



RECOMMENDED PROCEDURE FOR GRAIN TERMINAL ASSESSMENT

High-throughput grain terminals are replacing the traditional grain elevators in the agricultural sector. These facilities ship, store and receive commodities. They also provide services previously available only at large port facilities. The new services provided by high-throughput terminals are:

- Blending, which involves the controlled mixing of known products to form a new product of given specifications;
- Cleaning, which involves separation and removal of undesirable components from the commodity; and
- Drying, which involves the removal of moisture from tough or damp commodities to bring the moisture content to a specified standard.

The Assessment Services Branch (ASB) has consulted with the Western Grain Elevator Association and local assessors. The branch has determined that some activities taking place at high-throughput terminals are manufacturing and processing in nature. Therefore, it is the branch's position that some components of the terminals should be classified as machinery and equipment for assessment purposes. The components not considered machinery and equipment should continue to be assessed as buildings and structures.

Although high-throughput terminals are similar in what they do and how they look from a distance, they can also be very different in their respective configurations. Therefore, a detailed listing of all the variations and combinations of processing and storage equipment is not practical for this guideline. However, terminals generally fit into one of three separate categories of how the terminal functions.

The components of high-throughput terminals, for assessment purposes, should be categorized as either machinery and equipment, or buildings and structures. Listed below are the three categories that have been identified as typical. Assessors and industry stakeholders are strongly encouraged to work together to determine the appropriate breakdown based on the guidelines listed below.

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Machinery and Equipment

Category 1

If the terminal's activities include cleaning, blending and drying, the following components should be assessed as machinery and equipment:

- All cleaners;
- All dryers;
- All non-condominium bins that are less than 550 tonnes (20,000 bushels) in capacity used in connection with the processing operation. These are usually located in the workhouse area of the terminal;
- A pro-rated portion of the commodity handling equipment. This is calculated based upon the ratio of total bin capacity made up by bins less than 550 tonnes (small bins) to the total storage capacity of the terminal.

Consider, for example, a terminal with a total capacity of 600,000 tonnes. The small bins found in this terminal total 150,000 tonnes in capacity. This would indicate that 25% of the commodity handling equipment would be designated as machinery and equipment, with the remaining 75% being designated as buildings and structures. All low-volume-condominium bins should be excluded for this calculation.

- Computer and software equipment should be pro-rated at the same percentage as the commodity handling equipment.

Category 2

If the terminal's activities include drying and blending or blending only, the following should be assessed as machinery and equipment:

- All dryers;
- 60% of non-condominium bins that are less than 550 tonnes (20,000 bushels) in capacity used in connection with the processing operation. These are usually located in the workhouse area of the terminal;
- A pro-rated portion of the commodity handling equipment. This is calculated based upon the ratio of total bin capacity made up by bins less than 550 tonnes (small bins) to the total storage capacity of the terminal.

Consider, for example, a terminal with a total capacity of 600,000 tonnes. The small bins found in this terminal total 150,000 tonnes in capacity. In this category, only 60% of the small bin capacity should be used in the ratio. This would indicate that 15% of the commodity handling equipment should be designated as machinery and equipment, with the remaining 85% designated as buildings and structures. All low-volume-condominium bins should be excluded for this calculation.

- Computer and software equipment should be pro-rated at the same percentage as the commodity handling equipment.

Category 3

If the terminal's activities include cleaning and blending, the following should be assessed as machinery and equipment:

- All cleaners;
- All non-condominium bins that are less than 550 tonnes (20,000 bushels) in capacity used in connection with the processing operation. These are usually located in the workhouse area of the terminal;
- A pro-rated portion of the commodity handling equipment. This is calculated based upon the ratio of total bin capacity made up by bins less than 550 tonnes (small bins) to the total storage capacity of the terminal.

Consider, for example, a terminal with a total capacity of 600,000 tonnes. The small bins found in this terminal total 150,000 tonnes in capacity. This would indicate that 25% of the commodity handling equipment should be designated as machinery and equipment, with the remaining 75% being designated as buildings and structures. All low-volume-condominium bins should be excluded for this calculation.

- Computer and software equipment should be pro-rated at the same percentage as the commodity handling equipment.

NOTE: For all three categories, electrical components (i.e., distributors or wiring) should be included as machinery and equipment at the same percentage as the commodity handling equipment.

Buildings and Structures

The following components should be classified as buildings and structures. Not all of the items listed below will occur in every terminal:

- All condominium storage bins;
- All residual storage bins over 550 tonnes (20,000) bushels in capacity;
- Residual commodity storage bins;
- Residual commodity handling components;
- All commodity loading equipment and towers;
- All free standing warehouse structures and tanks;
- Receiving probe (generally located on exterior of building);
- Storage bin probes;
- Receiving scales, scale house, pits, and related components;
- Office and warehouses;
- Residual computer equipment and software.

Age Life Tables

The following are suggested age life guidelines for grain terminal components.

Machinery and Equipment	
Cleaners (high speed)	20 years
Dryers (high speed)	20 years
Steel storage bins	50 years
Concrete storage bins	60 years
Computers and software	20 years
Commodity handling equipment	20 years
Buildings and Structures	
Steel storage bins	50 years
Concrete storage bins	60 years
Scales, probe and other workhouse equipment	50 years or same as storage silos, whichever is less
Conveyance equipment	20 years
Computers and software	20 years

For further information, please contact the Assessment Services Branch of Alberta Municipal Affairs at (780) 422-1377.