

NorthConnex Submission

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Introduction

I wish to make a submission on this project considering my medical condition which makes me extremely intolerant to diesel fumes. The principle problem is the sulphur in diesel fumes. So severe is my adverse reaction to diesel fumes that in the early 2000s a Department of Health doctor doing research on tunnel fumes said I should use a double filter respirator in all vehicle tunnels and when walking near exhaust stacks and tunnel portals but never go in the M5 East tunnel. I tested this on the Eastern Distributor and found it correct. At the same time my professor of neurology, who I consult for the migraines from diesel fumes, and my respiratory specialist both told me never to go in vehicle tunnels. It is impossible to live in Sydney and not use vehicle tunnels some times so I use a double filter respirator designed for use with two pack isocyanate polyurethane, but seldom use tunnels. This is effective provided it is not a 3M brand, which I am intolerant to, or Protector, which does not stay in place correctly. I never intend to travel in your tunnel but if I am unconscious and an ambulance takes me through the tunnel, it will probably be fatal.

I am so severely affected by diesel fumes that if I walk from Thornleigh to Pennant Hills along Pennant Hills Road or shop on Pennant Hills Road I need to wear a double filter respirator. When I used to use Maxcom Computers who used to be where your office is at Pennant Hills I used to develop a headache or migraine within half an hour in the shop. If I cycle along the footpath of Pennant Hills Road it generates enough endorphins and testosterone to make it satisfactory for me without wearing a double filter respirator.

Diesel fumes from railway freight trains ascending the grade from Epping to Pennant Hills are a greater problem for me. I need to wear a double filter respirator when at Pennant Hills Station for 10 minutes after a freight train travels North. The adverse effect on my health when the railways changed from electric traction to diesel traction for freight trains in the mid 1990s was substantial, resulting in more headaches and migraines (sometimes every second day), chronic fatigue and depression, loss of cognition, memory and alertness. The proposed increase in rail freight traffic and the configuration of the third track from Epping to Thornleigh, I estimate will increase diesel fumes in Pennant Hills and Thornleigh up to ten times in ten years. Any other reduction in diesel fumes, such as filtration of the exhaust stacks for NorthConnex will be a help in reducing the overall diesel fume level in Pennant Hills and Thornleigh.

RECOMMENDED AMENDMENTS

1. Fit effective filtration to the exhaust stacks to help reduce the overall diesel fumes in Pennant Hills and Thornleigh which is going to be dreadfully affected by the ETTT modifications in the next ten years or so.
2. When turning from the M2 to Pennant Hills Road and M1 to Pennant Hills Road make the intersection design so that it is very clear how to avoid the tunnel even if another car cuts you off when making the turn. If this occurs to me and I do not have my double filter respirator on it could be fatal.
3. I request to be notified when the Victoria Road emergency access has to be used, particularly if a fire occurs in the tunnel, which may generate high volumes of sulphur containing fumes.
4. I would like consideration of how people with severe intolerance to diesel fumes can be removed from vehicle tunnels during delays and accidents or fire, with appropriate priority. I have looked at this in detail and my specialist (a professor emeritus) recommends against the current regulations.

Medical details related to diesel fume intolerance.

In order to deal with diesel fumes at Pennant Hills, as well as having double filter respirators in each car, I need to take a number of medications and remedies that are very expensive. They are:

Folinic acid (calcium folinate 1.3 mg/ml). This is so expensive I can not afford the appropriate amount.

Gentle Cleanse, a herbal product for the liver. This is expensive so I need to limit its use.

MTHF. Although this works well it causes early morning waking.

P5P (the active form of vitamin B6). This is so expensive I can not afford to use it at present.

Despite having a Commonwealth Health Seniors Card none of these medications are covered by it. Conventional medications that could be used, I am either listed as allergic to or so intolerant to they make me worse. In addition, they can not be reduced rapidly when I travel to the country with no diesel fumes and over medication could cause dangerous effects. Obtaining appropriate medical assistance in country areas is virtually impossible unless an appropriate medical centre has been visited many times before by me.

Other inexpensive remedies I use are MgSO_4 solution, vitamin B5 and folic acid.

My medical condition which causes this intolerance is MTHFR gene mutation and a very severe andrology condition resulting in very low testosterone levels and the testosterone cascade going much too fast. It is the MTHFR gene mutation that accelerates the testosterone cascade and prevents my body converting enough folic acid to folinic acid, thus the need to supplement it to slow the testosterone cascade. 16 drops of folinic acid three times per day eliminates my intolerance to all food causing headaches and migraine and reduces my intolerances to diesel fumes but does not eliminate it. Because of the cost I am on 10 drops three times per day now.

Research on the MTHFR gene mutation is beginning to come into the medical literature now but all the aspects relating to andrology are not in the medical literature, including the above, and probably never will be. The doctor I see for andrology, from Perth, who sees patients in all capital cities and Harley Street London, considers there are too few males with my andrology condition in the world and it is too expensive to do accurate testosterone, DHT and E2 tests to do comprehensive double blind testing in this field. Blood tests are only accurate to $\pm 60\%$. The most accurate testosterone test is a combination of gas chromatography and mass spectrometry. Quite reliable results are available with Radio-Immuno-Assay technique (RIA) all of which is too expensive. This makes it difficult for me to obtain medical support in this area and virtually impossible ever to get Commonwealth funding for my condition. The andrology professor I used to see in Sydney will not consider these aspects, this is why I have to go to a doctor from Perth when he visits Sydney. The Allergy Unit RPA promised me assistance with diesel fumes, which did not occur, so I go to a naturopathic GP at Wentworth Falls, who used to work at that unit. I travel all day in 6 trains to avoid diesel fumes. I also need to see many other specialists as well. There is a world expert on MTHFR gene mutation on the North Shore but his consultation rates I can not afford.

I am prepared to assist with appropriate research on diesel fume intolerances if it conforms to the requirements of my doctors, specialists and professors. Note I am in the process of offering myself for training of GP students in this area of medicine.

I am reproducing below part of my submission on the ETTT which addresses diesel fumes:

2. Diesel traction instead of electric traction and the resulting pollution causing devastating health effects on some of the residents of Sydney suburbs near the railway

One of the first things NRC did when they took control of the interstate freight tracks was to discontinue the use of electric locomotives for freight trains throughout the CityRail system. The use of electric locos for freight trains began in the early 1950s. On the Cowan bank (Cowan to Hawkesbury River) and over the Blue Mountains, trains were timetabled so that freight trains descending the steep grades would use their regenerative braking to put power back in the overhead wiring system to power trains going up the steep grades at the same time. Diesel electric locos also have regenerative braking but the amount of

power stored is limited by their battery capacity and most is dissipated through resistor banks so electric locos gave a far greater conservation of energy on these long steep grades. From 1976 to 1980, Alan Reiher, as Chief Commissioner of PTC, NSW, was improving engineering aspects of railways and lobbying the Federal Government for funds for railway improvement to all states. His work was so effective that I thought in a few decades we would see electrification from Melbourne to Brisbane.

The change from electric traction to diesel traction by NRC was an engineering disaster when considering conservation of energy, particularly because we are past peak oil, and its devastating effect on the health of the community near the railway. This was an indication of the many poor engineering decisions NRC and ARTC have made since, some of which I have informed the ICAC and the Rail Safety Regulator of. Some of these bad decisions have affected the safety of the traveling public and the surrounding community.

*Within the CityRail System, this decision affects the health of more people in the Cheltenham to Thornleigh area than any other area because of the gradient, curvature and population density. **The diesel fumes generated cause respiratory problems and act as a depressant and carcinogen.*** In my case, as I am very intolerant to diesel fumes, they cause headaches and migraines (sometimes every second day), chronic fatigue and depression, loss of cognition, memory and alertness. If I go to the country or other areas of Sydney where there are no diesel fumes, I am much better. Returning from a week in the country it takes only two days at Pennant Hills to return to my usual poor health. For the last decade I have been searching for a remedy by seeing many specialists and professors and the most highly qualified in various disciplines throughout the state. I have found no medication that will eliminate this problem, however folinic acid gives some relief. The best recommendation is to use a double filter respirator, which is not practical to use all the time. To walk from Thornleigh to Pennant Hills along Pennant Hills Road I need to wear a double filter respirator and I sometimes use one to shop or drive in this area. (I prefer not to drive in Sydney as on most main roads I should wear a double filter respirator. Going North I wear one to Wyong; going South I wear one to Heathcote, then drive from there; I wear one to Picton on the Hume and going West use back roads and the Bells Line of Road to avoid most semi trailers.) Ducted air conditioning at home would help but is too expensive for us to purchase and run. We purchase a second hand European car with an effective pollen filter but we found it too expensive to maintain so had to sell it. Neither of our older Japanese vehicles can be fitted with such a filter, at reasonable cost. I have an expensive herbal mixture which is a partial help. The most useful assistance I find is to do 2.2 km of very hard and steep, fast cycling every day, in all weather. Without this, headaches and migraine increase dramatically. When headaches and migraines occur I find wearing silk clothes against the skin a good remedy. It normalises serotonin and probably dopamine levels.

Once the third track is completed many freight trains will have to stop with their locos between Pennant Hills and Thornleigh and the end of the train down the grade towards Beecroft Station. For long heavy trains this will result in about four times the diesel fumes, at Pennant Hills and Thornleigh, when the train starts again, compared to the same train traveling at a constant speed up the grade at present.

*The Pennant Hills Station Manager does not get advised when freight trains will run on the DOWN track (up the grade from Epping to Pennant Hills). All other trains, including XPT and all freight trains on the UP track (towards Sydney) are no problem. **IT IS ABSOLUTELY ESSENTIAL THAT ALL PEOPLE IN THIS AREA WHO HAVE PROBLEMS WITH DIESEL FUMES, LIKE ME, CAN READILY OBTAIN ADVICE OF FREIGHT TRAIN RUNNING SO THAT THEY CAN PUT ON A DOUBLE FILTER RESPIRATOR AT THAT TIME AND FOR THE NEXT HOUR SAY, DEPENDING ON WHERE THEY ARE AND THE WIND DIRECTION AND STRENGTH, OR GO INTO HIGH QUALITY FILTERED AIR CONDITIONING AT THAT TIME. ONCE THE THIRD TRACK IS IN OPERATION IT WILL BE MUCH MORE IMPORTANT TO HAVE THIS INFORMATION, TO PREVENT POTENTIAL FATALITIES, IF THESE TRAINS STOP AND RESTART BEFORE REJOINING THE MAIN LINE AT THORNLEIGH.*** Even a range of possible times with probabilities of freight trains would be better than the present lack of any information.

It is essential that all preschools, schools and high schools from Cheltenham to Thornleigh be advised of this information so that they can have all children indoors, in high quality filtered air conditioning, at these times.

The staff of the Allergy Unit at RPA advises that people with high sensitivity and intolerance, like mine, are often those who achieve 100% at university. In my case, in 1963, I was the only engineering student from all engineering disciplines at UNSW, out of just under 1000 students, to achieve 100% in Structures. (By contrast I had a deferred in English.) I am sure there are other academic high achievers that are similarly affected by diesel fumes in this area.

Most people in this area assume that trucks on Pennant Hills Road are the main problem but my health symptoms did not become a major problem until after NRC changed to diesel traction on the CityRail System. Where we live we are closer to a much longer length of the railway from Cheltenham to Pennant Hills than to Pennant Hills Road through Pennant Hills and Thornleigh. (See attached map -- Distance to stations: Cheltenham 0.77 km, Beecroft 1.43 km, Pennant Hills 1.50 km and Thornleigh 2.0 km. Distance to Pennant Hills Road footbridges: Observatory Park 2.2 km, Railway Street 1.47 km; and Station Street 1.96 km.) Recently when waiting on Pennant Hills station, a very long freight train with five diesel locos ascended the grade from Beecroft. I was so badly affected by the diesel fumes that I was unwell for the rest of the day despite going on a long

Probus walk. In September 2011 I was exposed to a large amount of diesel fumes at the Grand Parade at the Rusty Iron Rally at Macksville. In this case the wind blew the diesel fumes into the grandstand where the roof trapped it and I felt very unwell. Once I left the grandstand and walked around the showground in the fresh country air, to our car, I felt much better. The difference at Pennant Hills is that if I am exposed to large volumes of diesel fumes at the station, the background diesel fume level at home, particularly through the night, is significant and prevents rapid recovery.



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Daily cycle shown with speeds in colour (maximum above 60 km/hr) and longitudinal section of route.



