioxide. In developing the proposed actions, the Department of Ecology shall consult with affected stakeholders.

- h) Work with other agencies, NOAA, universities, the Puget Sound Partnership, WA Sea Grant, shellfish growers, Tribes, non-governmental organizations, and various education and outreach networks to increase understanding of ocean acidification and its consequences among policymakers, interested organizations, and the public.
- i) Work with other state agencies, the Commissioner of Public Lands, and appropriate federal agencies to engage agricultural, business, and other stakeholders; coastal communities; shellfish and fishery interests; and other affected or interested groups, in developing and implementing local solutions.

3. The Executive Director of the Puget Sound Partnership to work with its partners to advance the implementation of the Panel's recommendations by incorporating the scientific findings, and strategies and actions into the Puget Sound Action Agenda, the Biennial Science Work Plan, and ecosystem monitoring programs, by December 1, 2014.

4. In implementing this Executive Order, the state and its agencies shall invite consultation, on a government-to-government basis, with affected and interested Indian Tribes and Nations in Washington State.

5. The Director of the Department of Ecology, in cooperation with affected agencies, shall provide a progress report to the Governor by December 31, 2013.

Signed and sealed with the official seal of the state of Washington on this 27th day of November, 2012, at Olympia, Washington.

By:

/s/

Christine O. Gregoire  
Governor

BY THE GOVERNOR:

/s/

Secretary of State

# Threat to Oceans Isn't Fiction

by Representative Jay Inslee

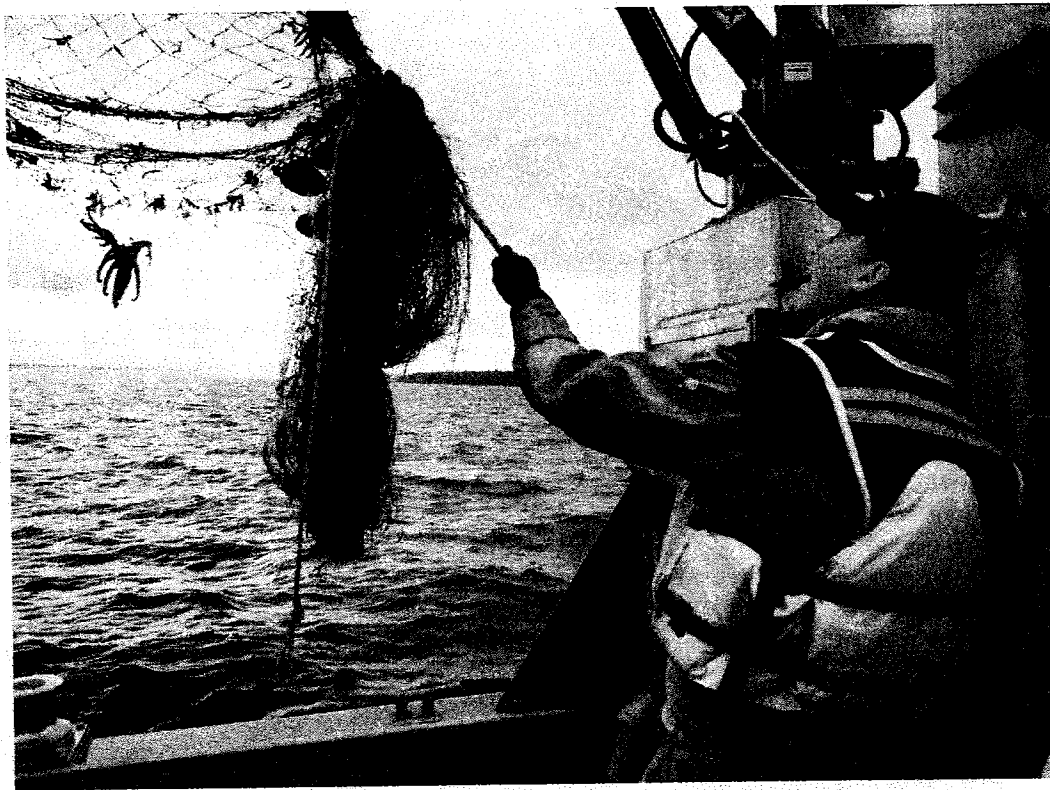
Mark Twain famously noted that truth can be stranger than fiction. A corollary to that notion would be those who work in fiction are often the best truth tellers. Recently, a brilliant physicist and a famous movie star offered their views on threats to our planet Earth. Amazingly, it turns out the movie star was more accurate than the physicist.

Renowned physicist Steven Hawking talked about the risk aliens might someday pose to earth. In contrast, Sigourney Weaver stood before Congress and warned of rising ocean acidification. In this case, we best heed the warning of the movie star rather than the science star, because the actress and her documentary, *Acid Test*, show the immediate threat to our planet if we do not act on carbon pollution – the oceans will die.

Ms. Weaver eloquently narrates *Acid Test*, a tale much more terrifying than her movie *Aliens*. This new documentary explains what is now happening in our oceans: the unrelenting and accelerating acidification of the seas, a disturbing 30% increase in acidity that is already on a path to make the seas so acidic in this century that healthy coral may no longer be able to live anywhere on the planet. This acidity is created as carbon dioxide is spewed from our smoke stacks and tail pipes, carbon dioxide which is then absorbed into our oceans and creates acid by the gigatons.

Thousands of species form their very body structures by precipitating calcium carbonate out of the seas to form their shells, their spines, and their bodies. As the oceans become more acidic, more acidic than they have been for 400,000 years, these citizens of the deep can no longer take up that calcium and form their bodies.

This bright but acidic sea water is more dangerous to humans than the creepy creations in James Cameron's *Aliens* because the sea is a significant source of protein.



Representative Jay Inslee removes derelict gear on a recent NW Straits Initiative outing

That vast food supply is threatened because it is built upon a food chain that could collapse as the bottom links of the chain disappear. The most basic link of that chain are the pteropods, little plankton that swim about by the gazillion, that have begun to show signs of melting in the most acidic waters of the Arctic already.

No bill in Congress can shield us from aliens from a distant galaxy, but there is a bill ready to go that can build a clean energy economy, reduce carbon pollution, and thus save us from ocean acidification. When that bill passes, we will ignite a revolution in clean energy technology that will help wean us from our oil addiction so that we do not destroy the oceans with the carbon pollution we now so needlessly inject into the air, and thus, the waters.

If you'd like to help reduce ocean acidification and climate change, please contact Sarah Rasmussen, Coal-Free Washington Campaign, 206-378-0114 x 316.

# **Acid Test**

## **The Global Challenge Of Ocean Acidification**

**Produced by Natural Resources Defense Council**

***“One hundred years ago our ocean was inexhaustible. You couldn’t touch it. You couldn’t harm it. Now, in 100 years it might be dead”***

- **Our oceans are rapidly becoming more acidic due to CO2 emissions caused by burning fossil fuels.**
- **“Since the Industrial Revolution, the oceans acidity has increased by 30%. If we continue to emit CO2 at these rates, we will double the oceans acidity by the end of the century.”**
- **“Science models show that in just a few decades we will profoundly change the ocean’s chemistry. Such conditions haven’t existed since the age of the dinosaurs. This is happening so quickly that many ocean species will be unable to adapt and become extinct.”**
- **The bottom of the food chain, plankton and other species are having difficulty making their shells due to the increase in ocean acidity. Their shells are becoming thinner and dissolving away.**
- **“If the food chain is disrupted at the smallest level it will have a ripple effect and hurt the largest creatures in our ocean”.**
- **“Once the food chain is broken, the ability for all species to survive is threatened. Our oceans could be dead, “a Sea of weeds” in 100 years.”**
- **Warmer ocean temperatures and increasing acidity threaten coral reefs. Coral reefs are home to millions of species. We have ten years to reduce emissions or our coral reefs will be gone in 20-30 years.**
- **We caused this problem and we need to solve it. The solution is to reduce our CO2 emissions. We need to stop burning fossil fuels, and make a transition to green energy.**

# Ocean acidification threatens marine life

Sea chemistry changing at record pace due to CO<sub>2</sub>

By CRAIG WELCH  
The Seattle Times

**NORMANBY ISLAND,** Papua New Guinea — Katharina Fabricius plunged from a dive boat into the Pacific Ocean of tomorrow. A bleak portrait emerged: Instead of tiered jungles of branching, leafy corals, Fabricius saw mud, stubby spires and squat boulder corals. Snails and clams were mostly gone, as were worms, colorful sea squirts and ornate feather stars.

Instead of a brilliant coral reef like the one living a few hundred yards away, what the Australian Institute of Marine Sciences ecologist found

## OCEAN HEALTH

A three-part Seattle Times series on the effects of ocean acidification. The cause: carbon dioxide.

In this volcanic region, pure CO<sub>2</sub> escapes naturally through cracks in the ocean floor, altering the water's chemistry the same way rising CO<sub>2</sub> from cars and power plants is changing the marine world.

As a result, this isolated bay offers a chilling view of the future of the seas under



Photos by STEVE RINGMAN/Seattle Times  
Katharina Fabricius swims through carbon-dioxide bubbles off Papua New Guinea in January. The waters here offer a glimpse of how acidification is likely to transform the seas.

comes at a price. Reefs are just one way shifting ocean chemistry can harm fish.

In 2007, American biologist Danielle Dixon, then a graduate student at Australia's James Cook University, was studying the important ways clownfish use their noses to navigate the ocean. Then she bumped into James Cook professor Philip Munday.

Munday had been trying to see if carbon dioxide hurt fish. The pair decided, on a whim, to see if CO<sub>2</sub> altered how fish use their noses. Their findings were a shock.

Exposed to high CO<sub>2</sub>, the fish lost their ability to distinguish among odors. Since clownfish use smell to stay safe, the scientists then exposed baby fish in high-CO<sub>2</sub> water to bigger fish that eat young clownfish.

Normal clownfish always avoided the danger. The exposed fish lost all fear. They swam straight at predators.

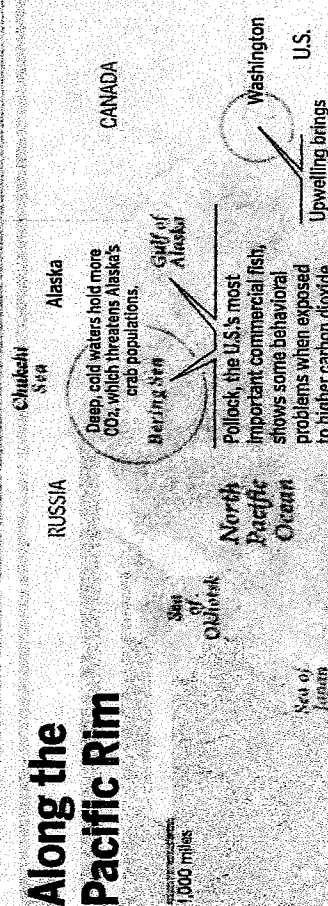
Over the next few years, scientists learned CO<sub>2</sub> changed many reef fishes' senses and behaviors: their sight, hearing, the propensity to turn left or right. Most important, that caused them to die two to five times more often.

Last year, researchers figured out why. Elevated CO<sub>2</sub> disrupts brain signaling in a manner common

## Along the Pacific Rim

Those changes pose risks for food supplies, from the fillets used in McDonald's fish sandwiches to the crab legs sold at seafood markets. Both are brought to the world by a Northwest fishing industry that nets half the nation's catch.

Sea-chemistry changes are coming as the oceans also warm, and that's



ocean acidification.

As the burning of coal, oil and natural gas belches carbon dioxide into the air, a quarter of it gets absorbed by the seas, changing ocean chemistry faster than at any time in human history.

To understand how that will alter the seas, The Seattle Times crisscrossed the Pacific Ocean from Papua New Guinea to Alaska, interviewed nearly 150 experts and people most likely to be affected, and reviewed most of the peer-reviewed studies.

The Times found that ocean acidification is helping push the seas toward a great unraveling that threatens to scramble marine life on a scale almost too big to fathom — and far faster than first expected.

Already, it has killed billions of oysters along the Washington coast and at nearby hatcheries. It's helped destroy mussels on some Northwest shores. It is a suspect in the softening of clam shells and in the death of some baby scallops. It already is dissolving tiny plankton, called pteropods, in Antarctica that are eaten by many ocean creatures — and that wasn't expected for 25 years.

The problem: When carbon dioxide mixes with water, it takes on a corrosive power that erodes some animals' shells or skeletons. It also robs the water of ingredients animals use to grow shells in the first place.

New science shows ocean acidification also can bedevil fish and the animals that eat them, from sharks to whales and seabirds.

Shifting sea chemistry can cripple the reefs where fish live, rewrite fish brains and

expected to frequently amplify the impacts.

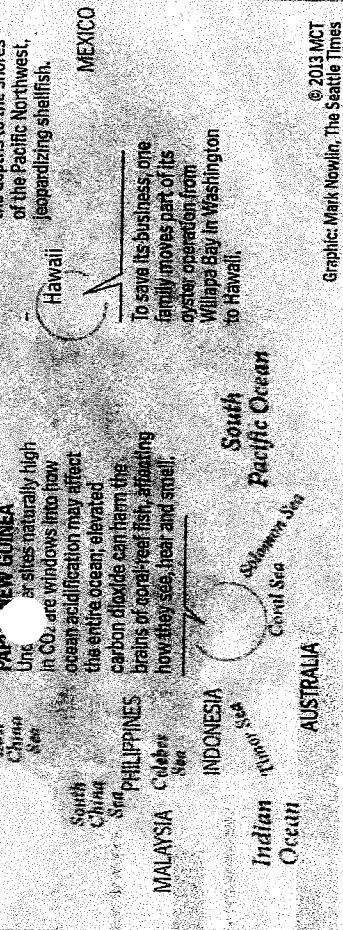
This transformation — once not expected until the end of the century — will be well under way, particularly along the West Coast, before today's preschoolers reach middle age.

"I used to think it was kind of hard to make things in the ocean go extinct," said James Barry, of the Monterey Bay Aquarium Research Institute in California. "But this change we're seeing is happening so fast it's almost instantaneous. I think it might be so important that we see large levels, high rates of extinction."

Globally, the world can arrest much of the damage by bringing down CO2 emissions soon. But the longer it takes, the more permanent these changes become.

"There's a train wreck coming, and we are in a position to slow that down and make it not so bad," said Stephen Palumbi, a professor of evolutionary and marine biology at Stanford University. "But if we don't start now, the wreck will be enormous."

PAPUA NEW GUINEA



Graphic: Mark Nowlin, The Seattle Times © 2013 MCT

abalone and some crabs, deform squid and weaken brittle stars while making it tough for corals to grow. It tends to increase sea grasses, which can be good, and boost the toxicity of red tides, which is not. It makes many creatures less resilient to heavy metal pollution.

Roughly a quarter of organisms studied by researchers in laboratories do better in high CO2.

Another quarter seem unaffected. But entire marine systems are built around the remaining half of susceptible plants and animals. "Yes, there will be winners and losers, but the winners will mostly be the

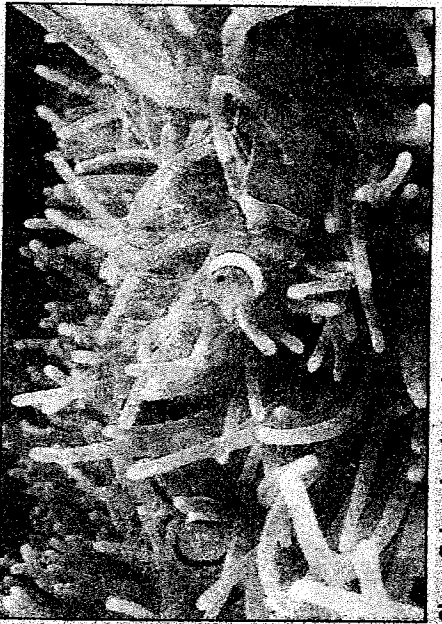
weeds," said Ken Caldeira, a climate expert at Stanford's Carnegie Institution for Science, who helped popularize the term ocean acidification.

Many species, from sea urchins to abalone, do show some capacity to adapt to high CO2. But they may not have time.

"It's almost like an arms race," said Gretchen Hofmann, a marine biologist at the University of California, Santa Barbara.

"We can see that the potential for rapid evolution is there. The question is, will the changes be so rapid and extreme that it will outstrip what they're capable of?"

Already, the oceans have



Clownfish swim through an anemone near Dobu Island, Papua New Guinea. Carbon dioxide can alter how clownfish see, hear and smell, which increases the chance of predation.

clownfish story in other words, was not just about clownfish.

So scientists have been testing the most important fish in America: pollock.

Fishermen in Alaska catch roughly 3 billion pounds of pollock a year in the North Pacific. It gets carved into fish sticks, sold overseas as imitation crab or packed in blocks. Seafood companies reel in \$1 billion a year from that catch.

After tracking clownfish research, government scientists in Oregon exposed young pollock to high CO2 and introduced the scent of what they eat. The fish struggled to recognize their food.

"In some of the very early work, it looks like pollock may show some of the same kinds of deficits that are seen in coral-reef fishes," said NOAA biologist Thomas Hurst.

To understand the future of the marine food web, government computer models have been studying how sea-chemistry changes could reverberate through the ocean.

Their initial results, looking at just the U.S. West Coast, are disturbing.

"Right now, for acidification in particular," said Isaac Kaplan, a NOAA researcher in Seattle, "the risks look pretty substantial."

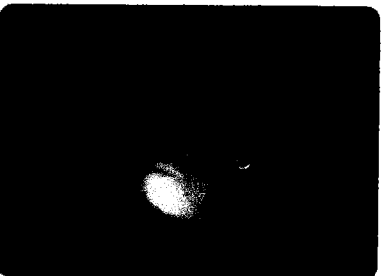
Kaplan's early work projects potentially significant declines in sharks, skates and rays, some types of flounder, rockfish and sole, and Pacific whiting, also known as hake, the most frequently caught commercial fish off the coasts of Washington, Oregon and

[Home](#) > **Fast Facts**

## Fast Facts

### Coral Reefs are being lost twice as fast as Rainforests

- One third of all **carbon dioxide emitted by humanity** has been **absorbed by the world's oceans**. This is making them more acidic than they have been for tens of millions of years.
- One of the greatest impacts that Ocean Acidification is having is on **reef building corals**, which are known as a 'framework species'. Without corals, reefs cannot exist. Ocean Acidification is already **slowing their growth rates**. Left unchecked they will soon stop growing and erode away.
- Direct effects on some important species of plankton and the sensitive larval stages of many marine organisms are now being reported in **globally respected scientific literature**.
- Ocean plankton **provide 50% of the oxygen that we breathe**. Due to Global Warming, that capacity to provide oxygen and support the fundamental food chains of the ocean has **decreased by 6%** over the last three decades.
- As oceans have warmed, oceanic nutrient deserts have **expanded by 6.6 million square km's** over the past two decades.
- There are approximately 10,000 Coral Reefs and **we are destroying one every other day**.
- Coral Reefs are being lost **more than twice as fast as the rainforests**. Current estimates reveal that we will lose the other 50% over the next 40 years.
- The Great Barrier Reef generates **over 6.5 billion dollars in tourism** revenue and 63,000 jobs.
- Left unchecked Ocean Acidification **could trigger a Great Mass Extinction Event**. Growing evidence suggests that four of the five Great Mass Extinctions have been associated with rapidly acidifying oceans – due to spikes in the concentration of atmospheric CO<sub>2</sub>.



Date: 10-29-13

To: The Energy Facility Site Evaluation Council (EFSEC)

Public Comment on: Proposed Tesoro Savage Port of Vancouver Oil Terminal

From: Virginia Nugent, 5111 NE 125th ST. Vancouver WA 98686.

EFSE Council,

To back up my public comments I am submitting the following information for your thoughtful consideration.

1. A copy of my 10-29-2013 oral public comment.
2. An article from Wikipedia, titled, DOT -111 tank car.
3. An article titled, Industries fight Safety Retrofit of Rail Cars. The Columbian, 7-30-2013.
4. An article titled, Michaud, Pingree push for Lac-Megantic Tanker REdesign. Bon Maine Politics 7 31,2013.
8. An article titled, Rail safety advocate calls for DOT-111 the "Ford Pinto" of Rail Cars.. Bon Maine Politics 8-28-2013.
9. An article titled, Report: Design Flaws in Rail Tankers Involved in the Quebec disaster first discovered in 1991. Bon Maine Politics 7-29-2013.

**RECEIVED**

OCT 29 2013

**ENERGY FACILITY SITE  
EVALUATION COUNCIL**

Date: 10-29-13

To: The Energy Facility Site Evaluation Council (EFSEC)

Public Comment on: Proposed Tesoro Savage Port of Vancouver Oil Terminal

From: Virginia Nugent, 5111 NE 125th ST. Vancouver WA 98686.

EFSE Council,

I have serious concerns about the safety of the DOT-111 rail tank cars that were involved in the 2013 fiery, fatal, explosion of a runaway train derailment in Canada and other derailments.

The soda can shaped DOT-111 tank car used for transporting a wide spectrum of dangerous goods, has a tendency to split open during derailments. This design flaw has been known since 1991 and nothing has been done about it. Sixty nine % of US rail tank cars are of the DOT-111 type.

The rail industry is fighting the government's newly proposed safety requirements to retrofit these poorly designed tankers, because it would cost too much. The railroad industry's desire to put profits, above public safety should be a deep concern for all of us.

It will only take one derailment along the Columbia River Gorge to cause devastating damage to our beautiful Columbia River and the adjacent communities along the way. It will cost billions to clean up the mess of a crude oil spill, and perhaps cause irreversible damage to the environment.

I am requesting that you prohibit the use of DOT -111 tanker cars in Washington state unless they have been retrofitted to appropriate safety standards. To do anything less, is a risk we simply can't afford.

Thank you,

Virginia Nugent

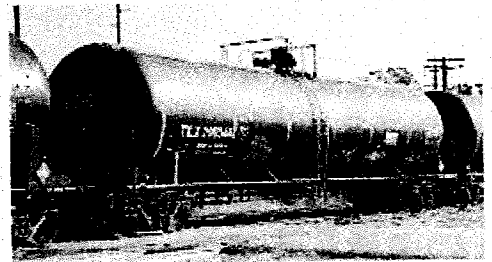
# DOT-111 tank car

From Wikipedia, the free encyclopedia

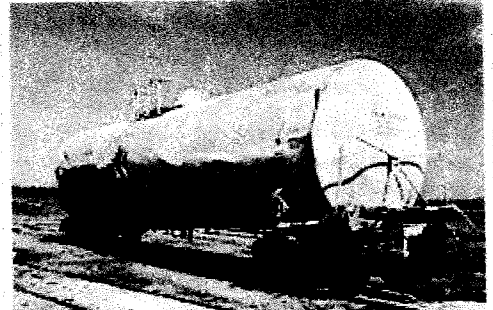
For rail transport, the U.S. **DOT-111 tank car**, also known as the **CTC-111A** in Canada,<sup>[1]</sup> is a type of non-pressure tank car in common use in North America. Tanks built to this specification must be circular in cross section, with elliptical, formed heads set convex outward.<sup>[2]</sup> They have a minimum plate thickness of  $\frac{7}{16}$  inches (11.1 mm)<sup>[3]</sup> and a maximum capacity of 34,500 US gallons (131,000 L; 28,700 imp gal).<sup>[4]</sup> Tanks may be constructed from carbon steel, aluminum alloy, high alloy steel or nickel plate steel<sup>[5]</sup> by fusion welding.<sup>[6]</sup>

Up to 80% of the Canadian fleet,<sup>[1]</sup> and 69% of U.S. rail tank cars are DOT-111 type.<sup>[3]</sup> DOT-111A cars are equipped with AAR Type E top and bottom shelf Janney couplers designed to maintain vertical alignment to prevent couplers from overriding and puncturing the tank end frames. Many of these transport a wide spectrum of dangerous goods, including 40,000 cars in dedicated service carrying 219,000 car loads of ethanol fuel annually in the U.S.<sup>[3]</sup>

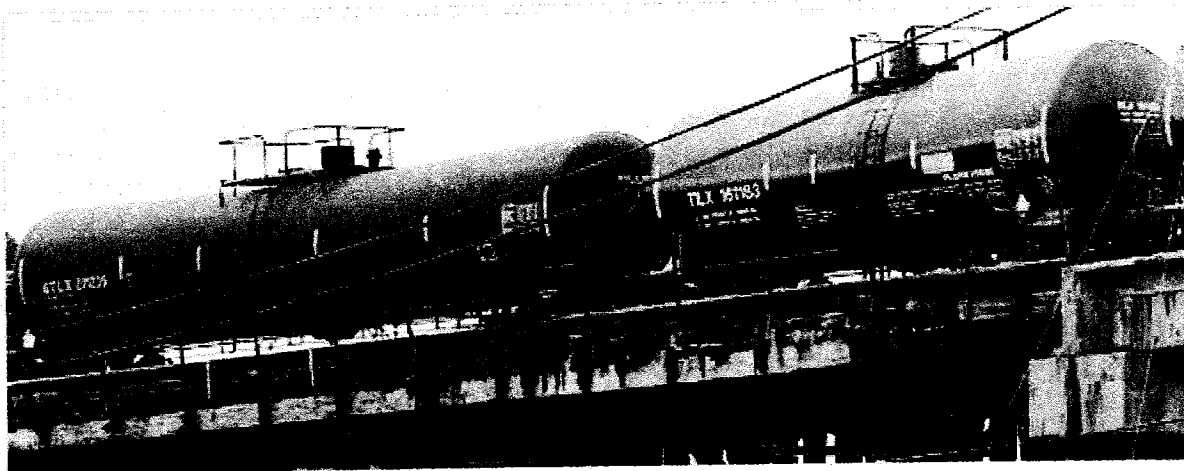
Hydraulic fracturing of new wells in the shale oil fields in the interior of North America has rapidly increased use of DOT-111 cars to transport crude oil to existing refineries along the coasts.<sup>[7]</sup> The Montreal, Maine and Atlantic Railway runaway train in the Lac-Mégantic derailment of 2013 was made up of 72 of these cars,<sup>[8][9]</sup> some of which ruptured, releasing explosively<sup>[10]</sup> their cargo of Bakken formation light crude oil, resulting in a large fire and mass casualty event.



A DOT-111 tank car, specification 111A100W1, constructed by fusion welding carbon steel. This car has a capacity of 30,110 US gallons (113,979 L), a test pressure of 100 psi (690 kPa), a tare weight of 65,000 pounds (29,500 kg) and a load limit of 198,000 pounds (89,800 kg).



A damaged DOT-111A tank car. Note the AAR Type E double shelf coupler required for transporting dangerous goods.



Two different 111A100W1 specification tank cars, both with 263,000-pound (119,000 kg) gross rail load. On the left is a 27,399-US-gallon (103,716 L) capacity tanker with a load limit of 196,500 pounds (89,100 kg), making it suitable for low specific gravity liquids. On the right, a lighter, smaller 16,640-US-gallon (62,989 L) capacity tanker has a higher load limit of 204,300 pounds (92,700 kg). It is stenciled and placarded for 50% sodium hydroxide aqueous solution, which has a specific gravity of 1.5. This car is also equipped with an insulating jacket and external heating pipes to melt frozen contents if necessary.

## Contents

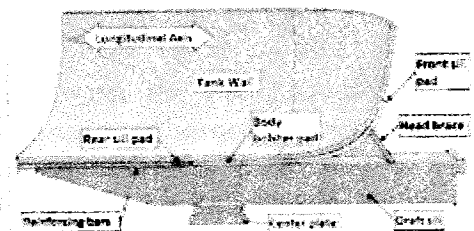
- 1 Construction
- 2 Regulations
- 3 Accident investigations
  - 3.1 Completed
  - 3.2 Ongoing
    - 3.2.1 Lac-Mégantic derailment
- 4 New construction standards
- 5 See also
- 6 References

## Construction

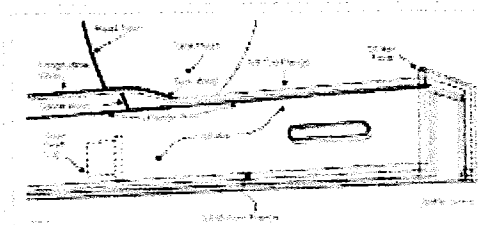
The DOT-111 tank cars are constructed with a draft sill design. Draft sills incorporate the draft gear behind each coupler that is designed to transfer longitudinal draft (tension) and buff (compression) forces throughout the length of a train. The draft sills are attached to steel pads that are attached to the tank. If the cars do not incorporate a continuous center sill extending the entire length of the car, the two draft sills at each end are referred to as stub sills, and the tank carries draft forces between couplers. In this case, reinforcing bars may be extended underneath the tank between the draft sills. Body bolsters and their associated body bolster pads centered above the railcar trucks support the tank and protect it against lateral forces. The draft sill center plate serves as the attachment point between the tank car body and the truck assembly. (See schematic cutaway at right.)<sup>[11]</sup>

The body bolster pads and front sill pads are attached to the tank with fillet welds. At the rear edge of the front sill pad, a butt weld attaches the front sill pad to the body bolster pad and to the fillet weld attaching the body bolster pad to the tank shell. Fillet welds at the interior and exterior sides of the head brace attach the head brace to the front sill pad, and an exterior fillet weld attaches the head brace to the draft sill. To the rear of the head brace, the draft sill is welded to the front sill pad, body bolster pad, and reinforcing bars.<sup>[11]</sup>

Because rail cars have no front or rear, for descriptive purposes, the ends of the cars are designated "A" and "B." The B end of the car is the end equipped with the wheel used to manually set the car's hand brakes. The end without the brake wheel is the A end. As trains are assembled, either end of a tank car may be placed in the front or rear position. The tank shells are constructed of several rings welded together, with six rings in a typical configuration. By convention, ring-1 is at the A end, and if there are six rings, ring-6 is at the B end.<sup>[11]</sup> The tank rings can be welded in a "straight barrel" configuration, or with a "slope bottom" sloping down to a bottom outlet valve at the center of the tank.<sup>[12]</sup>



Schematic cutaway view (not to scale) of end of tank car showing major components.



Draft sill structural and weld details

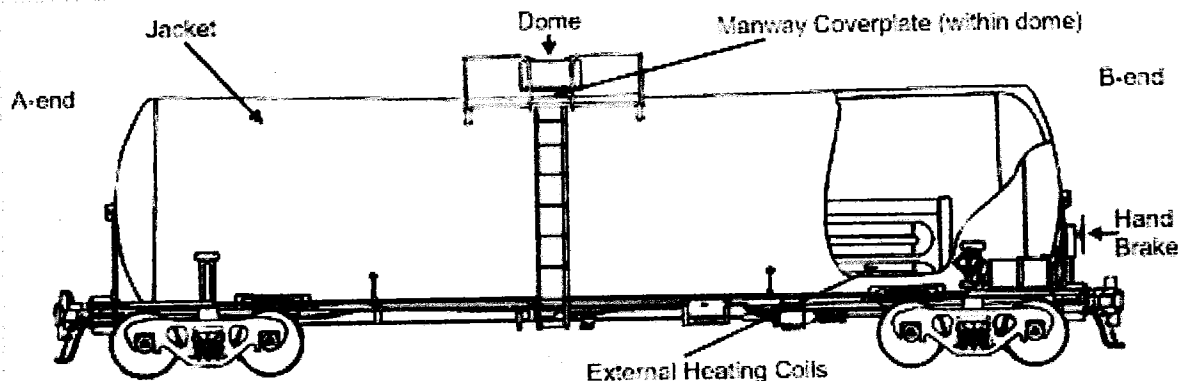


Diagram of a DOT-111J100W1 tank car with an insulating jacket and external heating coils. It has a capacity of 20,000 US gallons (76,000 L; 17,000 imp gal).

## Regulations

The relevant US regulatory framework is found at 49 CFR Part 179. An overview of "49 CFR Part 179 - SPECIFICATIONS FOR TANK CARS" is available online.<sup>[13]</sup> while the Means of Containment of the Transport of Dangerous Goods Regulations of Canada is found in Part 5.<sup>[14]</sup> The US regulations call for the employment DOT-xxx containment standards, where 'x' substitutes to a numeral between 0 and 9, while the Canadian TDG Regulations have latterly a CSA/CGSB-xx.xxx container standard nomenclature, although as noted by Powers,<sup>[1]</sup> the DOT-111 standard seems to apply in Canada.

A 2013 Senate of Canada committee report proposed mandatory minimum insurance for rail companies.<sup>[15]</sup> Currently the railway industry lags the pipeline industry in value of mandatory insurance coverage, to a ratio of 1:40.<sup>[15]</sup>

Railway operators are not required to inform Canadian municipalities about hazardous goods in transit.<sup>[16]</sup> The 2013 Senate committee (see above) recommended the creation of an online database with information on spills and other incidents from rail cars.<sup>[15]</sup>

DOT-112 tank cars and DOT-114 tank cars have been required since 1979 under Regulation SOR/79-101 of the Canada Transportation Act for the transportation of gases such as propane, butane, or vinyl chloride.<sup>[17]</sup> Transportation Safety Board of Canada Railway Investigation Report R94T0029<sup>[18]</sup> section 1.13.1 documents DOT-112 tank car and DOT-114 tank car standards: the DOT-111 tank "cars are not considered to provide the same degree of derailment protection against loss of product as the classification 112 and 114 cars, designed to carry flammable gases." DOT-111 tank cars may have been employed in trains such as those of the Lac-Mégantic derailment because crude oil is largely not a gaseous product at standard temperature and pressure.

## Accident investigations

A report on "The State of Rail Safety in Canada" was commissioned by Transport Canada in 2007.<sup>[19]</sup> The report contains a 10-year statistical examination of its subject. Section 6 is entitled "Accidents involving dangerous goods". A formal review of the Railway Safety Act was empanelled by the Minister in February 2007.<sup>[20]</sup> The review, which was tabled in Parliament later that year, has a different take on the subject.

## Completed

During a number of accident investigations over a period of years, the U.S. National Transportation Safety Board has noted that DOT-111 tank cars have a high incidence of tank failures during accidents.<sup>[3]</sup> Previous NTSB investigations that identified the poor performance of DOT-111 tank cars in collisions include a May 1991 safety study as well as NTSB investigations of a June 30, 1992, derailment in Superior, Wisconsin;<sup>[21]</sup> a February 9, 2003, derailment in Jamaroa, Illinois;<sup>[22]</sup> and an October 20, 2006, derailment of an ethanol unit train in New Brighton, Pennsylvania.<sup>[23]</sup> In addition, on February 6, 2011, the Federal Railroad Administration (FRA) investigated the derailment of a unit train of DOT-111 tank cars loaded with ethanol in Arcadia, Ohio, which released about 786,000 US gallons (2,980,000 L; 654,000 imp gal) of product.<sup>[24]</sup> The Transportation Safety Board of Canada also noted that this car's design was flawed

# BUSINESS

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**Market  
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Details on Page C6

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-14.03

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-6.32

**Brunelli:** State must focus on retaining businesses /C6 ♦ **Ad firms'** megamerger could benefit rivals /C7 ♦ **In brief:** Wheat farmers struggle, pending home sales drop /C7

# Industries fight safety retrofit of rail cars

Oil firms, railroads cite technical challenges, costs

By **MATTHEW DALY**  
*Associated Press*

**WASHINGTON** — The oil industry and U.S. railroads are resisting the Obama administration's attempt to boost safety standards for the type of rail car involved in a fiery, fatal explosion in Canada, citing costs and technical challenges.

Industry groups say it is impractical to retrofit tens of thousands of existing tank cars used to haul oil, even as they have adopted voluntary standards to ensure that cars ordered after October 2011 meet tough

requirements recommended by federal transportation safety experts because of its tendency to split open during derailments and other major accidents.

Defects in the car's structure were noted as far back as 1991.

The rail industry estimates that retrofitting older cars would cost at least \$1 billion, not including lost-service time for cars removed from the fleet for repairs. "By comparison, derailment costs totaled approximately \$64 million over the past five years," the Association of American Railroads said in a 2011 petition to the federal government. Extra weight from retrofitting cars might even cause overloads, potentially

**RAIL CARS, Page C7**

## Port releases Tesoro-Savage lease

It requires firms to have \$40 million in liability insurance



### On the Web

Read the 429-page Tesoro-Savage lease: [columbian.com/documents](http://columbian.com/documents)

things, claims for "bodily injury, property damage (including third-party claims)" and "natural resources damages."

The pollution insurance would come on top of \$15 million in liability insurance, according to the lease. Citing the "deliberative process" exemption under state law, the port did not provide a copy of the draft lease before commissioners unanimously approved it on July 23. The port released the document after media,

By **AARON CORVIN**  
*Columbian staff writer*

The Port of Vancouver on Monday released a copy of the lease it approved for 42 acres last week with Tesoro Corp. and Savage Companies to build the largest oil-handling terminal in the Pacific Northwest.

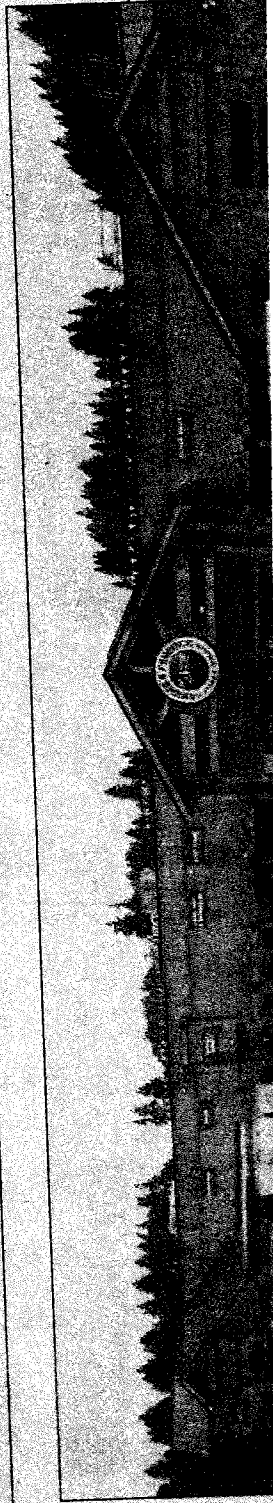
The 429-page document shows the companies are required to maintain \$25 million in "pollution legal liability insurance," which would cover, among other

including The Columbian, made formal requests under state public records law. The port redacted parts of the lease agreement.

The oil terminal would handle up to 380,000 barrels of crude per day, hauled by train from North Dakota's Bakken site.

Commissioners approved the lease despite overwhelming public testimony against the oil terminal. But it was only a first step. That's because the Tesoro-Savage proposal must undergo an examination by the state Energy Facility Site Evaluation Council, which would make a recommendation to Gov. Jay Inslee, who has final say.

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making them less safe, the group said. Officials from an Illinois town near the site of a 2009 ethanol train derailment call the railroads' stance illogical.

Changing federal rules to impose safety standards for new tank cars without requiring a retrofit of existing cars "will provide no real protection to the general public in derailment situations for decades to come," the village of Barton, Ill., said in testimony submitted to the U.S. Pipeline and Hazardous Materials Safety Administration.

**Tone to damage**

An unattended Montreal, Maine & Atlantic Railway train came loose July 6 and derailed and killed at least 47 people. Seventy-two of the train's cars were carrying crude oil, and at least five exploded, setting off massive explosions that devastated the small lakeside town of 6,000 people. The DOT-111 model.

The derailment and resulting explosion are under investigation. It's unclear whether retrofitted cars could have been able to withstand the impact. Still, transportation experts say

The pipeline safety agency said in a report this month that the delay was needed to allow "additional coordination" among officials and interested groups, including rail and oil industry representatives, who have lobbied against a rule change for existing cars.

Among the possibilities: splitting the proposed rule into one that addresses new tank cars and another that addresses possible retrofits.

In comments submitted to the pipeline safety agency, industry groups asked the Obama administration to focus its rule-making on cars built after October 2011.

Requiring retrofits "could increase compliance costs significantly," the American Petroleum Institute, the Renewable Fuels Association, the American Chemistry Council and other groups said.

In the first half of this year, U.S. railroads moved 178,000 carloads of crude oil. That's double the number during the same period last year and 33 times more than during the same period in 2009. The Railway Association of Canada estimates that as many as 140,000 carloads of crude oil will be shipped on Canada's tracks this year, up from 500 carloads in 2009. Much of that increase is from oil produced in the Bakken oil patch in North

## Two rules?

The DOT-111 tank car represents more than two-thirds of the rail fleet carrying crude oil.

The Associated Press reported in September that the DOT-111 tank car has been allowed to haul hazardous liquids from coast to coast even though transportation officials were aware of the design flaw. The AP had reviewed 20 years of federal rail accident data involving DOT-111 cars used to haul ethanol and found that the cars had been breached in at least 40 serious accidents since 2000. In the previous decade, there were just two breaches.

Sen. Charles Schumer, D-N.Y., is urging the Obama administration to phase out DOT-111 tank cars or require freight rail carriers to retrofit them to prevent potential explosions or spills.

While freight rail should not be "demonized," increased traffic of rail cars carrying crude oil "war-rants increased safety measures, and that begins with putting the safest, most up-to-date tank cars on the tracks," Schumer said at a news conference last week in Albany, N.Y.

**WONDERWORD**  
By DAVID OUELLET

**HOW TO PLAY:** All the words listed below appear in the puzzle — horizontally, vertically, diagonally, even backward. Find them and CIRCLE THEIR LETTERS ONLY. DO NOT CIRCLE THE WORD. The leftover letters spell the Wonderword.

**ORTHODONTSISTS**

**Solution:** 13 letters

Global PC shipments fell 10.9 percent in the second quarter to 76 million, the fifth consecutive quarterly drop, market researcher Gartner Inc. said earlier this month. Sales slid from a year earlier in all regions, including a 1.4 percent drop in the U.S.

Intel's PC-chip group, its largest division, had second-quarter sales of \$8.1 billion, down 7.5 percent from the same quarter a year earlier. The company was unable to compensate for that drop with an increase of less than 1 percent in server-chip sales, to \$2.74 billion.

Intel's market share in smartphones is "close to zero today," and "you would measure our share in tablets as being some low number," Smith said.

The company is aiming to change that by gearing its manufacturing more to producing chips that don't quickly drain batteries, he said.

"We're targeting those designs and really focused on that with the full power of our manufacturing into markets to have small amounts of share."



# Politics

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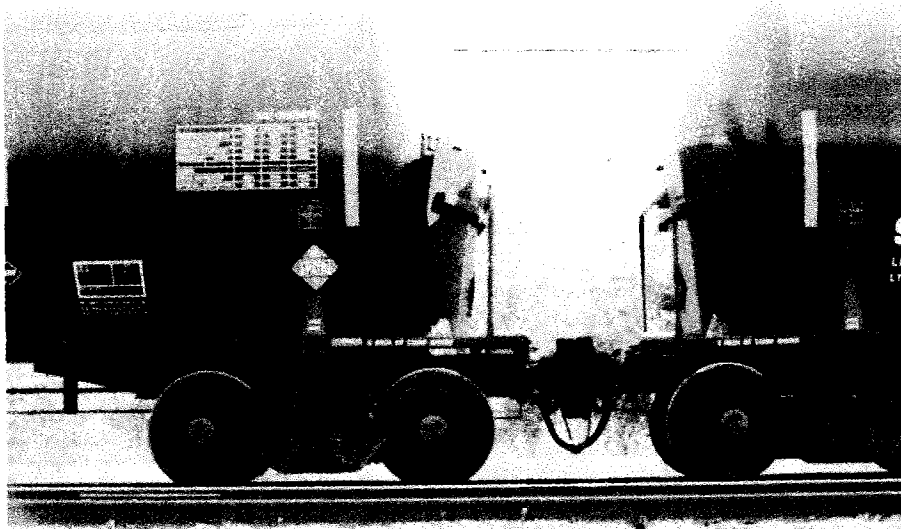
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## Michaud, Pingree push for Lac-Megantic tanker redesign

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Brian Feulner | BDN

Tankers remain on a rail off Route 2 in Hermon on Friday. *Bay Photo*



Nick Sambides Jr.  
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Posted July 31, 2013, at 4:53 p.m.

The state's congressional leaders are pushing federal authorities to require rail shippers to correct design flaws in oil tankers that exploded in a Quebec town on July 6, killing 47 people, they said Wednesday.

U.S. Reps. Mike Michaud and Chellie Pingree encouraged Pipeline and Hazardous Materials Safety Administration chief Cynthia Quarterman during a meeting Wednesday to authorize improvements to the 40,000 flawed DOT-111 tanker cars in service now.

"It is still too early in the investigation to determine exactly how this tragedy could have been prevented, [but] the design flaws of DOT-111 tank cars are well documented," Michaud and Pingree said in a joint statement, calling the rulemaking process "frustratingly slow."

"We need to avoid any further delays, especially given the exponential growth of hazardous material shipments. Whether it's oil, ethanol, or some other hazardous material travelling on our nation's tracks, the American people deserve to know that these shipments are being carried in



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Whit Richardson

tanker cars that are designed to the highest safety standards," they said.

The safety administration announced Monday that it needs another year to apply recommendations from the National Transportation Safety Board that would fix flaws, first discovered in 1991, that cause the DOT-111 rail car to crack open during collisions and derailments.

The runaway Montreal, Maine and Atlantic Railway train that exploded in Lac-Megantic had 72 DOT-111 cars carrying light crude oil. Several cars cracked open and exploded when the train derailed.

The disaster has forced the closure of the track line, the layoff of at least 85 railway workers, and safety reviews in Canada and the U.S.



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Thirteen of 19 tank cars carrying denatured fuel ethanol, a flammable liquid, caught fire, killing one nearby motorist, injuring seven others and doing \$7.9 million in damage, according to the National Transportation Safety Board report on the accident.

The report lists five accidents or studies involving the DOT-111 tank cars, which are unpressurized, dating to May 1991 in which investigators found tank head and shell breaches, damaged valves and fittings, or both.

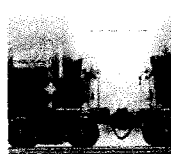
"This represents an overall failure rate of 87 percent and illustrates the continued inability of DOT-111 tank cars to withstand the forces of accidents, even when the train is traveling at 36 mph, as was the case in this accident," the report on the 2009 incident states.

Quartermaster had no public response to the meeting with Michaud and Pingree, but her agency and the Federal Rail Administration announced Tuesday that they will review

federal regulations regarding rail transport of hazardous materials Aug. 27-28 in Washington, D.C.

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Report: Design flaws in rail tankers involved in Quebec disaster first discovered in 1991

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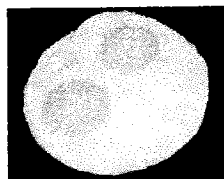
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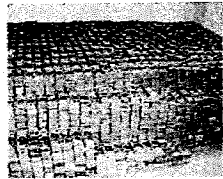
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## Rail safety advocate calls DOT-111 the 'Ford Pinto' of rail cars

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Mathieu Belanger | REUTERS

The remains of a burned train are seen in Lac-Mégantic, Quebec in this July 8, 2013 file photo.

Posted Aug. 28, 2013, at 9:34 p.m.

WASHINGTON — The head of a rail safety group Wednesday compared a widely used train tank car to the recalled Ford Pinto in urging U.S. regulators to require upgrades that would prevent accidents like a Quebec derailment that killed 47 people.

Karen Darch, co-chairman of a coalition of communities around Chicago formed in response to a merger of railroads, said regulators dragged their feet in mandating safety improvements to the car, known as the DOT-111, amid evidence showing the tankers are more prone to rupture in a derailment than other types.

"Unfortunately, your combined track record has been less than stellar when it comes to improving the crash-worthiness of the DOT-111 tank car — the primary car used in the transport of dangerous hazmat like crude and ethanol in this country and in Canada," Darch, mayor of Barrington, Ill., told a panel of Federal Railroad Administration and Pipeline and Hazardous Materials Safety Administration officials.



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Regulators had known since 1991 that the rail car has "a high propensity to rupture in derailment scenarios," she said in comparing it to Ford's Pinto, which in the 1970s was recalled amid questions that a flawed fuel tank would catch fire in a rear-end collision.

In response to safety concerns, U.S. rail companies since 2011 have added safety features to new DOT-111s to reduce the risks of a spill or catastrophic accident. Regulators are reviewing whether more steps are needed.

Cheryl Burke, a rail safety executive for Dow Chemical Co. in Midland, Mich., said retrofitting all DOT-111s in use was "impractical if not impossible."

While she said Dow supports efforts to make rail transport safe, tank cars can't be expected to be "completely impervious to the substantial forces that occur in significant rail accidents, particularly high-speed derailments."

Regulators should do a risk analysis to determine whether particular rail fleets should be upgraded, Burke said.

Deborah Hersman, chairman of the National Transportation Safety Board, said in a 2012 letter to regulators that the DOT-111 had a "high incidence of tank failures during accidents."

According to the NTSB, about 69 percent of the U.S. rail tank car fleet are DOT-111s. A Canadian Senate committee said in a report this month the government should consider accelerating the phaseout of tank cars.

U.S. regulators are reviewing safety rules for transporting hazardous materials in response to the July 6 train derailment and explosion in Lac-Mégantic, Quebec. Some of the 72 cars, which were carrying crude from North Dakota's Bakken formation to a New Brunswick refinery, were DOT-111s.

U.S. and Canadian regulators this month imposed emergency rules designed to prevent trains that are parked and unattended from rolling free. The Federal Railroad Administration now prohibits operators from leaving trains hauling hazardous materials without an operator, unless receiving prior authorization, and requires employees to report to dispatchers the number of hand brakes used.

Canadian investigators have said that not enough force was applied to the hand brakes to the train in Quebec to keep it from moving.

The U.S. Railroad Safety Advisory Committee, which develops new safety standards and includes officials from the government, industry and labor unions, is also studying whether further actions are required. It is meeting Thursday to discuss the issue.

The panel convened Wednesday took public testimony about what changes regulators should make.

James Stem, national legislative director for Sheet Metal, Air, Rail and Transportation union, said railroads should be required to have more than one worker on a train.

The train in Quebec, which was operated by Montreal, Maine & Atlantic Railway Ltd., had a crew of one and was parked overnight when it broke free and rolled into the town, where it derailed and exploded.

The number of crude shipments by rail has increased by 443 percent since 2005. North Dakota accounts for much of the increase. About 75 percent of its oil heads to refineries by rail, with pipelines covering the remainder.

Robert Fronczak, assistant vice president for environmental and hazmat safety and operations at the Association of American Railroads, encouraged regulators to ensure shippers accurately describe the types of tank cars being used along with the cargo being carried.

Some rail operators may be using cars certified for the least hazardous loads to carry fuel that warrants a more robust rail car, he said. The government should provide some assurance that "the commodities being transported are being transported correctly and being declared correctly," Fronczak said.

*With assistance from Andrew Mayeda in Ottawa.*

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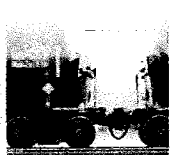
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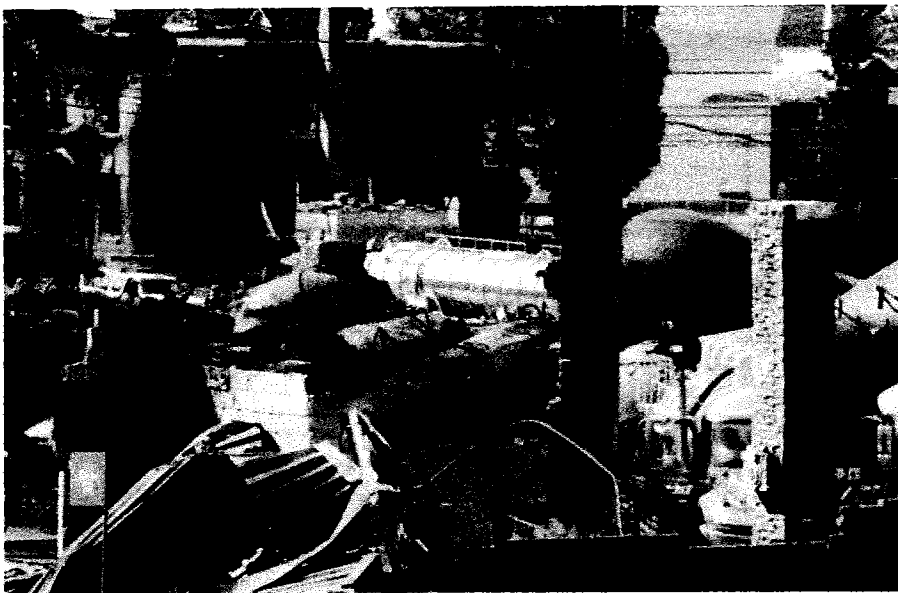
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## Report: Design flaws in rail tankers involved in Quebec disaster first discovered in 1991

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Christinne Muschi | Reuters

A view of the devastation in the downtown core where burnt tankers sit in Lac Megantic, Quebec July 12, 2013.



Nick Sambides Jr.

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Posted July 29, 2013, at 4:35 p.m.

Last modified July 29, 2013, at 8:31 p.m.

A plan to correct design flaws in the tanker cars coupled to the explosive rupture main that destroyed the center of a Canadian town earlier this month won't be implemented for a year, officials said Monday.

As the head of the company involved in the disaster said the freight hauler is contemplating filing for bankruptcy protection and further layoffs, the Pipeline and Hazardous Materials Safety Administration announced it needs another year to apply recommendations from the National Transportation Safety Board that would fix flaws first discovered in 1991 that causes the DOT-



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"We are at the very beginning phase of addressing a change in the rules. It takes some time," Delcambre said Monday. "The thing is, because we change rules that affect the public and the regulated industry, we want to make sure we get enough feedback and information to do a cost savings analysis to see if it is actually cost-worthy to pass the rule."

"Sometimes what may be proposed could be excessively costly to industry. We have to weigh that aspect of rulemaking, [but] we haven't even got to the point yet of doing a cost analysis," he added.

The safety board's recommendation came not in response to the July 6 runaway freight train in Lac-Mégantic, Quebec, which killed an estimated 50 people, but from a 2009 accident in which a Canadian National Railway Company freight train traveling 36 mph, derailed at a rail grade crossing in Cherry Valley, Ill., in June 2009.

Thirteen of 19 tank cars carrying denatured fuel ethanol, a flammable liquid, caught fire, killing one nearby motorist, injuring seven others and doing \$7.9 million in damage, according to the NTSB report on the accident.

The report lists five accidents or studies involving the DOT-111 tank cars, which are unpressurized, dating back to May 1991 in which investigators found tank head and shell breaches, damaged valves and fittings, or both.

"This represents an overall failure rate of 87 percent and illustrates the continued inability of DOT-111 tank cars to withstand the forces of accidents, even when the train is traveling at 36 mph, as was the case in this accident," the report on the 2009 incident states.

U.S. Reps. Mike Michaud and Chellie Pingree, both D-Maine, will be meeting with the Pipeline and Hazardous Materials Safety Administration on Wednesday. They are among [several federal or state officials meeting with agencies handling rail safety or pressing for safety reviews.](#)

The Maine Department of Transportation is reviewing state rail service per an executive order from Gov. Paul LePage. The Federal Rail Administration [has been reviewing tracks](#) at several points over the last week.

Rail industry officials also agreed to implement new safety standards for tank construction, Pingree said.

"The fact remains that there are about 40,000 tank cars out there that are already in service that don't meet those new standards. It's important to get those cars upgraded as soon as is practicably possible and it is an issue I expect will come up when we meet with the head of PHMSA this week," Pingree said in a statement on Monday.

"The federal rulemaking process is complex and can be frustrating, especially when considered in the wake of a tragedy like the one in Quebec," Michaud said in a statement, adding that he and Pingree were calling upon the administration to issue a new rule improving tanker design.

"The agency needs to get this right so that we can avoid future tragedies," Michaud said.

U.S. Sen. Angus King said he was disappointed in how long it is taking for the safety changes to be made.

"As PHMSA continues to study the proposed changes, it should also be pursuing other potential corrective safeguard measures that can be implemented immediately to protect against tragedies like the one witnessed at Lac-Mégantic," King said in a statement.

The accident forced the Hermon-based railroad that owns the ill-fated train to lay off 79 of 179 workers as the Lac-Mégantic tracks, key to its Maine-to-Montreal service, remain closed. The president of Montreal, Maine and Atlantic Railway parent company Rail World Inc., Ed Burkhardt, said Monday that Canadian investigators have given no timeline for the line's reopening.

The continued closure could force more layoffs or even, as some industry observers predict, the company's filing for bankruptcy. A check of the nationwide bankruptcy court database on Monday showed no filings.

Bankruptcy or more layoffs "obviously are possible and we are looking at our alternatives right now," Burkhardt said Monday. "We have several alternatives that we are studying."

"We are going to make some adjustments based on our current operation," he added in reference to layoffs. "There could be some minor adjustments."

MMA customers supply all rail cars used to haul their products, Burkhardt said.

The NTSB report cited poor performance of DOT-111 tank cars in a May 1991 safety study and investigations of a June 30, 1992, derailment in Superior, Wisc.; a Feb. 9, 2003 derailment in Tamaroa, Ill.; and an Oct. 20, 2006, derailment of an ethanol unit train in New Brighton, Pa., the report states.

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FRA also investigated the derailment of a train of DOT-111 tank cars loaded with ethanol in Arcadia, Ohio, which released about 786,000 gallons of product on Feb. 6, 2011, the report states.

The incidents moved safety board officials to recommend that tank cars handling denatured fuel ethanol and crude oil have enhanced tank head and shell puncture resistance systems and top fittings protection that exceed the DOT-111 tank cars, the report states.

Costs for upgrading the tank cars were not provided.

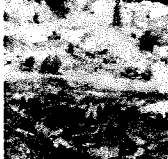
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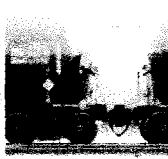
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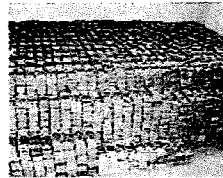
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