

18 October 2022

Ammonium Nitrate Consultation
Policy and Strategy, Better Regulation Division
NSW Department of Customer Service
92-100 Donnison Street
Gosford NSW 2250

explosives@customerservice.nsw.gov.au

Dear Sir/Madame,

Separation Distances for Solid Ammonium Nitrate in NSW

Chemistry Australia is the peak national body representing the chemistry industry. Chemistry Australia members include chemicals manufacturers, importers and distributors, logistics and supply chain partners, raw material suppliers, plastics fabricators and compounders, recyclers, and service providers to the sector and the chemistry and chemical engineering schools of a number of Australian universities.

Australia's entire society – businesses, consumers and governments – along with its natural environment receive enormous benefits associated with the safe, responsible and sustainable use of industrial chemicals. By supplying 108 of 114 Australian industry sectors, chemistry assists Australia to respond and address global challenges of protecting the environment, ensuring a safe and sustainable food supply and improving standards of living in Australia and elsewhere.

Ammonium Nitrate (AN) is one of the world's most widely used fertilisers, and the main component in many types of explosives used within the mining industry, two industries that are essential to the Australian economy. The supply of AN in NSW is currently met by approximately 92% domestic manufacture and this is predominately produced with NSW.

The production, storage and transport of ammonium nitrate is currently appropriately regulated. These regulations are closely monitored and enforced. The Chemistry Australia member companies covered by the regulations have mature safety management system with proven outcomes. Chemistry Australia understands that the existing site-specific risk-based licensing regulation currently enforced in NSW, represents best practice in the regulation of ammonium nitrate.

Chemistry Australia welcomes the opportunity to participate in this consultation, and the recent industry stakeholders forum, but believe that this should be the first of many such discussions and drafts. The document and proposals as presented are not acceptable to industry. As presented, the prescriptive separation distances would force the closure of many current facilities and would result in further undesirable safety and economic outcomes. There is no justification in the discussion paper for why this change is required, or how the current regulatory system has failed.

Chemistry Australia would expect a proposal such as this would be accompanied by an extensive analysis of its impact. This should be considered best practice when developing such stringent and new requirements on an established industry.



Specific Comments

1. The current regulatory regime covering the import, export, manufacture, store, supply, use or transport ammonium nitrate in NSW is robust. The system has been in force for some time and has proven to provide a high level of safety and surety to industry and the community. The need for new prescriptive requirements for separation distances has not been justified in the discussion paper.

It is not explained how a prescriptive system, such as that outlined, will be incorporated into the current performance based and risk management focused legislation. It also has not been explained how existing facilities who are currently licensed to store ammonium nitrate, and many who are licensed under the comprehensive major hazard facility legislation, are expected to meet these requirements.

If these separation distances are enforced as outlined in the discussion paper, many organisations would cease to operate or be required to replace existing facilities. The new risks created by having more smaller storage facilities, and a greater need for ammonium nitrate to be handled and transported, must be considered.

The proposed new separation distances would make existing storage and manufacturing locations unviable, and there is doubt within industry that suitable locations for re-establishing these functions could be found given land use challenges.

2. Chemistry Australia is a vocal advocate for national consistency in regulations between jurisdictions and industry sectors. This proposal provides neither.

The discussion paper states that the proposals would raise safety standards for ammonium nitrate facilities to a best practice standard already used in other jurisdictions. This would appear however to not be true. The levels proposed in this discussion paper are over and beyond those of other jurisdictions, and in fact other jurisdictions do not rely solely on the application of separation distances but includes the use of a risk management and assessment process for existing facilities to determine the appropriate distances required.

The use of the explosive rating known as a TNT equivalence number is not consistently used in the approaches by Western Australia and Queensland which are referenced in the discussion paper. Both of these jurisdictions also allow for the use of a risk-based approach to determine separation distances. This allowance is also included in the UN 3375 Code.

If Safe Work NSW is to implement defined separation distances, a pragmatic approach to its application to existing facilities such as is done in both Western Australia and Queensland, will be required.

At the recent industry stakeholder forum, it was suggested that the differences were due to the fact that Safe Work NSW was 'looking to achieve different outcomes'. These outcomes however have not been articulated publicly. Stakeholder understanding of these desired outcomes is essential to understand the thinking behind the proposal and why they have developed.

If the proposal was applied in the mining industry and other areas outside the scope of Safe Work NSW such as ports and road transport, it is understood that the same consequences would occur and the impact on those sectors would also be immense.

3. This proposal will have unintended consequences or other parts of the ammonium nitrate supply chain, even if not directly adopted. The flow on effect to those outside the current proposal should also be considered by Safe Work NSW in their cost and risk assessment.
4. Chemistry Australia believes that it is essential for Safe work NSW to consult with those current license holders to obtain a clear understanding of the impacts that the implementation of these proposals will have. The impact on those companies who will need to reduce storage quantities, find alternative storage facilities and coordinate the logistics needed to supply customers should not be underestimated.

The potential loss of local manufacture and reliance on imported products will be detrimental to the Australian economy. The recent disruption to the supply chains due to the pandemic and ongoing political conflict should focus our attention on ensuring sovereign capability.

5. A comprehensive assessment of the impacts of the proposal must be undertaken, in consultation with the industry. This assessment must take into consideration the flow on effects to the whole ammonium nitrate supply chain. Due consideration must be given to work of the AEISG Code of Practice that uses a detailed scientific basis to calculate separation distances.

The questions outlined in the discussion paper have been answered in the attached document.

Following the review of the comments received, Chemistry Australia looks forward to participating in further discussions and consultations on this issue.

Yours sincerely,

Kathryn Walton
Regulatory Policy Manager

Att.

Questions

1. Do you have concerns about the storage of ammonium nitrate in or around your local community? If yes, what are your concerns?

Chemistry Australia considers the existing site-specific risk-based licensing regulation currently enforced in NSW, to represent best practice in the regulation of ammonium nitrate. Chemistry Australia members who store ammonium nitrate have mature, and continually evaluated, safety practices to ensure the upmost level of safety is maintained.

The current licensing system provides community surety that all legislative controls are in place and the systems are effective.

2. Does the proposal incorporate appropriate measures to manage the risks associated with the storage of ammonium nitrate?

The current proposal does not take into account the extensive controls and systems in place used to manage ammonium nitrate. The use of separation distances enforces a singular control that in many cases will not be practical or achievable. Chemistry Australia supports a proposal that considers the controls in totality and applies an appropriate risk management overlay.

3. How can ammonium nitrate storage facilities located near residential and commercial areas be made safer?

Chemistry Australia believes that the current licensing system provides an appropriate level of control to ensure that the robust controls are maintained, reviewed and continually improved. Those storage facilities that are also MHFs have a holistic risk management system that further considers the impact of their operations on the surrounding community.

A major issue for nearly all ammonium nitrate storage facilities, major hazard facilities and other hazardous industries is the encroachment of new developments, including vulnerable communities to their sites. Buffer zones that were established are constantly challenged. Safe Work NSW have a role to inform local governments of the need to be vigilant with these zones and to ensure encroachment does not occur.

4. What will be the impacts on industry and the community if the NSW Government's proposal is adopted?

The impacts will be disastrous on industry. Unfortunately, adherence to the proposed separation distances would make existing storage and manufacturing locations unviable, and there is significant doubt within industry that suitable locations for re-establishing these functions could be found given land use challenges.

Safe Work NSW must undertake a comprehensive analysis of the cost, risks and impact of their proposal.

The proposals as they are currently written will have many impacts such as:

- Facilities being closed;
- Forcing the creation of more smaller storage facilities;
- Significantly increased cost and time involved in the establishment and approval of new facilities
- Increase the amount of ammonium nitrate being transported;
- Jeopardise local manufacturing;

- Jeopardise those industries reliant on the local manufacturers including mining and agriculture

5. What is an appropriate transition period to provide to existing sites which may have difficulty complying with prescriptive separation distances? What other strategies should be considered to enable existing sites to comply with prescriptive separation distances?

Chemistry Australia believes that transition periods would not relieve the burden that these extreme measures will bring upon industry. These strict prescriptive requirements will render many of the current storage sites unviable.

As stated previously, if Safe Work NSW is to implement defined separation distances, a pragmatic approach to its application to existing facilities such as is done in both Western Australia and Queensland, will be required. It must allow for the use of a risk-based approach to determine separation distances.

6. What barriers are there for existing facilities moving or relocating ammonium nitrate stores within sites, to comply with prescriptive separation distances?

Chemistry Australia recommends that the current license holders are directly consulted to obtain detailed information in relation to the barriers, cost and consequences of the application of this proposal to existing facilities.

In general terms the barriers would be:

- The lack of available space in a convenient place that suits the logistic and production needs of the facilities and their customers, and
- The additional costs due to locating, planning and obtaining approval for new sites.

7. Are there any unintended consequences associated with the NSW Government's proposal, for industry and/or communities located within the vicinity of an ammonium nitrate storage facility?

There would be many unintended consequences including:

- The disruption to supply;
- If facilities close there would loss of employment;
- Increased transport of ammonium nitrate creating new hazards and risks.

These should be investigated as part of the cost/risk assessment required for this legislation.

8. Do you think the prescriptive separation distances will achieve the desired safety outcome?

This has been partly answered under question 2. Safe Work NSW has not defined the safety outcome they wish to achieve.

Chemistry Australia supports a risk management approach to ensure effective and appropriate controls can be identified for each individual workplace. A mandatory prescriptive approach to separation distances does not fit with the current performance based, risk management approach of model legislation.

9. Are there other costs that the proposal should consider, such as socio-economic costs?

The mandatory introduction of these separation distances will potentially result in the loss or restricted production of a major manufacturing industry that support vital parts of our economy. The potential need to rely on imported product to supply these sectors will have significant societal impact and loss of sovereign capability. Relying on imported ammonium nitrate would create other undesirable safety outcomes including increased shipping transient storage and trucking.

10. What measures can be taken to offset the potential economic impact of some within the industry?

Chemistry Australia believes this proposal requires a major rethink. Prescriptive mandatory legislation will not work with existing facilities, a pragmatic approach that considers the use of a risk-based approach to determine separation distances is essential.

11. Do you have any further comments regarding the NSW Government's proposal and the storage of ammonium nitrate in NSW?

Safe Work NSW must consult directly with current licensed facilities to obtain a clear understanding of the impact of this proposal.

The scope of the proposal must be established and the effects on those parts of the supply chain outside this scope included in consultations.

A comprehensive assessment of the impacts of the proposal must be developed, in consultation with industry, taking into consideration the flow on effects to the whole AN supply chain.

Due consideration must be given to work of the AEISG Code of Practice that uses a detailed scientific basis to calculate separation distances.

This current discussion paper should be seen as only the first step in the process, further development, consultation and assessments must be undertaken.