

Sakhalin II phase II oil and gas project: Overview of new River Crossing Strategy



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In December 2005 Shell released Sakhalin II EIA documentation, after 60% of the project was already built .

SAKHALIN ENERGY
INVESTMENT COMPANY LTD.



**EIA Addendum.
Volume 1**



Potential lenders agreed that the project did not comply with their policies

Potential lenders gave Shell several "final" tests including a required revision of its failed pipeline river crossing strategy



Did Shell pass the test?

MAJOR COMMITMENTS OF SHELL (SEIC), STATED IN THE RIVER CROSSING STRATEGY

“To avoid, reduce and minimise construction impacts..., SEIC will carry out construction activities in line with international best practice (e.g. guidelines and advice published by the United States Federal Energy Regulatory Commission) [US FERC]....

(Source: Sakhalin Energy Investment Company, Ltd. EIA Addendum. Volume 2. River crossing strategy. December 2005)



MAJOR COMMITMENTS OF SHELL RIVER CROSSING STRATEGY

Independent External Observers to provide third party field monitoring of the Shell's compliance with Strategy requirements.

Observers are committed to provide feedback to Shell on the progress of the river crossing activities and compliance with the Strategy.

Shell promised to make this information publicly available through publication on the companies website www.sakhalinenergy.com

(Source: Sakhalin Energy Investment Company, Ltd. EIA Addendum. Volume 2. River crossing strategy. December 2005)



Did Shell pass EBRD's River Crossing Strategy Test?

NGO Monitoring General results:

1. Experts from Birmingham University and Wild Salmon Center identified failings of River Crossing Strategy;
2. Significant, systematic documented violations of the Strategy during whole 2005 – 2006 winter/spring construction season;
3. Some assessed impacts significantly exceed maximum limits.
4. Strategy lowers some environmental standards in comparison with previous EIA, disclosed in 2003.
5. Publicly available reports of Independent External Observers contradict their real reports. Violations contained in the real, confidential reports are concealed.

“5. Equipment bridges:...

b. ...to prevent soil from entering the water body ... Do not use soil to construct or stabilise equipment bridges”

(Source: River Crossing Strategy, Annex C, US FERC Guidelines)



Smirnykh district, Buyuklinka river, KP 246, March 18, 2006.

Enormous amount of soil was used for this bridge on the river ice, so soil will pollute river.

“C. RESTORATION

2. ... *install temporary sediment barriers within 24 hours of completing in-stream construction activities*”

(Source: River Crossing Strategy, Annex C, US FERC Guidelines)



Tikhiy stream (Tymovsky district), KP 131, December 30, 2005:

No erosion prevention measures.

River Crossing Strategy states that downstream transport of sediment will be limited to 10 - 500 m.



Manuy river (Dolinskiy district), KP 454, March 17, 2006, over one kilometer downstream

In reality, sediments flow several kilometers downstream

El'nya river crossing, Smirnykh district, KP 228, March 22, 2006



1) Place of the river crossing



2) 100 m downstream



3) 1,800 m downstream. The content of suspended solids is still extremely high



4) 2,500 m downstream the water is finally getting cleaner

"Dry cut" methods of river crossings below are forbidden by State agencies. The River Crossing Strategy does not assess these impacts.



Taulanka river crossing – dry cut method with river channel artificially diverted (Smirnykh district, KP 143, January 5, 2006)

Pipeline corridor exceeds permitted width, thus impacts exceed anticipated level of harm to spawning rivers and a violation of the River Crossing Strategy.



Pugachevka river crossing – the pipeline corridor is 200 m, exceeding the permitted 66 m maximum width

Dolinsk district, KP 415, May 12, 2006.

Spring melting season shows Shell's failure to meet their commitments



Pugachevka river crossing – silt fences are in place, but no bank reinstatement measures. As erosion happens, mud creeps into the river.

Dolinsk district, KP 415, May 12, 2006.

River Crossing Strategy violations

More Spring melting and more of Shell's failure to meet their erosion prevention commitments



Active erosion near Manuy river crossing, which was completed just two months ago.

Dolinsk district, KP 454, May 12, 2006.

Additional violations of the River Crossing Strategy:

Systematic use of road metal and crushed stone instead of required pebbles for restoration of destroyed spawning grounds

Numerous violations identified in the reports of External River Crossing Observation Team

(e.g. late completion of in-river work, absence of turbidity meters until end of February (and gaps in monitoring data as a result), machinery in the river channels, no separation of riverbed and bank spoil, and many others).

Many additional violations are not mentioned in these reports at all, for example....

Chernaya river: an example of "river crossing hypocrisy"

Real External Observing Report says:



Report number:	S2-5 Summary	Date:	January 5, 2006
Location name:	Chernaya River	Location KP:	184.250 Oil 24" +FOC (16 Dec)
UTM WGS 84 54U 0624096 5546714			

"There were 6 non-compliances that related with conducting monitoring by Averina team (no turbidity and flow velocity meters), **dam installation** and temporary and permanent erosion mitigation measures performing. Crossing done with the approved wet method but because high enough level of flow and underflow discharge **subcontractor had to built an upstream temporary dam to avoid trench flooding**. Dam was installed at 12:20 from subsoil, there were no sand bags or gravel, and removed at 16:20....

Recommendations:

Contractor should avoid dam installation on the rivers especially prepared from subsoil"

Publicly available External Observing Report (Winter Crossings Report, Issue #2 15-28 December 2005) says:

"Permanent erosion works at Chernaya were not as per plan"

Source: http://www.sakhalinenergy.com/environment/rivers/riv_main.asp

Chernaya river crossing (spread 2, category III)



Construction of dam on the river upstream makes downstream construction easier but it is completely prohibited by Russian law, and it is the worst method for the environment.

Chernaya river crossing (spread 2, category III)



Water reservoir expands above the dam.

Chernaya river crossing (spread 2, category III)



River flow is completely stopped for several hours while river bed is trenched to make way for the pipeline.

Chernaya river crossing (spread 2, category III)



December 16, 2005

Laying of the oil pipeline. The trench is not dry, but the river channel is.

Chernaya river crossing (spread 2, category III)



Because of dam, river water disappeared.

"Salmon eggs, buried in the gravel redd, rely on a steady flow of clean, water to deliver oxygen and remove waste products"

(Source: River crossing strategy, page 80).

Chernaya river crossing (spread 2, category III)



Everything looks great afterwards. The river channel full of water again. Time to show the "job well done" to journalists, NGOs and lenders, although who knows that the lack of water in the river killed all salmon eggs?

Bolotnaya river crossing (spread 2, category II)

Real External Observing Report says:



Report number: S2-6 Summary

Date: January 6, 2006

Location name: **Bolotnaya River**

Location KP: 238.336 Oil 24" +FOC (23 Dec)

UTM WGS 84 54U 0632139 5496389

Gas pipeline in plan 14-21 Jan. 2006

Observation reports for the crossing:

"Contractor used flume pipe, so introducing of sediments was minimal. After trench was excavated stream disappeared as on the downstream part of the river as on the upstream part. The possible reasons of this event are low discharge of the river, thick layer of alluvium (at least 4-5 m) and drainage field system near the river. **Stream flow was absent since 23th (evening) till 29-30th December (6 days)** at least on 200 m section (100 m upstream and 100 m downstream) of the river (maximum 600 m). Some water was kept in the pits, so fish could stay there."

Publicly available External Observing Report (Winter Crossings Report Issue #2 15-28 December 2005) says:

"On the Bolotnaya crossing no gravel was available on-site"

http://www.sakhalinenergy.com/environment/rivers/riv_main.asp

Notes: 10,000 m2 of salmon spawning grounds are located downstream of this river crossing

Illegal toxic antifreeze for pipeline pressure testing:

- Thousands of ton;
- Legally prohibited practice;
- Unacceptable storing;
- Poisoning of land in villages;
- Several examples of this,
- despite of permission absence

2003 EIA didn't include antifreeze use – decreasing of standards

