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Dear Sir/Madam

As a resident of Stockton please accept this submission of objection regarding Incitec Pivot's proposed ammonium nitrate plant on Kooragang Island (SSD-4986).

In my opinion the proposal creates an unacceptable risk to nearby residents and Incitec's Environmental Impact Statement does not address my concerns of explosive risk, noise, air and water pollution and possible impacts to house values.

Newcastle and the suburbs that surround the Port are demanding responsible planning decisions and the mere thought of two ammonium nitrate plants, operating side-by-side just 800 from residents is a planning disaster.

The direct impacts from Incitec's proposal for me and my family include:

Potential for explosion

Incitec's EIS fails to adequately address my concern around the potential risks of storing 21,500 tons of ammonium nitrate (maximum storage capacity combining Orica and Incitec). The blast contours in Incitec's EIS do not even reach Stockton, yet it's well known an ammonia nitrate explosion involving 300 tons of ammonium nitrate in Toulouse, France, killed 33 and injured thousands within a 5km radius in 2001.

I am aware that ammonium nitrate is an oxidising agent, not an explosive, however, it can be turned into an explosive both quickly and easily by shock waves, foreign matter, heat and pressure. Whilst the risk of explosion is small, the impact of an explosion would be catastrophic and despite slogans in Incitec's EIS of "world's best practice" accidents do occur, take for instance Orica's Hexavalent Chromium leak in 2011.

One of the fundamental responsibilities of any Government is the welfare and protection of people and this proposal undermines the safety of around 50,000 residents within a 5km radius. Government should note that if Incitec proceeds there is enough explosive power on Kooragang Island to match the Hiroshima atomic bomb (Hiroshima used 18,000 tons of TNT which is comparable to the 21,000 tons proposed by Incitec and Orica's current capacity).

The Department of Planning must also acknowledge that the South Australian Government is trying to shift Incitec's storage of AN in Port Adelaide due to explosion risk for residents, which is outlined by a SA WorkCover report. Such a massive concentration of ammonium nitrate storage with 800 m of residents is not acceptable to the communities that surround the proposal.

Air Pollution

I'm deeply concerned that Incitec's plant will only add to already deteriorating air quality. Stockton residents experience high levels of coal dust from PWCS and NCIG, diesel particulates from industry and nitrous oxides from Orica's plant.

Two large scale ammonium nitrate plants, operating so close to residents creates an especially high concentration of NOx gases that are detrimental to respiratory health, especially the young and elderly.

Orica's expansion and Port Waratah Coal Services' T4 proposal, further impacts future air-quality and Incitec's Air Quality tests does little to abate my concerns regarding air pollution.

Noise Pollution

Industrial noise, especially night-time noise is already a major concern which impacts me. Incitec's EIS noise monitoring of the site was conducted when Orica's ammonia plant was not even in operation and proved that Orica is not meeting acceptable noise levels.

Furthermore, Incitec in their EIS, argue that "it is appropriate to relax the recommended levels for suburban areas by 5dB".

Here are some extracts taken from different sections of Incitec's EIS on Noise.

"As the existing level of industrial noise exceeds noise amenity criteria recommended by the EPA's Industrial Noise Policy (INP) by a significant margin, alternate operational noise criteria has been nominated for the Project.

"Whilst the appropriate zoning in Stockton is recognised as suburban, considering the adjoining industrial zoning it must be noted that a suburban/industrial interface exists. The Industrial Noise Policy, does not provide recommended industrial noise levels for suburban/industrial interfaces and therefore it is considered appropriate to relax the recommended levels for suburban areas by 5db.

"Given that IPL and Orica are the only two operators that could materially influence industrial noise, it's is proposed the adjacent sites assume an equal responsibility in achieving the nominated levels."

As a resident personally affected by noise from Orica and PWCS, I find the assertion of Stockton being an 'interface' suburb offensive and the idea for government to 'relax' noise limits completely absurd.

How can industry be trusted when Orica are well above night-time noise limits and Incitec are requesting special considerations?

Inadequate consultation

Many residents from Stockton, Carrington, Tighes Hill and Mayfield have been left in the dark on this project. Letter drops and one information session two months after the Orica disaster is not proper consultation for a project of such magnitude and widespread impacts.

Incitec's own 'community perception' survey conducted in April 2012, identified less than a third of residents were unaware of the Project. Another example of poor consultation is residents that live within the outer rim of a 5 km radius have been excluded in any communication material. Suburbs such as Cooks Hill, Newcastle West and East, The Hill and Hamilton South have received no information regarding the proposal.

Now, Incitec has declared a two year delay in making any decision on the Project. This may please IPL's investors; however it prolongs resident uncertainty, stymies local investment and provides Incitec with an extended period to lobby Government ministers.

Impacting house prices

Incitec's EIS fails to address my concern that a second ammonium nitrate plant may impact house prices. If Incitec's development is approved, the risk profile increases for all suburbs close to Kooragang and it's highly likely that the value of properties may decrease. Downward pressure on properties would be a direct result from fewer new families moving into areas like Stockton and a reputational stigma for suburbs closest to two ammonium nitrate plants.

Incitec's EIS does not acknowledge this issue, nor does it address who would be responsible if property values were lowered by their Project.

Traffic Impacts

Traffic is already a major problem as a result of industrial activity on Kooragang Island. Incitec's EIS does nothing to mitigate future traffic problems during construction and its operational phase.

In addition to congestion, the extra diesel truck movements will add to dangerous carcinogenic fine particles and nitrous oxides levels.

Employment and economic impacts in Newcastle and Lower Hunter

If operational, Incitec's plant will employ just 60 people, many of whom will be transfers from the company's Mooranbah ammonium nitrate plant. Considering the risk and impacts the plant brings to tens of thousands of people, 60 jobs are not commensurate with the more obvious and insidious impacts the plant will bring.

Furthermore, Incitec have stated that rising construction costs and a failing coal price has forced a two year delay in making a decision on this Project. These outside economic forces impact the viability and longevity of the plant and should be included in EIS.

Polluting the hunter river

As a keen fisherman and swimmer, it's concerning that Incitec will be handed yet "another license to pollute" the Hunter River. If Incitec truly want to build a world-class plant then their EIS should reflect a plant with no effluent into the Hunter River. The river is an important recreational estuary for thousands of fisherman, not to mention that Kooragang is an international recognised RAMSAR wetland.

Excessive industrial development with licenses to pollute the river close to a RAMSAR area is not common sense planning, nor does it position the Hunter River in a positive light to tourists.

As a submission maker, I can confirm that I have not made a political donation totaling \$1000 or more in the past 2 years.

Yours Sincerely,

Geoff Neill.

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AMMONIUM NITRATE EXPLOSIONS

Morgan, New Jersey 1918 (Now Sayreville)

An explosion at the Morgan Depot occurred leading to many artillery shells being launched into the air, some of which landed on a neighbouring warehouse where 4000 tonnes of ammonium nitrate were stored in barrels. One of the shells caused a large explosion, but the majority of the ammonium nitrate did not detonate.

Kriewald, Germany 1921

Workers tried to dislodge 30 tonnes of ammonium nitrate which had aggregated (solidified into one mass) in two wagons. When explosives were used on this solid mass the wagons exploded and killed nineteen people.

Oppau, Germany 1921

An attempt at disaggregation of a fertilizer mix with industrial explosives caused the death of 450 people and the destruction of 700 houses. The fertilizer was a 50:50 mixture of ammonium nitrate and ammonium sulfate. The factory had used this method of disaggregation over 20,000 times without incident. Only 450 tonnes exploded. There were 4,500 tonnes of fertilizer stored at the warehouse.

Nixon, New Jersey 1924 (Now Edison Township)

On March 1, 1924, a fire and several large explosions destroyed a warehouse containing ammonium nitrate at the Nixon Nitration Works.

Muscle Shoals, Alabama 1925

Two carloads, each containing 220 barrels of ammonium nitrate, caught fire in transportation. The barrels had been stored in a warehouse with varying humidity for 6 years. It is believed that they were ignited by friction with their nitrate-impregnated manila paper lining.

Rouen, France 1940

During a bombing raid on June 5, 1940, a bomb exploded in a warehouse containing ammonium nitrate: the fertilizer was dispersed around the crater, but did not explode.

Miramas, France 1940

240 tonnes of ammonium nitrate in sacks exploded after being hit by a shell from fire in a munitions train.

Tessenderlo, Belgium 1942

Another attempt to disaggregate a pile of 150 tonnes of ammonium nitrate with industrial explosives ended tragically on April 29, 1942: several hundred people were killed.

Texas City, United States 1947

The cargo ship Grandcamp was being loaded on April 16, 1947 when a fire was detected in the hold. 600 tonnes of ammonium nitrate in sacks were already aboard. The ship exploded, killing several hundred people and setting fire to another vessel, the High Flyer, which was moored 250 metres away and which contained 1050 tonnes of sulfur and 960 tons of ammonium nitrate. The Grandcamp explosion also created a powerful earthshock and knocked two small planes flying at 460 m out of the sky. The High Flyer exploded the next day, after having burned for sixteen hours. About 500 tonnes of ammonium nitrate on the quayside burned without exploding, probably because it was less tightly packed.

Brest, France 1947

The cargo ship Ocean Liberty was loaded with 3300 tonnes of ammonium nitrate and various inflammable products when it caught fire at 12:30 July 28, 1947. The vessel was towed out of the harbour at 14:00, and exploded at 17:00. The explosion caused 29 deaths and serious damage to the port of Brest.

Red Sea 1954

A fire was detected on the cargo ship Tirrenia while it was carrying 4000 tonnes of ammonium nitrate. Attempts to extinguish the fire were unsuccessful. The ship was abandoned and exploded later in the night.

Roseburg, Oregon 1959

A truck carrying dynamite and ammonium nitrate caught fire early in the morning of August 7, 1959. When it exploded it killed 14 people and injured 125 more. Several blocks of downtown Roseburg were destroyed. The accident is locally referred to as "The Blast."

Traskwood, Arkansas 1960

On December 17, 1960, a 96 freightcar train suffered partial derailment in which the last 23 cars were derailed. The derailed cars included cars containing oil, liquid fertilizer, fuming nitric acid and fertilizer grade ammonium nitrate. The nitric acid reacted with the fuel oil, creating ANFO to feed the conflagration, resulting in the spread of the ammonium nitrate around the incident site.

Kansas City, Missouri 1988

Two trailers containing approximately 23,000 kg of ammonium nitrate exploded at a construction site. At 4:07 AM one of the "magazines" of explosives caught fire and a catastrophic explosion occurred, killing six firemen instantly — only sparing remains were found. A second blast occurred 40 minutes later. The blasts created two craters, each approximately 30 m wide and 2.4 m deep. The explosions shattered windows within a 16 km area and could be heard 64 km away.

Papua New Guinea 1994

11 workers were killed when the sensitised AN emulsion plant exploded at the Porgera Gold Mine. The fatal explosion involved at most a few tonnes of explosive. A larger explosion of about 80 tonnes Ammonium Nitrate Emulsion was caused by fires under storage facilities at the site. There were no fatalities in the second explosion as the site had been evacuated. A mushroom cloud was seen to rise. ANE is an emulsion of ammonium nitrate, fuel and water.

Port Neal, Iowa 1994

Two explosions at the Iowa ammonium nitrate processing plant killed four people and injured 18 others. Approximately 5,700 tons of anhydrous ammonia were released. The releases of ammonia continued for six days after the explosions. Groundwater under the processing plant was contaminated by chemicals released as a result of the blast.

Toulouse, France 2001

On September 21, 2001, at 10:15 AM, in the AZF (factory) (Azote de France) fertiliser factory in Toulouse, France, an explosion occurred in a warehouse where the off-specification granular AN was stored flat, separated by partitions. About 200–300 tons is said to be involved in the explosion, resulting in 31 people dead and 2,442 injured, 34 of them seriously. The blast wave shattered windows up to 3 kilometres away and the resulting crater was 10 metres deep and 50 metres wide. The exact cause remains unknown. The material damage was estimated at 2.3 billion euros.

Cartagena, Murcia, Spain 2003

The fertilizer storage facility of Fertiberia held a self sustained decomposition (SSD) fire in January 2003. The fire was controlled after most of the material was removed by mechanical means.

Barracas, Spain 2004

A truck carrying 25 tonnes of ammonium nitrate fertilizer exploded after a traffic accident, killing two people and injuring three others. The explosion was heard 10 km away, and created a crater five metres deep.

Mihăilești, Buzău, Romania, 2004

A truck carrying 20 tones of ammonium nitrate tipped over on the E85 road at 4.57AM. A fire started in the cabin. Around 5.50 AM the truck exploded, killing 18 and wounding 13 people. The explosion was heard 10km away and formed a crater 6.5 meters deep and 42 meters in diameter.

Ryongch n, North Korea, 2004

A freight train carrying ammonium nitrate exploded, killing 162 people and injuring over 3,000 others. The train station was destroyed, as were most buildings within 500 metres, and nearly 8,000 homes were destroyed or damaged. It left two craters of about ten metres in depth.

Estaca de Bares, Spain 2007

The NPK fertilizer cargo of the ship Ostedijk sustained a self sustained decomposition (SSD) fire for 11 days. The fire plume reached 10 m in diameter and several hundred meters in length. Special water spears were inserted inside the cargo to extinguish the fire.

Monclova, Coahuila, Mexico 2007

A trailer loaded with 22 tons of ammonium nitrate crashed into a truck leaving three dead in the crash. A fire then started in the trailer's cabin. About 40 minutes later a huge explosion occurred, resulting in around 150 people injured and 37 more dead. A crater 9.1 m wide and 1.8 deep was created due to the explosion.

Bryan, TX, United States 2009

A plant in Bryan, TX (El Dorado Chemical Company) which processes ammonium nitrate into fertilizer, caught fire at about 11:40 am on July 30, 2009. Over 80,000 residents in the Bryan/College Station area were asked to evacuate south of town due to the toxic fumes this fire generated. Texas A&M University provided shelter at Reed Arena, a local venue on campus. Only minor injuries were reported.