



## **Recommendation #1 – Environmental Impact Assessment Requirement**

An Environmental Impact Assessment (EIA) should be required by the Ministry of Environment for any proposed oil pipeline project that crosses an important river, lake or wetland, or that runs adjacent to an important water body. This policy should apply not only to new oil pipeline projects, but also to any expansion or change of use of an existing oil pipeline that crosses an important water body or that goes underneath a river bed.

As part of conducting an Environmental Impact Assessment, important questions would be asked about the technical design of the proposed pipeline and about the appropriateness of the pipeline route, including whether the route is suitable from a geotechnical point of view. Geotechnical issues have proven very significant in the case of the Husky Energy oil spill.

As you know, in order for an EIA to be triggered under the current Environmental Assessment Act, a project must meet the definition of a 'development' under the Act. We therefore recommend that oil pipelines that cross or run nearby to important water bodies automatically be considered to be a 'development' from this time on, and that provincial legislation and regulations be changed to reflect this. For clarity, it is our intent that this apply not only to larger pipelines, but also to smaller gathering systems for oil, such as the ones Husky Energy operates in the area where the spill occurred.

This recommended change is significant, because at the present time there is usually no requirement for an EIA to be done when oil pipelines cross important water bodies. In fact, an expansion to the Husky Energy oil pipeline system in which the spill occurred was completed recently without any EIA being undertaken. This was despite the fact that the pipeline gathering system crossed the North Saskatchewan River.

## **Recommendation #2 – Transparency in Spill Reporting**

The initial incident spill report that must be filed with the Ministry of Environment within seven days after a spill occurs should include detailed information on the chemical makeup of a spill and the risks associated with exposure to each of the chemicals in the spill. This information is essential knowledge for all those responding to a spill. It is also information that will be important to the general public. It should therefore be posted on the Ministry of Environment web site.

Husky Energy did not share detailed information about the chemical makeup of its spill with impacted parties in a timely way. Moreover, when the city of Prince Albert approached Husky Energy to obtain this information, it met with difficulties and delays. This is simply unacceptable.



### **Recommendation # 3 – Inspections should be done by MOE**

Responsibility for inspections and audits of oil pipelines and of pipelines carrying other petroleum products should rest with the Ministry of the Environment rather than the Ministry of Economy. Ministry of Economy staff with relevant expertise should be involved in assisting with inspections.

The Ministry of Environment is the department in government best placed to ensure that oil pipeline inspections will be done regularly, and that inspectors will make public safety and the safety of the natural environment their top priorities.

### **Recommendation # 4 – Appropriate Monitoring**

The Saskatchewan Environmental Society welcomes the plans your government announced on November 28<sup>th</sup> to put in place new inspection, investigation and compliance audit powers for provincial Ministry staff. We support your establishment of the ‘inspector’ position in the legislation you now have before the Assembly to amend the Pipelines Act 1998.

In this context we would like to recommend what a new inspection regime for oil pipelines in our province should be.

Every petroleum products pipeline in Saskatchewan should be regularly inspected by the Government of Saskatchewan. This would represent a significant policy change. These inspections should be properly budgeted for within government and carried out by Ministry of Environment staff.

Inspections should be more frequent for pipelines that have the potential to impact a drinking water source in the event that the pipeline ruptures. Inspections should also be more frequent for operators with a history of spills and/or non-compliance. Reports related to these inspections should be posted on the Government of Saskatchewan’s web site.

Pipeline inspections should include a visual inspection, checks of the corrosion protection systems, leak detection systems, flow measurement systems, containment systems, and maintenance and operations record-keeping. (Maintenance records should include the calibration of flow meters and pressure gauges at least annually, and physical operation of all valves and mechanical components at least annually.)

Inspections should include a thorough risk assessment, use best available inspection technology, and carefully test for anomalies in the pipe. They should include running an inspection instrument down the pipe, and the testing of shut off valves to ensure that they function well.



Inspections should also include an assessment of any ground movement along the pipeline route. In areas where ground stability is a potential issue, an inspection should audit whether the pipeline operator is adequately surveying for cracks indicative of subsurface activity.

As you know, oil pipeline spills of a smaller nature are a frequent occurrence in Saskatchewan. As oil pipeline inspections are done, inspectors should visually check to ensure that past spills on the line in question have been properly cleaned up.

The Ministry should consider contracting with one or more internationally renowned oil pipeline inspection experts to help upgrade the Province's inspection system, and ensure the most current inspection procedures and monitoring technology is being applied. Those experts could also offer advice on upgrading the provincial regulatory system.

#### **Recommendation # 5 – Utilization of Latest Spill Detection Technology**

Petroleum products pipelines that intersect with important water bodies should all be equipped with the latest spill detection technology and with automatic shut-off valves that respond to abnormal pressure anomalies.

#### **Recommendation # 6 – Proper Construction of New Pipelines**

The Saskatchewan Environmental Society is pleased that as part of your November 28<sup>th</sup> announcement, your government signaled it is planning improvements regarding 'pipeline construction'. As you plan these improvements, we hope you will pay particular attention to the need for heavier walled pipe in areas where a pipeline spill could have serious consequences.

The Saskatchewan Environmental Society recommends that new petroleum products pipelines should always be constructed with extra heavy walled pipe under at least three conditions: (a) when they cross a river or other important drinking water source (b) when they occur on any lands sloping down to these water bodies, or (c) when they occur on any lands within 250 metres of these water bodies.

The requirement for heavier walled pipe in the above mentioned circumstances should apply to all gathering lines, not just main pipelines. The Husky Energy spill occurred on a gathering line, and on a line that was not equipped with heavy walled pipe.

#### **Recommendation # 7 – Identification of High Consequence Areas**

In addition to river crossings and important drinking water sources, the Ministry of Environment and Ministry of Economy should identify all other 'high consequence



areas' in Saskatchewan where the impacts of a future oil spill could be serious and very difficult to clean up. More stringent regulations – such as requirements for heavier walled pipe and automatic shut off valves - then need to be developed and applied to these high consequence areas in order to keep them safe from pipeline spills.

Examples of high consequence areas, in addition to those already mentioned, include wetlands, ecological reserves, and other protected areas.

### **Recommendation # 8 – Applications for Increased Pipeline Pressure**

New regulations should be developed to ensure more widespread use of state of the art technology in Saskatchewan's oil pipeline system. One of the best opportunities to apply state of the art technology is when existing pipelines apply for a change in status, such as increased pressure. An application for increased pressure will often mean that there is the potential for increased risk that needs to be clearly identified and mitigated against.

### **Recommendation # 9 – Need To Improve Emergency Response**

The first days following any oil spill are critically important. Husky Energy's emergency response was weak in the first three days after the July 2016 spill occurred, as was the response by the Ministry of Environment. For instance, communication with impacted parties was inadequate and an insufficient number of booms were in the water to reduce movement of the oil spill downstream. In subsequent days, there was a notable improvement in the response by both Husky Energy and the Province.

We welcome the new provision in the Pipeline Amendments Act 2016, introduced on November 28th, which allows for establishing regulations with respect to emergency response plans.

The Saskatchewan Environmental Society now urges the Ministry of Environment and Ministry of the Economy to work with oil companies and all other relevant stakeholders in the development of improved emergency response plans, so that we are properly prepared in the event another pipeline spill occurs near a major water body in Saskatchewan. As part of this, the Province should consider how emergency response equipment owned by oil companies and other stakeholders can be rapidly shared and utilized. It is essential that an adequate number of booms, water-based hydrovacs, boats and other equipment for removing oil from the surface of the water be on hand quickly. It is also important that equipment be on hand that can absorb contaminants in the water column. The Province and the industry also need a better system for ensuring that all potentially impacted parties are quickly notified. Finally, the Province and the industry need to carefully consider how emergency response plans can be implemented during winter conditions, and how emergency response can be improved during high river flow conditions.



### **Recommendation # 10 – Appropriate Enforcement**

Husky Energy should be fined for violating the Environmental Management and Protection Act 2010. The Act prohibits discharge of a substance that causes or may cause an adverse effect. The maximum fine under the Act is \$1,000,000 per day.

Husky Energy should also be fined for violating the provincial Pipelines Act 1998. Section 17 of the Pipelines Act requires that “every person who operates a pipeline shall operate the pipeline so as not to endanger the public health or safety or the environment.” Fines under the existing Act can be up to \$50,000 per day.

Any penalties sought against Husky Energy should be sufficient to make appropriate pipeline maintenance a much more attractive financial option than the alternative. Given Husky Energy’s very extensive business holdings in our province, it is important that the fines be sufficiently large so as not to be viewed as a mere slap on the wrist for Husky.

On the broader matter of penalty provision under the Pipelines Act, we welcome your government’s November 28<sup>th</sup> announcement that you will update and modernize penalty provisions as they pertain to regulation of oil pipelines. We support your government’s decision to increase penalties for contravention of the Pipelines Act to a maximum of \$500,000 per day.

### **Recommendation #11 – Upgrading Safety Features on Husky Energy Lines**

As part of settling outstanding claims between the Province of Saskatchewan and Husky Energy, the Government of Saskatchewan should require Husky Energy to upgrade the safety features on its oil pipelines (including its smaller gathering systems) at all significant water body crossings and related approaches in the province.

This upgrading work could involve technical upgrades (such as installation of thicker walled pipe or improved monitoring technology), but it could also involve site stability upgrades along sections of the pipeline route where there is evidence of bank instability.

There are precedents for requiring this kind of upgrading work after a serious spill. For instance, the United States government has recently required Enbridge to spend at least \$110 million on spill prevention safeguards and other improvements along its pipeline system in the Great Lakes region. This was part of the settlement between the US Government and Enbridge related to the oil pipeline rupture that contaminated the Kalamazoo River.

### **Recommendation # 12 – Assessment of Operating Risks For All Oil Pipelines**

We welcome your government’s November 28<sup>th</sup> announcement of intent to build an online pipeline licensing system using the Integrated Resource Information System.



We recommend that every oil pipeline in Saskatchewan and every pipeline carrying other petroleum products be identified, mapped, and documented for the following: past and present use, what the pipeline is designed to handle, its age and stage in its operating lifecycle, its history of leaks and repairs, its history of ground stability, what it is currently handling, and an assessment of any operational risks. The assessment of operating risks is particularly important. This information should then form the essential basis for the design and implementation of an enhanced licensing, inspection and auditing program.

### **Recommendation #13 – Independent Investigation of the Husky Energy Spill**

The decision by Husky Energy to change its account of when the July 2016 oil spill was first discovered and when it was reported to the Ministry of Environment is very problematic. Unfortunately, no additional clarity was provided on this matter in the two technical reports that Husky Energy released on November 17, 2016. This points to the need for an independent third party investigation of the spill, when it occurred, the quantity of oil spilled, and the adequacy of Husky Energy's reporting practices, record-keeping and monitoring of the pipeline corridor.

There are many other matters related to the July 2016 spill that merit investigation including why the initial response to the spill was slower than it should have been, why the Ministry of Economy was not regularly inspecting the pipeline in question, why communication with impacted parties was inadequate, what the full ecological consequences of the spill have been.

The independent investigator should be asked to offer advice on how the risk of spills can be reduced in the future, on how emergency response to spills can be improved, and on what other lessons can be learned.

The November 3, 2016 North Saskatchewan River Crossing Geotechnical Investigation Report prepared for Husky Energy by Stantec Consulting Limited (publicly released on November 17, 2016) highlights the lack of ground stability in the general area along the portion of the pipeline route that crosses the south slope of the North Saskatchewan River (where the spill occurred). This in turn raises important questions about whether Husky Energy was adequately monitoring ground stability in the area prior to the pipeline rupture. For instance:

- a) Do records show Husky Energy regularly patrolled the south slope pipeline route to identify safety issues?
- b) Did Husky Energy regularly survey the south slope pipeline route for cracks that would indicate subsurface activity?
- c) What steps, if any, had Husky Energy taken to predict ground movement on the pipeline corridor across the North Saskatchewan River? For instance, had Husky Energy placed sensors in the ground to try to predict ground movement?



- d) Did Husky Energy carefully survey the south slope of the North Saskatchewan River portion of its pipeline route after heavy rainfall events, including the 95mm rainfall event on July 11, 2016?
- e) Given the obvious ground movement in the general area, had Husky Energy taken any remedial measures to try to ensure the soil along the south slope would actually support its pipeline? If remedial measures were not deemed feasible, was it reasonable for Husky Energy to continue to operate this section of the pipeline, given the risks involved?
- f) Does Husky Energy have an adequate pipeline system integrity management program? This should include looking at whether Husky Energy has been properly measuring for a wide range of safety parameters, including slope instability on pipeline corridors?

Clearly there needs to be an opportunity for the independent third party investigator to hear from all impacted parties, as well as the general public. A public hearing format would be desirable.

We therefore recommend that the Government of Saskatchewan launch a public inquiry into all aspects of the Husky Energy Oil Spill.