



Monday 17th January 2007

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Dear Madam,

RE: Draft Basic Assessment for the Proposed Construction and Operation of a Second Cement Mill at NPC – Cimpor (Pty) Ltd, Simuma Facility, near Port Shepstone, KwaZulu-Natal (EIA Ref. No. DC21/0065/08)

These comments and questions arise following a review of the Basic Assessment for the Proposed Construction and Operation of a Second Cement Mill at NPC – Cimpor (Pty) Ltd, and issues that were raised following three public meeting held by: 1) SRK Consultants on the proposal to burn waste at the plant; 2) a DEAT-organised stakeholder workshop on Policy Development & Cement Kiln Alternatives held at the Oribi Gorge Hotel; and 3) a community meeting held by groundWork.

Furthermore, Natal Portland Cement (NPC) are in the process of applying for authorisation to implement what they call a 'Proposed Storage and Utilisation of Alternative Fuels and Resources' at NPC's Simuma Facility near Port Shepstone. In reality NPC are proposing to co-incinerate hazardous industrial waste materials (called 'alternative fuels' by them), in their cement kilns to save costs (to them) by replacing coal and selected raw materials with waste tyres and undefined hazardous wastes. SRK Consulting is also acting on behalf of NPC in this regard. This basic assessment process must be considered in the context of this process also.

Existing community concerns

Following the DEAT-organised stakeholder workshop on Policy

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Development and Cement kiln alternatives held at the Oribi Gorge Hotel on the 30th January 2007 and groundWork's historical community engagement dating back to early 2000, the following community concerns currently exist around the existing NPC process extracted from various community meetings:

1. This Factory began in 1980, still have not told community what is being emitted from the factory, what is the way forward, how do we get the company to test emissions and prevent toxic chemical from being emitted?" (Comment by community member).
2. Residents have reported three recent cancer deaths in families living in the community and many incidences of asthma among children in their families – what is being done to investigate whether the factory is the cause of these illnesses?
3. Water that is consumed in the community is rain water and they are concerned that it is contaminated – by the dust from the plant – test water?
4. In the evening the smoke from the NPC factory is worse.
5. We need to hold NPC company liable for emissions and health outcomes.
6. Community were cautioned that the place they are in is dangerous.
7. Smoke and dust is also worse on weekends (Sunday mornings).
8. Asthma, other respiratory health effects are common.
9. We live here, we were born here and we cannot go anywhere else!
10. NPC is not helping the community in any way.
11. We need independent environmental quality monitors – we cannot trust NPC monitors and information.
12. Member of the community comments were not captured by SRK (in previous community meeting) and were not reflected in the minutes – minutes were also posted to another family member.
13. We are confused because many people are dying from HIV/TB in the community – can the environmental pollution cause more people to die?
14. Community school near NPC was closed – children have to walk far distances early in the morning to go to school.
15. Dispersion is an issue in terms of fallout – many farmers in the valley are affected because dust settles on their crops.
16. Houses near to NPC are cracking from their blasting operations.
17. NPC are fighting the community because they have tried in the past without success to evict the community and now it appears they are trying to poison us to evict us.
18. If this proposed expansion and incineration of waste is going kill us then NPC must refrain from doing this!
19. The community have not been notified of additional “studies” that have been done by the DAEA and NPC – information is withheld from us.
20. The truck fleet will increase and this will further impact the quality of life for the community.
21. No permanent job opportunities will be created by proposed expansion, only during construction few jobs were going to be created. There was also a women chief and she mentioned dissatisfaction the way the factory employs people, where it was confirmed by a community that you find people residing 30 km away from the factory employed at this factory yet there are people who reside on the “fenceline Deda community” but no one who comes from there is employed.
22. The large majority of company is owned by Portuguese nationals only 15% owned by BEE. Community asked who are those BEE people. There was no answer to this question!

Community demands

1. The DAEA & NPC must monitor emissions and test various environmental media, including air water and soil that the community breath, live and farm on and drink.
2. Crop testing

3. Do we protect NPC or the community?
4. Community have agreed to stay involved in this issue and will select community representatives to present their position at next public meetings.
5. Community must attend all public meetings and transport must be arranged so that they can all participate – at the last community meeting groundWork made arrangements for community transport and were it not for them many people would have been excluded from the process.
6. Consultants and government refrain from calling meetings in town rather call meetings not far from us as mostly affected community, i.e. in the vicinity of the plant.

Key Environmental Issues and Pollutants

The Basic Assessment document identifies that air quality, noise, dust, and traffic will likely be key issues in this process, however no mention is made of meaningfully quantifying existing air quality at the plant and its impact on local communities as well as proposing possible additional air quality monitoring outside of the BID process. The current concerns at NPC are very real and are affecting communities currently and urgently need to be assessed and addressed before any thought of expansion can occur at this facility. The histological record is clear and shows is that communities have been complaining about NPC's impact on their lives for many years and that even schools have had to close because of poor air quality from the cement plant.

Furthermore the following existing concerns exist at this facility:

No existing controlling and monitoring mechanisms for toxic heavy metals

Previously when NPC were asked whether they had ever meaningfully monitored and controlled for mercury, lead and other heavy metals emissions (currently emitted at levels that can cause health effects) at the Simuma facility, Mr Naidoo (NPC) vaguely referred to a two week study that had been undertaken in 2002. Mr Naidoo (the NPC environmental manager) indicated that there are no specific measures to control emissions of mercury and lead at Simuma. Therefore, in the event we have a verified response from NPC that there have never ever been emissions controls to mitigate these toxic heavy metals from their stacks, knowing full well that they were emitting toxic heavy metals from their stacks, why should the public ever believe that the expansion of the facility will not have negative impacts on their health and, in the case of possibly burning AFR, that they will ever burn hazardous waste in their cement kilns responsibly?

Assessment of Impacts

Generally the cement industry responds that the amounts of toxic heavy metals that are emitted from their stacks are present at low levels – these pollutants exist in trace amounts and arise from burning coal. However what is not generally clearly articulated is that the cement industry burns a lot of coal each day, in fact the NPC cement kilns burn up to seventy seven thousand tonnes of low grade coal each year, known to contain trace amounts of dangerous toxic compounds, which all adds up and accumulates in the air that we breathe and the environment that we grow our crops and live in each day. In fact NPC plan to burn up to 192,500t/annum in the future.

Mercury emissions

Mercury is classified as a persistent, bioaccumulative toxic (PBT) chemical. It can cause neurological and developmental problems, particularly in children.

In a letter to the United States Environmental Protection Agency, protesting the fact that the EPA had elected not to place limits on the mercury emissions of cement kilns, the group Physicians for Social Responsibility explain the effects of mercury pollution as follows:

“Mercury is a serious threat to public health. The health effects of exposure to mercury pollution are well documented. Methylmercury, an organic form of mercury that bioaccumulates in a number of fish and marine mammal species commonly eaten by humans, is known to be highly toxic and can adversely affect several organ systems, including the cardiovascular system, and especially the brain and central nervous system.

The nervous systems of children, infants, and above all the developing fetus are the most sensitive to mercury exposures. Methylmercury easily passes via the placenta from mother to fetus, where it readily penetrates the fetal brain. Neurological and development impairment can occur from both high dose and low dose exposures during fetal development. High dose exposures have been demonstrated to result in low birth weight, severe mental retardation, small head circumference, cerebral palsy, deafness, blindness, and seizures. Low dose exposures can result in lowered IQ, decreased performance on tests of attention, fine motor function, and language, and developmental delays, such as delayed walking. Such effects can take place even at exposure levels where the mother remains healthy or suffers only minor symptoms due to mercury exposure.

Mercury pollution is ubiquitous. In its assessment of the toxicological effects of methylmercury, the National Research Council concluded that mercury is both widespread and persistent in the environment. According to the US National Listing of Fish Advisories (NLFA), 2,436 mercury advisories were issued by 44 states, 1 territory, and 2 tribes and a total of 13,183,748 lake acres and 765,299 river miles were under advisory for mercury in 2004. Additionally, Oklahoma, one of the six states not listed on the 2004 NLFA (along with Alaska, Iowa, Kansas, Utah, and Wyoming) issued a statewide mercury advisory after the time of data release, bringing the total number of states under mercury advisory in 2004 to 45. Also, in 2005, the State Departments of Health and Environmental Quality, the Division of Wildlife Resources, and the U.S. Fish and Wildlife Service (FWS) in Utah jointly issued a no-consumption advisory for two duck species found to have toxic levels of mercury in their flesh.

This pervasiveness of mercury contamination in the environment presents a serious health risk to those who eat contaminated fish, marine mammal, and wildfowl species. In January 2003, the Centers for Disease Control and Prevention (CDC) found that nearly eight percent of women of child bearing ages (16 to 49) are exposed to levels of mercury that exceed the EPA reference dose (RfD) considered safe for a fetus—0.1 micrograms per kilogram ($\mu\text{g}/\text{kg}$) of body weight per day and 5.8 micrograms per liter ($\mu\text{g}/\text{L}$) of blood. A more recent analysis by EPA scientists raised that estimate to more than 15% of women, based on peer-reviewed studies showing that cord blood concentrates mercury at significantly higher levels than maternal blood. Using 2000 census data to extrapolate across the entire U.S. population, this could mean that as many as 630,000 newborns each year are at risk of serious congenital neurological and development impairment.

In Northern America in 2003, cement kilns, which represent less than one percent of industries reporting, reported about nine percent of the total mercury released in air emissions [Commission for Environmental Cooperation, p.56] in North America. This equates to approximately 5.75 tons of mercury and mercury compounds, about 5.23 tons of which were emitted to the air.

In view of the high and unregulated emissions, Physicians for Social Responsibility calls on the EPA to more stringently monitor cement kiln stacks. The letter also suggests that the reporting methods used by the cement kilns are flawed, and that the actual emissions from these kilns may be significantly higher.

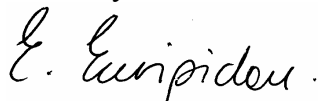
Controlling mercury emissions from cement kilns is particularly troublesome as the high temperature of the kilns makes it impossible to use the bag houses used in other industries. A bag house traps dust from the boiler and an activated carbon injection system is used to extract the mercury. The bags would melt in a cement kiln environment, and carbon injection is not effective where there is a lot of dust”.

Concluding remarks

Furthermore the NPC Facility as it currently exists is not without very real concerns regarding air pollution, community concerns, environmental monitoring and proper regulation. The plant is historically very poorly regulated and poorly monitored and would generally better place itself by cleaning up its current operations (especially in the context of particulate matter, dust, mercury and heavy metals emissions which constitute a very real current public health risk) before it even considers a possible plant expansion let alone the very complicated business of hazardous waste management, handling and disposal.

Finally, it is critical that this is coupled with a full EIA on the proposed expansion rather than just a ‘basic assessment.

Sincerely



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