

REPORT ON PUBLIC HEARINGS  
TOWN OF CARMAN ABATEMENT PROJECT  
*LINEAR GRAIN INC. ANHYDROUS AMMONIA STORAGE*  
*TANK RELOCATION*

JANUARY, 1999

MANITOBA CLEAN ENVIRONMENT COMMISSION

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## **THE ENVIRONMENTAL REVIEW PROCESS**

Proposed developments that may have a significant impact on the environment require a license under the Manitoba Environment Act. The Act states, in part,

*The intent of this act is to develop and maintain an environmental management system in Manitoba which will ensure that the environment is maintained in such a manner as to sustain a high quality of life including social and economic development, recreation and leisure for this and future generations.*

Also contained in Section 48 of the Act, is a provision under which the Council of a municipality may, by resolution, approve a proposal for an abatement project within the municipality. "Abatement" means a proposal for the elimination of an undesirable environmental condition by either;

- the removal and relocation of the development causing the condition; or
- the removal and relocation of the premises affected by the condition.

The intent of the proposal is to address an environmental condition that has developed as a result of a land-use conflict, whereby two or more adjacent land uses are incompatible. The abatement process establishes a mechanism through which liability for the costs of the removal and relocation activities - the abatement - can be determined, and prescribes the procedure through which financial assistance for a portion of these costs can be secured from the Province.

All abatement project proposals, once approved by a Municipal Council, must be referred to the Minister of Environment for consideration.

## **The Environmental Hearing Process**

Once the Minister has received a proposal for an abatement project, the Environment Act requires that the proposal be referred to the Manitoba Clean Environment Commission for a public hearing. The Minister instructs the Commission to review the proposal and directs the Commission to provide advice and recommendations according to specific terms. The parties to the hearing include the Municipality responsible for the abatement project proposal, the owner of the lands and development that are intended to be removed or relocated, and any other citizen who is adversely affected by the undesirable environmental condition that the abatement proposal is addressing. The Commission convenes a public hearing to receive public representations respecting the proposed abatement project and, following due consideration of the evidence presented, prepares a report containing advice and recommendations to the Minister of Environment.

After receiving the report from the Commission, the Minister may refuse to approve the abatement project, or may approve the project, in whole or in part, providing such variations, terms and conditions as deemed to be in the best interests of the public.

## **The Clean Environment Commission**

The Clean Environment Commission is comprised of a full-time commission Chairman and additional Commissioners appointed by Order-in-Council. The Commissioners reflect a wide variety of backgrounds and occupations and reside in different regions of the province. Commissioners are called upon to serve as panel members on specific hearings. A panel with a minimum of three members is selected for each hearing.

The panel of three that reviewed the abatement proposal respecting the relocation of the Linear Grain Inc. Anhydrous Ammonia Storage Tank, as submitted by the Town of Carman included:

- . Mr. Maurice Blanchard of Portage la Prairie
- . Mr. Ed Gramiak of Winnipeg
- . Mr. Dale Stewart of Winnipeg, Panel Chair

### CHRONOLOGY OF EVENTS

- . In May of 1994 - A & M Soil Service (now Linear Grain Inc.), submitted a license proposal to Manitoba Environment to upgrade a crop protection warehouse in the Town of Carman. During the review of the license proposal concerns were received with regard to the storage, sale and movement of anhydrous ammonia within the Town of Carman.
- . On June 29, 1994, Environment Act License #1863 was issued to A & M Soil Service. Section IV of the license set out anhydrous ammonia storage tank *set-back* distance requirements for an existing storage tank. The license specified that any permanent facility should be a minimum distance of:
  - a) 800 meters from residential areas, schools, hospitals and other institutions;
  - b) 100 meters from a single isolated residence; and
  - c) 100 meters from the edge of the right-of-way of a highway.
- . On June 30, 1994 - The Director of the Environment requested that A & M Soil Service consider relocating the anhydrous ammonia tank to comply with the Environment License distance *set-back* requirements. The request was repeated in August of 1994, in June of 1996 and again in June of 1997.

- On May 6, 1998 Manitoba Environment received a request to change the License ownership from A & M Soil Service to Linear Grain Inc.
- On May 28, Manitoba Environment received a request from the Town of Carman requesting assistance with the removal of the anhydrous ammonia storage tank operated by Linear Grain Inc.
- On September 25, 1998, following discussion between representatives of Manitoba Environment, Manitoba Rural Development, the Town of Carman, and Linear Grain Inc. respecting options and procedures for an abatement project, which would facilitate the relocation of the anhydrous ammonia storage tank to a location outside of the Town of Carman, the Town forwarded a resolution to the Minister of Environment requesting approval for an abatement project as permitted under Section 48 of the Environment Act.
- November 13, 1998, the Minister of Environment referred the abatement project proposal (removal of the Linear Grain Inc. anhydrous ammonia tank from within the Town of Carman) to the Clean Environment Commission. The Minister requested a hearing to receive public comments and concerns respecting the proposal and called for the Commission to submit a report. The Minister provided the *Terms of Reference* for the Commission hearing (*Appendix A- Scope of the Review*).
- The Clean Environment Commission advertised the public hearings in a Notice, which appeared in the *Carman Valley Leader* on November 30, 1998. On December 15, 1998 the hearing was convened in the Royal Canadian Legion Auxiliary Hall in Carman. The Commission received presentations from the Town of Carman, Manitoba Environment, Linear Grain Inc. and a number of other interested parties (SEE *Appendix B-List of Participants*).

## **BACKGROUND**

### Characteristics of Ammonia

Anhydrous ammonia fertilizer is used extensively by the agricultural sector to return nitrogen removed through the growth and harvesting of commercial crops. At normal temperatures, ammonia is a pungent smelling, strongly reactive colorless gas. Ammonia can be stored and transported safely under pressure or refrigerated. Anhydrous ammonia is classified as a "corrosive compressed gas" which may burn when exposed to open flames. Generally, however, it is classified as a non-flammable gas. Anhydrous ammonia gas is harmful to humans and animals when inhaled or swallowed. In high enough concentrations the gas can cause corrosion of the tissue in the respiratory tract.

Measured in parts-per million (PPM):

- ~ One part per-million (PPM) provides a slight detectable odour.
- ~ 25 PPM has no adverse effects for 8 hours exposure.
- ~ 300 - 600 PPM irritates the throat and eyes.
- ~ Over 2000 PPM, harmful injuries may result (prohibited concentration).
- ~ Concentrations over 5000 PPM cause convulsive coughing, respiratory spasms and asphyxia by suffocation. (Short exposure is rapidly fatal).

Ammonia has a great affinity to water and will remove moisture from any surface it contacts. One volume of water will dissolve 1,300 volumes of ammonia.

### Government Regulations

Anhydrous ammonia is covered under the Federal Transportation of Dangerous Goods Act, as are other forms of ammonia. The Act is designed to protect the public (and the environment) during shipping but covers all stages of handling and

transportation from the point of manufacture to the final point of use - including use on agricultural properties. Because of the harmful corrosive nature of the gas the storage location of this product is to be isolated from residentially built up areas in order to minimize the risk of injury in the event of accidental gas releases.

Manitoba Environment has created *the Anhydrous Ammonia Handling and Transport Regulation* which specifies that only trained and certified personnel shall handle anhydrous ammonia and identifies specific handling requirements. In the licensing of anhydrous ammonia storage facilities under the Environment Act Manitoba Environment specifies the tank *set-back* distances from isolated residences, residential developments and institutions, and highways. This *set-back* approach has been borrowed from traditional planning practices.

## **PRESENTATIONS**

### Town of Carman

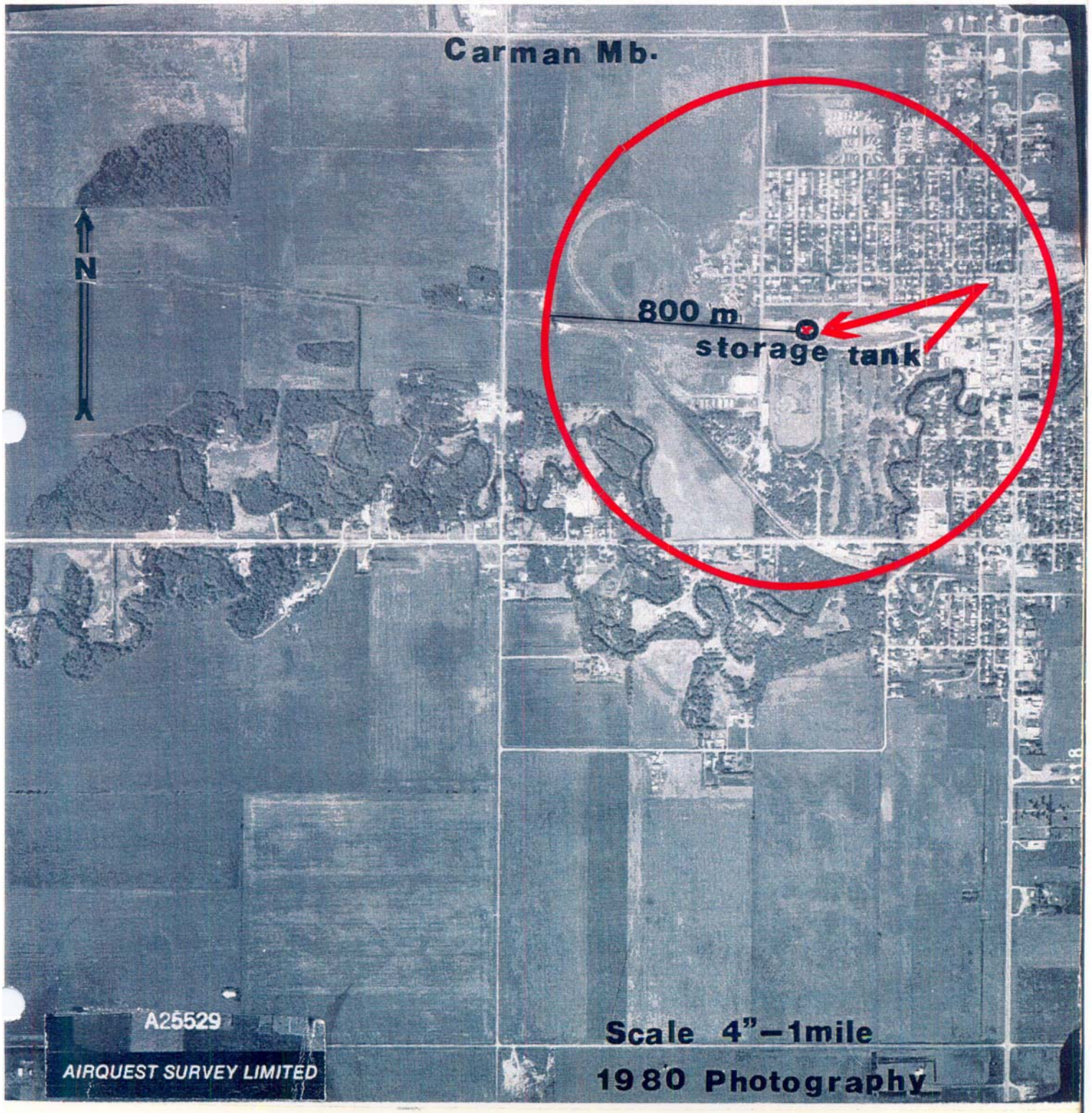
The Council of the Town of Carman adopted a development plan in 1992 that designates the land owned by Linear Grain Inc. as an *Industrial Zone*. That plan encourages Council to seek relocation of existing industries that handle hazardous materials. In addition, the plan prohibits the locating of anhydrous ammonia facilities within the Town boundaries. The Town of Carman pointed out that over ~ of all the residences and businesses within the Town fall within an 800 meter radius of the tank. (SEE *Figure # i-Site*)

It had been reported that discussions regarding the relocation of the anhydrous ammonia tank have been underway for the past 10 years and concerns about the anhydrous ammonia tank have been prevalent since the mid-eighties. During the summer of 1998 the Town of Carman requested a meeting with Manitoba Environment seeking advice on options to facilitate the relocation of the tank. Following that session and further discussions with Linear Grain Inc. a decision was made to proceed with an



FIGURE #1 - SITE

Arial photograph depicting tank location in relation to 800 metre *set-back* requirement.



abatement project proposal, as legislation in Manitoba provides that the Province can be asked pay up to 50% of the associated costs.

Linear Grain Inc., on the assumption that the Province and the Town of Carman would cover the costs of the abatement project, agreed to proceed and provided an estimate of the costs of tank relocation. The cost estimate provided by Linear Grain Inc. - \$193,000 - was based on the Company's recent experience of relocating a similar tank from the Carman site to Miami, Manitoba in 1989. (SEE *Appendix D - Abatement Costs*)

Having received the Linear Grain Inc. estimate, the Town obtained the Council *Resolution* necessary to facilitate the abatement procedure, as outlined in Section 48 of the Manitoba Environment Act, and forwarded its request for an abatement project approval to the Minister of Environment.

The Town has agreed to pay 25 percent of the total cost for the relocation of the Linear Grain anhydrous ammonia storage tank. It was explained that in the opinion of the Town Council, this was reasonable offer and represents a fair contribution to the overall cost of ensuring that the tank is relocated outside of the Town's boundary. From this position, the Town went on to suggest that Linear Grain Inc. should be willing to cover another 25 percent of the cost, with the Province of Manitoba absorbing the remaining 50 percent.

In its presentation, the Town of Carman emphasized that Linear Grain Inc. was a good corporate citizen, often sponsoring youth and sports activities, and was highly valued as a important business operation within the Town. It was the Town's desire that the abatement project would assist in the relocation of the anhydrous ammonia tank and they wished to see that the relocation did not harm the Company. They recognized that the relocation would be an inconvenience for the Company, but stressed that for the overall good of the community, the tank would have to be relocated.



The Town advised the Commission that over the years a number of complaints had been registered respecting the ongoing operation of the anhydrous ammonia business within the town's boundaries. Nearby residents had complained about the strong smells emanating from the Linear Grain Inc. facility, and concerns had been expressed about the safety of having the ammonia tank in close proximity to residential neighborhoods. The location of the tank in relation to a number of senior's residents was of particular concern to area residents.

### **Linear Grain Inc.**

A & M Soil Service Inc. (later re-named Linear Grain Inc.) established an agricultural industries service facility in the Town of Carman in the mid 1970's. The facility included anhydrous ammonia storage, pup tanks, and injection equipment. A 300-foot *set-back* was used for the initial installation. For many years, there were two anhydrous ammonia storage tanks on site. In 1989, A & M Soil Service relocated one of the tanks to provide service out of the Miami area.

Since the mid 1970's, residential properties and Government sponsored senior's homes have been developed north of the current industrial zone in an area that was originally agricultural land.

Over time, subsequent to the establishment of the A & M Soil Services facility, a number of events occurred that caused the Town to become concerned with the existing anhydrous ammonia portion of the operation. A town-planing scheme was developed identifying the industrial zone(s) and placing restrictions on further residential development in proximity to the industrial zones. As well, anhydrous ammonia storage facilities became subject to Environment Act licensing. Linear Grain Inc. stated that they believed the increased public concern respecting anhydrous ammonia storage was do to unfamiliarity with the product and concluded that education and information about the hazards might appropriately deal with the problem.

Since the establishment of the facility in Carman, the current *set-back* distance guidelines have evolved with respect to anhydrous ammonia storage facilities, and these distances are specified in Environment Act licenses. Linear Grains Inc. was licensed in 1994. This license covered the upgrading of the Linear Grain Inc. *Crop Protection Warehouse* and included the new *set-back* distances for the anhydrous ammonia storage tank. It was recognized at the time that the facility was well within the minimum *setback* distance, as it was approximately 100 meters from a major residential area. (The guidelines require an 800 meter *set-back*.)

The company reported that the new anhydrous ammonia tank *set-back* distance was added to the *Crop Protection Warehouse* license without consultation. They indicated that while they felt this was unfair, they were reluctant to challenge Manitoba Environment on the issue for fear that such opposition would delay the licensing of the *Warehouse*. In addition, Linear Grain explained that they were unaware of the licence appeal processes available to them.

Linear Grain Inc. advised the Commission that over the years there has been three reported ammonia leak occurrences. None of these occurrences turned out to be serious events, although evacuation of the senior citizens home had taken place on at least one occasion. According to the Company, there have been no major accidents or injuries in the 24 years they have operated the anhydrous ammonia facility at the Carman site.

Although Linear Grain Inc. advised the Commission that they would prefer that the anhydrous ammonia storage tank remain at their Carman site, they supported the idea of the tank's relocation in response to the community's continued apprehension of its presence within the Town's boundaries.

Responding to questions regarding the appropriateness of the relocation cost estimates, the Company stated that they reflected the reasonable capital cost of relocating, although they did agree that it might not be necessary to install a communication tower at

a new site. The Company further indicated that relocation could be completed within one year, although they could not move facilities in the spring or in the fall since that was the time when the product was required. The Company stated their intention to continue to operate the other elements of their agriculture service business at the Carman site.

Linear Grain Inc. reported that following the relocation of their anhydrous ammonia storage tank, substantial new operating costs would be required to operate an isolated site. They estimated that the additional costs would exceed \$17,000 annually. Such an operation, it was explained, would also cause the Company to face unfair business disadvantages, as most of their competitors did not have anhydrous tanks that were isolated from other components of their businesses. Thus, as Linear Grain Inc. would experience both additional competition and additional costs they did not wish to contribute to the cost of relocating the anhydrous ammonia storage tank.

Responding to concerns regarding the age of the tank, the company pointed out that although the tank had been in place for some 25 years, it was expected to last for a total of 50 years.

### **Manitoba Environment**

Manitoba Environment explained that the abatement process had been used on two other occasions that they were aware of, although in both instances a residence rather than the activity in question had been relocated. Manitoba Environment also stated that a number of companies had relocated anhydrous ammonia tanks and had done so at their own cost. The Department indicated that there was an estimated 300 anhydrous ammonia tank facilities in Manitoba, many being in place for a lengthy time. A number of these operations were not licensed either because a notice of concern had not been received by Manitoba Environment and/or applications to upgrade had not been received, as was the case when Linear Grain Inc. made application for a *Crop Protection Warehouse* licence upgrade. It was reported that new anhydrous ammonia storage facilities are licensed under the Environment Act.

Manitoba Environment expressed that it was a Department goal to have all storage tanks eventually licensed under the Environment Act. All licenses issued by the department dealing with anhydrous ammonia reflect the same *set-back* distances. It was suggested that an estimated six or so communities were in a situation that might be similar to that of Town of Carman, where an anhydrous ammonia storage tank remained in violation of the current *set-back* distances.

The Department felt that the cost of the relocation of the Linear Grain Inc. anhydrous ammonia storage tank relocation should be borne by the Company and the Town of Carman, with the largest portion coming directly from the Company.

Manitoba Environment indicated that some of the estimated relocation costs provided by the Company appeared to be either inappropriate or inflated.

In closing, Manitoba Environment advised that in the event the relocation did not occur, the Department would have to take action deemed appropriate to ensure that the operation, and the anhydrous ammonia storage tank, were in compliance with all existing and issued Environment Act licences.

### **Other Presentations**

Additional public presentations indicated support for the removal and relocation of the tank. Particular emphasis was directed on the senior citizens complex, its proximity to the tank, and the discussion and concerns expressed by the residents and staff. Occupied by some 80 people, it was pointed out that many of the residents have limited mobility, many having special transportation requirements and that evacuation was problematic. It was stated that even though no serious accidents had yet occurred, it was difficult to deal with the stress and emotion of the elderly who are convinced that a problem exists when the odor of ammonia is detected.

**NOTE: A detailed account of the evidence presented to the Commission is contained in the *Verbatim Transcript* of the hearing, which is available for review at the office of the Manitoba Clean Environment Commission. (SEE Appendix C - List of Exhibits)**

## PANEL DISCUSSION

The scope of the review provided by the Minister of Environment requested the panel address three areas.

1. *"whether the Town of Carman's proposal adequately contains details of an abatement project pursuant to Section 48(2) of The Environment Act. "*

A new site has not been selected as the details and costing respecting the move of the anhydrous ammonia tank have not been agreed upon. Thus the panel could only address Section 48(2) (a) and (e) respecting the description of the current development to be removed and relocated and the estimated costs.

2. *"whether the estimated costs of the abatement project provided by The Town of Carman in their proposal are appropriate for consideration. "*

After careful consideration, the panel has concluded that the costs outlined in the abatement proposal are reasonable. The panel, however, identified two exceptions.

<i>Item # 10</i>	<i>Truck scale</i>	<i>\$ 75,000</i>
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It was understood by the Commission that the truck scale on the current site is used for other aspects of the Linear Grain Inc. operation and would remain for those purposes. The cost estimate for the purchase and installation of an additional scale at the new site, as contained in the abatement proposal, appears excessive. The panel is of the opinion that an amount of \$62,000 to be more appropriate.

*Item # 11      Lighting, telephone, radio tower      \$ 10,000*

The panel did not regard the purchase and installation of a radio tower as reasonable. As lighting and telephone installation costs contained in this estimate would represent a small fraction of the total, the \$10,000.00 amount has been deleted from the panel's list of acceptable abatement costs.

Accordingly, the cost estimate to remove and relocate the anhydrous ammonia tank would be reduced by \$23,000 from \$193,000 to \$170,000. The panel believes this to be a reasonable estimate of the maximum costs involved in the abatement project as proposed.

3.      *" Whether the abatement project should be approved, and if approved, the apportionment between Linear Grain Inc; the Town of Carman; and the Province of Manitoba. "*

### **Abatement Project Approval**

The panel agreed that the company demonstrated familiarity with handling and transportation of anhydrous ammonia as provided for under the Federal Transport of Dangerous Goods Act. The panel further agreed that the company appeared to be in compliance with the provincial regulations, which specifies that only, trained and certified personnel shall handle anhydrous ammonia, and they were satisfied that the company embraced the training procedures as developed by the industry.

The panel was concerned, however, that the Linear Grain Inc. anhydrous ammonia tank was not in compliance with the *set-back* distances prescribed in the Environment Act licence which was issued to the Company in 1994. In addition, the panel further observed that over one half of the business and residences of Carman were *within* the 800-meter *set-back* requirement identified in the licence. The panel agreed that



because of the corrosive nature of anhydrous ammonia, release of the gas from its storage facility could lead to serious health concerns. The transport of the gas through the town of Carman and the potential hazard posed as a result of possible accidents or mishaps were also a concern of the panel.

The panel was satisfied that the Town of Carman acted appropriately in pursuing an Abatement Proposal under the Manitoba Environment Act to have Linear Grain Inc.'s anhydrous ammonia storage facility relocated to a site where the *set-back* requirements and other environmental concerns can be addressed.

The Linear Grain Inc. storage facilities do not meet the *set-back* provisions of the current license, which was issued in 1994. A large number of residences are within the 800 meter *set-back* provisions of the license. Concern from the Town Council of Carman lead to the proposal for abatement. The anhydrous ammonia storage facility should be moved a site where the *set-back* requirements and other environmental concerns can be addressed.

### **Cost Apportionment**

The issue respecting the apportionment of costs involved consideration of the intention of Section 48 of the Environment Act. It would appear that the Act contemplated circumstances such as the one currently under consideration in the Town of Carman, where one legitimate land use appears to be in conflict with another, and recognized the need for provincial participation as a means of securing a satisfactory resolution to the conflict. In the particular case before the Commission, several factors have contributed to the current land-use conflict. These include past zoning decisions made by the Town of Carman and various provincial government departments, changes in environmental guidelines, the growth of the town's population, and the success of the Linear Grain Inc. operation. These factors, which have emerged over a number of years, combined with a growing public awareness of health and safety issues, have resulted in a

conflict between the people of the community and one of its important economic components.

The Province of Manitoba, as a partner in many of the decisions surrounding the growth and development of the Town of Carman, must acknowledge, at least in part, its role in the emergence of the land-use conflict that now faces the Town of Carman and Linear Grain Inc. This fact alone would lend credibility to an argument that the Province of Manitoba should shoulder some responsibility for rectifying the problem that it, in part, created. In addition, the Province is clearly in a position to stimulate change and rectify land-use conflicts through the provision of financial assistance. Section 48 of the Environment Act recognizes this fact and allows for the awarding of apportioned costs to the Province where an abatement proposal has been assessed through due process and found to be appropriate and necessary.

The Town Council of Carman has indicated by resolution it wishes to resolve the problem and has initiated the abatement proposal. The Town has indicated a willingness to participate financially in order to ensure a permanent resolution to the problem.

Linear Grain Inc. has indicated a preparedness to deal with the issue through the relocation of the anhydrous ammonia tank to a location outside the Town of Carman but has indicated series reservations respecting the costs of such a relocation. The Company has advised that it is not prepared to assume any of the direct costs associated with the relocation. The Commission acknowledges that the move to a suitable site would present costs but notes that the relocation would also see the Company gain the asset of land, a scale, and other ancillary facilities. In view of the company gaining assets the Commission believes the Company should participate financially in the abatement project.

## **Other**

It appeared to the Commission that Linear Grain Inc. was not made fully aware, or had not made itself fully aware, of the implications of the Province moving forward with the abatement provisions of the Environment Act. It is important that all parties involved in an abatement project proposal are fully informed of the process being put in motion.

It was identified to the Commission that there may be a half a dozen other circumstances respecting anhydrous ammonia storage tanks located near residential areas where action does not appear to be taking place to deal with potential safety concerns.

## **COMMISSION OBSERVATIONS**

The following *Observations* contain general comments to government regarding the storage of anhydrous ammonia and the abatement process. These *Observations* do not form part of the Panel's recommendations respecting the abatement project proposal submitted by The Town of Carman. They are presented as matters of concern, which warrant the consideration of government.

1. Companies or individuals with anhydrous ammonia tanks in other communities, that do not meet the accepted *set-back* requirements, should be advised they must achieve compliance within two years.
2. Those communities and companies or individuals in (1) above, who may be eligible to use the abatement procedures identified in Sec 48 of the Environment Act, should be made fully aware of the provisions contained in the Act and of the implications of those provisions.

3. Licences issued to companies or individuals, which are not in compliance with the requirements for anhydrous ammonia storage, should specify time limits to reach compliance and follow-up should occur to track progress.

## COMMISSION RECOMMENDATIONS

1. The anhydrous ammonia tank owned and operated by Linear Grain Inc. in the Town of Carman should be moved to a location that will ensure its compliance with the *set-back* requirements prescribed by Manitoba Environment.
2. The maximum cost that the panel considered appropriate for inclusion under the terms of the abatement project involving the removal and reinstallation of the anhydrous ammonia tank described in (1) above, including land acquisition and associated structures, should not exceed \$ 170,000.
3. The apportionment of costs for the removal and reinstallation of the anhydrous ammonia tank as outlined under the terms of the abatement project should be:

Province of Manitoba -	50%
Town of Carman -	25%
Linear Grain Inc. -	25%
4. Removal and relocation of the anhydrous ammonia tank should be completed by no later than December 1999.
5. Routing of anhydrous ammonia supply vehicles to a new Linear Grain Inc. site should, as much as possible, avoid passage through the Town of Carman

## APPENDIX A

### *Terms of Reference*

#### SCOPE OF THE REVIEW

The Clean Environment Commission is to consider the Proposal and public concerns and provide recommendations on:

- Whether the Town of Carman's proposal adequately contains the details of an abatement project pursuant to Section 48(2) of The Environment Act;
- Whether the estimated costs of the abatement project provided by the Town of Carman in their proposal are appropriate for consideration;
- Whether the abatement project should be approved, and if approved, the apportionment of costs between Linear Grain Inc.; the Town of Carman; and the Province of Manitoba.

## **APPENDIX B**

### ***LIST OF PARTICIPANTS***

Butcher, Don  
Linear Grains Inc.

Drewlo, Linda

Isaak, Henry

Little, Ernie

Plews, Ken  
Manitoba Environment

Rinn, Murray  
Town of Cannan

## APPENDIX C

### *LIST OF EXHIBITS*

*No. Exhibit*

1. Correspondence, received November 16, 1998, from the Hon. J. Glen Cummings, Minister of Environment, to Dale Stewart, Clean Environment Commission, with attached *Terms of Reference for Clean Environment Commission Hearings on the Town of Carman Anhydrous Ammonia Abatement Project- Linear Grain Inc.*
2. Correspondence, dated September 25, 1998, from Cheryl Young, Town of Carman, to Hon. J. Glen Cummings, Minister of Environment, with attached "*Resolution*" and supporting documentation.
3. Correspondence, dated November 18, 1998, from Tom Don Butcher, Linear Grain Inc., to Rory Grewar, Clean Environment Commission.
4. Correspondence, dated December 10, 1998, from Ross McKnight, Linear Grain Inc., to Rory Grewar, Clean Environment Commission.
5. Correspondence, dated December 14, 1998, from Don Butcher, Linear Grain Inc., to Rory Grewar, Clean Environment Commission.
6. *Submission to The Clean Environment Commission Hearing respecting the Abatement Project Proposal, for The Town of Carman regarding the relocation of the Linear Grain Inc's Anhydrous Ammonia Storage Tank.* Submitted by Ken Plews, Manitoba Environment.
7. Correspondence, dated December 11, 1998 from Murray Rinn, Town of Carman, to Ross McKnight, Linear Grain Inc.
8. Map, *Town of Carman*, submitted by Murray Rinn, Town of Carman.
9. *Abatement Hearing - Anhydrous Ammonia Tank Removal*, submitted by Don Butcher, Linear Grain Inc.

## APPENDIX D

### *ABATEMENT PROJECT TOWN OF CARMAN - LINEAR GRAIN INC.*

The cost estimate to relocate and establish a new anhydrous ammonia site in the Rural Municipality of Dufferin would include:

1. 2.	Land - 7 acres @ \$3,000/acre	\$21,000.00
3.	Land preparation: drainage, road, gravel, shelterbelt	25,000.00
4.	Concrete Foundation	12,000.00
5.	Move existing tank	3,000.00
6.	Inspect tank	4,000.00
7.	Electrical Service, including converter	15,000.00
8.	Install plumbing and pumping package	12,000.00
9.	Fencing	6,000.00
10	Building - Utility and attendant	10,000.00
.	Truck Scale	75,000.00
11	Lighting, telephone, radio tower	<u>10,000.00</u>
.	TOTAL ABATEMENT PROJECT COSTS	\$193,000.00