Western Canadian Spill Services Ltd.

OIL SPILL COOPERATIVE

Member Newsletter

SUMMER 2014 | VOLUME 2 | ISSUE 10

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WCSS Organizational Structure

WCSS Board of Directors

The following WCSS Board of Directors was identified from June 5th, 2014 to on or about the same date, 2015:

Larry Bell, Bell Energy	Independent
Michael Gadde, Talisman Energy	CAPP
Lois Garrett, Husky Energy	CAPP
Gary Beuk, Imperial Oil	CAPP
Michael Rakus, Cequence Energy	EPAC
Dan O'Rourke, Kinder Morgan	Pipelines
Greg Carter, Enbridge Pipelines	Pipelines
Al McFadyen, WCSS	WCSS

WCSS Executive Subcommittee

Lorne Schmidt, Enerplus accepted the Alternate Provincial Cooperative Chairman's role and Darren Stang, Lightstream Resources joined the Executive Sub-Committee.

WCSS Cooperative Chairmen

New Oil Spill Cooperative Chairmen and Alternate Chairmen in 2014;

- Area A Alternate – Mark Weinberger, Plains Midstream
- Area E Alternate - Mike Krawetz, CNRL
- Area H Chairman – Ron Matchett, TransCanada Pipeline
- Area P Chairmen - Jared Serviss, Inter Pipeline
- Area P Alternate – Pamela Staples, Shell Canada
- Area U Chairman – Dale Ness, Inter Pipeline
- Area Y Chairman – Byron Stacey, Syncrude
- Area Y Alternate – Gabe Hache, Enbridge Pipeline

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WCSS Field Improvement

In the 2013 WCSS Strategic Planning session, one of the objectives identified was to improve the industry's response capability in the event of a heavy oil spill into surface water. The planning group felt that as a starting point WCSS should assess our current inventory of skimmer systems, identify gaps and look at new skimmer technology linked to heavy oil recovery.

Although it appears that diluted bitumen can be recovered by skimmers that we currently have in our inventories, we felt that there is potential for spilled heavy oil to become more viscous as it weathers or as ambient temperatures decrease and the skimmer efficiency is compromised. At this point WCSS decided to look for a skimmer system capable of recovering viscous heavy oil.

After some research WCSS purchased a Lamor Multimax (LAM 50) skimmer, Lamor Diesel powerpack and a Lamor GTA 30 transfer pump. The LAM 50 is a stiff brush conveyor belt-type skimmer designed to recover oil in flowing waters, or as an advancing skimmer in stagnant water bodies. The weight of the skimmer with pump is approximately 170kg. The oil transfer pump is an Archimedes screw type pump which can handle liquids from water to the heaviest of viscous oils.

Lamor Heavy-oil Skimmer System

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Oil Spill Response

Although WCSS is clearly not a spill response organization, we do offer spill support when we can. We know that sounds a little wishy-washy but we have a very solid track record when it comes to assisting member companies when the rubber meets the road.

WCSS spill response support generally means:

- **Providing advice and guidance during the initial spill response phase.**
- **Assisting the responsible party with identifying and getting equipment en-route to the designated staging areas.**
- **Providing boots on the ground during initial spill response when Coop volunteers are available through our initial spill response team program.**
- **Locating certified boat operators when boats are required.**
- **Providing contacts for subject matter experts and/or specialized equipment.**
- **Providing communications support when requested to do so.**

When a licensee of oil wells, pipelines and facilities experience a spill they are deemed the responsible party and must demonstrate to regulators and other stakeholders that they are in control and capable of responding safely, effectively and appropriately. The expectation from regulators and other stakeholders is undoubtedly very high.

Oil spills can be complex, embarrassing, extremely costly and just plain nasty; we believe that the best line of defence is to ensure that as a licensee you focus a great deal of effort into risk assessments, planning and spill prevention. Secondly ensure that you have internal resources and manpower trained and competent to manage a worst case oil spill scenario. If you are banking on consultants, put them through the hoops; make sure that they can deliver what they say they can.

The good news is that many of our members have robust spill preparedness programs and have the ability and resources to manage an oil spill should it occur; in many cases they look to WCSS as a second line of defence. In all likelihood if it's a big one, WCSS will be there in some capacity to help and support our members.

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Training

SR300 – February 14, 2014

Program development is well underway with 4 of the 5 courses in the spill responder series completed by year end and the final program targeted for completion in Q2, 2015. The 5 courses include:

SR100 – Base-line training program that is offered on an open-registration basis, self-study or to individual companies on a contractual basis.

SR200 – Hands-on two-day open registration training where students learn how to identify low impact spill response strategies, contain and recover spills in small water bodies, utilize Watergate Dams, wildlife hazing equipment, drum skimmers, filter fences, straw booms and inverted weirs.

SR300 – Hands-on one-day training where students learn how to assess a sheet of ice, develop a tactical plan, organize a safety/rescue team and slot ice for containment and recovery purposes.

SR400 – Under development; anticipate course to be ready in Q3, 2015 with a focus on hands-on equipment deployment in large rivers and lakes.

SR500 – This two-day open registration course will focus on spill management and help prepare students to organize resources and develop tactical plans for each of the key issues that are commonly linked to a large complex spill into surface water.

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SR200 – July 16 – 17, 2014

WCSS believes that students that complete all 5 of the courses in the spill responder series will be in a good position to participate in a meaningful way to an oil spill on behalf of their company. Students that successfully complete all 5 of the courses in the spill responder series will receive a special WCSS Spill Responder certificate of completion.

The successful completion of any of the courses in the Spill Responder series can also be used as an exemption to attending an annual Coop training exercise.

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Coop Exercise Training Schedule

Area	Date	Type of Exercise
E	August 27	Oil Spill Containment & Recovery in a Lake
C (FN)	September 3	Awareness Training – Muskeg
M	September 10	Oil Spill Containment & Recovery in a Small River
D	September 16	Awareness Training
T	September 17	Oil Spill Containment & Recovery in a Small River
VR-1	September 24	Oil Spill Containment & Recovery in a Lake
O	October 1	Oil Spill Containment & Recovery in a Large River
Y	October 1	Oil Spill Containment & Recovery in a Small River
W	November 19	Spill Responder

Open Registration Schedule

Course Name	Date	Course Location
Spill Responder 100	November 18	Nisku Enform Training Centre
Spill Responder 400	POSTPONED UNTIL 2015	Nisku Enform Training Centre + offsite
Spill Responder 500	November 19 – 20	Nisku Enform Training Centre

WCSS offers in-house contract training upon request. Please contact Shannon Jarrell at (403) 516-8019 or shannon.jarrell@wcss.ab.ca for all training inquiries.

If you are interested in purchasing training aids for your own in-house programs, please contact Leona Boisselle at (403) 516-8160 or leona.boisselle@wcss.ab.ca. To review WCSS training aids please visit our training page: http://www.wcss.ab.ca/training.asp.

Note: To receive WCSS newsletters and occasional notifications please join our mailing list, available on our homepage: http://www.wcss.ab.ca/index.asp.

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Summary of In-situ Burning – Dr. Merv Fingas, Spill Science (Edmonton)

The successful oil burns at the Gulf of Mexico Spill in 2010 have highlighted the potential for in-situ burning. This success has stimulated several agencies to re-examine oil spill burning and to prepare documents on this tool. IPIECA (The global oil and gas industry association for environmental and social issues) has commissioned a manual for at-sea and on-land burning. The comprehensive first draft of this manual is now placed on the WCSS web site. A reduced version of this document will be released as a public document later by IPIECA.

In-situ burning is recognized as a viable alternative for cleaning up oil spills on land and water. In-situ burning can rapidly reduce the volume of spilled oil and eliminate the need to collect, store, transport, and dispose of recovered oil. In-situ burning can shorten the response time to an oil spill, thus aiding in environmental protection. The guide on the website contains a compilation of information about in-situ burning of oil spills and includes the scientific aspects of the burning process and its effects, and practical information about the procedures to be followed and equipment required for carrying out in-situ burns.

Ignition is easy for volatile oils and is more involved for heavier oils which require a primer such as diesel fuel for sufficient heat. If not enough vapors are produced, the fire will either not start or will be quickly extinguished. The amount of vapors produced is dependent on the amount of heat radiated back to the oil. If the oil slick is too thin, some of this heat is conducted to the water layer below it. Oil that is completely emulsified with water can be ignited, given that sufficient heat is supplied, typically by burning it alongside un-emulsified oil. Containment of the oil on water may be necessary to carry out in-situ burning as the oil should be thick enough to quantitatively burn. Once burning, the heat radiated back to the slick and the insulation are usually sufficient to allow combustion down to about ½ to 1 mm of oil. The oil burn rate is a largely a function of oil type.

The residue from burning oil is largely unburned oil with some lighter or more volatile products removed. When the fire ceases, unburned oil is left that is simply too thin to sustain combustion. In addition to unburned oil, weathered oil is present that has been subjected to high heat. Highly efficient burns of some types of heavy crude oil may result in oil residue that, after cooling, sinks in sea water.

Burning oil on land or wetlands is a technique that can reduce the environmental impact of oil spills. Burning vegetation is a frequent method of maintaining certain ecosystems and these same ecosystems can be protected from the effects of oil spills by using burning. The important factors relating to burning are the water level of wetlands and the moisture content of soils. Burning under the correct circumstances will not affect roots and thus restoration is rapid. Fire breaks are created to avoid spreading of fire to other locations.

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Summary of In-situ Burning (cont.)

Safety in burning is of prime concern. A safety plan and a burn plan must be prepared to encompass the concerns. Training of personnel, including field practice, is essential to ensure safety.

Burns produce an abundance of particulate matter (soot). Particulate matter at ground level is a health concern close to the fire and under the plume. The particulate concentrations from in-situ oil fires should be monitored in some circumstances. Other emissions include: Polyaromatic Hydrocarbons (PAHs), VOCs (Volatile Organic Compounds), Organic Compounds, Carbonyls and gases such as carbon dioxide, carbon monoxide, and sulphur dioxide. These emissions are now understood and are generally below human health concerns.

Northern Alberta – In Situ-burn
Photo courtesy of Trever Miller

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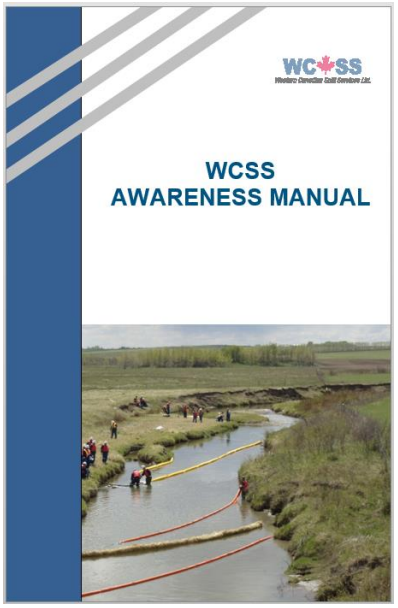
WCSS Training Aids

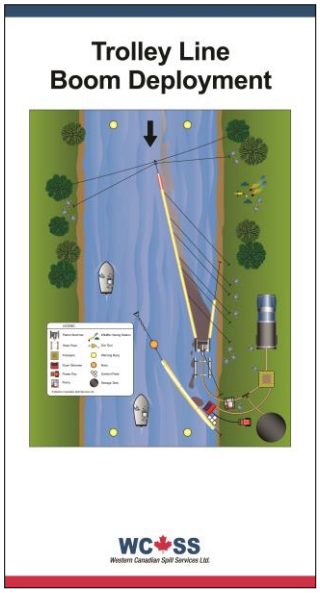
WCSS offers two types of training aids (see www.wcss.ab.ca) that will help companies with their in-house employee development, safety or oil spill training programs; they include:

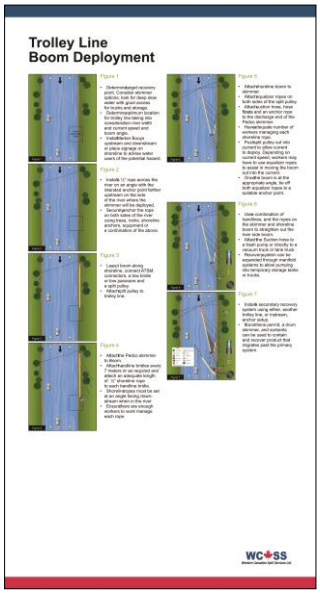
1) **WCSS Awareness Manual and Equipment Deployment video:** ideal for group meetings that can be covered in 30 to 45 minutes.

Video + 10 manuals: $399
Manual only: $17 each
Video only: $249 each



2) **WCSS Equipment Deployment Banners:**





Complete step by step guideline of how to deploy oil spill containment boom and hardware in rivers by utilizing trolley lines, in-stream anchors and/or bridge pier bridles.

Price per banner: $100
Price per set of 3 banners: $300

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WCSS Calgary Office Move

Effective September 2nd, 2014 Calgary WCSS head-office is moving from Enform's Calgary Training Centre to the Deerfoot Atria (north) building Suite 280, 6815-8th street, NE Calgary. WCSS's mailing address stays the same:

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T1Y 6M6