1. General Demands

- All companies must use best available technology. For example, companies should re-inject drilling wastes back into the geological formations.

Sakhalin Energy comment:
Sakhalin Energy does make use of best available technology, and adopts the principle of ALARP – as low as reasonably practicable – in its designs.

- All companies must comply with highest global environmental standards, norms, and rules. For example, companies should comply with the "zero discharge" standard and oil spill prevention and response preparedness standards as used in Alaska and the North Sea.

Sakhalin Energy comment:
Sakhalin Energy already complies with high global environmental standards, norms and rules and will continue to do so. It also works under the principle of making all environmental risks as low as reasonable practicable (ALARP) in its designs, in accordance with best industry practice (see above). Sakhalin Energy will ensure that its activities comply with Russian law and regulatory requirements and, subject to that overriding requirement, that they also conform in principle with international standards, including Shell Group standards, for which World Bank guidelines are used as a benchmark. For discussion of discharges and oil spill response, see below.

- All companies must comply with Russian law, especially environmental protection law. For example, it is unacceptable to violate the laws in the way that Sakhalin Energy – Shell has done, by discharging drilling wastes into the sea even though the Russian Federation Water Code and other Russian laws directly forbid this action.

Sakhalin Energy comment:
Sakhalin Energy is fully compliant with Russian law (see above). All its construction and operational activities require permits issued by the Russian authorities. In order to obtain these, Sakhalin Energy must comply with Russian Federation legislation. Sakhalin Energy has on occasion discharged, water-based drilling muds – which are considered to have little or no impact - into the sea in accordance with a water use licence issued by the Russian authorities. In addition, results of monitoring carried out by Sakhalin Energy show that there is no permanent environmental impact from these discharges.

2. Gray Whale Conservation

- Any anthropogenic activity that could potentially disturb gray whales, or deleteriously impact the ecosystems in which they feed or migrate, should fully protect gray whale habitat and should be mitigated to eliminate disturbance while feeding and protecting this critically endangered species. Oil companies must use the precautionary principle to prevent any potential impacts to the species.

Sakhalin Energy comment:

Sakhalin Energy recognises the potential vulnerability of the western gray whale (WGW) population to its offshore activities, and has made concerted efforts to ensure that the whales are not adversely impacted by the Project. It has undertaken a systematic research and monitoring programme on the WGW for the past five years, and to date there is no evidence that Sakhalin Energy's activities have in any way harmed the whale population.

In advance of our proposed activities under Phase II, we have taken several steps to anticipate where potential impacts on the whale population may lie, namely an Environmental Impact Assessment of the project on the WGW population, and the development of a WGW Protection Programme, developed by an independent specialist organisation, LGL Ltd. These documents present robust mitigation measures, which Sakhalin Energy intends to implement, to ensure that the impacts are reduced to as low as practicable. The details of these mitigation measures are within the EIA and WGW Protection Programme; both of which are publicly available and open to comment.

- Any proposed drilling platform should be installed sufficiently distant from shore and gray whale feeding habitat to mitigate all potential acoustic and other impacts. Specifically, the new proposed platform for the Piltun-Astokhskoye field for Sakhalin Energy - Shell's Sakhalin II Phase II must be moved at least 12 nautical miles from shore in order to ensure that the platform does not harm gray whale habitat. Exxon needs to ensure, with the help of preliminary scientific study that is freely available to the public, that its onshore drilling pads at Piltun will not have a negative acoustic impact on the gray whales.

Sakhalin Energy comment:
Considerable effort has gone into choosing the sites of the two proposed offshore platforms for the Phase II Project. Sakhalin Energy initially carried out studies with the aim of limiting the number of offshore platforms so as to reduce capital costs and potentially also to reduce the offshore environmental footprint from the project. Over the 1990s, major advances in extended-reach and non-vertical drilling have allowed for a single platform to extend its lateral reach up to 6 km. This has reduced the number of platforms needed to three for full field development of the PA and Lunskoye fields.

Sakhalin Energy examined the feasibility of drilling from shore-based locations. This is currently not a technically or economically feasible option for the development of either the Piltun-Astokhoskoye or Lunskoye fields since:

- the distance between the shore and the two fields is beyond the current economic feasibility for extended reach drilling operations at this depth, which is 11 kilometres. The Lunskoye field is 8 kilometres wide and wells would have to extend to the far side of the field from shore, a distance of over 20 kilometres.

- the distance between the planned Piltun-Astokhskoye B (PA-B) and Astokh (PA-A), known as the Molikpaq, platforms is above 30 kilometres. Hence, the existing PA-A platform cannot be used to drill the entire PA field. The distance between Piltun-Astokhskoye and the Lunskoye field is much larger. This field is hence totally unreachable from Piltun/Astokh.

A variety of technical, safety and economic considerations influenced the final choice of location for the PA-B platform. The following points were considered in choosing the location including the minimum

total well length for development drilling, maximum feasible drilling reach, uncertainty as to reserves distribution, shallow gas hazards and shallow faulting. The rigidity of the sea bottom and the need to avoid soft clay were also considered.

The main consideration which proved to be a significant issue was shallow gas – pockets of gas below the surface – which represent a safety hazard. These were identified from seismic studies carried out at Piltun-Astokhskoye. These seismic studies indicated shallow seismic faults, also a significant safety hazard.

Both offshore platforms will be located approximately 15 km from shore.

- All underwater pipelines should be constructed and routed outside of the gray whale feeding habitat to ensure their safety. In particular, Sakhalin Energy - Shell should change the route of its proposed pipeline from Molikpak to shore further to the South - at least 12 nautical miles from gray whale feeding habitat - to fully avoid any disturbance to critical gray whale habitat.

Sakhalin Energy comment:
The potential routes for the Sakhalin II pipelines have been extensively evaluated. Environmental, safety, technical and economic considerations determined the choice of configuration and siting of the proposed oil and gas pipelines to shore. The pipelines from the proposed offshore platforms to the onshore-processing facility must of necessity run offshore. For reasons of safety and cost, however, they generally take the shortest route from the platforms to shore, with the exception of the lines from the Piltun-Astokhskoye B (PA-B) platform which share the same landfall as Piltun-Astokhskoye A (PA-A [Molikpaq]).

The following considerations were taken into account in selecting the landfall:

- Avoiding the nature reserve to the south of the Lunskoye landfall;
- Avoiding lagoons in the near shore areas in order to minimise environmental impact and challenging construction conditions;
- Using one landing site for the PA-A and PA-B export pipelines;
- Adjustment of the landfall locations based on environmental offshore and onshore surveys and onshore route selection;
- Adjustment of offshore bathymetric surveys to optimise dredging in terms of cost and environmental impact.

The Piltun-Astokhskoye pipelines to shore do not pass through the gray whale feeding grounds which lie to the north of the proposed pipeline route. However, Sakhalin Energy understands that gray whales may pass through the area en route to these more northerly feeding grounds. It will implement measures to minimise any adverse effect on the whales from construction of the pipelines, in particular noise from construction activity. For example, contractors will be required to implement a “soft start” to noisy activities and to ramp up the noise gradually so that the gray whales have time to move away before maximum sound levels are reached. Measures will also be taken to ensure that vessels avoid crossing the whales’ feeding area except under exceptional circumstances.

- Sakhalin Energy - Shell must immediately stop all discharges of drilling muds and cuttings, as well as all other types of waste water, from Molikpak into the sea and must refuse to discharge any wastes from any future platform to prevent deleterious impacts to benthic communities and to prevent toxic impacts to the whales themselves.

Sakhalin Energy comment:

Drilling waste comprises a mixture of muds and cuttings. Muds are used to assist in the drilling of wells by acting as a lubricant and maintaining pressure, and cuttings are fragments of rock generated by the drilling process. There are several methods of disposing of drilling waste, including onshore disposal, re-injection and overboard discharge.

During Phase I operations, Sakhalin Energy has discharged a small amount of drill muds and cuttings in accordance with its Water Use Licence. Water based muds and cuttings have very low toxicity or have none. The results of a three-year monitoring programme, the parameters of which were agreed with the regulatory authorities prior to its initiation, show no discernible environmental impact.

For Phase II, Sakhalin Energy is aiming for a 100% re-injection of drilling waste. The equipment to re-inject muds and cuttings is already in place on the PA-A (Molikpaq) platform and has been successfully tested. The exceptions to this target will be the water-based drill muds and cuttings generated in the first well and the conductor string (or top hole section) for each subsequent well at the Piltun Astokhskoye field, and the water-based drill muds and cuttings generated in the first and subsequent wells (up to a maximum of four, depending on operational and technical feasibility) and the conductor string for each subsequent well at the Lunskoye field. There will be no disposal of oil-based muds. This is in line with international practice, including those adopted by companies operating in Alaska.

- Any disruption of the seabed must be avoided year-round in the feeding area of gray whales or within 12 miles of gray whale habitat.

Sakhalin Energy comment:

Sakhalin Energy will minimise dredging activities. In addition, it will optimise the schedule for these activities so as to keep it to a minimum.

- Exxon should not construct pipelines in or otherwise disturb Piltun Lagoon. Alternatively, Exxon should construct its pipeline by land around the north end of Piltun Lagoon.

Sakhalin Energy comment:

Not applicable to Sakhalin Energy.

- Exxon should eliminate planned construction of a pier off of Piltun Lagoon into gray whale habitat and any marine offloading of equipment in gray whale habitat and within 12 miles of habitat. Alternatively, Exxon should transport equipment to site by road;

Sakhalin Energy comment:

Not applicable to Sakhalin Energy.

- All oil companies should avoid any seismic exploration within 30 km of gray whale feeding habitat and migration corridors during periods that whales are present in these areas;

Sakhalin Energy comment:
Sakhalin Energy has commissioned an environmental impact assessment specifically for a seismic testing programme that is proposed for the Lunskoye field. The findings of this EIA, for which public consultation will be carried out, indicate that, with appropriate measures, seismic acquisition can be carried out without adverse impact on the Gray Whale population.

See also Sakhalin Energy's comments on the *Doing it Right* paper.

- All companies should avoid any construction activities in gray whale feeding habitat and in a 30 km zone around that habitat as well as in migration lanes during those portions of the year when gray whales are found in these areas.

Sakhalin Energy comment:

Sakhalin Energy recognises the potential vulnerability of the western gray whale population to its offshore activities, and has made concerted efforts to ensure that the whales are not adversely impacted by the Project. Sakhalin Energy has undertaken a systematic research and monitoring programme on the WGW for the past 7 years, and to date there is no evidence that Sakhalin Energy's activities, including the placement of the Vityaz production complex and its operation, have in any way harmed the whale population.

In advance of our proposed activities under Phase II, we have taken several steps to anticipate where potential impacts on the whale population may lie, namely an Environmental Impact Assessment of the project on the WGW population, and the development of a WGW Protection Programme, developed by an independent specialist organisation, LGL Ltd. These documents have put forward robust mitigation measures, which Sakhalin Energy intends to implement, to ensure that the impacts are reduced to as low as practicable. The details of these mitigation measures are within the EIA and WGW Protection Programme; both of which are publicly available and open to comment.

- All companies should reject any development of underwater quarries or dredging of the seabed (as was done to provide seabed for the Molikpaq platform), and should limit impact to the seabed within the specific infrastructure areas.

Sakhalin Energy comment:
The proper and safe installation of facilities including offshore platforms requires some work on the seabed. SE will try to restrict these activities as much as possible to the infrastructure areas. However, the detailed preparation of the execution programme there may appear operational and safety reasons that will force some activities outside the infrastructure areas. When the precise execution details are known and activities outside the infrastructure are required Sakhalin Energy will disclose such details. Safety and environmental aspects will be considered in the development of any proposed solution.

- All companies should review the issue of cumulative impacts to gray whales and to their habitat from all oil production projects on the Sakhalin shelf over the entire period of development.

Sakhalin Energy comment:
Sakhalin Energy can comment only on its own activities.
An independent assessment of potential cumulative impacts was carried out as part of Sakhalin Energy's Phase II EIA. As far as possible – without Sakhalin Energy having details of other oil companies' activities, no major impacts were noted.

- All companies should guarantee financing for independent, peer-reviewed scientific research with complete transparency of information from all research projects.

Sakhalin Energy comment:

Sakhalin Energy will continue to support study programmes that are relevant to its planned or current operations.

Sakhalin Energy agrees that its research should be open to scrutiny and that final research reports and supporting data should be made publicly available. It will encourage the results from studies to be published in internationally available journals and publications and subjected to peer review. However, not all Sakhalin Energy's monitoring programmes and similar research are of the type that peer-reviewed scientific journals would publish.

Scientific data is not generally made publicly available until all of the work has been done, thoroughly reviewed, and the final conclusions of the investigators drawn. Preliminary data may contain mistakes or may be misinterpreted when not analysed in the context of other supporting data that may not have been collected or analysed yet. To expect any and all data immediately upon demand is generally unacceptable in the scientific world and most investigators would not want to be associated with a project where this might happen.

In addition, the Agreement made between Sakhalin Energy and the Government of the Russian Federation on 22 June 1994 on the Development of the Piltun-Astokhoskoye and Lunskoye Oil and Gas Fields on the Basis of Production Sharing (Sakhalin II PSA) contains extensive provisions requiring that project related information be kept confidential.

3. Pipelines

- Environmental organisations demand that offshore-to-onshore pipelines not cross either gray whale feeding habitat or Piltun Lagoon. These pipelines must be constructed in a manner that eliminates any noise impact in gray whale habitat.

Sakhalin Energy comment:
See comments on underwater pipelines, above.

- Although there are problems even with the Trans-Alaska Pipeline, environmental organisations demand that the safety level of Sakhalin pipelines be no lower than that used for construction of the Trans-Alaska pipeline.

Sakhalin Energy comment:

The Trans-Alaska Pipeline System (TAPS) was a BP-led project constructed some years ago. There have been considerable technical advances made in the oil and gas industry since that time. However, the technical and environmental standards of Shell and BP are very similar (Sakhalin Energy is a Shell-led company). Sakhalin Energy has conducted an assessment comparing the TAPS and the proposed Sakhalin Energy onshore pipeline. The overall conclusion is that the safety level is greater than or equal to TAPS in all respects – for example the use of horizontal directional drilling techniques to install the pipelines under sensitive salmon rivers.

- All pipelines for the Sakhalin I and Sakhalin II projects must be built with all necessary safety measures to protect from seismic activity and to guarantee accident free operation without ruptures in the event of a 9.0 Richter scale earthquake. To ensure this, pipelines must be built above ground on special vertical support systems to guarantee adequate flexibility without ruptures during earth movements.

Sakhalin Energy comment:

The pipelines are designed for the earthquake hazard and intensity determined by Sakhalin Energy's Russian Seismic experts, RSIS. The Design Level Earthquake is based on a return period of 1000 years. Sakhalin Energy is proposing to build a trenched pipeline designed to withstand all earthquake and associated fault movement loads without loss of containment. The Sakhalin II oil and gas pipelines will be equipped with automatic strain gauges at the most active and severe seismic fault locations. These strain gauges directly measure the strain level in the pipelines and will automatically send an alarm to the control room in the event that the strain levels are too high. Possible causes are, for instance, a fault rupture or landslide. Operator response in reaction to such an alarm is similar to the response for a leak detection alarm.

Above ground construction along part of the TAPS was required because of permafrost conditions, which do not exist on Sakhalin. Nearly half of TAPS was constructed below ground - this being in areas of no permafrost. In addition to the above, we consider it necessary to lay the pipeline using a zigzag pattern to compensate for stresses that may be caused by the ground slip. The same pattern was used for the TAPS pipeline and proved to be a significant safety measure. The geometry of all fault crossings has been individually assessed and beneficial re-routes incorporated. Special backfill, such as compressible foam, to minimise the restraint on the buried pipeline in the event of an earthquake has been specified. This allows the pipeline to retain maximum flexibility to accommodate displacements as a result of such an event. At sensitive locations, for example at river crossings and near to settlements, the pipeline is strengthened to further reduce the likelihood of rupture.

Note that nearly half the length of the TAPS is buried. There have been problems associated with less secure aboveground sections. Above ground installations also interfere with fauna (e.g. reindeer) migration.

Leak detection measures

The Sakhalin II system has considerably more block valves at shorter distances between the valves on the oil pipelines than the TAPS and all valves are remotely controlled. Leakages will be detected by pressure indicators and/or visual inspections of the pipeline right of way.

In addition, a state-of-the-art leak detection system will be installed on all Sakhalin II pipelines. The leak detection system collects pressure, flow and temperature measurements along the pipelines and automatically sends an alarm to the control room in the event of a leak. The system will also pin point the leak location with an accuracy of around 1-3km. This will enable the operator to take an executive action to either order a reconnaissance helicopter fly-over or to immediately close pipeline block valves adjacent to the indicated leak location. Closure of pipeline block valves limits the leak volume and isolates the pipeline for subsequent depressurising and repair works. Pipeline block valves are installed every 30 km and at all major river crossings (oil pipelines) and seismic fault locations (oil and gas pipelines). Leak detection time is at least equal to if not shorter than with an above ground installation where a leak is discovered by periodic visual inspection.

The Sakhalin II oil and gas pipelines will be equipped with automatic strain gauges at the most active and severe seismic fault locations. These strain gauges directly measure the strain level in the pipelines and will automatically send an alarm to the control room in the event that the strain levels are too high. Possible causes are, for instance, a fault rupture or landslide. Operator response in reaction to such an alarm is similar to the response for a leak detection alarm.

- Pipeline crossings across all spawning rivers and streams on Sakhalin Island and on the coast of Khabarovsk Region must be made with a bridge over the river, on specially designed suspension systems, to avoid damage to the streambed and water channels. Environmental organisations categorically oppose trench crossings of salmon streams and rivers.

Sakhalin Energy comment:

Sakhalin Energy has agreed with the Russian authorities that the crossings of the eight most sensitive rivers will be made using the Horizontal Directional Drilling (HDD) method. This method generally avoids any impact to the river as the HDD method requires a minimum bore length of over 500 metres. The equipment is therefore set up some distance from the river and the length of bore enables the pipeline construction to completely avoid physical disturbance of the river and flood plain. Sakhalin Energy did consider the use of bridges, however the potential for third party interference of exposed pipelines on bridge structures increases the risk of environmental impact, particularly the risk of leaks.

The preference against overhead crossings has been expressed in discussions with Russian Federal Regulators as a condition for approval of the crossing methodology. This was based on the experiences with the Kamchatka Gas Pipeline Project where the use of elevated crossings caused significant environmental impact during construction.

The remaining sensitive river crossings will all be constructed in the winter, outside spawning and fish run seasons, when the water flow is at the lowest and the ground is frozen. In this way the impact to the river environment will be significantly reduced. This technique is similar to that used in construction of the TAPS.

In order to assure that crossing points avoid spawning areas or wintering pits, Sakhalin Energy will carry out additional surveys prior to any construction activities commencing. Should spawning or over-

wintering areas be discovered at the site of the crossing, the pipeline will be rerouted to a more suitable point if practical.

Sakhalin Energy requires that the design and construction utilises techniques to minimise the width of the riverbed affected during trenching operations and that the bed and banks are restored in such a way as to minimise future turbidity, erosion and scouring.

The HDD crossing method is superior to the bridge method and causes less environmental impact than bridging. In the majority of the river and flood plains to be crossed using trenching techniques, the width of the flood plain is such that the span of a suspension bridge would be insufficient to avoid placement of supports within the flood plain area. The timing of trenching, limited to winter construction periods, significantly reduces the impact of the trench method.

- Environmental organisations demand that the construction of new pipeline infrastructure be limited to a minimum in order to maximally protect spawning rivers, fisheries resources and forests. Therefore, environmental organisations demand that oil companies involved in the Sakhalin I and Sakhalin II projects use a common infrastructure for transport of oil (processing, pipelines, and off-loading terminals). First and foremost, this should involve improving the current Rosneft – Sakhalinmorneftegaz pipeline to the mainland and using this pipeline to transport all oil from both shelf projects to a single off-loading terminal facility on the mainland.

Sakhalin Energy comment:

Russian Law currently precludes the possibility of sharing assets, costs or revenues amongst different companies operating on the basis of production sharing. However, both the Sakhalin I and Sakhalin II PSAs commit their respective investors to discussing the possibility of co-operating in the development of joint infrastructure with the aim of reducing costs.

Sakhalin Energy and Exxon Neftegas Limited have held extensive discussions on the possibility of sharing a northern crude oil gathering system and a joint oil export system. However, it has not been possible to agree to do so as each project is driven by different concepts. Nevertheless, the development of two oil export systems has, despite its higher total costs, advantages. It enhances security of supply and the region as a whole will benefit from the investment. The Russian authorities have participated in these discussions and agreed with the findings.

The two companies have not discussed sharing gas export facilities because they take a different view of the gas export markets.

The Sakhalin I and Sakhalin II projects have had some success in sharing in the area of environmental data collection, medical, and other facilities, as well as information sharing.

Both remain interested in sharing services in the future, for example, sharing helicopter services, airports, camps, oil spill response and environmental monitoring plans.

4. Oil Spill Dangers

- Environmental organisations believe that Sakhalin Energy - Shell and Exxon must adopt much more aggressive and effective measures in order to prevent oil spills and to be prepared for their clean up. The first priorities for such measures should be the primary

recommendations from the report "Sakhalin's Oil: Doing It Right," (Yuzhno-Sakhalinsk, 1999) including the establishment of mandatory, safe tanker routes along all coastlines, mandatory inspections of each tanker by independent inspectors, introduction of tugboat escort of tankers in critical navigation areas, installation of a real-time, continuous tanker traffic monitoring system for the entire route in coastal waters and continuous communications between tankers and shore side dispatchers, a significant increase of the volume of oil spill response equipment stockpiled on Sakhalin Island and its placement at special bases along tanker routes and in those locations most vulnerable to oil spills (for example, at the entrances to the bays in northeastern Sakhalin) or that are considered dangerous from the point of view of potential accidents (for example, La Perouse Strait) (cf: "Sakhalin's Oil: Doing It Right," (Yuzhno-Sakhalinsk, 1999).

Sakhalin Energy comment:

See Sakhalin Energy response to *Doing it Right* paper (attached).

- Sakhalin Energy - Shell and Exxon must carry out response trainings in the open sea and in coastal waters in various weather conditions, and that provide for both product cleanup and also for wildlife and environmental response.

Sakhalin Energy comment:

See Sakhalin Energy response to *Doing it Right* paper (attached).

- Sakhalin Energy – Shell and Exxon must categorically reject the use of dispersants as an oil spill response technique in or near gray whale habitat and within a 30 km zone around this habitat, and in or near key fisheries areas. Dispersants should in no instance be used in waters less than 40 meters deep.

Sakhalin Energy comment:

See Sakhalin Energy response to *Doing it Right* paper (attached).

- Environmental organisations categorically oppose any winter transport of oil in ice conditions with the use of icebreakers, as currently proposed by Exxon from the port of De-Kastri, and demand that Exxon develop an alternative that does not involve transport of oil through ice-clogged seas. Any current oil transport operations in the vicinity of Molikpak must also occur only in ice-free conditions.

Sakhalin Energy comment:

The seasonal nature of Sakhalin Energy's current production and the associated oil transport operations at the Vityaz complex shows that the occurrence of ice conditions are already taken into account.

5. Discharge of Drilling Wastes

- Sakhalin Energy – Shell must provide for zero discharge, i.e. 100% reinjection of all drilling wastes (including oil-based, synthetic-based, and water-based drilling muds, drilling cuttings, produced waters, and sewage) back into the formations. "Zero discharge" standards must be applied at Molikpak and at any other platform. Environmental organisations fully support the decision of Exxon to introduce the "zero discharge" standard that calls for 100% reinjection of all drilling wastes at all future drilling platforms and drilling sites.

Sakhalin Energy comment:

This issue is already addressed in earlier remarks on drilling discharges (above).

- Sakhalin Energy – Shell must fully reject its plans to discharge production and sewage wastes into Aniva Bay in southern Sakhalin. All the wastes from the proposed LNG plant, LNG offloading terminal, and oil offloading terminal in the area of the village Prigorodnoye on the coast of Aniva Bay should be 100% reinjected underground or separated and stored in as safe a manner for the environment as reinjection. Discharge of any wastes into Aniva Bay is categorically impermissible.

Sakhalin Energy comment:

Sakhalin Energy has developed comprehensive plans for the management of production and sewage wastes from the LNG plant. These are subject to approval by the Russiasn Federation authorities, who are currently reviewing them as part of the TEOC review process. Currently, Sakhalin Energy is proposing the following measures:

During the construction of the LNG plant, the following will apply in order to minimise impacts on water quality:

All vessels will, as a minimum, comply with all the requirements of MARPOL (the International Convention for the Prevention of Pollution from Ships), in order to prevent pollution by oil, sewage and garbage discharge. Specifically relating to vessel discharges:

- No sewage will be discharged within 3 nautical miles of the nearest land, and any sewage discharged between 3 and 12 nautical miles will be commingled and disinfected in conformity with Russian legislation and the requirements of MARPOL. Sewage treatment equipment will be regularly inspected and maintained to ensure optimum operation;

- Potentially contaminated drainage, including all drainage from machinery spaces, will be treated to ensure that oil concentrations meet the Russian national standard for fishery water in the effluent;

- The keeping of records of operational discharges or oil and waste are mandatory requirements, and pollution response equipment onboard ship will be maintained in a constant state of readiness at all times.

No vessel will be permitted to dispose of any solid wastes overboard. Thus, impacts from these sources will be eliminated.

The use of hoses or chutes to direct spoil and backfill material into specific locations on the seabed will help to minimise dispersion of sediments in the water column during dredged spoil disposal activities and trench backfilling. This will minimise the release of suspended sediments into the water column. This process will be used depending on the type and quantities of spoil and backfill material.

At the construction camps, including near Prigorodnoye, sewage effluent will be treated to the relevant standards prior to discharge. It will be monitored to ensure that the standards have been met prior to discharge. If standards are not met, the effluent will be redirected through the treatment plant prior to discharge into Aniva Bay.

In the operations phase, effluent from the LNG/OET facility operations that includes domestic water and sewage, fire system water, etc. will be properly treated prior to discharge. Discharges of the above treated effluent into Aniva Bay will be only be undertaken in the strict conformity with the conditions and requirements of a duly executed Water use license to be issued by the RF Ministry of Natural Resources. All discharges will be effected within the established MPC (maximum permissible concentration) and MPD (maximum permissible discharge) limits in accordance with the relevant Russian legislation.

- Existing discharge at Molikpak must be immediately halted.

Sakhalin Energy comment:

This issue is addressed in earlier remarks on discharges (above).

6. Fisheries

- Sakhalin Energy – Shell and Exxon, prior to the start of operations, must fully estimate damage to commercial and non-commercial fisheries resources, to spawning grounds, to migratory fish populations (salmonids), to terrestrial flora and fauna that is caused during construction and operations. All damages must be compensated to stakeholders (government, fishermen, indigenous peoples, hunters, municipal administrations, etc.).

Sakhalin Energy comment:

The theoretical Fish Damage Calculation methods are carried out in accordance with RF Government regulations. Compensation for fish damage will also be carried out in accordance with RF Legislation to ensure that directly and indirectly affected people are fully compensated. Sakhalin Energy is currently discussing a compensation programme with Sakhalinrybvod that will involve Sakhalin Energy funding the development of fish hatcheries to replenish any potential loss of fish stocks.

The fish damage calculations will be updated in February 2003, following a review of existing data and the turbidity modelling. This work will take into account the latest data on salmon spawning; and the numbers and biological condition of salmon in rivers to be crossed. Additional river crossing survey will be performed during summer season 2003 to ensure that the pipeline route does not cross sensitive spawning areas. Representatives of Sakhalinrybvod will participate in fieldwork of the inspection groups according to the procedure worked out in agreement with Sakhalinrybvod.

- Special routes and safety corridors must be set up for all tankers transporting oil along the eastern shore of Sakhalin Island and through the Tatar Strait, as well as in the Sea of Japan. All other types of vessels should be denied entry into these areas. Losses caused to fisheries as a result of annexation of fishing zones for tanker corridors should be paid by the oil companies to the fishing community.

Sakhalin Energy comment:

See Sakhalin Energy response to *Doing it Right* paper (attached).

- All technical plans and decisions whose implementation will have a negative impact on fisheries must be coordinated with all fishing companies and organisations, and personally with the heads of the ten largest fishing companies in the region whose interests will be affected by such plans.

Sakhalin Energy comment:

Fish damage compensation is based on replenishment of any potential fish stock reduction. Sakhalin Energy is in continual dialogue and consultation with representatives of the Sakhalin fishing industry and those responsible for the governance of fisheries. Any of the Company's activities that may have an impact on fisheries are discussed with interested parties.

7. Access to Information and Public Participation

- Sakhalin Energy – Shell and Exxon must provide complete access to all information on the status and protection of the environment, and in particular, all data on environmental monitoring. The public must be provided information, in print and electronic forms, promptly upon a first inquiry. Environmental organisations believe that the responsibility associated with the current extreme difficulties in receiving environmental information about the Sakhalin projects are first and foremost the responsibility of Sakhalin Energy - Shell and Exxon.

Sakhalin Energy comment:

Sakhalin Energy provides full relevant information about its activities to legitimately interested parties, subject to any overriding considerations of business confidentiality and cost (n.b. this commitment and information about our consultation and disclosure programme are available on Sakhalin Energy's website: www.sakhalinenergy.com). We recognise that the dissemination of information about the project is primarily the Sakhalin Energy's responsibility. However, we also expect that external parties with which we engage disseminate accurate information about the Project.

- Oil companies must coordinate their activities, projects, and activities with all interested parties, and in particular with all indigenous peoples upon whose traditional lands the projects are developing, which has not yet fully occurred. It is necessary also to fully research all potential impacts to all interested parties together with their representatives.

Sakhalin Energy comment:
During the last two years Sakhalin Energy carried out intensive consultation with Sakhalin communities including indigenous people for its Social Impact Assessment. Sakhalin Energy also retained a group of indigenous peoples' experts and carried out a specific research programme for Native communities. The SIA process involved consultation with a large number of Sakhalin residents, covering 52 communities and focusing on 22 mostly rural communities where temporary construction and permanent Project facilities are sited or likely to be sited. Over 5,000 Sakhalin residents were consulted in these 52 communities, baseline information was gathered and key community concerns identified and addressed. This information can be found in the Social Impact Assessment, which will be available on our public website in early February in English and in March in its Russian-language. Copies are available on request from Sakhalin Energy.

- All scientists carrying out research as part of the Sakhalin projects must be allowed to freely use and disseminate all information obtained. Oil companies must exclude from contracts all conditions requiring the confidentiality of scientific research and scientists should retain all rights to publish such research. The right of final review of all scientific research must rest only with the authors of this research, and not with international consulting firms hired by oil companies or with the oil companies themselves, as is now the general practice.

Sakhalin Energy comment:
Sakhalin Energy shares this view. To this end, it has spent more than US$ 20 million in environmental surveying and monitoring over the life of the Project. We recently announced a funding of US$ 5 million for a fully independent international programme of research into the western gray whales. For details, please see the Sakhalin Energy public website.

- Sakhalin Energy – Shell and Exxon must adopt and guarantee much more proactive measures to ensure effective and appropriate public participation than is currently provided. For example, Shell's public participation measures both for public consultations on Phase II of its project and for public discussions of its Western Gray Whale Protection Plan were extremely lacking and did not provide the public with the opportunity to make substantive recommendations for improving this work. Exxon's public participation measures for public consultations on Phase I of its project were also extremely lacking.

Sakhalin Energy comment:
Sakhalin Energy is taking robust measures to ensure that public participation in the Project is inclusive. Sakhalin Energy is about to hold a second round of public meetings about the Project. We disagree with the assertion about the lack of public participation in the development of the western gray whale

protection programme. A number of whale experts and non-governmental organisations, including Sakhalin Environmental Watch, had the opportunity to review the draft plan and to make proposed amendments to the final version. All reviewers' comments were considered in developing the protection plan.

- Since the Sakhalin I and Sakhalin II projects affect the interests of practically the entire population of the Russian Federation and create a direct environmental threat to Japan, public hearings should not be limited to Sakhalin Region. Hearings must be held in other cities of the Russian Far East, in Moscow, and also in Japan.

Sakhalin Energy comment:
In recognition of the interest of stakeholders in Japan about the Project, particularly Hokkaido Island, which is the closest of Japan's islands to Sakhalin, Sakhalin Energy holds regular meetings with stakeholders in Japan, including the Hokkaido administration and Hokkaido fishing associations. We also recognise that the Russian population beyond Sakhalin Island may have an interest in the Project, but we do not consider that holding public hearings is the best way in which to address them. Instead, we publish information about the Project on our website and can be contacted by telephone or fax in Moscow as well as Yuzhno-Sakhalinsk by any interested parties who wish to know more about the project or to discuss it. We can also be reached via email at: asksakhalinenergy@sakhalinenergy.ru.

8. Socio-Economic Issues and Financial Responsibility

- Environmental organisations are extremely concerned that research by the Russian Federation Audit Chamber (2000-2001) shows that the people of Sakhalin will not receive their fair share of project revenues. Sakhalin Energy – Shell and Exxon must agree to immediately restore all Sakhalin regional and local tax payments from the Sakhalin I and Sakhalin II projects and from all project contracts and subcontracts.

Sakhalin Energy comment:

Substantial benefits have already accrued to the Sakhalin region and beyond from the Phase I Project. By the end of 2002, Sakhalin Energy had paid more than US$ 275 million in taxes, royalties and bonuses to the Russian Federation, and by September 2002, it had awarded more than 4,000 contracts worth in excess of US$ 800 million to Russian companies. For example, the spacer, a component of the Molikpaq offshore platform, was manufactured at the Komsomolsk-na-Amur shipyard under a US$ 35 million contract.

Sakhalin Energy will invest more than US$ 10 billion in the development of the Sakhalin II Project, making it the largest single foreign investment project in Russia. The Project is expected to play a major role in Sakhalin's future development, through direct revenue to the Russian Federation and Sakhalin Oblast, employment opportunities during construction and operations, and other direct and indirect benefits. Most labour and many materials will be sourced within the Russian Federation. These benefits are described in detail in the Social Impact Assessment.

Substantial financial benefits will accrue to the Sakhalin Oblast as a result of the Project. Sakhalin II PSA describes how Project revenues are to be distributed between the Russian authorities (Federal

and regional) and Sakhalin Energy. Revenues already generated by Phase I of the Project are already a significant source of revenue not only to the Federal government but also to the Sakhalin Oblast.

Royalties

Sakhalin Energy's understanding is that project revenues are split approximately 50/50 between the Russian Federation and Sakhalin Oblast. The royalty is based on all hydrocarbon production sales before any consideration of profits or losses.

To date, seasonal oil production from the Phase I development is Sakhalin Energy's only source of income and only source of royalty payments. Royalty payments are roughly US$ 10 annually since Phase I production commenced in 1999. As of September 30, 2002, Sakhalin Energy had paid about US$ 55 million in royalties. Royalties will increase when year-round production begins under the Phase I development and Phase II comes on stream.

Profit taxes

Revenues remaining after payment of royalties are used to cover Sakhalin Energy's development and operating costs. Depending upon the price of oil and gas, Sakhalin Energy expects to recover its full development costs after 2010. Sakhalin Energy's profits will be subject to a 32% profit tax as specified in the PSA, despite the fact that the current rate of profit tax is 24%.

Total revenues

With oil prices at US$ 16 per barrel and US$ 20 per barrel, respectively, the revenues for the Russian federation will be about US$ 39 billion and US$ 49 billion value, respectively over the life of the Project. The breakdown of the US$ 39 billion value is as follows: US$ 7 billion value in royalties, US$ 8 billion value in profit share, and US$ 24 billion in profit tax. A similar distribution applies to the US$ 49 billion value figure.

Based on the current estimated split of revenues, the Sakhalin Oblast can expect to receive about 50% of the above mentioned value. Actual revenues will vary depending upon world market energy prices.

Other sources of revenue to the Russian Federation have included tax payments (including income tax on staff earnings), bonuses and US$ 100 million in contributions to the Sakhalin Development Fund. This Fund has been used to support development on Sakhalin Island and to build among other things a children's clinic, a hospital and three schools. Sakhalin Energy is also reimbursing the Russian Federation for past exploration costs.

Note: the Russian Authorities have sole responsibility for the distribution of tax payments received under the PSA.

- Environmental organisations believe that the oil companies, in order to solve a very serious energy crisis on Sakhalin, must sell extracted natural gas on the local market for heat and electricity at domestic Russian prices and not at world prices as is now planned by Sakhalin Energy – Shell.

Sakhalin Energy comment:

Sakhalin Energy's consultations for the Phase II Project among Sakhalin residents indicate that most Sakhalin residents expect gasification of the island to take place, and that they believe this to be the responsibility of Sakhalin Energy.

In accordance with the terms of the Sakhalin II PSA the Russian Federal and regional authorities are to take their royalties and profit share entitlements in the form of gas, or if gas is not available in oil or if that is not available, as cash. Profit taxes are directly payable in cash. The Russian authorities are responsible for developing the necessary infrastructure to enable gas supplies to Sakhalin communities. Sakhalin Energy will install block valves along the onshore gas pipeline that can be adapted to allow for gas offtake points by the Russian Federal and regional authorities.

Part of Sakhalin Energy's consultation effort has involved explaining the status of this issue to Sakhalin residents, and this is expected to continue during the construction phase.

- Production sharing agreements for both projects should be available to the public (except for information that by Russian law is secret). The project budgets for all development phases must also be transparent to avoid financial dealings of the "Enron" type and to avoid unjustified project cost overruns and infringement upon the interests of Sakhalin and Russian contractors.

Sakhalin Energy comment:

The Sakhalin II PSA is confidential under Russian Federation law. Sakhalin Energy's budgets are submitted and justified to the Russian Party to the Sakhalin II PSA (the Federal and Oblast authorities) and approved by them. This information is confidential, under the terms of the Sakhalin II PSA. Sakhalin Energy's accounts are subject to independent audit by a reputable international accounting firm. In addition, the Russian Party audits Sakhalin Energy's expenditures annually. All Sakhalin Energy's business is carried out in strict accordance with Russian law and with the company's business principles, which expressly forbid impropriety of any kind. A copy is attached to this letter (Appendix 3).

- Sakhalin Energy – Shell and Exxon must fully pay for normative and excessive emissions and discharges to the environment, as required in the Russian Federation "Law on Protection of the Environment." Exxon currently refuses to comply, which is unacceptable.

Sakhalin Energy comment:

Sakhalin Energy is obliged to comply with the laws of the Russian Federation at all times and has management systems in place to ensure such compliance.

- Sakhalin Energy – Shell and Exxon must incur full financial responsibility for any oil spill, without exception, that results from their operations, including tanker accidents, oil loading, and other causes. This responsibility must include an obligation to pay for all clean up costs of polluted areas, damage and compensation payments to oil spill victims (local residents, indigenous peoples, fishing companies, tourist companies, local governments, etc.) as well as all non-economic (environmental) damages.

Sakhalin Energy comment:
Sakhalin Energy categorises potential oil spills from the following sources:

a) From wells (i.e. mainly blow out);
b) From platforms/pipelines; and
c) From oil tankers.

For a) and b) Sakhalin Energy is the controlling and responsible party and is fully insured to meet its obligations in this respect. If pollution occurs from these sources as a result of negligence this is Sakhalin Energy's responsibility.

For c), Sakhalin Energy ensures that tankers employed for use on company business meet its tanker vetting standards which are fully in line with Shell Group standards. Other than this, Sakhalin Energy is not responsible for tankers. Instead, the ship owner is strictly liable. Sakhalin Energy is adopting measures to ensure that each tanker that uses or may use the company's oil terminals carries a minimum of $700 million marine liability policy. The limitation of liability under applicable international treaties ultimately defines the actual compensation available to those who qualify for compensation.

- Sakhalin Energy – Shell must immediately cease flaring gas at Molikpak since it is not prescribed in the project and was not approved through the government environmental impact review ("ekspertiza") or by Russian officials and so therefore is illegal. Such irresponsible corporate behavior with valuable resources leads to thoughtless environmental pollution and losses on the Russian side, which could use this gas as fuel.

Sakhalin Energy comment:
Sakhalin Energy acts fully within the applicable Russian legislation. The Sakhalin Energy project documentation (Phase I TEO-C of Sakhalin II Project) provided for technological flaring of associated gas during production season in line with the safe and responsible practices within the oil and gas industry. The Sakhalin Energy project documentation has been duly approved by the appropriate Russian authorities in accordance with the RF established procedure.

APPENDIX 1: COVER NOTE FROM SAKHALIN ENVIRONMENTAL WATCH
Statement of Common Demands by Environmental NGOs regarding the Sakhalin I and Sakhalin II Oil and Gas Projects

January 08, 2003

This document is a list of common demands from Sakhalin, Russian Far Eastern, Russian and international environmental non-governmental organisations regarding key environmental issues associated with Sakhalin oil and gas development on Sakhalin Island and on the island's coastal shelf, as well on the shelf and coastal areas of Khabarovsk Region that will be affected by development of the Sakhalin I and Sakhalin II projects.

Environmental organisations believe that the Sakhalin oil and gas projects, including:

- Sakhalin I (operator: Exxon Neftegas Limited, a subsidiary of ExxonMobil Corporation, further referred to as Exxon);

- Sakhalin II (operator: Sakhalin Energy Investment Company, Ltd, a subsidiary of the Royal Dutch/Shell Corporation, Mitsui, and Mitsubishi, further referred to as Sakhalin Energy-Shell)

should not move forward until the companies involved adopt the following commitments as the minimum necessary actions required to protect the environment and biological resources, and to ensure that oil development on Sakhalin Island, in Khabarovsk Region, and in the seas that surround and that are adjacent to these regions takes place in an environmentally and socially responsible manner.

Environmental organisations believe that until oil companies fully comply with these minimal criteria, Russian and Sakhalin authorities, international financial institutions, consumers, and other interested parties should not allow the Sakhalin projects to move forward.

4. General Demands

- All companies must use best available technology. For example, companies should re-inject drilling wastes back into the geological formations.

APPENDIX 2: CRITIQUE OF SEPTEMBER 4 2002 WALL STREET JOURNAL ARTICLE

Wall Street Journal Article of September 4, 2002 on Sakhalin,
"Stymied in Alaska, Oil Producers Flock to a Newer Frontier
Sakhalin Island's Environment is Sensitive Too, but Rules In Russia Aren't as Strict
Blasts and Endangered Whales", by Jim Carlton.

A different Perspective by Dennis Thurston MMS (Minerals Management Service), Alaska,

Where to begin...

The basic premise that companies are "flocking" to Sakhalin from Alaska is wrong. The environmental review, requirements, and monitoring for industry in Sakhalin is as complex, or more complex and rigorous a process, than it is in Alaska. While no companies have "flocked" to Sakhalin, the companies that have come recently have been Russian majors Rosneft, Alpha Group, Tyumen Oil, and Petrosakh (Petrosakh has been drilling for years but is now moving offshore), and the Indian National company ONGC Vedish. There is only one U.S. major company working on Sakhalin now – Exxon Neftegas and they and all of the original members of Sak I and Sak II projects have been involved for 10 years--hardly "flocking." In fact, two U.S. companies have left, Arco (before they were bought by BP) and most notably Marathon, which was the original operator for Sakhalin II, until they sold their interest to their partner Shell (by the way Marathon won the Russian Governments highest civilian award for their work on the Sak II PSA). No U.S. companies doing work in Alaska are flocking to Sakhalin. BP, although just now getting permits for work on Sakhalin, has been on the island for years. Oil exploration did not just "pop up" in this sensitive area after companies were shielded from drilling in ANWR -- that's a ridiculous claim.

The other major premise of the article is that Russian laws especially on Sakhalin are less strict than US Law. Russia has very stringent and comprehensive environmental laws, most written after 1995, and which are very comparable to US Law. The problem is that some laws have rough edges and loop holes that need to be smoothed out or closed (not really surprising considering...). Also, and more importantly, many regulations are not in place to enforce these laws. In other cases there are regulations in place but not enough personnel to enforce them, or the personnel are in Moscow and have trouble enforcing or implementing them, or old Soviet regulations remain in place that don't make sense (and can be used to extort or stop a project), or several agencies have the same or overlapping requirements that are enforced separately without coordination. It's not a place where companies want to "flock."

The article says that Sakhalin was known in Russia for salmon streams, shallow ocean waters full of cod and whales--but now it is known for oil. This is partially true, but it was also famous for its gulags and it's oil. The Soviet city of Okha in the north has been the center for oil production for decades.

To say that Exxon Neftegas isn't hewing to the US standards in Sakhalin by shooting seismic data within 2.5 miles of whales is not true. That is precisely the range at which we ask that shooting stop to avoid harming whales in the US. The figure quoted in the article of 12 miles is

wrong. That is the distance that first observable avoidance behavior occurs in most whales--not the distance at which seismic operations must cease (approximately 180 db). In the US, the companies discuss these issues with scientists and local natives to determine the best time and way to shoot and incorporate native and scientists as observers on seismic vessels -- but we don't require seismic operations cease until whales are sighted (about 2.5 - 3 miles).

The claim that Alaska industry failed spill clean-up exercises 2 years ago in the Beaufort Sea, neglects the most recent follow-up broken-ice spill clean-up exercises in the Beaufort Sea (July 2002), which proved new techniques developed after the lessons of the 2000 exercises can actually use broken ice to corral oil and keep it from spreading better than in open water conditions. These tests were not "flunked."

The claim that Shell (actually Marathon was the operator at the time) dumped toxic mud at sea after an "industry-sponsored" study said it was "OK" is also very misleading. The muds were water-based and were discharged at limits and concentrations acceptable even in the Beaufort Sea and Cook Inlet in Alaska. Furthermore--the Water Code of Russia allowed for this discharge. However, Exxon on Sak I was not allowed to discharge muds and cuttings because of a contradiction in the Water Code where in one place it says "no discharge to the marine environment is allowed" and in other chapters lays out just how much and specific rates and concentrations of what chemicals can be discharged. Marathon was treated one way, and Exxon another (there was Regional-Moscow politics involved here as well). Exxon must now, from the start, reinject all muds, cuttings, and produced water. The Sakhalin II project has been injecting some and discharging some, but must, as of 2004, reinject wastes (as do all others to come).

I do not for a minute believe the quote attributed to Galina Pavlova "I think the project is doomed to be realized" is used in context. Probably what she was saying is that Sakhalin is not happy that Exxon is proceeding with separate infrastructure plans from those of Sak II (running a pipeline to shore in the north and west across the island, under the Tartar Straits to Dekastri in Khabarovsk Krai). This has been an issue with the Sakhalin Administration, who would have preferred (and very strongly pressured) Sak I to share Sak II's pipeline infrastructure (down the length of the island to Korsakov). She and the Governor feel it is "doomed" to occur against their wishes partly because Sakhalin will lose some revenue from Sak I with the oil just crossing the northern part of the island and then being shipped out of Khabarovsk instead of Sakhalin (the feds get all royalties and the region makes money on tariffs, pipeline rights-of-way, ports fees, and other infrastructure development etc-the shorter distance the pipe crosses the island the less money for Sakhalin, no port or transit points-no payments to Sakhalin).

After carefully laying out the timeline of Sak I (PSA 1996) and Sak II (PSA 1994)--the author says "Moscow has already eased the way for drilling." That's ridiculous. They call waiting for 6 or 7 years after their PSA was signed "already easing the way"?

The issue of fish stocks is one of money--SakTINRO fisheries institute is responsible for estimates of fish stocks and calculating damage fees the company must pay for those stocks, up-front before any activity takes place (this is much more strict than anything in the US). The

government collects this fee regardless of whether there is damage to the fish or not. Companies understandably want to verify and agree with those stock estimates upon which the fee is based (and they sure didn't agree on these at first). The other assertion that the government was lax in not requiring studies of the effects of discharges on migrating fish (salmon) is contrary to all other studies done in the rest of the world, which show that only resident fish near discharges may be affected (and may not, depending on type of fish, water depth, salinity, currents, seafloor substrate etc.). Resident populations and conditions were studied on Sakhalin.

As far as who funds research--it has to be Industry according to national policy, the Federal government will not fund these studies -- it is the responsibility of industry (we have been trying to change Moscow's mind on this and many of these issues). However, all data and studies must pass an expertise review panel consisting of select scientists from government and the Academy of Sciences. In most cases, the data was also collected by government institutes.

The Gray Whale issue is not helped by article's that claim "seismic blasting" is occurring. This implies the use of dynamite. Not the case at all, of course. They use air gun arrays that are actually tuned to direct the majority of sound to the sea floor and minimize the lateral propagation. They practice ramp-up procedures as is standard in Alaska and other places with marine mammals. Their shut down distances are in line with those used in Alaska, within 2.5-3 miles. The US scientists who studied the whales on Sakhalin actually speculated (alarmingly) rather than theorized that seismic noise caused displacement and weight loss in Gray Whales--and also implied that they needed to do more studies to protect the whales. These studies are not peer-reviewed as they would be in the US (even though US scientists have been in the lead) and the unsubstantiated results often appear as emotional appeals in the press rather than in a scientific journal. Read the "scientific reports" by the American scientists and you will see things like "we feel that," "we are alarmed by," "we fear..." etc. This is not good science.

Many of the issues mentioned in this poorly written article are undergoing regulatory evolution and have been the subject of the Sakhalin-Alaska Working group's Environmental Management Seminars on Sakhalin and earlier cooperation dating back to 1994.

This was such a biased article it seems like it was written by David Gordon (of PERC) not Jim Carlson.

APPENDIX 3: SAKHALIN ENERGY STATEMENT OF BUSINESS PRINCIPLES

Our General Business Principles govern how we conduct our business. Our core values are honesty, integrity and respect for people. These principles apply to all transactions, large or small, and describe the behaviour expected of every Sakhalin Energy employee in the conduct of its business.

Our objective:

Sakhalin Energy's mission is to commercially develop, operate and market the hydrocarbon resources and associated infrastructure, governed by Sakhalin II licences, for the sustainable benefit of the Russian party, the wider community and shareholders.

Our responsibilities:

SEIC has identified six key areas of responsibility:

- Shareholders – protect shareholders' investment and provide an acceptable return;
- Russian Party – respect the company's obligations under the PSA to the Russian Government;
- Customers – win and maintain customers by developing and providing products and services that offer value and which are supported by the requisite technological, environmental and commercial expertise;
- Employees – respect their human rights, provide them with competitive terms and conditions of service, promote equal opportunity employment and encourage the involvement of employees in the planning and direction of their work;
- To those who we do business with – seek mutually beneficial relationships with contractors, and suppliers and promote the use of these business principles in doing so;
- Society – conduct our business as a responsible corporate member of society, to observe the laws of the Russian Federation and the other countries in which Sakhalin Energy operates, to express support for human rights in line with the legitimate role of business and to give proper regard to health, safety and the environment consistent with Sakhalin Energy's commitment to contribute to sustainable development.

These six areas of responsibility are seen as inseparable.

Economic Principles

Profitability is essential to discharging these responsibilities and staying in business. It is a measure of both efficiency and of the value that customers place on Sakhalin Energy's products and services. It is essential to the allocation of the necessary corporate resources and to support the continuing investment required to develop and fully exploit Sakhalin Energy's business opportunities. Without profits and a strong financial foundation it would not be possible to fulfill the responsibilities outlined above.

Criteria for investment decisions are not exclusively economic in nature, but also take into account social and environmental considerations and security of the investment.

Business Integrity

Sakhalin Energy insists on honesty, integrity and fairness in all aspects of its business and expects the same relationships with all with whom it does business. The direct or indirect offer,

payment, soliciting and acceptance of bribes in any form are unacceptable practices. Employees must avoid conflicts of interest between their private financial activities and their part in the conduct of company business. All business transactions on behalf of Sakhalin Energy must be reflected accurately and fairly in the accounts of the company in accordance with established procedures and will be subject to audit.

Political activities:

Of companies:

Sakhalin Energy acts in a socially responsible manner within the laws of the Russian Federation and the other countries in which it does business in pursuit of legitimate commercial objectives. Sakhalin Energy does not make payments to political parties, organisations or their representatives or take any part in party politics. However, when dealing with governments, Sakhalin Energy has the right and the responsibility to make its position known on any matter which affects itself, it employees, its customers, or its shareholders. Sakhalin Energy also has the right to make its position known on matters affecting the community, where it has a contribution to make.

Of employees:

Where individuals wish to engage in activities in the community, including standing for election to public office, they will be given the opportunity to do so where this is appropriate in the light of local circumstances.

Health, Safety & Environment

Consistent with its commitment to contribute to sustainable development, Sakhalin Energy has a systematic approach to health, safety and environmental management in order to achieve continuous performance improvement. To this end, Sakhalin Energy manages these matters as any other critical business activity, sets targets for improvement, and measures, appraises and reports performance.

Community

The most important contribution Sakhalin Energy can make to the social and material progress of the Sakhalin Oblast and the Russian Federation is in performing its basic activities as effectively as possible. In addition, Sakhalin Energy takes a constructive interest in societal matters, which may not be directly related to the business. Sakhalin Energy will provide assistance to the communities in which it operates through donations programmes targeted at contributing to improving health, education and culture within the community.

Competition

Sakhalin Energy supports free enterprise. It seeks to compete fairly and ethically and within the framework of applicable competition laws; it will not prevent others from competing freely with it.

Communication

Sakhalin Energy recognises that in view of the importance of the activities in which it is engaged and their impact on the local economy and individuals, open communication is essential. To this end, Sakhalin Energy has comprehensive corporate information programmes and provides full relevant information about its activities to legitimately interested parties, subject to any overriding considerations of business confidentiality and cost.