

Classement CCEK

Titre Règlement sur la circulation de véhicules motorisés dans certains milieux fragiles

Type Lois

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Subject: Materials/Contacts on damage to tundra due to use of heavy equipment

Date: Tuesday, February 22, 2005 3:25 PM

From: Soha Kneen <kneen@itk.ca>

To: Michael Barrett <mbarrett@krg.ca>

Hello Michael:

Ok, here are the contacts you can get in touch with on this subject. Below the contacts are a number of articles/web materials on the issue as well.

1. Contacts:

- (a) Christine Inglangasuk (Joint Secretariat) - 867-777-2828 - referred me to DIAND - call Rob Walker at 867-777-5968
- (b) Philippe Lavallee (NTI) - 867-975-4968

I'm sorry that it isn't much, but it was all I could find.

Talk to you soon!

Soha

2. Other materials:

Web posted Sunday, December 19, 2004

Following study, state opens North Slope early to travel across tundra

The Associated Press

FAIRBANKS - The state Department of Natural Resources has opened early a 75-mile wide swath of the North Slope's coastal plain to winter oil and gas exploration.

The decision was based on a study that concluded delicate tundra would not be harmed by the early opening.

"This opening is the earliest since 1995, and it's two weeks earlier than last year for this area," said DNR Commissioner Tom Irwin Dec. 10. "This was done correctly. We're not taking any shortcuts. We're not sacrificing the environment at all."

That statement is disputed by Fairbanks' Northern Alaska Environmental Center, which commissioned a report that calls the DNR's conclusions premature. Spokeswoman Kelly Hill Scanlon told the Fairbanks Daily News-Miner the department should have erred on the side of caution.

"I think it's a mistake to just look at this as, oh wow, this shows us we can open the tundra sooner," Scanlon said.

Because of potential environmental damage, heavy equipment is barred from delicate tundra until regulatory officials are confident the ground is frozen and covered with snow, shielding it from damage.

The heavy equipment season has been shrinking for decades as the Arctic warms, from more than 200 days 30 years ago to just more than 100 in recent years. Last year, some areas of tundra were opened on Dec. 23 and others as late as Jan. 28.

The tundra travel study was undertaken by state and federal employees and representatives of the University of Alaska, Yale University and the University of Oregon. Researchers drove equipment onto plots on a pair of sites roughly every two weeks between October 2003 and January 2004, then measured the effects this summer.

The DNR concluded that vehicles could have been operated on the tundra much earlier than estimated.

"We were in fact greatly surprised by the level of impacts, or by the lack of level of impacts," said Bob Loeffler, director of the DNR's Division of Mining, Land and Water.

The results led the department to adopt different criteria for when the tundra can be driven on without damage. Criteria are based on snow cover as well as the hardness of the ground, which is measured by a simple hammer instrument. The end result is that many areas will be open to ice roads and exploration two to six weeks earlier each year, Loeffler said.

That includes the eastern half of the coastal region between the Arctic National Wildlife Refuge and the National Petroleum Reserve-Alaska, which was declared open Dec. 10 and is expected to be accessed for exploration around Christmas.

Irwin called the results of the study a boon to oil and gas explorers, who build hundreds of miles of ice roads every winter. He said they'll now have time to dig more wells along the same ice roads before breakup, saving them road-building expenses.

"We have taken a major step forward in saving money in exploration," he said.

The effort to assist industry worries the Northern Alaska Environmental Center. Scanlon said she's concerned about the lack of objective peer review of the study.

"Because DNR's proposal specifically stated that the goal of the study was to open the tundra earlier, then we have to question, is this a politically motivated piece or is it scientifically motivated?" she asked.

The center hired Bruce Forbes, an American tundra expert working in Finland, to review the report. Forbes reported flaws, calling it a "hurried and closed process" that depended too much on computer modeling and not enough on a broad range of data.

He said a one-year study was not long enough, as components of tundra vegetation can continue to die for two years or more after even modest mechanical damage.

Forbes' findings indicate that the DNR's decision to act on the study

was premature, Scanlon said.

"It by no means should be looked at as anything but the very first step of examining this issue," she said.

Irwin said that the state is still being careful, even with the earlier dates.

"This was a very detailed program, and I think the data supports a huge confidence," Irwin said. "And don't miss that we're on the conservative side of the curve."

The state plans to examine the sites again next summer and to accompany exploration crews and study the effects of their activities, Loeffler said.

Source: Alaska Journal of Commerce
(http://www.alaskajournal.com/stories/121904/oil_20041219023.shtml)

Irreparable Damage to the Arctic Tundra: claims of environmentally friendly exploration are not supported by the facts

According to the U.S. Fish and Wildlife Service far more damage to the arctic tundra will be done by exploration than the general public is being led to believe. Congress authorized seismic exploration on the coastal plain of the Arctic Refuge in the winters of 1984 and 1985. Refuge staff have monitored the recovery of the seismic trail damage on the Refuge. 15 years later, many trails had still not recovered. Some of the trails have become troughs visible from the air. Others show changes in the amount and types of tundra plants. In some areas, permafrost (permanently frozen soil) melted and the trails remain wetter than they were previously. Some of these impacts are expected to persist for decades.

The new technology used for exploration is more not less destruction than the technology used in the mid-1980's. A new technology used to create a 3-deminsional subsurface image, known as 3-D seismic, requires a much denser grid of trails than 2-D seismic. This new type of exploration currently is occurring on the north slope of Alaska, including an area with a half mile of the Refuge's western border. While the 1984-85 trails on the Refuge were usually only four miles apart, the 3-D seismic trails currently impacting these other areas are one half mile or less apart. A 1998 Environmental Impact Statement from the Bureau of Land Management states: "because 3-D seismic involves more tight turns by heavy equipment than does 2-D, the potential for vegetation damage is greater. For this reason, it can be assumed that the medium and high disturbance levels to tundra would occur in greater proportions from 3-D seismic lines than that presented for 2-D."

Source: Protect the Arctic National Wildlife Refuge
(<http://www.geocities.com/guapster2/birdpages/anwr2.htm>)

Oil on the Tundra: A spill in the Komi Republic

Mar 1, 2000 12:00 PM
Donald E. Koehler

Industrial accidents involving natural resources often occur in rural or remote locations. Radio communications may be the only means of coordinating containment and mitigation efforts. However, the accident itself can pose special radio operations and maintenance problems.

>From August to September 1994, a series of massive oil pipeline leaks
>occurred in rural Northern Russia in an area about 1,200km due west of
>Finland, near the Arctic Circle. The nearest town to the spill area was
>Usinsk, about 30km away.

The communications requirements of the resultant containment, cleanup and mitigation activities are of interest both for the lessons learned and for planning a remote response. While the Russian pipeline leak may be unique because of its sheer size, it provides many examples and lessons. **Smaller pipeline leaks occur regularly in North America** and a response-communications planner or provider must understand this type of technology accident.

What happened? The Komi spill, also known as "The Usinsk Accident," has been reported (1) as one of the worst in history, perhaps eight times greater than the EXXON Valdez tanker spill. The pipeline owner, KomiNeft (Komi Oil), local authorities and the Russian government initially tried to downplay or obscure the extent of the spill. When oil started to show up in the Barents Sea, the world community was forced to step in to control the environmental damage.

The release has been estimated as high as 200,000 metric tons of oil, found at four major points over an 18km length of older pipeline. (The scope of the spill was so large, it was visible from space. For more details, see the Web site addresses in the references.) The pipeline, first placed in service in the early 1970s, had been leaking for some time, with major leaks first noted in 1988. Corrosion caused by oxygenated river water, which was mixed into the oil to assist in pumping, was a major factor in the pipeline's deterioration. Take the old Soviet environmental attitude, bad construction techniques and then add in the general societal chaos at the collapse of the old Communist system, and you have a complete recipe for disaster.

Initial containment efforts, such as siphon dams built of sand, were only marginally successful. And, when the spring thaw hit in 1995, they failed completely. Under intense pressure from the world community, the Russians brought Western technology and a small number of American oil workers in under contract (2) to provide new cleanup technology and training on proven response techniques. The U.S. government and the World Bank (3) provided funding and survey data to address the spill problem.

Have background, will travel How did I get involved? Before the spill, I had spent several years writing response, training and logistics support documents first as a contractor, then later as an employee, for an environmental company in Alaska. In April 1995, I was contacted by the company owner and offered a job on the spill response team as the plan writer and to provide photographic documentation. I resigned my position at the University of Alaska and traveled to Usinsk. Once at the job site, it became more of a "Swiss-army-knife" job, entailing work on LMR radio systems, making maps, fixing gas samplers, setting up computers and printers, and performing basic survey work, all as part of the total response effort.

I walked some 40km along the soiled shores of the Kolva river and feeder streams, the inland spill sites and the length of the damaged section of the pipeline-photographing and surveying the damage. It is impossible to fully describe the spill and its impact adequately in words alone. I photographed the project, people, equipment and structures, producing more than 3,000 map-indexed images. An on-site project ecological science team generated additional photo work and documentation.

Communication was provided by radios and repeaters obtained from a Canadian oil company under a subcontract. Communication back to Alaska was via INMARSAT-P phones. These units are worth their weight in gold for this type of operation, especially during the logistics ramp-up. The satcom radios were also critical during the bid phase when no formal contract agreements existed with Russia, and because the telephone system dates from 1917 (honest). The ability to send and receive data and faxes in the field-via a laptop computer-is critical to setting up the infrastructure to support large-scale operations. It also provides a "paper trail" and reduces the potential for confusion. We used Macintosh Powerbook 180s with small printers linked together in a small LAN to handle the office chores, with the satcom link serving as a backup for critical fax documents.

Costs and funding The Kolva River Basin Response Project was successful because it prevented further oil from reaching the Kolva, Usa and other downstream rivers. Funds that were available and were used for the project were equivalent to \$23 million, with the bulk of the project work done over two summers. The EXXON Valdez cleanup, by contrast, consumed some \$5 billion over several years. The Komi impact site was larger by several orders of magnitude.

The disparity in response funding levels reflects differences in government philosophy, location, physical and chemical characteristics of the oil itself and-frankly-the depth of the pockets of the pipeline company. Because KomiNefit was technically bankrupt at the time, funding was heavily dependent on sources outside of Russia.

Containment and communications Terrestrial spills can be somewhat easier to access and control, with less impact from bad weather or access, compared to ocean tanker spills. But on a spill of this size-and in the Arctic wilderness-nothing was easy. Roads were laid out to the spill sites for construction of containment and collection infrastructure. Large amounts of the oil were simply buried in "polygons"-large, clay-lined pits near the collection points. The project's goal was to keep the oil from migrating into the ocean. Management could be performed site-by-site under local supervision.

The radio net was used primarily for safety and logistics calls. All of the radio systems used (hand-held and mobile units) were made by Motorola. Because the spill was primarily terrestrial, the work sites were well defined. Radios were used for logistics and safety/health emergencies. The radio system included a series of repeater/remote base stations. The base stations were linked back to the central control point via a UHF link. Most communication was simplex within the work site-saving money (access to a repeater) and reducing co-channel interference. The sites were separated (in some cases, by 15km). This allowed reuse of radio frequencies-again, a savings. The Radius hand-held systems worked great, taking the day-to-day beating without a glitch. The battery life was also a lifesaver because most sites did not have ac power for charging stations. We considered using solar panels, but because of cost, shipping and security issues it was decided that extra batteries were the best, least-cost option.

Intrinsically safe (IS) radios were not used at the Komi site because the oil had aged over a winter. If you work on a fresh spill, or in an area involving natural gas, the safety staff should designate areas requiring IS equipment.

Waxworks in ebony Although the oil was bad for the environment, the greater impact to the fragile Arctic ecology may have been the brine mixed with the oil to ease pumping. The oil itself is a thick, heavy (high-paraffin content) type that must be heated to pump. Once the oil left the pipeline, it essentially "froze" in place-looking like huge slabs of black candle wax. Indeed, in many areas, the oil was removed with a backhoe. The summer heat would cause it to flow again. In many areas the water had carried oil high into the trees lining the impacted streams.

If you're ever involved in a response effort like this, realize that it is dirty work. The radios will get dirty and possibly oily. Be prepared to clean and decontaminate equipment regularly. The prime contractor's safety office should provide instructions for this-or you can insist that the equipment be cleaned and decontaminated before you work on it. Be prepared to look at all sorts of odd equipment. If you are the prime electronics repair shop, you may be expected to work on a gas-sampling apparatus, a turbidity meter or some other esoteric device. Sort out in advance what you will work on and what is out of scope. (Workflow suggestion: Put the word out early that you will not touch personal radios, phones, CD players, cassette players, etc.) Portable scanners for the technicians are also useful field tools that allow them to keep tabs on what is working or not.

Impacts to the local area The spill area is remote: thinly populated and rural. In many ways, it resembles conditions found in Alaska. The initial spill affected about 67.5 hectares of tundra; then spring floodwaters spread the oil. Scientists have established that about 2,110 hectares (1 hectare = 2.2 acres) of meadows and pastures, including reindeer grazing lands, were contaminated. In some villages, as much as 92% of all the grazing and fodder-producing land was affected. Damage to rivers, pastures and meadows seriously affects the well-being of the local residents, who depend strongly on their vegetable plots, cattle, hunting and fishing for existence. (4)

The economic impact and damage estimates were based on the officially adopted figure of 14,033 tons of oil. Overall damage was estimated at more than 311 billion rubles (about US\$103 million). The officially confirmed estimate of 79,000 tons of spilled oil brought the cost of the damage to 1.5 trillion Rubles (US\$495.7 billion). (5)

The difference in the estimates of the size of spill, from less than 15 kilotons to the high end of from 102 kilotons to 200 kilotons, is the difference between Russian estimates and measurements made by the U.S. EPA (6) and Canadian environmental specialists.

By contrast, the TransAlaska Pipeline System (TAPS) has operated during the same timeframe as the KomiNeft system, in a similar environment, with only two small spills, measured in barrels rather than tons. Both Alaskan spills were quickly contained and cleaned up, and restoration work was initiated. Oversight and regulation provide the difference in the outcome.

Disaster team planning Communications planners must account for the inevitable EMI/RFI and incompatibility issues that arise from too many

radios and too few frequencies. Work in or around littoral (shoreline) areas brings the additional headache of coordinating marine and safety frequency usage. Preplanning and drills in your area of responsibility will help, but you must experience the incredible congestion to fully understand the frustration of radio users.

Taking the plan to the field * "Crowd control" - The sheer number of people who respond for containment, cleanup and mitigation activities can be overwhelming. You may not be able to find a hotel or motel room for miles around your site. The rental car scene will be chaotic, as will any public transportation systems. This has been described as a "flood" of humanity. In the Komi case, several thousand people showed at the gate of the project office seeking jobs. Rental and itinerant radio systems will complicate matters. Many large clean-up projects have resorted to full-time frequency coordinators.

* Resource allocations and security -You may find yourself competing with deep-pocket government agencies or pipeline response companies for scarce resources. As silly as it may sound now, do you have enough batteries, generators and the like for operation of at least a week at the response site? I may seem overly sensitive about logistics, but it can be a hard lesson to learn. In Russia, for example, many of my American colleagues learned the hard way that you don't just go to the corner store for supplies.

Once in the field, you will find out just how well you planned. Extra hand-mics, antennas and batteries are always needed due to harsh conditions and the "Bubba factor" found on this type of project. A complete set of hand tools and several small tool boxes (one per technician, minimum) will allow you to respond to work on communications equipment without pulling the heavy equipment (like bulldozers and motorblades) off of the job site. A portable, trailer-mounted shelter can provide a clean, dry work area.

"Strap-hangers"-the press, protesters, job seekers and the idly curious-may play into this equation as well. How good is your security? Place the repeaters in strong, locked, portable buildings. Shop and maintenance equipment should be clearly marked and locked up.

* Downwind impacts - During the Komi cleanup, a large oil containment area was deliberately-and illegally set afire. The smoke plume (and toxic byproducts) rose more than 8,000 feet and extended beyond the horizon-some 40 miles away. Your workers may be required to wear personal protective equipment (PPE). Be sure to have an initial issue on hand before you leave for the response site. This also raises the issue of mics and earpieces that can be worn and used inside a HAZMAT suit.

* Transportation impacts - Radio installation may be tricky, depending on the indigenous vehicles. The Russian light trucks, jeeps and vans were all 12Vdc, negative-ground power systems. The dashboards were large-and metal. Many of the heavy trucks and related pieces of heavy equipment used in the former Soviet Union are right out of Jane's International Defense Review. The most unusual setup we encountered was an ICBM TEL (transporter/erector/launcher) converted to carry a 25-ton construction crane. Large numbers of vehicles-from pickup trucks to 10-yard dump trucks and backhoes (including associated flatbed and tanker trucks) may also become an obstacle and cause a logistics nightmare. Do you have alternate transportation routes or bus service available for your workers? A park-and-ride scheme may be necessary.

* Health impacts - Toxic byproducts from spills or the burning of

spilled material may be health hazards. Some type of employee health monitoring will be necessary if employees spend much time on site. See your local OSHA or EPA representatives for the current rules and regulations.

Becoming a resource Remember to maintain your sense of humor, keep the radios running and work with the customer (the prime contractor). Spill response and cleanup management crews are a small group of people who remember who worked well "the last time." They are noted for extending an invitation to bid based on a word-of-mouth reference. Providing communications support for an accident response project can be profitable-if you do your homework. Success requires planning and practicing response and maintenance strategies

References 1. [http://gurukul.ucc.american.edu/ted/ KOMI.HTM](http://gurukul.ucc.american.edu/ted/KOMI.HTM).
2. <http://gurukul.ucc.american.edu/ted/KOMI.HTM>. 3.
<http://ns.noaa.gov/NESDIS/gedm.html#komi>. 4.
[http://www.kingston.ac.uk/~ad_s702/ case2.htm](http://www.kingston.ac.uk/~ad_s702/case2.htm). 5. Ibid. 6.
<http://www.akvaplan.niva.no/ akvaplan/komi.htm>.

Source: MRT (http://mrtmag.com/mag/radio_oil_tundra_spill/)

World View of Global Warming
Global Warming in Alaska
(c)1999-2005 GARY BRAASCH

Pushing the Boundaries of Life: Alaska

At the United States' northern extremity, Barrow, Alaska, scientists are monitoring the exchange of tundra gases daily, in real time. Tundra radiation and gas flux are very intense when the ground is free of snow and plants are growing rapidly. The heat waves rippling in this photo are symbolic of the invisible flow of carbon dioxide and methane being measured by the equipment in the background. But there were visible changes too: Snow melted from the tundra a month earlier in 2002 than in previous years.

Dr. Walt Oechel and his associates from the Global Change Research Group at San Diego State University measure tundra radiation, temperature and the flux of carbon dioxide. They are the only ones in the world posting real time changes. During the past 30-35 years, Oechel has seen the moist tundra change from an important sink of greenhouse gases -- taking up and storing carbon dioxide in plant material -- to a time in the early 1980's when the tundra was a source equal to 8% of human emissions. Now his readings show the area around Barrow is a source of emissions at night and a slightly larger sink during the day when plants are active. He suspects the tundra is changing or adapting in some way.

Dr. Yoshinobu Harazono, from an agro-environmental insititute in Tsukuba Japan, maintains a tower from which real-time levels of methane are sampled. Methane output, which is from decomposition and from the roots of active plants, is also increasing, probably due to the lengthening snow-free growing period in the arctic.

Plots in the Barrow area have been studied for more than 30 years, in part to discover if vegetation is changing due to climate warming. This location was documented in 1973 as a wet tundra, but has visibly changed to more dry-site vegetation.

Many of these sites are investigated by Dr. Craig Tweedie, a Research Fellow from The University of Queensland, Australia, working with teams from the Arctic Ecology Lab at Michigan State University. Dr. Tweedie provided the photograph on the left.

Early onset of spring is more than just a weather statistic. It impacts natives who must travel over the ice, limits the depth of seasonal permafrost re-freezing, extends the amount of time for greenhouse gas interactions by tundra plants, and is slowly changing the timing of when forage plants are available to caribou and other grazing animals. In 2003 the early thaw forced great changes in the route of the Iditarod dogsled race. As winter gets shorter in the Alaskan Arctic, even the oil industry has been forced to make note of it. Most oil exploration and some drilling is completed in the winter when the hard frozen tundra resists most damage from the heavy equipment, and when ice roads can be made. One official response is a new study by the State of Alaska and federal Dept. of Energy: "... During the past three decades...the number of days between the opening and closing of the tundra for exploration activity has declined from over two hundred days in 1970, to only one hundred-three days in 2002.... This trend appears consistent with findings of general warming in the Alaska arctic associated with global climate change." (from DOE grant 38391, March 2003)

In a feat of persistent observations matching the work of Dr. Bill Fraser in Antarctica, Dr. George Divoky has documented the climate-mediated rise and decline of a colony of black guillemots on a barrier island in the Arctic Ocean. The birds normally nest in cliff cavities, but in the 1970's a few were attracted to left over crates and barrels at a former Navy station on Cooper Island. Successful nesting was made possible by the slow retreat of Arctic sea ice from around the island, according to Divoky's observations, and more than 225 pairs nested on Cooper in the late 1990's. But the ice has continued to move away from the island and with it the prime prey of the guillemots, Arctic cod. The seabird colony has declined to fewer than 150 nests.

During the summer of 2002, Divoky and his small crew of assistants had to leave Cooper Island a little early when polar bears kept foraging across the low and barren island. The large number of bears on land in the Barrow area this year is symbolic of the problem created for bears by the retreat and breakup of Arctic Ocean near shore ice. In studies in Canada and Europe, the bears are shown to suffer from nutrition and denning problems when the ice withdraws from shore until very late in the fall. These effects are not yet seen in Alaska sea mammal studies.

Source: <http://www.worldviewofglobalwarming.org/pages/alaska2.html>

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Tundra Study Backs Longer Oil-Search Season

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USA: December 6, 2004

ANCHORAGE, Alaska - Snow is more important than ice in protecting the delicate tundra from disturbances, a finding that holds promise for a longer oil-exploration season in Alaska's rapidly warming Arctic, state officials said on Friday.

Officials from the state Department of Natural Resources, who released the conclusions of a study they conducted into the impact of heavy equipment on the North Slope tundra, said the finding supports a policy change that will help open the region to exploration earlier in the winter.

"The results are we're going to be able to start every exploration season sooner now than we would have under the old rules, with absolutely no impact to the environment," Tom Irwin, commissioner of the Department of Natural Resources, said at a news conference held by Gov. Frank Murkowski.

The study, funded by the US Department of Energy, was prompted by a warming trend that has drastically shortened the time available for exploration, from more than 200 days a year in the 1970s to about half that now.

"As you all know, since the 70s our seasons have been getting warmer and warmer and our access into exploration, of course, is becoming shorter and shorter. And that's expensive," Irwin said.

The state has long used a tundra-protection standard that requires six inches (15 cm) of snow and 12 inches (30 cm) of hard-frozen ground underneath it before any vehicles or equipment may be moved. Exploration is not conducted in the summer, when the top layer of the permafrost turns soggy and spongy.

The discovery about the relative importance of snow cover bodes well for exploration because snow usually precedes frost on the North Slope, said Bob Loeffler, director of the department's Division of Mining, Land and Water. "We've typically had the snow earlier and waited for the hardness," he said.

Technically, the department will still require oil explorers to wait

until there is at least six inches of snow on the surface and 12 inches of frost below it before equipment may be driven over the tundra, Loeffler said.

But now the definition of "frost" will vary, depending on how easily the ground is penetrated by a testing device.

The new standard will be in effect this winter, Loeffler said. If this standard had been used last winter, the tundra would have opened to travel three to six weeks earlier than it did, he said. The season last year opened between late December and late January.

One critic said the tundra-travel study had been manipulated to support the Republican governor's pro-development agenda.

Kelly Scanlon Hill, Arctic coordinator for the Northern Alaska Environmental Center, said the conclusions were premature because the study was too short in duration and lacked peer review.

"Impacts on the tundra might take up to two to three years to be noticed because of the ecology," she said.

Story by Yereth Rosen

Source: REUTERS NEWS SERVICE
(http://www.planetark.com/dailynewsstory.cfm/newsid/28436/story.htm_)

You might also want to check the documents on the following websites!

<http://www.carleton.ca/~tpatters/teaching/climatechange/canada/canada.html>

<http://ekati.bhpbilliton.com/docs/1998EnvironmentalReport.pdf>

http://www.state.ak.us/dec/spar/perp/r_d/ttman/sm_t10.pdf

<http://aurora.ak.blm.gov/npra/final/html/rodappbl.html>

July 27, 2003

The Earth fights back

How's this for irony? Global warming has gotten so bad in Alaska that it is no longer possible for oil companies to go up there and drill for more oil. According to a story in the Houston Chronicle:

A state rule says heavy exploration equipment can be used on fragile tundra only when the ground is frozen to 12 inches deep and covered by at least 6 inches of snow.

However, because winters in the Arctic are becoming shorter, the number of days the tundra meets those conditions has shrunk from more than 200 in 1970 to only 103 last year, a state document notes.

Posted by Clive Thompson at July 27, 2003 09:59 PM | [TrackBack](#)

Source: <http://www.collisiondetection.net/mt/archives/000447.html>

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*From December 2, 2001, Inuit Tapirisat of Canada's name has changed to Inuit Tapiriit Kanatami (ITK).

"Tapirisat" means "we will unite" and, after 30 years of achievements and the signing of four land claims, Inuit felt it was time to acknowledge that Inuit are united, which is "Tapiriit" in Inuktitut. "Kanatami" means "of Canada".*



THE WILDERNESS SOCIETY

Transportation: Access and Off-Road Vehicle Abuse

Perhaps as much as to any other single thing, Alaska owes its wildness and the splendor of its wildlife resources to its roadlessness. The clamor to change that grows and off-road vehicle users are behind most of it. Motors invade roadless areas, wilderness-quality lands, even designated wilderness and National Parks. The Wilderness Society believes that in Alaska, areas must be closed to recreational motorized uses, including snowmachines and helicopters. These areas should be opened only after careful planning and analysis of environmental consequences.

We also recognize the need in Alaska for exceptions to the normal restrictions placed on motorized access for customary and traditional uses.

Rapid Expansion

Off-road vehicle use and abuse have expanded exponentially in Alaska over the past two decades. Dirt bikes, all-terrain vehicles, snowmobiles, helicopters, jet skis and powerboats are taking their toll in the Great Land just as they are in the Lower 48.

That toll is well documented: damage to wetlands, water and air quality, fish habitat, anadromous streams, lake shores, rivers and bird nesting areas. As the power, range and number of these machines increase, so does the damage to the natural world. Existing laws, regulations and policies provide the necessary tools to manage ORV access in Alaska. But the agencies lack the will to use them.

Patterns of access and use are mostly created by the users and without agency planning or environmental consideration. The Alaska Department of Natural Resources says that 95 percent of south central Alaska, an area nearly 35 million acres in extent, is open to snowmobile use. And this is cross-country use, not use restricted to designated trails. But state and federal agencies are geographically evenhanded in their dereliction: they ignore off-road vehicle management in every other part of the state just as they do in south central Alaska.

Traditional Uses

The historic use of off-road vehicles in Alaska for transportation to homesites or for subsistence activities (berrypicking, fishing and hunting) is protected by the Alaska National Interest Lands Conservation Act (ANILCA). ANILCA is a

Alaska National
Interest Lands
Conservation Act
www.wilderness.org

off road vehicles
motor Alaska
Act

special piece of U.S. land law, primarily because of its emphasis on protecting wilderness ecosystems in their entirety, including wildlife populations and cultural uses.

Users of motorized vehicles and industry claim that traditional use should include the destructive recreational use of these machines on our public lands. Under pressure from those motorized recreationists and industry lobbyists, land managers ignore the damage. As a result, illegal motorized use occurs in National Parks, in designated wilderness areas, in qualified candidate wilderness areas, thus threatening future wilderness designation.

Our Position

The position of The Wilderness Society and its partners is clear: In Alaska, as elsewhere, lands must be closed unless specifically opened to recreational off-road vehicle use. And they must be opened only after careful planning and environmental analysis determines the appropriateness of the use in light of other significant environmental and recreational values.

The 1866 Mining Law: Assault on Protected Landscapes

While metastasizing ORV use portends the piecemeal destruction of some of the American public's most treasured places in Alaska and elsewhere, the Interior Department now proposes to surrender them wholesale. The device by which it will accomplish that massive giveaway goes by the curious name of "RS 2477." A 19th Century artifact, it was a provision of the 1866 Mining Law. The Interior Department proposes to give it modern life and deadly effect.

The law was written at a time when the nation was encouraging settlement on the western frontier. The old statute gave miners the right to build roads across the public domain. In 1976, with the frontier clearly closed, the Congress repealed the old law but left open the opportunity for consideration of claims that predated the repeal.

Congress imposed a moratorium on processing of claims under the 1866 Mining Law several years ago. But in early January 2003, the Interior Department published a new rule that will allow it to move forward with such claims and without any public participation or environmental consideration in the process.

Using the rule, the department will simply disclaim any interest in the routes and lands involved, whether they are in wilderness areas, National Parks, National Wildlife Refuges, National Monuments, tribal or other Native lands or anywhere else.

Alaska's public lands are among those most at risk from the new scheme. Claims in Alaska could total nearly a million miles of routes, criss-crossing the state. That total gets large quickly because the State has already claimed rights of way for every section line, the invisible lines that demarcate square-mile sections of land. The Alaska Supreme Court upheld the state's right to make such an outlandish claim. And we know from statements an Interior

Department official made in Alaska late in 2002, the department intends to use the new rule to transfer ownership of 22,000 lakes, streams and waterways in Alaska to the state.

The claims have almost nothing to do with legitimate transportation needs, everything to do with who controls the land, access to it and uses on it. The beneficiaries of the new rule will be dirt bikers and other ORV users (who are loudly cheering the rule), and oil and gas and mining interests. Losers will be the public whose lands these are and the air and water, fish and wildlife they now protect.

>> More on RS 2477

For More Information

- ↳ Email The Wilderness Society's Alaska Office
- ↳ Alaska Center for the Environment
- ↳ Alaska Quiet Rights Coalition
- ↳ Trustees for Alaska
- ↳ Sierra Club
- ↳ National Parks Conservation Association
- ↳ Natural Trails and Waters Coalition

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THE WILDERNESS SOCIETY

The Unfulfilled Promise of ANILCA

If Alaska is one of a kind, so is the legal framework for management of its public lands. The Alaska National Interest Lands Conservation Act of 1980 is remarkable for its emphasis on protecting intact wilderness ecosystems in their entirety, including wildlife populations. The law also sought to provide for traditional human uses. Exactly what those provisions mean, though, is far from settled.

History

The Alaska National Interest Lands Conservation Act (ANILCA) of 1980 was one of the most ambitious conservation initiatives ever enacted. It established 104.3 million acres of National Parks, National Wildlife Refuges and other protected units in Alaska. It designated wilderness in the Tongass National Forest, Wild and Scenic Rivers, the Steese National Conservation Area and the White Mountains National Recreation Area.

"Never before have we seized the opportunity to preserve so much of America's natural and cultural heritage on so grand a scale," said President Jimmy Carter when he signed the measure into law. But today, over two decades since ANILCA became law, many of the lands the law intended to protect remain under serious threats.

Also Provides for Traditional Human Uses

ANILCA also sought to recognize and accommodate Alaska's unique remoteness and its cultural and traditional subsistence heritage, particularly the relationship of this heritage to public lands. ANILCA thus allows exceptions to the restrictions that typically apply against motorized uses in wilderness and other conservation system units.

Specifically, the law provides that snowmachines, motorboats and fixed-wing aircraft may be used in designated wildernesses and other conservation system units for customary and traditional uses.

As stated in the ANILCA Report of the Senate Committee on Energy and Natural Resources, "customary and traditional uses" include travel to and from homesites, travel to and from villages and taking of resources for subsistence purposes, such as subsistence and sport hunting, fishing and berry-picking."

Compromising Alaska's Public Lands

The law never meant to include recreational uses as customary and traditional

uses when allowing the use of motorized equipment in wilderness areas and other conservation system units.

But recreational snowmobilers and others are claiming that right and a prime target is designated wilderness inside Denali National Park. The Wilderness Society and its conservation partners are just as steadfastly opposing it.

Mining, clearcutting, oil development, motorized vehicle use, tourist-related development and other activities compromise the integrity of Alaska's great public lands. The agencies charged with managing them and their resources on behalf of the American people lack the funding to conduct biological research, enforce the law and manage growing numbers of visitors. A major goal of The Wilderness Society is to reverse that trend. We will advocate for adequate funding for land management agencies through the congressional budget process. And, with the help of partners and grassroots activists, we will continually remind the land managers of their responsibilities under the law.

ANILCA Citizens' Guide

The Wilderness Society, in collaboration with Trustees for Alaska and the Native American Rights Fund, has recently published "The Alaska National Interest Lands Conservation Act." The guide is meant to help the public understand this extraordinary Act of Congress, the threats to its proper implementation and the unfinished task of realizing its full promise.

>> Order a copy by emailing publications@twc.org

RÈGLEMENT SUR LES NORMES ENVIRONNEMENTALES APPLICABLES AUX VÉHICULES LOURDS

Loi sur la qualité de l'environnement

(L.R.Q., c. Q-2, a. 31, par. a), c), d), e), h), h.1), h.2), l), 53, par. a), b) et c), 109.1, 118.6 et 124.0.1)

CHAPITRE I

CHAMP D'APPLICATION ET INTERPRÉTATION

1. Le présent règlement a pour objet d'établir des normes environnementales applicables aux véhicules lourds. Ces normes portent sur les appareils et les systèmes visant à prévenir l'émission de contaminants et sur le contrôle des émissions polluantes de ces véhicules.

Pour l'application du présent règlement, le contrôle sur route de ces normes s'effectue sur un chemin public au sens de l'article 4 du Code de la sécurité routière (L.R.Q., c. C-24.2).

2. Les véhicules lourds visés au présent règlement sont les véhicules lourds au sens du sous-paragraphe a du paragraphe 3° de l'article 2 de la Loi concernant les propriétaires et exploitants de véhicules lourds (L.R.Q., c. P-30.3) ainsi que les minibus et les dépanneuses visés au sous-paragraphe b de ce paragraphe dont la masse nette est supérieure à 3 000 kg.
3. Le présent règlement ne s'applique pas aux véhicules lourds au moment où ils participent à une compétition, à un spectacle ou à une course sur un parcours ou un terrain fermé à toute autre circulation automobile.
4. Est assimilée au propriétaire d'un véhicule lourd, toute personne visée à l'article 2 du Code de la sécurité routière.

Est assimilé à un laboratoire accrédité par le ministre du Développement durable, de l'Environnement et des Parcs en vertu de l'article 118.6 de la Loi sur la qualité de l'environnement (L.R.Q., c. Q-2), un établissement accrédité en vue de vérifier la conformité des véhicules lourds aux normes environnementales prévues par le présent règlement.

CHAPITRE II

APPAREILS ET SYSTÈMES ANTIPOLLUTION

5. Tout véhicule lourd qui circule sur la partie du territoire du Québec située au sud du 55^e parallèle ou tout véhicule lourd qui est vendu, loué, mis à la disposition de quiconque contre valeur, ou de quelque façon offert en vente, en location ou mis à la disposition de quiconque contre valeur doit être pourvu d'un appareil ou d'un système antipollution en état de fonctionnement qui réduit l'émission dans l'atmosphère d'hydrocarbures, de monoxyde de carbone, d'oxydes d'azote ou de particules.

Le présent article ne s'applique pas aux véhicules lourds qui, au regard des contaminants mentionnés au premier alinéa, respectent les normes d'émission prescrites, selon le cas, par les dispositions des règlements

d'application de la Loi sur la sécurité automobile (L.C., 1993, c. 16) ou par les dispositions réglementaires prises en vertu de la Loi canadienne sur la protection de l'environnement (L.C., 1999, c. 33), sans être pourvus d'un appareil ou d'un système antipollution.

6. Le propriétaire d'un véhicule lourd ne peut permettre l'enlèvement ou la modification d'un appareil ou d'un système antipollution d'un véhicule lourd et nul ne peut enlever ou modifier un tel appareil ou système, sauf pour le remplacer lorsqu'il est défectueux.
7. Tout appareil ou système antipollution de remplacement installé sur un véhicule lourd doit être conforme à celui utilisé comme unité de remplacement par le manufacturier du véhicule. De plus, l'appareil ou le système antipollution de remplacement doit porter le code d'identification de son fabricant.
8. Les articles 5 à 7 ne s'appliquent pas aux véhicules lourds modifiés pour permettre l'utilisation du gaz propane ou du gaz naturel comme seul carburant.

CHAPITRE III ÉMISSIONS DES VÉHICULES LOURDS

Section I Dispositions générales

9. Tout véhicule lourd qui circule sur la partie du territoire du Québec située **au sud du 55^e parallèle** doit être conforme aux normes d'émissions prévues au présent chapitre et qui sont applicables selon que le véhicule fonctionne au diesel, à l'essence ou au gaz.
10. Le propriétaire d'un véhicule lourd non conforme est tenu de le réparer ou de le faire réparer et d'obtenir d'un établissement accrédité une attestation selon laquelle le véhicule lourd est conforme aux normes environnementales, dans les 30 jours de la notification d'un avis du ministre qui l'enjoint de le faire.

Section II Émissions des véhicules lourds fonctionnant au diesel

11. Les émissions dans l'atmosphère de tout véhicule lourd fonctionnant au diesel ne doivent pas dépasser le pourcentage d'opacité prévu au tableau suivant, en fonction de l'année de modèle du véhicule :

Année de modèle	Opacité (%)
Pour les deux années qui suivent la date d'entrée en vigueur du présent règlement	
1991 et plus récent	45
1990 et moins récent	60
Pour les années subséquentes	
1991 et plus récent	40
1990 et moins récent	55

12. L'opacité des émissions d'un véhicule lourd fonctionnant au diesel est mesurée au moyen d'un opacimètre, selon la méthode intitulée *Snap-Acceleration Smoke Test Procedure for Heavy-Duty Diesel Powered Vehicles*, portant le numéro *J1667* et publiée par la *Society of Automotive Engineers*.

Section III

Émissions des véhicules lourds fonctionnant à l'essence ou au gaz

13. Les émissions dans l'atmosphère d'hydrocarbures (HC) et de monoxyde de carbone (CO) de tout véhicule lourd fonctionnant à l'essence, au gaz naturel ou au gaz propane ne doivent pas dépasser les valeurs prévues au tableau suivant, en fonction de l'année de modèle du véhicule :

Année de modèle	HC (ppm)	CO (%)	Émissions visibles (s/min)
≥ 1998	200	1	5
1988-97	220	1.2	5
1980-87	300	3	5
1975-79	400	4	5
1970-74	800	6.5	5
≤ 1969	1000	8	5

De plus, la somme des teneurs en dioxyde de carbone (CO₂) et en monoxyde de carbone (CO) doit être d'au moins 6 %.

14. La teneur en hydrocarbures, en dioxyde de carbone et en monoxyde de carbone des émissions des véhicules fonctionnant à l'essence ou au gaz est mesurée au moyen d'un analyseur de quatre gaz ou de cinq gaz, selon la méthode intitulée *Preconditioned Two Speed Idle Test Procedure [USEPA Publication EPA-AA-TSS-I/M-90-3 January 1991 – Recommended I/M Short Test Procedures for the 1990's : Six Alternatives]* et publiée par la United States Environmental Protection Agency.

CHAPITRE IV ÉTABLISSEMENTS ACCRÉDITÉS

15. Un établissement accrédité mesure les émissions d'un véhicule lourd ayant fait l'objet d'un avis de réparation notifié par le ministre à la suite d'un contrôle sur route effectué par les contrôleurs routiers de la Société de l'assurance automobile du Québec conformément à une entente conclue en vertu des articles 519.64 à 519.66 du Code de la sécurité routière.

Si les résultats de l'analyse sont conformes au présent règlement, l'établissement délivre à l'intention du propriétaire du véhicule lourd une attestation selon laquelle le véhicule lourd est conforme aux normes environnementales au moment de la mesure.

L'attestation doit contenir notamment :

- 1° le numéro de l'attestation;
- 2° la marque, le modèle, l'année et le type de véhicule lourd;
- 3° le numéro de la plaque d'immatriculation et le numéro d'identification du véhicule;
- 4° les noms et adresses du conducteur et du propriétaire du véhicule ainsi que le numéro d'identification du propriétaire;
- 5° le nom de la personne qui a pris la mesure, son numéro s'il en est, l'adresse ou le lieu de la mesure ainsi que la date et l'heure auxquelles la mesure a été prise;
- 6° le résultat de la mesure ainsi que la signature de la personne qui l'a effectuée;
- 7° les normes environnementales qui sont applicables au véhicule;
- 8° la mention que le véhicule est conforme à ces normes à la date et à l'heure auxquelles la mesure a été prise.

L'établissement doit transmettre au ministre une copie de l'attestation, par un moyen faisant appel aux technologies de l'information, au plus tard le jour ouvrable qui suit celui de la délivrance de l'attestation.

CHAPITRE V SANCTIONS

16. Le propriétaire d'un véhicule lourd qui circule sur la partie du territoire du Québec située au sud du 55^e parallèle et qui n'est pas conforme à l'article 5 est passible :

1° s'il est une personne physique, d'une amende de 300 \$ à 600 \$;

2° s'il est une personne morale, d'une amende de 600 \$ à 1 200 \$.

Quiconque vend, loue, met à la disposition de quiconque contre valeur ou de quelque façon offre de vendre, de louer ou de mettre à la disposition de quiconque contre valeur un véhicule lourd qui n'est pas conforme à l'article 5 est passible de l'amende prévue au premier alinéa.

17. Le propriétaire d'un véhicule lourd qui permet l'enlèvement ou la modification d'un appareil ou d'un système antipollution contrairement aux dispositions de l'article 6 est passible :

1° s'il est une personne physique, d'une amende de 750 \$ à 1 500 \$;

2° s'il est une personne morale, d'une amende de 1 500 \$ à 3 000 \$.

Quiconque enlève ou modifie un tel appareil ou système antipollution contrairement aux dispositions de l'article 6 est passible de l'amende prévue au premier alinéa.

18. Quiconque installe un appareil ou un système antipollution de remplacement qui n'est pas conforme aux dispositions de l'article 7 est passible :

1° s'il est une personne physique, d'une amende de 750 \$ à 1 500 \$;

2° s'il est une personne morale, d'une amende de 1 500 \$ à 3 000 \$.

19. Le propriétaire d'un véhicule lourd qui n'est pas conforme à l'article 9 est passible :

1° s'il est une personne physique, d'une amende de 100 \$ à 200 \$;

2° s'il est une personne morale, d'une amende de 200 \$ à 400 \$.

20. Le propriétaire d'un véhicule lourd qui ne se conforme pas aux exigences de l'article 10 est passible :

1° s'il est une personne physique, d'une amende de 750 \$ à 1 500 \$;

2° s'il est une personne morale, d'une amende de 1 500 \$ à 3 000 \$.

21. Les amendes prévues au présent chapitre sont portées au double en cas de récidive.

22. Le présent règlement entrera en vigueur le quinzième jour qui suit sa publication à la *Gazette officielle du Québec*.