



FERTILIZER CANADA

FERTILISANTS CANADA

IMPLEMENTATION GUIDE

**Agricultural Calcium Ammonium Nitrate
Security Code of Practice**

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Stewardship
Grows**

AGRICULTURAL CALCIUM AMMONIUM NITRATE SECURITY CODE OF PRACTICE IMPLEMENTATION GUIDE

GENERAL COMMENTS

This guide is intended to provide assistance in complying with the Agricultural Calcium Ammonium Nitrate Security Code of Practice by offering additional details and resources. Applicable regulations, codes and acts have been referenced for easy access.

The Appendices provide templates of protocols that can be used by each facility when preparing their documents for the auditing process.

Fertilizer Canada created the Agricultural Calcium Ammonium Nitrate Security Code of Practice (the CAN Code or Code) to provide uniform security practices for the handling and storage of calcium ammonium nitrate (CAN) used in Canada. This Code was drafted by fertilizer manufacturers, distributors and agri-retailers, with input from relevant government agencies.

The intention of the CAN Code is to assist shippers, sellers, handlers, customers and end-users of CAN to become aware of and implement best practices for CAN security. These procedures are derived from industry best practices and from regulatory requirements such as the *Explosives Act* and Regulations which are applicable to ammonium nitrate (AN).

However, the CAN Code is not designed to be a complete compilation of all relevant regulations. The CAN Code refers to certain best practices where they have been identified as a suitable means for managing an identified security risk. The owner/operator of each CAN operation is ultimately responsible for compliance with all applicable regulatory requirements.

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PHYSICAL BLENDS OF AN WITH LIMESTONE, DOLOMITE OR OTHER CARBONATES

While physical blends of ammonium nitrate (AN) with limestone chips, dolomite chips or other carbonates are captured under the CAN Security Code, they are not considered the same as the product CAN. CAN is specifically defined as:

Calcium Ammonium Nitrate (CAN): A fertilizer containing as its essential ingredients only AN and calcium carbonate (for instance limestone) and/or magnesium carbonate and calcium carbonate (for instance dolomite), prepared as a homogenous prill or granule, which:

- i. Has a maximum combustible material content, expressed as carbon, of 0.4% by weight; and*
- ii. Has a minimum content of carbonates of 20% by weight with a purity level of 90% by weight.*

CAN is manufactured to be a homogenous product, meaning that each single prill or granule has a similar AN to carbonate ratio in intimate contact that will remain constant throughout handling, storage and transportation. This quality is essential to its improved safety characteristics.

A physical blend is not CAN because the AN and the carbonate is not within the same granule/prill. Therefore, it is important for a site to tailor its transportation, handling and storage safety practices accordingly.

From a security perspective, physical blends of AN and carbonates could be manipulated in the same manner as CAN to produce homemade explosive devices (HMEs).

Therefore, while not CAN, the security measures of the CAN Security Code used for CAN are also applied to physical mixtures of AN/carbonates if they have a nutrient content that is roughly equivalent (at least 20% carbonates and between 70 and 80% AN).

SECTION A – INBOUND SHIPMENTS

A1 SAFETY AND SECURITY OF INBOUND CALCIUM AMMONIUM NITRATE CARGO

The security of inbound shipments of CAN is critical due to the typically large size of the shipment and the potential security risks through the receiving process. In order to minimize these risks, the applicable sections of the following acts and regulations must be reviewed to ensure compliance.

A1.1 SHIPMENTS BY MARINE

SPECIFIC REQUIREMENTS:

Responsible Person – A responsible representative designated by the importer should be available during discharge of the product to oversee handling and to verify any load quantity discrepancies upon commencement of discharge. For example, this could be a qualified surveyor.

Record Keeping – Maintenance of good records is a best practice for the security of CAN. Importers/receivers should maintain records of their shipments for a minimum two years. The records can be the Bill of Lading, Certificate of Analysis or other combination of documents containing, at a minimum, the following information:

- Product Shipped
- Date of Shipment
- Load Quantity
- Point of Origin of Shipped Product
- Load Discharge Port
- Discharge Verification Quantity
- Applicable Signatures of Shipper, Transport and Receiver

RELEVANT ACTS AND REGULATIONS:

A) Canada Marine Act

In recognition of the significance of marine transportation to Canada and its contribution to the Canadian economy, the purpose of this Act is to:

- a. Implement marine policies that provide Canada with the marine infrastructure that it needs and that offer effective support for the achievement of national, regional and local, social and economic

objectives and will promote and safeguard Canada's competitiveness and trade objectives;

- a.1 Promote the success of ports for the purpose of contributing to the competitiveness, growth and prosperity of the Canadian economy;
- b. Base the marine infrastructure and services on international practices and approaches that are consistent with those of Canada's major trading partners in order to foster harmonization of standards among jurisdictions;
- c. Ensure that marine transportation services are organized to satisfy the needs of users and are available at a reasonable cost to the users;
- d. Provide for a high level of safety and environmental protection;
- e. Provide a high degree of autonomy for local or regional management of components of the system of services and facilities and be responsive to local needs and priorities;
- f. Manage the marine infrastructure and services in a commercial manner that encourages, and takes into account, input from users and the community in which a port or harbour is located;
- g. Provide for the disposition, by transfer or otherwise, of certain ports and port facilities; and
- h. Promote coordination and integration of marine activities with surface and air transportation systems.

The *Canada Marine Act* can be found at the following web address: <http://laws-lois.justice.gc.ca/eng/acts/c-6.7/page-1.html#docCont>

B) Port Authorities Operations Regulations

(Under the *Canada Marine Act*)

The *Canada Marine Act* gives Canadian port authorities the general duty to take appropriate measures for the maintenance of order and the safety of persons and property at their ports, and powers to control ship traffic for the purposes of promoting safe and efficient navigation and environmental protection. The *Port Authorities Operations Regulations* (the Regulations) provide a framework within which these duties and powers are to be carried out. In particular, they set up a scheme that enables the port authorities to authorize certain activities in respect of the navigable waters and the works and activities on properties managed, held, or occupied by the port.

The *Port Authorities Operations Regulations* can be obtained at the following web address: <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2000-55/>

Practices and Procedures for Public Ports

(Under the *Canada Marine Act*)

These practices and procedures have been developed for the purpose of promoting safe and efficient navigation and environmental protection within the limits of public ports and may be amended from time to time. If circumstance dictates (emergency), an amendment may be made to these practices and procedures without notice. Under normal conditions, advance notice will be given as far in advance as possible but will not be less than 30 days.

The Practices and Procedures for Public Ports can be found on the Transport Canada website: <http://www.tc.gc.ca/eng/programs/ports-practproc-195.htm>

C) Public Ports and Public Ports Facilities Regulations

(Under the *Canada Marine Act*)

The *Public Ports and Public Ports Facilities Regulations* can be obtained at the following web address: <http://laws-lois.justice.gc.ca/eng/regulations/sor-2001-154/>

D) Canada Shipping Act – 2001

The objectives of this Act are to:

- a. Protect the health and well-being of individuals, including the crews of vessels, who participate in marine transportation and commerce;
- b. Promote safety in marine transportation and recreational boating;
- c. Protect the marine environment from damage due to navigation and shipping activities;
- d. Develop a regulatory scheme that encourages viable, effective and economical marine transportation and commerce;
- e. Promote an efficient marine transportation system;
- f. Develop a regulatory scheme that encourages the viable, effective and economical use of Canadian waters by recreational boaters;
- g. Ensure that Canada can meet its international obligations under bilateral and multilateral agreements with respect to navigation and shipping;
- h. Encourage the harmonization of marine practices; and
- i. Establish an effective inspection and enforcement program.

The *Canada Shipping Act 2001* can be obtained at the following web address: <http://laws-lois.justice.gc.ca/eng/acts/C-10.15/>

E) Cargo, Fumigation and Tackle Regulations

(Under the *Canada Shipping Act*)

As per the Regulations, loading and unloading of bulk AN or AN-based fertilizer must abide by the following:

- 114. (1)** *No person shall load or unload*
- a. *Ammonium nitrate; or*
 - b. *More than 10 000 tonnes of ammonium nitrate based fertilizer.*
- (2) *At least 24 hours before 150 tonnes or more of ammonium nitrate based fertilizer are to be loaded onto or unloaded from a vessel, its master shall notify the following of the intention to load or unload and the location where it will take place:*
- a. *The Department of Transport Marine Safety Office nearest to that location; and*
 - b. *The harbour master at the port or, if there is no harbour master, the person responsible for the port.*
- (3) *The notification shall confirm that the fertilizer is considered to be free from the hazard of self-sustaining decomposition when tested in accordance with Section 4 of Appendix 2 to the BC Code.*
- (4) *The harbour master at the port or, if there is no harbour master, the person responsible for the port at the location where loading or unloading ammonium nitrate based fertilizer will take place shall ensure that information in respect of fire prevention, emergency procedures, storage, cleanliness and separation from contaminants and other dangerous goods is available at the location.*

The *Cargo, Fumigation and Tackle Regulations* can be obtained at the following web address: <http://laws-lois.justice.gc.ca/eng/regulations/SOR-2007-128/index.html#docCont>

A1.2 SHIPMENTS BY RAIL/ROADS

SPECIFIC REQUIREMENTS:

Good security practices for inbound shipments are an important part of mitigating any potential security risks through the receiving process. In order to minimize these risks, rail and road carriers must agree to notify the importer or receiver of any theft or tampering during import.

Responsible Representative – A responsible person designated by the importer/receiver should be available during unloading of the product to oversee its discharge. For example, this could be a bonded or pre-approved driver as part of their security responsibilities during transport.

Records – Maintenance of good records is a best practice for the security of CAN. Shipment records should be retained for a minimum two years. The records can be the Bill of Lading, Certificate of Analysis or other combination of documents containing, at a minimum, the following information:

- Product Shipped
- Date of Shipment
- Load Quantity
- Point of Origin of Shipped Product
- Location of Destination
- Applicable Signatures of Shipper, Transport and Receiver

Reporting – Any evidence of tampering or product loss brought to the receiver's attention must be reported immediately to local police as well as to the shipper by the receiver.

A2 PROVIDING TRANSPORT FROM SOURCE VIA RAIL/TRUCK

SPECIFIC REQUIREMENTS:

In order to minimize security risks, companies responsible for transporting CAN must be properly vetted from a security perspective. The following requirements are the basic elements that must be assessed to validate a transportation company:

Bonding or Pre-approval – Bonding or pre-approval of the transportation company through internal review is intended to validate the driver(s) and services to be provided and minimize the security risks to the retail site when shipping a security-sensitive product. A record must be available from the company responsible for the shipment indicating that the transportation firm has been bonded or pre-approved by internal review. The pre-approval process must include a review of past references, licensing and any necessary certifications.

Proof of Insurance Coverage – The company responsible for the shipment must have written proof of valid insurance coverage for all transportation firms used for transporting CAN within the last two years.

Security Plan – The company responsible for the shipment must have written confirmation from all transportation firms used for transporting CAN within the last two years indicating that the transportation firm has developed a response plan(s) for security related issues or has agreed (in writing) that they will operate under the security provisions listed in Section A3 of the CAN Code when transporting CAN. These provisions include:

- a. Truck shipments of CAN will not be left unattended by driver at any time unless the load is parked in a secured area or the unit/load is properly locked down (i.e. high security padlocks, fifth wheel locks, etc.).
- b. Hatches on trucks and railcars will be secured with locks or sealed with security cables.
- c. Locks and/or seals will be inspected and validated after each stop and upon arrival at destination. All tampering of locks and/or seals will be investigated, documented and any losses reported.

Records – As CAN is not regulated under the *Transportation of Dangerous Goods Regulations*, it will not be subject to the documentation requirements set out in these Regulations. However, maintaining a record trail is an essential part of any security plan. The carrier must maintain records of shipment for a minimum of two years. The records can be the Bill of Lading or other combination of documents containing, at a minimum, the following information:

- Product Shipped

- Date of Shipment
- Load Quantity
- Point of Origin of Shipped Product
- Location of Destination
- Applicable Signatures of Shipper, Transport and Receiver

A3 ACCESS TO PRODUCT DURING SHIPMENT

SPECIFIC REQUIRMENTS:

Security of CAN in Transit – Truck shipments of CAN must not be left unattended by the driver at any time unless the load is parked in a secured area or the unit/load is properly locked down (i.e. padlocks, fifth wheel locks, etc.). A secured area refers to an areas surrounded by two meter high chain link fence with the three strand barb wire at the top. The area must also have lockable gates that are secured when the site is unattended. If storage is not possible in this type of secured area, the access hatches and gates to the load must be secured and locked. It is a recommended best practice that shipments of CAN be non-stop to avoid increased security risks.

Securing of Hatches on Trucks and Railcars – All access points (e.g. hatches and/or gates) on trucks and railcars transporting CAN must be secured with a lock or sealed with a security cable type seal regardless of distance travelled.

Inspection of Locks/Seals – All locks/seals installed on the access hatches and gates are to be inspected and validated after each stop and upon arrival at the destination. The inspection at the destination must be documented and attached to the bill of lading for the shipment. It is a recommended best practice to have a check off sheet for the transport operator in order that they can document an inspection of seals at each stop.

A4 LOSS OF OR TAMPERING WITH PRODUCT DURING SHIPMENT

SPECIFIC REQUIREMENTS:

The receiving facility has a written procedure that describes the inspection process for shipments of CAN. The procedure must contain the following elements:

Verification of Quantities – If possible, it is highly recommended that the actual weight of CAN delivered is compared against the shipped quantities to determine if there are any shortages upon arrival to the facility. If determining an actual weight is not possible, a visual inspection will suffice to look for empty or short compartments in the load. All shortages must be documented if in excess of historical norms and reported to the seller.

Tampering of Locks/Seals – Upon arrival at destination, all tampering of locks/seals noticed during shipment or upon arrival must be documented and reported to the seller.

NOTE: *The nature of the manufacturing and handling process for CAN predicates that there will be a minor loss of product mass through the supply chain due to moisture loss, mechanical abrasion, settling and residues. Some industry members have reported the typical expected loss will range from 0.5% – 1.0% of the total weight of product. However, normal expected losses for a site may vary depending on the operation or conditions.*

These requirements are based on the provisions in the *Explosives Regulations* Part 20 (*Restricted Components*) Section 485:

<http://laws.justice.gc.ca/eng/regulations/SOR-2013-211/page-56.html#h-176>

Explosives Regulations – Full version:

<http://laws.justice.gc.ca/eng/regulations/SOR-2013-211/index.html#docCont>

A5 DELIVERY OF CALCIUM AMMONIUM NITRATE

SPECIFIC REQUIREMENTS:

Authorization for Unloading a Shipment – Verbal or written authorization must be obtained by an operator of the transport vehicle/vessel prior to a load of CAN being unloaded at destination. This is a sound inventory management practice as well as a good security risk management practice. Authorization must include confirmation of the location of the delivery, the shipper and the exact storage area where the CAN is to be deposited at the storage facility. It is a recommended best practice to always have a representative of the receiving organization at the storage site to ensure the CAN is placed in the proper location.

Documentation Review Prior to Unload – All documentation related to a shipment of CAN must be reviewed prior to authorizing unload by a representative from the receiving company. The receiver must review and verify that the name of the shipper, the quantity of CAN, the name of the receiving company and the date of shipment are all accurate and listed on the shipping documentation prior to authorizing unload.

Verification of Arrival of Shipment at Destination – The shipping company must have a process in place to verify that a shipment of CAN has arrived at destination within the estimated arrival time. For longer delivery routes (4 hours or greater), it is recommended that check in times be established between the dispatch for the shipping organization and the transport vehicle/vessel.

SECTION B – STORAGE OF CALCIUM AMMONIUM NITRATE

Secure storage of CAN is critical due to the amount of product stored and the security risks that may be presented. The following guide provides additional explanation and resources to assist in compliance with the CAN Security Code of Practice.

B1 STORAGE SECURITY

SPECIFIC REQUIREMENTS:

When reviewing the security at a storage facility, it is always best to start with an assessment of the security risks present. Once these risks are assessed, it is recommended that a facility develop a multilevel security response plan for the facility. This multi-level plan will feature several “layers” of security that must be breached in order to gain access to the CAN storage area. An example of a multi-level plan would be the installation of security lighting that is motion activated as the first level and locks on all doors/bin gates as a second level. Best practices in security have always shown a multi-level approach to be very effective in deterring theft. Remember, that the key issue is to put enough security measures in place that provide notification of potential theft (i.e. lighting, alarms, etc.) or barriers to entry (i.e. fences, locks, etc.) that increase the risk of detection for criminals.

Given enough time and resources, criminals can gain access to most buildings. However, thefts usually occur very opportunistically in short periods of time to avoid detection. Putting measures in place that increase the effort required to take CAN will usually deter most criminals.

As a minimum, the following security measures must be employed at all manufacturer and/or distributor locations:

Access Points on Buildings – All doors and other points of access to buildings storing bagged or bulk CAN are secured with a high quality lock. Windows must also be secured using a high quality lock, internal locking mechanism, bars on the window or other mechanism designed to prevent unauthorized access. It is recommended that the locking device be designed to be resistant to bolt cutters.

Securing of Bin Gates – If present, any bin gates providing access to storage bins containing CAN must be locked and secured. It is recommended that the locking device be designed to be resistant to bolt cutters.

NOTE – *It is a recommended best practice to provide perimeter security. This may include fencing with lockable gates or other means of perimeter security around bins and/or buildings storing CAN. The recommended standard for perimeter security is a 2-meter chain link fence complete with*

lockable gates and 3-strand barb wire barricade at the top of the fence.

Key Control System – A key control system for all locks is employed at the facility. The key control system must have the following features:

- All duplication of keys that provide access to the CAN storage areas is done under the strict consent of the facility manager.
- All duplication of keys is to be done by a certified, licensed locksmith who has received permission from the facility manager.
- All keys must be marked as “Do Not Duplicate” and have been stamped with an identification number.
- Assignment of keys is documented and includes, the date of assignment, the ID number of key being assigned, the name of person to whom the key is assigned, the signature of the manager and the signature of the person receiving the key.
- The facility must also have a process in place to retrieve an assigned key once the person leaves the employ of the facility.

The key control system must be kept up to date. A facility’s system should be updated whenever there is a change in personnel or any other change at the facility which impacts the key control plan contents or the security of the product. Assigning a dedicated person to review the plan on a regular basis and update it with any new changes can be an easy way to ensure this.

Natural Resources Canada (NRCan) provides guidance on how a key control system can be integrated into a facility’s security plan (See B2 SECURITY PLAN) to help keep all implemented security procedures in the same place for easy reference. Guidance on creating security and key control plans can be access using the links below:

NRCan Guidance on Security Plans:

<http://www.nrcan.gc.ca/explosives/acts-regulations/13971>

NRCan Guidance on Key Control Plans:

<http://www.nrcan.gc.ca/explosives/resources/guidelines/13961>

Security Lighting – After hours security lighting must be provided to illuminate main points of access to storage buildings or bins. The security lighting must be active from dusk to dawn and can be motion activated.

Signage – The CAN storage facility is equipped with signage indicating no unauthorized access. The signage must be placed in close proximity to the CAN storage area to prevent unauthorized access by customers.

Inspection of Security Measures – Inspections should be conducted weekly to ensure the product is stored securely. Records (checklist) should be kept on file for auditor inspection. See Appendices for sample checklists.

Monitored Security System – Sites must have a security system where monitoring is “active” or able to detect changes on a continuous basis. Acceptable systems could include, but are not limited to:

- Passive camera systems monitored by personnel or connected to a recording system;
- Breach- or motion-based alarm systems;
- Active roving guard; or
- Combinations of the above options to form a 24/7 monitoring system.

Visitor Reporting – A process must be in place to ensure management and/or security personnel have an awareness of all on-site persons who are not regular staff for that location (e.g. guests, contractors, etc.) and are given authorization before gaining access to the facility grounds. This could include measures such as signs directing visitors to sign in at the main office structure or other location and guest sign-in/sign-out sheets.

B2 SECURITY PLAN

SPECIFIC REQUIREMENTS:

A security plan is a very effective tool for planning for a response to emergency situations involving the security of a stored product. In order to ensure that major security risk events are planned for, the following requirements must be key features of the security plan:

Written Security Plan – Every facility that stores CAN must have a written security plan. This plan must address all of the major security risk at the facility. As a minimum requirement, the plan must identify control procedures in place and the process to be followed in the event of security breach at the facility. This would include contact numbers for security issues, contact numbers for local law enforcement and reporting procedures.

Updating of Security Plan – The Security Plan has been reviewed and updated within the previous 12 months. Issues to be reviewed may include:

- Updating of names on the contact list
- Updating of contact numbers on the emergency contact list.
- Updating of changes at the storage facility.

Notification of Storage of CAN – A letter must be sent to local law enforcement informing them of the presence of CAN at the storage facility.

Documentation of such communication with local authorities should be kept on file and presented at the time of auditing.

These best practices are derived from the requirements of the *Explosives Regulations*. Natural Resources Canada provides further guidance on the requirements for preparing a Security Plan which can be found in the link below:

<http://www.nrcan.gc.ca/explosives/13971>

B3 ACCESS BY ON-SITE PERSONNEL

SPECIFIC REQUIREMENTS:

One element of a well planned and executed security plan is a process to ensure that all employees and contractors at the storage facility have been screened to prevent possible security risks. It is critical that this screening process not infringe on an individual's personal rights and freedoms. Therefore, it is good practice to ensure authorization is received from an individual prior to any review of their past references.

The screening process must include:

Past Work References for Existing Employees – All employees working at the CAN storage facility must provide valid past work references. This is not required if the employee has been working at the facility for a period greater than five years.

Past Work References on New Hires – As a condition of employment, a potential new hire must disclose any previous criminal convictions and provide valid past work references. As a matter of due diligence, it is critical that all past work references be contacted to verify the work history of the new hire and any potential security related risks.

Past Work References for Contractors – All contractors must provide documentation indicating past work history. If possible, work history for the past 5 years should be obtained; however, this may not exist for all contractors. This is not required if the contractor has established a work history with the facility for a period equal to or greater than five years.

Written Authorization for Contractors – All contractors at the CAN storage facility have written authorization from the manager of the facility including the date of authorization, the names of the contractors and a description of the work to be performed.

CAUTION: Refusal to hire a person based on a disclosure of pardoned or provincial offences may constitute illegal discrimination. Employers are cautioned to ensure that their hiring practices comply with their obligations under human rights and employment law in their region.

B4 LOSS OF PRODUCT DURING STORAGE

SPECIFIC REQUIRMENTS:

It is good inventory management practice, as well as good security risk management, to regularly reconcile inventories of CAN. This will quickly identify any loss of product above historical norms in order that the potential cause(s) can be investigated. In addition, it is good practice to make regular visual inspections at the facility to identify potential issues of tampering.

The facility must have a written policy and procedure that contains the following elements:

Inventory Audit Reconciliation – The facility must have a written process describing the annual inventory audit reconciliation for all bagged and bulk CAN storage facilities. For bulk storage, the recommended best practice is a weighed audit executed at periods of low inventory levels. Where this is not possible, an estimate of inventory levels will suffice.

Reconciliation and Reporting – There must be a reporting process for any shortages in excess of historical norms. The reporting process must indicate the amount of the shortage and an investigation into the potential cause.

Weekly Inspection – A documented, weekly inspection must be conducted for all CAN storage areas to identify any tampering or loss of product. If any tampering and/or product loss is noted, it must be reported immediately to company officials. Tampering or product loss must also be immediately reported to the local police.

SECTION C – OUTBOUND SHIPMENTS/PRODUCT SALES

This section provides more detailed description of compliance requirements for Section C of the CAN Security Code. This section of the guide will also apply to inbound shipments to retail.

C1 SECURITY AROUND INDIVIDUALS OR COMPANY RESPONSIBLE FOR PROVIDING TRANSPORTATION

C1.1 TRANSPORTATION COMPANY SECURITY

SPECIFIC REQUIREMENTS:

In order to minimize security risks, companies responsible for transporting CAN must be properly vetted from a security perspective. The following requirements are the basic elements that must be assessed to validate a transportation company:

Bonding or Pre-approval – Bonding or pre-approval of the transportation company through internal review is intended to validate the drive(s) and services to be provided and minimize the security risks to the retail site when shipping a security-sensitive product. A record must be available from the manufacturer or distributor indicating that the transportation firm has been bonded or pre-approved. The pre-approval process must include a review of past references, licensing and any necessary certifications.

Proof of Insurance Coverage – The seller must have written proof of valid insurance coverage for all transportation firms used for transporting CAN within the last two years.

Photo Identification – All transport operators will have valid photo identification.

Security Plan – The seller must have written confirmation from all transportation firms used for transporting CAN within the last two years indicating that the transportation firm has developed a response plan for security related issues or has agreed (in writing) that they will operate under the security provisions listed in Section C2 of the CAN Code when transporting CAN. These provisions include that:

- a. A process must be in place to verify arrival of a shipment at the intended destination.
- b. Truck shipments of CAN will not be left unattended by the driver at any time unless the load is parked in a secured area or the unit/load is properly locked down (e.g. high security padlocks, fifth wheel locks).

- c. Hatches on trucks and railcars will be secured with locks or sealed with security cables.
- d. Locks, and/or seals if they are present, will be inspected and validated after each stop and upon arrival at the destination.
- e. All tampering of locks and/or seals will be investigated and documented, and any losses reported to the appropriate authorities
- f. If the vehicle used to transport the CAN from the retail facility to the end-use point includes dispensing equipment (i.e. spreader with auger), all dispensing parts will be secured in the closed position to ensure total product containment during transport.
- g. The driver will notify the seller in the event of a spill or other incident which could impact the total quantity delivered to the receiver.
- h. If a driver discovers that any CAN has been stolen or tampered with, or that there has been an attempt to steal or tamper with it, the driver will immediately notify the seller, who in turn must immediately inform the local police.

Record Keeping – As CAN is not regulated under the *Transportation of Dangerous Goods Regulations*, it will not be subject to the documentation requirements set out in the Regulations. However, maintaining a record trail is an essential part of any security plan. The carrier must maintain records of shipment for a minimum of two years. The records can be the Bill of Lading or other combination of documents containing, at a minimum, the following information:

- Product Shipped
- Date of Shipment
- Load Quantity
- Point of Origin of Shipped Product
- Location of Destination
- Applicable Signatures of Shipper, Transport and Receiver

C1.2 DELIVERY RECEIPT ACKNOWLEDGEMENT

The seller must obtain acknowledgement (manually or electronically) from the buyer that the shipment has been delivered to its intended destination as per the agreed upon terms. As per industry best practice, the preferred option for this is a dated and signed delivery invoice by the customer (grower) upon delivery of the product to its intended destination. However it is understood that on some occasions, particularly during the busy planting season, that the grower may be unavailable to sign for delivery. In this case, the delivery driver may sign to

confirm delivery if the customer provides written acknowledgement of the following:

- a) The customer provides explicit delivery instructions (for each delivery) to the retailer at sale or prior to delivery;
- b) The customer provides permission to the delivery driver to sign on their behalf to confirm delivery as per the provided delivery instructions which is renewed at least annually;
- c) The customer acknowledges their responsibility for the security of the product; and
- d) The customer confirms that they have reviewed and understood provided documentation on the safety and security of the product (as per Section C5)

Documentation of driver delivery signing permission, delivery instructions (for each applicable delivery), and receipt should be kept on file along with sales records and available for verification during the audit.

An example acknowledgement form can be found in the associated section for C1.2 of the Appendices for the CAN Security Code.

C2 ACCESS TO PRODUCT DURING SHIPMENT

SPECIFIC REQUIRMENTS:

Security of CAN in Transit – Truck shipments of CAN must not be left unattended by the driver at any time unless the load is parked in a secured area or the unit/load is properly locked down (i.e. padlocks, fifth wheel locks, etc.). A secured area refers to an areas surrounded by two meter high chain link fence with the three strand barb wire at the top. The area must also have lockable gates that are secured when the site is unattended. If storage is not possible in this type of secured area, the access hatches and gates to the load must be secured and locked. It is a recommended best practice that shipments of CAN be non-stop to avoid increased security risks.

Securing of Hatches on Trucks, Railcars or other transport equipment – All access hatches and gates on trucks and railcars transporting CAN must be secured with a lock or sealed with a security cable type seal regardless of distance travelled.

Inspection of Locks/Seals – Locks and/or seals installed on the access hatches and gates are to be inspected and validated after each stop and upon arrival at destination. The inspection at destination must be documented and attached to the bill of lading for the shipment. It is a recommended best practice to have a check off sheet for the transport operator in order that they can document an inspection of seals at each stop.

Reporting – Any evidence of tampering or product loss must be reported immediately to the seller, who must notify the local police. In addition, any spills or other incidents which could impact the quantity of product delivered to the customer should also be reported to the seller in order to keep track of the sources of potential product losses.

End-user vehicles – If the transport distance is short enough to allow for a non-stop trip, it is possible that the product will be transported from the retail facility by the end-user themselves in a specialized vehicle such as a spreader with an auger. In this case, all dispensing parts should be double checked to ensure they are in a closed position to prevent the accidental release of product during transport.

C3 VALIDATION OF CUSTOMERS

SPECIFIC REQUIRMENTS:

Direct shipments to end-users are higher risk from a security perspective since they are often coordinated by retailers and the manufacturer/distributor has limited knowledge of the customer from a security perspective. In order to ensure CAN is being sold to end users with a legitimate agronomic need, the facility must have a policy that enables a customer to be validated.

Coordination/Authorization from Retail – The responsibility for coordinating the sale and delivery of the shipment resides with the retail facility operator. They have a greater knowledge of their customers and can more easily validate the customer. Prior to issuing an authorization for shipment to the manufacturer or distributor, the retailer must implement practices to:

1. **Validate customer identification.** This could be done using a number of methods such as by reconciling the identity of the person accepting a delivery as the person who made the purchase order for online sales or through the provision of one piece of proper identification (e.g. pesticide licence, producteur agricole number, valid photo identification, etc.) for in-person sales.
2. **Validate that the size of the order of CAN is in accordance with the size of the end user's agronomic needs.** It is important to ensure that a customer is a farmer with a legitimate agronomic need. This could be done a number of ways such as comparing the size of the order to the acreage it will be applied to at a given application rate, or using retailer knowledge of the local area (e.g. the customer is a known farmer in the community).
3. **Ensure a defined location and contact numbers for the delivery of the CAN.** This could be an address and/or legal land description.

Any suspicious purchase attempts must be reported to the local police detachment.

NOTE: Any refusal of sale should be reported within 24 hours after the refusal to the local police force.

Authorization for Delivery – Once the customer has been validated by the retail facility operator, a written authorization must be provided to the seller for the shipment that provides:

- The name of end user
- The quantity of the shipment
- The defined location for the delivery

- The date of the order
- Contact number for the retail location and the end user

C4 TRACEABILITY OF SALES

SPECIFIC REQUIRMENTS:

Tracking past sales of CAN is important in order to provide an audit trail for investigations into criminal misuse of the product. At a minimum, the following information must be contained on each sales receipt:

- Customer's name
- Address or legal land description
- Customer's phone number
- Identification – type and number of document verified
- Carrier details – operator information
- Dates and location of delivery
- Quantity of CAN – format of delivery (bagged or bulk product)
- Description of use
- If delivery is made at time of purchase, a receipt signed by purchaser containing the information listed above

All sales records for CAN must be kept for period of two years. The records can be kept in a paper or electronic form.

NOTE: All information collected respecting the sale of CAN must be kept under lock and key or password protection in the case of electronic records, and may be accessed only by persons who require such access in the course of their employment. The collection, use and protection of the information above must also comply with the obligations under the Personal Information Protection and Electronic Documents Act (PIPEDA).

PIPEDA legal information:

http://www.priv.gc.ca/leg_c/leg_c_p_e.asp

Substantially Similar Provincial Legislation:

http://www.priv.gc.ca/leg_c/legislation/ss_index_e.asp

C5 CRITERIA SPECIFIC TO END-USERS

SPECIFIC REQUIRMENTS:

It is recommended that post-season storage of CAN be avoided if possible. Retail facilities should work with their customers to provide product in quantities that fulfil the agronomic need and avoid excess, thereby also evading the need for post-season storage by the end-user. If the company is able to do so, customers should be encouraged to return any unused or unopened product back to the retailer.

However if it is not possible to avoid on-farm storage, it is imperative that all end-users have the right information to ensure the safe and secure use and storage of CAN. Therefore, it is essential that customers be educated on safe and secure storage and handling practices for CAN at sale by the agri-retailer.

Customers purchasing large quantities of CAN should be provided with the Fertilizer Canada Safety and Security Information Brochure or an equivalent information document. This can be provided physically or electronically. Due to the increased security risk of small quantity sales, in addition to receiving the information, these customers must acknowledge (in a written format) that they have reviewed and understand the information.

Please see the Appendices for sample hand-out information materials and small quantity purchase acknowledgments.

SECTION D – TRAINING

D1 E-LEARNING

Fertilizer Canada developed an online course to help employers train their employees on the secure storage and handling of CAN. The course can be found on the Fertilizer Canada website.

This course must be completed annually.

SECTION E – INSURANCE

E1 INSURANCE REQUIREMENTS

Each operation that stores and/or handles CAN requires insurance documentation that indicates current liability protection covering owned automobile (vehicle) liability, non-owned automobile (vehicle) liability, comprehensive general liability (CGL) and Product Liability, with each of these policies being written with minimum policy limits of:

Coverage Type	Minimum Policy Coverage (per loss occurrence)	Maximum Deductible	Minimum Policy Aggregate
Owned Automobile	\$5,000,000	\$25,000	\$5,000,000
Non-owned automobile	\$5,000,000	\$25,000	\$5,000,000
CGL	\$5,000,000	\$25,000	\$5,000,000
Product Liability	\$5,000,000	\$25,000	\$5,000,000

The operation also requires insurance documents that indicate environmental impairment liability (EIL) protection meeting one of the following:

(A)

EIL Insurance	Minimum Policy Coverage (per loss occurrence)	Maximum Deductible	Minimum Policy Aggregate
On-site	\$2,000,000	\$25,000	\$2,000,000
Off-site	\$2,000,000	\$25,000	\$2,000,000

OR

(B)

EIL Insurance	Minimum Policy Coverage (per loss occurrence)	Maximum Deductible	Minimum Policy Aggregate
Combined on-site and off-site coverage inclusively	\$2,000,000	\$25,000	\$2,000,000

NOTE: Any endorsement or other policy wording that directly or indirectly selects fertilizers as specifically excluded from coverage, or that selects fertilizers for diminished coverage, is NOT acceptable.

Auditors will confirm compliance through examination of the Confirmation of Coverage Form. A Confirmation of Coverage Form must be fully completed for each operation. No changes are permitted to the form. The form must be signed by either your insurance broker or insurer.

NOTE: If both AN and CAN are present, insurance coverage for sites handling both products may appear under the same insurance policy. In these cases a single Confirmation of Coverage Form can be used.

E2 ENVIRONMENTAL IMPAIRMENT LIABILITY (EIL) INSURANCE

Insurance coverage can be obtained through a variety of different policies whose framework will be shaped by the individual risks of exposure present at a given operation. It is a common practice for EIL insurance coverage to be obtained through an “all-encompassing” policy which is applicable to multiple fertilizer products stored at a given site. This type of coverage is acceptable so long as it is inclusive to CAN without exception and meets the minimum policy limits **specifically for CAN** as outlined in Section E of the CAN Security Code of Practice. Where an operation stores CAN along with other agricultural chemicals, it is likely that higher coverage limits will be required.

E3 DEDUCTIBLE LIMITS GREATER THAN \$25,000

Deductible limits in excess of \$25,000 must be of a reimbursable type and a Reimbursable Deductible Acknowledgement must be completed in addition to Page 1 of the Confirmation of Coverage Form. This can be found on Page 2 of the Confirmation of Coverage Form.

E4 ALTERNATIVE INSURANCE ARRANGEMENTS

Fertilizer Canada recognizes that some large and established operators maintain sophisticated insurance programs that are not traditional insurance arrangements and may fall under the spectrum of self-insurance. These programs may still provide equivalent or superior coverage to the Code insurance requirements for certain CAN operations and qualify as equivalent under the Code. To clarify, in this case “self-insurance” does not equate to “no insurance”, but refers to

structured and appropriately-funded risk retention programs or other similar robust self-insurance alternatives. In order to meet the requirements for certification under the CAN Code, an operator's alternative insurance arrangements must meet the following threshold criteria:

- a) Any alternative insurance arrangement over \$25,000 must meet the coverage minimums as specified above and in the CAN Code. If an insurance arrangement contains both insured and alternative components, the sum of coverage must meet or exceed the prescribed coverage minimums; and
- b) The insurance arrangements must NOT contain any endorsement or other policy wording that directly or indirectly selects fertilizers as specifically excluded from coverage, or that selects fertilizers for diminished coverage.

As a further compliance obligation, large organizations that choose to pursue alternative insurance arrangements must arrange for a licenced insurer or underwriter to review the applicant's insurance arrangements and alternative insurance program against the required limits under the CAN Code and execute a Statement of Equivalent Coverage attached as Page 3 of the Confirmation of Coverage Form. The reviewing insurer or underwriter must certify that in its opinion the operator's alternative insurance program provides equivalent coverage to the minimum insurance requirements as set out herein.

Finally, any operator who deploys an alternative insurance scheme in accordance with this Section E must agree to indemnify, defend and hold harmless Fertilizer Canada and its employees, officers, directors, agents and affiliates for any claims, costs (including legal costs), damages, losses and expenses arising out of or resulting from any deficiency in the operator's self-insurance scheme.

For greater clarity, the Statement of Equivalent Coverage must be completed in addition to Page 1 of the Confirmation of Coverage Form.

IMPORTANT NOTES:

Fertilizer Canada expects that any insurance policy or program entered into by an operator shall meet the requirements under Protocol E of the CAN Code regardless of any agreements allowing self-insurance elements. Fertilizer Canada reserves the right to request additional information and/or documentation regarding an operator's insurance policy or program.

Operators who deploy alternative insurance programs pursuant to this Section E acknowledge and agree that Fertilizer Canada's decision to allow alternative insurance arrangements is provisional and can be revoked at any time without notice and without recourse.

CALCIUM AMMONIUM NITRATE SECURITY CODE OF PRACTICE CONFIRMATION OF COVERAGE FORM – PROTOCOL E

To be provided to Authorized Auditor as part of compliance documentation and a copy forwarded with the audit to the program office.

1. Insurer A		Insurer B	Insurer C
Name of Insurer:		Name of Insurer:	Name of Insurer:
Address of Insurer:		Address of Insurer:	Address of Insurer:
Postal Code:		Postal Code:	Postal Code:
Tel:		Tel:	Tel:
2. Company		3. Agent/Broker	
Name of Insured:		Name of Agent/Broker:	
Address of Insured:		Postal Code:	Address of Agent/Broker:
Covered Location:		Postal Code:	
Policy Number:	Certificate Number:	Policy Period:	Tel:
CAN Compliance #:			

Coverage Type	Insurer	\$ Coverage	Deductible	\$ Policy Aggregate
Environmental Impairment Liability (on site) <small>(Note: a combined on-site/off-site EIL policy with a minimum \$2 million combined coverage, \$25,000 max deductible and minimum \$2 million policy aggregate is also permitted)</small>	(A, B or C)	Minimum \$2,000,000	Max \$25,000	Minimum \$2,000,000/occurrence
Environmental Impairment Liability (off site) <small>(to include third party injury and property damage and off premises clean up)</small>	(A, B or C)	Minimum \$2,000,000	Max \$25,000	Minimum \$2,000,000/occurrence
Owned Automobile Liability <small>(applicable to any and all vehicles that are owned, or leased or operated by the facility in connection with the facility's business)</small>	(A, B or C)	Minimum \$5,000,000	Max \$25,000	Minimum \$5,000,000/occurrence
Non-Owned Automobile Liability	(A, B or C)	Minimum \$5,000,000	Max \$25,000	Minimum \$5,000,000/occurrence
Comprehensive General Liability	(A, B or C)	Minimum \$5,000,000	Max \$25,000	Minimum \$5,000,000/occurrence
Product Liability	(A, B or C)	Minimum \$5,000,000	Max \$25,000	Minimum \$5,000,000/occurrence

The undersigned warrants that he or she has reviewed the Calcium Ammonium Nitrate Security Code of Practice insurance protocol; that the coverage represented above is in conformity with the required coverage limits and permitted deductibles. It is further understood and agreed that the undersigned undertakes to give fifteen (15) "days" notice to the Calcium Ammonium Nitrate Security Code Program Manager if the policy should be cancelled or otherwise terminated prior to the specified policy expiration date; or if the policy should fail to be renewed on a basis that ensures continued compliance with the insurance protocol; or if any other circumstance should occur which prejudices or invalidates a representation of compliance previously given.

Name of Authorized Representative of Insurer:

Signature of Authorized Representative of Insurer:

Date:

CALCIUM AMMONIUM NITRATE SECURITY CODE OF PRACTICE CONFIRMATION OF COVERAGE FORM-PROTOCOL E

Calcium ammonium nitrate facilities require insurance coverage as outlined in Protocol E of the Agricultural Calcium Ammonium Nitrate Security Code of Practice and Section E of the associated Implementation Guide. The Standard Confirmation of Coverage Form is designed for use by operators who that have insurance meeting the required levels of coverage, limits and deductibles.

This form must be completed fully and executed by an authorized insurance representative. A separate form is required for each insured location. Any endorsement or other policy wording that directly or indirectly selects fertilizers as specifically excluded from coverage, or that selects fertilizers for reduced coverage, is NOT acceptable.

Reimbursable Deductible Acknowledgement

Deductible amounts in excess of \$25,000 must be of a reimbursable nature. With a reimbursable deductible, the insurer shall be responsible for paying all losses and loss expenses. The insured shall promptly reimburse the insurer for advancing any element of loss falling within the deductible.

For reimbursable deductibles:	
<ul style="list-style-type: none"> (a) Insurance representative must complete the Confirmation of Coverage Form, recording the insurance arrangement amounts. (b) Insurance representative must complete the reimbursable deductible section immediately below. (c) Dealer must sign acknowledging reporting of all incidents. 	
The undersigned warrants that the deductibles recorded on page one of the Confirmation of Coverage Form are of a reimbursable nature (as described above).	
Name of Authorized Representative of Insurer:	
<div style="display: flex; justify-content: space-between;"> Signature of Authorized Representative of Insurer: Date: </div>	
The insured agrees to report all pollution events promptly to the insurer(s) without regard for the size of the deductible.	
Name of Authorized Representative of Insured Premises:	
<div style="display: flex; justify-content: space-between;"> Signature of Authorized Representative Insured Premises: Date: </div>	

Alternative Insurance – Statement of Equivalent Coverage

Any alternative insurance arrangement by an operator which incorporates agreements such as self-insured risk retentions or other similar insurance program alternatives which may fall under the umbrella of self-insurance must still adhere to the principal requirements of Fertilizer Canada’s Agricultural Calcium Ammonium Nitrate Security Code of Practice.

For alternative insurance arrangements:

- a) Insurance representative must complete the Confirmation of Coverage Form, recording the insurance arrangement amounts.
- b) Insurance representative must review any alternative insurance arrangements and complete the section below.
- c) Operator must sign acknowledging reporting of all incidents.

Certification of Alternative Insurance Program

The undersigned warrants that the alternative insurance arrangements recorded on page one of the Confirmation of Coverage Form meet the following criteria:

- a) Any alternative insurance arrangements over \$25,000 has been reviewed by the undersigned Insurer and is confirmed to meet the minimum coverage limits as specified in the Agricultural Calcium Ammonium Nitrate Security Code of Practice. If the insurance arrangement contains both insured and alternative components, the sum of coverage meets the specified limits.
- b) The insurance arrangements do NOT contain any endorsement or other policy wording that directly or indirectly selects fertilizers as specifically excluded from coverage, or that selects fertilizers for reduced coverage; and
- c) The review of the insured and alternative components was conducted by a licensed insurer.

I have reviewed the insurance program of _____. In my opinion, this program provides at least equivalent coverage to the minimum insurance requirements as set out in the Agricultural Calcium Ammonium Nitrate Security Code of Practice.

Name of Authorized Representative of Insurer: _____

Signature of Authorized Representative of Insurer: _____

Date: _____

The insured agrees to report all pollution losses promptly to the insurer(s) without regard for the insurance arrangement.

Indemnity

I, _____ agree to indemnify, defend and hold harmless Fertilizer Canada and its employees, officers, directors, agents and affiliates for any claims, costs (including legal costs), damages, losses and expenses arising out of or resulting from any deficiency in the self-insurance program described herein.

Name of Authorized Representative of Insured Premises: _____

Signature of Authorized Representative of Insured Premises: _____

Date: _____

SUSPICIOUS INCIDENT REPORTING (SIR) SYSTEM

As part of its national security mandate, the Royal Canadian Mounted Police (RCMP) is working with Canadian critical infrastructure (CI) owners and operators to prevent, detect, investigate and deter criminal threats to CI. The RCMP has launched the Suspicious Incident Reporting (SIR) system which is designed to collect information on suspicious incidents that may be related to criminality associated to critical infrastructure. SIR allows the private sector stakeholder to report suspicious incidents online by submitting a SIR report from their own work terminal. Suspicious incidents within SIR includes behavior and activities which, when viewed in context of the totality of available circumstances/intelligence, may have a possible nexus to national security. As such, these incidents may be indicators of terrorist pre-incident planning or other serious criminal activity.

What makes the SIR program unique? The RCMP recognizes that the sharing of criminal intelligence with sector owners and operators is a must. If there is a threat to critical infrastructure, it is imperative that sector stakeholders be briefed accordingly so they can implement appropriate contingency and business continuity plans. Providing intelligence up front or well in advance provides the private sector the opportunity to develop contingency and emergency response plans in accordance with the appropriate threat intelligence. The SIR system is among the first RCMP applications designed to engage non-law enforcement users and access may be given to a secure RCMP critical infrastructure library.

The SIR system is more than a reporting system—it is a mechanism that allows the RCMP to develop operational contacts within the private sector enhancing the resiliency of Canada's CI, support criminal investigations, and maintain continuous dialogue with internal and external stakeholders.

SIR does not replace calls for criminal activity or emergencies to local police of jurisdiction.

The Program Hotline: 1-800-387-0020