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Box 126, RR2
Dugald, MB R0E 0K0

April 25, 2007

Mr. Terry Sargent, Chair
Mr. Edwin Yee, Member
Mr. Wayne Motherall, Member
Clean Environment Commission
305 – 155 Carlton Street
Winnipeg, MB R3C 3H8

Dear Commissioners:

On April 11, 2007 we made a presentation to the CEC on the subject of industrialized pork production in Manitoba. Upon the conclusion of my presentation I was questioned on two matters.

Mr. Yee asked about my views on Technical Review Committees. In response, I explained my opinion that Technical Review Committee reports were fraudulent because they knowingly allowed the media and the public to anoint them with "environmental review" status. Reviews done by the Technical Review Committee are nothing more than the bureaucratic shuffling of paper. If this nonsense is allowed to continue then it is our recommendation that <u>every page</u> of future Technical Review Committee reports be required to carry the prominent disclaimer: "<u>This is NOT an Environmental Assessment; do not rely on it as such</u>."

Mr. Motherall asked about our claim that pig manure is 100 times more toxic than raw human sewage. This is, indeed, the report of Dr. Bill Paton of the Brandon University. Enclosed is a CBC transcript, which quotes Dr. Paton accordingly. Also enclosed is a study produced by Environmental Defence Canada that confirms Dr. Paton's statistics on page 25.

Please enter this letter and the two enclosed documents as evidence supporting our April 11, 2007 presentation in Whitemouth.

Yours truly,

C. Hugh Arklie
Springfield Hog Watch

Hugh Arklie

From: Beat and Regine Gamper [seeberg@mts.net]
Sent: Monday, June 23, 2003 10:32 AM
To: Undisclosed-Recipient:;
Subject: huge manure spill

http://winnipeg.cbc.ca/regional/servlet/View?filename=mb_hogspill20030623

Web Posted | Jun 23 2003 08:52 AM CDT

News of huge manure spill shocks Pembina Valley residents

WINNIPEG - Residents of Pembina Valley are calling for changes to provincial law after learning they were not informed of a massive spill of hog manure near the Pembina Hutterite Colony almost three years ago.

The manure tank at the Pembina Hutterite Colony, near Morden, looks like a hockey arena. One night in the fall of 2000 a pump seized, tearing a hole in the tank. Almost all the manure – about four million litres – poured into a dry creek bed.

"It was just a natural drainage, but it never made it to the Pembina River waterways," says Fred Hofer, who manages the hog operations.

Colony residents dammed the creek and removed the manure, using it as fertilizer on fields. At first, the colony was also supposed to scrape out any contaminated soil, but Manitoba Conservation later decided that wasn't necessary.

"There was really no accumulation of solids of manure, so it didn't make sense to do that," says Al Beck, a senior manager with Manitoba Conservation. "Rather, water was released from an upstream impoundment, and flushed into this area so that it would pick up any residual manure, and then that flush water was again pumped out and spread on nearby fields."

Beck admits, though, that Conservation staff didn't actually test the soil for contamination. "That would be just by visual sight inspection. It appeared to be clean," he says. He says it's likely some contaminants did remain – and while he thinks they were minimal, he can't promise that.

• Area residents shocked to find out about spill •

Bill Paton, a biology professor at Brandon University, says this manure is extremely potent, about 100 times stronger than raw human sewage.

He says toxins could have poisoned the creek and other waterways downstream when spring waters surged through – and just looking at the creek bed would tell investigators nothing.

"Clearly if people are using this water, then clearly they have to be forewarned," he says.

However, because the province wasn't required to notify neighbours, only one local official was informed of the spill. Current laws only require the province to notify people when there's a chance of contamination, and then, only to notify those directly affected by a manure spill.

Many local residents only learned of the spill from CBC, including George Henderson, the reeve of the Rural Municipality of Pembina, who was a councillor at the time of the spill.

Henderson says the province should notify the public after any large spill. "It's only fair that the people that it could involve should be notified," he says. "It's no different that a forest fire. If a fire breaks out, you're notified, so spills, I think, is no different."

Henderson says community-wide notification would ensure greater scrutiny of any subsequent clean-up.

Barb Keowen, who owns a farm downstream from the colony, shook her head when she learned of the spill from CBC. "It's a shock," she says. "People have the right to know what's going on."

Hofer, who manages the hog operation, disagrees. "How many people would the government notify?" he wonders. "You could cause an uproar that isn't necessary."

Conservation Minister Steve Ashton says he is considering a broader notification system. He may also investigate how the clean-up at the Pembina colony was handled. "I can't change what happened in 2000, but we can look at ways of improving our system," he says.

Ashton wants to hear from the public before he makes a final decision.

3.1.1 Air

The literature consistently identifies odour and air pollution as serious environmental and human health concerns related to ILOs. Foul odours emitted by ILOs are the largest source of complaints from neighbours to municipal officials.[19] ILO air emissions may include foul odours, toxic gases, and atmospheric particulates.

One of the most common methods of storage for manure is in lagoons. These structures are storage pits with or without protective linings or coverings. They sometimes result in spills or leaks of untreated liquid manure into the environment. Because lagoons are large storage areas for untreated waste, they emit toxic airborne chemicals that can result in human health problems. Lagoons may emit noxious gases as the manure settles and awaits transport for field application. Some of these noxious gases may include ammonia, hydrogen sulfide, and methane. The most common health problems associated with emissions from large barns and manure storage include respiratory problems, headaches, sore throats, excessive coughing, nausea, diarrhea, dizziness, burning eyes, depression and fatigue.[19] For more information on the human health impacts of ILO air emissions see Section 3.1.5. (page 28)

3.1.2 Water

Groundwater and surface water contamination caused by livestock farms has been foremost in the media in recent years. Contaminants may enter the water system through spills and leaks caused by storage or transport, runoff after manure application, or during extreme weather conditions such as heavy precipitation.[20] Nitrates and phosphates in raw manure are of particular concern because they may affect water quality and fish habitat.

The potential environmental impacts of nitrates and phosphates on the water supply are described using a measurement called Biochemical Oxygen Demand (BOD). All living things, including aquatic organisms, need oxygen to survive. The BOD describes how much oxygen is taken out of the water when pollution is added. The higher the BOD, the less oxygen will be available to aquatic organisms like fish.[21]

Nutrients found in manure, such as nitrogen and phosphorous, are essential for plant and algae growth. However, as nutrient levels increase, so does the BOD. When BOD levels are high, and the oxygen supply is limited, fish and other aquatic organisms may not survive. Symptoms associated with this process include algal blooms and fish kills.

Table 4.0 compares the BOD concentrations of treated and untreated livestock and human waste. Note that livestock manure has 10 to 30 times higher BOD concentrations than domestic sewage – even after settling in a lagoon pit. It is obvious that even manure in a lagoon poses a great risk to watercourses if a release occurs.

Table 4.0 – Biochemical Oxygen Demand (BOD) Concentrations for Manures and Domestic Sewage[22]

Waste Type	Untreated (mg/l[a])	Lagoon Effluent
Swine Manure	27,000 – 33,000	300 – 3,600
Poultry Manure	24,000	600 – 3,800
Beef Cattle Manure	28,000	200 – 2,500
Domestic Sewage	100 – 300	20[b]

[a] milligrams of oxygen per 1 litre of water
[b] after secondary treatment

Environment Defence Canada
"It's Hitting the Fan"
October 2002