

Royal Dutch Shell Violates Promises to Follow Scientific Recommendations and International Best Practices on Sakhalin II Oil and Gas Project

The Sakhalin II oil and gas project in the Russian Far East, one of the largest integrated oil and gas projects in the world, threatens Sakhalin Island's marine environment including the critically endangered Western Gray Whale. Royal Dutch Shell has been the majority shareholder of the project throughout most of the project's design and construction phase, and it retains most day-to-day management decisions over environmental issues.¹



In 2004 Shell's project operating company, Sakhalin Energy Investment Company, Ltd. (SEIC), commissioned the International Union for the Conservation of Nature (IUCN) to assemble an expert Independent Scientific Review Panel (ISRP) to review the project's impacts on the critically endangered Western Gray Whale. The ISRP eventually evolved into the Western Gray Whale Advisory Panel (WGWAP), established by IUCN in 2006. Adherence to these panels' recommendations has been viewed as a crucial determinant of whether several

international public and private banks would consider providing over \$5 billion in financing for Sakhalin II. However, the panels' reports are rife with references to the Sakhalin II project's violation of these recommendations and other violations of these banks' policies.

In its initial report, the ISRP was compelled to issue a number of fundamental criticisms concerning Sakhalin II project impacts on the Western Gray Whales that needed to be affirmatively resolved before compliance with international bank policies could be demonstrated. These include, *inter alia*:

[E]xisting and planned large-scale offshore oil and gas activities pose potentially catastrophic threats to the population.

The Panel was precluded by a lack of information and specificity from completing a comprehensive review of a number of important Sakhalin II Phase 2 elements.

¹ In December 2006, Sakhalin II project sponsors, Royal Dutch Shell (55%), Mitsui (25%) and Mitsubishi (25%), agreed to dilute their shares by half and sell a majority share of the project to the Russian company, Gazprom.

The most precautionary approach would be to suspend present operations and delay further development of the oil and gas reserves in the vicinity of the gray whale feeding grounds off Sakhalin, and especially the critical nearshore feeding ground that is used preferentially by mothers and calves.²

Following the ISRP report, Royal Dutch Shell claimed to be cooperating with scientists' ongoing attempts to complete a comprehensive review of the project. However, many critical issues were never affirmatively resolved. On July 14, ISRP Member and University of Alaska Professor Rick Steiner wrote Shell CEO Jeroen van der Veer, urging postponement of the PA-B platform concrete base pending completion of this crucial scientific work. Professor Steiner stated:

The ISRP process over the past year, which I wholeheartedly applaud, has identified many issues regarding Phase II of the project that have yet to be adequately resolved - acoustic modeling, adequacy of noise impact assessment, adequacy of noise intervention process & action levels, noise mitigation protocols, independent oversight and monitoring, adequacy of ship collision assessment and mitigation, spill prevention and response preparedness, independent review of PA-B location and analysis of alternate locations for PA-B further from whale habitat, etc.

Reinforcing these concerns, the Co-Chairmen of the ISRP team leaders, Randy Reeves and Tim Ragen, stated on August 22, 2005:

[u]nquestionably, their decision to adhere to their predetermined construction schedule has, in some respects, obviated or undermined the utility of our review.³

Subsequently, Professor Steiner resigned from the panel, stating *inter alia*:

When Shell becomes interested in being fully engaged partners in a sustainable world – in action, not just word - then I'd be glad to help them along this path. But it is clear that they aren't there yet. To the potential lenders, my recommendation remains for you all to OPT OUT of this project.⁴

Meanwhile, at the request of potential lenders, on September 17-19, 2005 in Vancouver, Canada, an ad-hoc meeting of the ISRP scientists was held to review unanswered questions on the adequacy of SEIC's mitigation measures. The report from the scientists' 2005 Vancouver meeting states:

² Impacts of Sakhalin II Phase II on Western North Pacific Gray Whales and Related Biodiversity: Report of the Independent Scientific Review Panel: <http://www.iucn.org/themes/business/>

³ Randy Reeves, Tim Ragen, ISRP, correspondence with Doug Norlen, Pacific Environment and (available upon request)

⁴ Dr. Richard Steiner, August 29, 2005 letter of resignation to IUCN, available at http://www.iucn.org/themes/ceesp/Wkg_grp/Seaprise/Rick%20resignation%20letter.doc

The construction timeline precluded adequate review of risks and noise criteria. Mitigation measures (e.g., rescheduling of work) were not fully considered prior to installation. The level and other characteristics of noise at which gray whales are affected is not yet clear. With regard to installation of scour protection, no data were provided to explain why currents would become a factor after more than 3-days delay. Thus, the justification for proceeding immediately was unsubstantiated. Opportunities for learning about whale responses during CGBS installation or installation of scour protection were lost, at least to some extent, by SEIC's decision to proceed with construction activities when weather precluded monitoring of whale behavior (see Documents 9 and 19, issues 3.6 and 4.1). It cannot be concluded, in the absence of observations, that whales were not affected by construction activities.⁵

Thus, the scientists demonstrate that SEIC has not followed has not conducted an adequate environmental assessment.

Also, SEIC failed to heed concerns expressed by the scientists attending the 2005 Vancouver meeting about the nature of noise exposure to the Western Gray Whales, and the company's decision to raise the noise threshold from 120 dB to a 4-hour average of 140 dB (on a logarithmic scale):



SEIC raised its noise threshold from 120 dB to a 4-hour average of 140 dB based on studies of migrating gray whales. Among other things, this change has not been demonstrated as consistent with ALARP [as low as reasonably practical]. The basis for this change has not been explained and some experts raised the need for more objective, transparent risk assessment in their written response to documents received prior to [the previous scientific workshop held in Gland].

SEIC's use of a study of migrating gray whales as the basis for choosing an acceptable exposure level for feeding gray whales was inappropriate. We reiterate that the goal should be to keep the exposure of feeding whales below 120 dB. SEIC needs to demonstrate that, regardless of perimeter received levels, the criterion of 120 dB ensoufflement of fewer than 5 whales was met, as stated in the CEA [Comparative Environmental Analysis]; see issue 3.4. The advice provided by the experts during the teleconferences was either not heeded or altered significantly. Specifically for this issue, the noise action criteria suggested by Vedenev were significantly altered (see Appendix 1).

⁵ Western Gray Whale Workshop, Vancouver, 17-19 September, 2005, available at http://iucn.org/themes/business/ISRP_Followup/wgw_workshop_report.pdf

The scientists attending the 2005 Vancouver meeting also stress that real-time monitoring of Western Gray Whale behavioral and physiological response to underwater noise is essential to indicate when noise levels associated with construction (including PA-B installation) and operation are excessive:

The SEIC response/approach to this issue is significantly different from the Vedenev proposal and was neither vetted nor endorsed.

These criteria and monitoring/mitigation protocols are unacceptable because:

- The duration of exposure could actually lead to excessive sound energy exposure levels*
- The absolute levels to which animals could be exposed are too high*
- Real-time monitoring was not undertaken to detect acute responses to noisy activities*
- No behavioral cues were included in mitigation criteria*
- Pathway(s) from breach of criteria to actual mitigation action are poorly defined and cumbersome including a lack of a precautionary shutdown triggers*

The 2005 Vancouver scientists' report also states that:

A rigorous assessment of cumulative impacts is essential (e.g. combined effects of noise, pollution, collisions, habitat disturbance, plus effects of oil and gas-related activities adjacent to Sakhalin II, plus range-wide risk factors). Some experts commented on the MMPP [Marine Mammal Protection Plan] 2005 and concluded that assessment of cumulative impacts has been too superficial, both in terms interactions between risk factors arising from Sakhalin II impacts and wider-ranging impacts... Cumulative impacts must be assessed and addressed through comprehensive, continued population monitoring, population modeling, and review by the independent advisory body's work. Managing cumulative impacts will require a precautionary approach, as it may not be feasible to separate the influence of a single factor when multiple factors are operating.

SEIC responded by pointing toward a proposed industry and range-wide advisory body and an annual workshop to discuss gray whale conservation. The 2005 Vancouver scientists' respond:

Assessment of [cumulative] effects cannot be contingent on the establishment of a range-wide recovery effort. An annual workshop of scientists, conservationists, and industry representatives is also not sufficient to address this need for assessment and management of range-wide cumulative impacts.

Thus, the scientists demonstrate that SEIC has not conducted adequate monitoring and the cumulative impacts assessment required by international bank policies.

The 2005 Vancouver scientists' report also states that information is required on the project's oil spill response plan before a comprehensive assessment can be made. This includes winter modeling of the potential impacts of oil spills, i.e., under sea ice conditions.

While the 2005 Vancouver scientists' report indicates research is now underway, the installation of the PA-B platform concrete base has already taken place, thus precluding the results of this research from having any impact on project design. Meanwhile, there is no proven method for modeling oil spills under ice, let alone an effective method for cleaning up an oil spill in sea-ice conditions. This fundamental knowledge and experience gap is profound given the vulnerability of the critically endangered Western Gray Whale to an oil spill. As a consequence, European Bank of Reconstruction and Development (EBRD) can neither be certain of the risks and impacts of winter spills to the surrounding delicate marine ecosystem, nor of SEIC's ability to adequately respond in the event of a spill. The relevance of this fundamental lack of information is heightened with SEIC's figures that there is a 24% chance of a spill from a pipeline over the life of the project.⁶

The scientists also expressed concerns that SEIC has not assessed the risks of platform blowout. While the 2005 Vancouver scientists' report indicates that SEIC has now submitted a risk analysis, an independent review of the analysis was not available by the time of the Vancouver meeting, much less the installation of the PA-B platform, thus precluding the results of this research from having any impact on project design.



The scientists also expressed concerns about the lack of adequate analysis of potential oil spills and other impacts on the delicate environment of the Piltun Lagoon (an important feeding area for Western Gray Whales). They point out that most studies presented by SEIC focus on off-shore, not lagoon impacts, and they indicate that further studies focusing on the Piltun Lagoon are needed. However, as the installation of the PA-B platform again demonstrates, SEIC actions have precluded the results of any future research from having any impact on project design.

With regard to the PA-B platform, the ISRP highlighted the inadequacy of the underlying analysis and design of the PA-B:

⁶ Impacts of Sakhalin II Phase II on Western North Pacific Gray Whales and Related Biodiversity: Report of the Independent Scientific Review Panel: <http://www.iucn.org/themes/business/>

[I]t appears that the site was chosen prior to analysis of spill trajectories. If so, then risks to key areas such as the nearshore foraging habitat for gray whales were not understood and considered in the site selection process.

Consequently, as Reeves and Ragen indicate, the decision to install the PA-B concrete gravity base prior to a complete review permanently “obviated” and “undermined” the review. This represents an irreversible violation of EBRD environmental policy related to the required scope and detail of environmental review.

Meanwhile, the 2005 Vancouver scientists’ meeting report states:

Although progress was made at the Vancouver meeting toward understanding SEIC’s interpretations and decision-making processes, some of the concerns expressed in the ISRP report remain regarding the implementation of standards such as the precautionary approach and ALARP, as well as, for example, mechanisms for contractor compliance, implementation or enforcement of mitigation measures, and the need for independent monitoring of pertinent operations. The approach taken to date has not always been suitably or consistently precautionary, nor has the ALARP concept always been implemented in a manner that provides the least practicable risk to the whales.

Thus, the tow-out and installation of the PA-B concrete base violates international bank policy concerning the precautionary principle, including the Environmental Policy of the EBRD, which states:

[EBRD] supports a precautionary approach to the management and sustainable use of natural biodiversity resources (such as wildlife, fisheries and forest products) and will seek to ensure that its operations include measures to safeguard, and, where possible, enhance natural habitats and the biodiversity they support.

This also violates the policy of the World Bank’s private sector lending arm, the International Finance Corporation, IFC OP 4.04.1, which states:

IFC supports, and expects project sponsors to apply, a precautionary approach to natural resource management to ensure opportunities for environmentally sustainable development.

Thus, the rejection by Shell to suspend operations and to delay further development and its reckless decision to install the PA-B concrete gravity base prior to the completion of a comprehensive scientific review represents a grave threat to the critically endangered Western Gray Whale, and a serious, fundamental and irreversible violation of EBRD policy.

According to a May 8, 2006 letter to SEIC from the IUCN Director General, Achim

Steiner, the expert whale panel members attending a subsequent April 3-5, 2006, Interim Independent Scientist Group (IISG) meeting determined that SEIC has fallen short of implementing many important mitigation measures. Moreover, the letter states:

SEIC's commitment to implement the IISG's recommendations "where practicable" is somewhat reassuring but, unfortunately, too vague. Concerns exist within IUCN, and have been expressed to my staff by the independent scientists, that the company may not be taking the IISG process seriously enough. We, the scientists, and civil society all need greater reassurance that SEIC intends to heed the IISG's advice in the 2006 construction season....

Concerns have also been expressed to us by some NGOs and scientists about the inaccurate interpretation of the IISG recommendations by SEIC...such a loose, if not inaccurate, interpretation puts a serious dent in the credibility of the process for the scientists, IUCN and SEIC itself thus diminishing their value to the cause of conservation that brings us together in the first place....

Moreover, a July 7, 2006 letter to SEIC by whale panel scientists Veden'ov, Nowacek, Ragen and Reeves expresses concern that SEIC does not intend to follow recommendations for decreasing acoustic impacts on whales. An accompanying spread sheet identifies still more recommendations that have not been fulfilled. Additionally, the March 8, 2007 Summary of recommendations from the WGWAP arising from the informal briefing held in Vladivostok 5-6 February 2007, outlines still more concerns about SEIC's unwillingness to follow recommendations, including, astonishingly, that SEIC does not intend to continue monitoring and studying whale behavior past the 2007 season.⁷

SEIC's failure to follow the reasonable recommendations of the Western Gray Whale Advisory Panel continues to the present. At its April 2007 meeting, the experts repeated concerns that it had expressed since the beginning of the panel process concerning SEIC's unwillingness to respond to the panel's reasonable recommendations from previous meeting in Vancouver, Canada, and Prangins, Switzerland:

No full (i.e. covering all five sub-items) written response to the Vladivostok recommendation was available before or at the meeting, although some written information specifically related to a proposed 2008 seismic survey, was received and this is discussed under item 13.2. The verbal presentation of the work plan given in St. Petersburg was brief and limited to a description of planned construction activities in 2007. Given the nature of the information included in the presentation, it is very difficult to understand why even at this level of detail, and allowing for the practical difficulties one company participant encountered in traveling to the meeting, no written information had been provided well in advance. The Panel is extremely disappointed with this situation. Considerable time was spent both in Prangins and Vladivostok explaining what information

⁷ Summary of recommendation available at <http://www.iucn.org/themes/marine/pdf/wgwap/Summary%20Recommendations%20-%20Vladivostok.pdf>

was needed and why it was important. Indeed, it is difficult to see how the Panel can be proactive and fulfill its mandate if Sakhalin Energy does not provide such basic information in a timely manner. While the Panel was pleased to learn at the meeting that Sakhalin Energy considers the present situation unacceptable, this acknowledgement must be translated into action as soon as possible [WGWAP 2/010].⁸

⁸See [http://www.iucn.org/themes/marine/sakhalin/meeting_april07/WGWAP%20%20-%20FINAL%20Report%20-%2010%20May%2007%20\(2\).pdf](http://www.iucn.org/themes/marine/sakhalin/meeting_april07/WGWAP%20%20-%20FINAL%20Report%20-%2010%20May%2007%20(2).pdf)