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MIDVAAL TYRE PYROLYSIS PLANT

(MY COMMENTS 10 November 2011)

DRAFT SCOPING
VERSION 1.0

2. OVERVIEW

(refer para.2 on Page 8)

Seems an extraordinary amount of tyres for the size of the land.

Calculating 60% of 4ha stacked at 10 tyres per .765m cubed, the stacks need to be 28m high for 22 million.

(refer para 4 on Page 8)

Why the quotes? It IS an illegal activity and ignorance is not a defence.

(refer para 7 on Page 8)

The EIA should therefore include de-commissioning and a fund for rehabilitation

(refer para. 1 on Page 10)

The Department name is incorrectly given. Also it would be helpful to explain why it is DEA and not GDARD that is the competent authority.

(refer para. 4 on Page 10)

And the current illegal storage of tyres, the fire hazard?

(refer para.2.4.4 on Page 11)

Air quality is a local issue; if the LA is only now busy with compiling guidelines, it is not ready/able to make an informed strategic decision about this development.

(refer para. 3 on Page 12)

Is it then appropriate to permit ADDITIONAL polluting activities? The alternative site needs to be a REAL consideration.

(refer para.2.4.6 on Page 13)

Would be useful to have these practices explained in layman's terms, indicating the significance of the controls and the extent of the concern. Why are the materials hazardous?

The EIA is intended to INFORM the public.



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3. BACKGROUND TO THE PROPERTY TO BE USED FOR THE PROPOSED PROJECT

(refer para. 3.1 The Property on Page 14)

Later in this report, the fire management talks about connections to MUNICIPAL water. Municipal water is supplied to all holdings in Walkers Fruit Farms the water pressure is inadequate to fight fires. The fire management and hazard must be scrutinised more carefully.

(refer para.3.3 on Page 15)

Is barren the same as vacant or conservation? The use of this word creates bias. And what are “normal” plot dwellings? Is this not low density RESIDENTIAL land use?

(refer para.3.4 on Page 15)

The accuracy must be checked – is it that residential use is low density, or NOT PERMITTED? How does this report then MOTIVATE why policy should be IGNORED and an industrial development allowed?

(refer para 3.5 on Page 15)

The report glosses over the need for rehabilitation and de-commissioning.

4. ENVIRONMENTAL CONTEXT/RECEIVING ENVIRONMENT

(refer para. 4.1 on Page 16)

The Vaal River is a mere 17km from this location.

(refer para. 4.2 on Page 16)

The report does not mention the typical winter temperature inversion which “traps” air pollution close to the ground in winter.

(refer para. 4.2.4 on Page 16)

What is the significance of this in relation to the risk of air-borne particles from the operations? Where are they likely to blow to? And which regional activities are negatively impacted?

4.3.1 RECEIVING WATER ENVIRONMENT

(refer para.4.3.4 on Page 17)

And the surrounding area? How do other people use groundwater, and what will happen if hazardous waste reaches ground water or run-off?

(refer para 4.6.2 on Page 17)

All refuse other than the illegal tyres. (Midvaal has got a weekly removal of refuse not mentioned in report)



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5. DETAILED PROJECT DESCRIPTION

(refer para. 5.1 on Page 19)

This is not an environmentally friendly solution, it is at best monitored and mitigated. These words misrepresent what is an industrial process with hazardous material – nothing friendly about that.

Actually environmental authorisation needs to be obtained before a sensible person would proceed.

(refer para. 5.2 on Page 19)

That is the local authority application. But what is not clear is that ADDITIONAL is the environmental authority. One without the other means the development cannot proceed.

(refer para. 5.3 on Page 19)

Why can they not be moved??!! It is a failing of this assessment that it does not consider fully the alternative of locating the plant in an industrial area, and moving the tyres to that location. This will add to the cost, but it is not something which CANNOT be done. This alternative makes the AREA and its occupants CARRY THE COST OF THE IMPACT, because the applicant does not want to carry the cost of the transport.

(refer para. 5.4 on Page 19)

It may not have tenants but it has NEIGHBOURS. Challenge the factual correctness. The plant cannot occupy the whole property. What will happen to the area vacated by the stockpile as work progresses? What is the footprint of the actual plant?

(refer para. 5.5 on Page 19)

These are industrial activities, and hazardous materials which in no way relate to agricultural activities.

(refer para. 5.5.1 on Page 20)

Understand these risks.

(refer para.5.5.2 on Page 20)

Oil stored on site has risks

(refer para. 5.5.3 on Page 20)

This is the air quality RISK

(refer para. 5.6 on Page 20)

And if there is spillage or pollution? What does that do to the adjoining cropland and water?



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(refer para. 5.7 on Page 20) : **RESEARCH:*** Most projects operate within a temperature of 250 degrees C – 500 degrees C, although some report operating at up to 900 degrees C. Question – how much energy is required to generate that heat at sustained levels? 900 degrees C.

(refer para. 5.8. on Page 20)

Why is this plant not looking at “greener” options such as taking the heat generated by burning the tyres and converting it to energy?

(refer Page 20) : **RESEARCH:*** The potential for explosion and fire exists at PGL operations. Operating at high temperatures and in a low oxygen condition increases the risk of fire and explosion through accidental air infiltration. Catastrophic fires have destroyed some facilities.

COMMENT : the report minimises the risk and the response is inadequate.

(refer Page 21) : **RESEARCH:*** In addition to natural and synthetic rubber, tyres also contain a variety of other materials, including styrene-butadiene copolymers, butyl, EPDM, cis-o-poly-butadiene, aramid, glass fibres, nylon, rayon, polyester, antioxidants, antiozonants, vulcanization accelerators, extending oils, zinc oxide tackifiers, stearic acid, sulphur, clay fillers, various pigments and carbon black. As a consequence of containing the above materials tyres contain a variety of chemical compounds, including those of antimony, arsenic, barium, beryllium, boron compounds, cadmium, calcium and magnesium carbonates cobalt, copper, lead, mercury, potassium and sodium.

COMMENT : Some of these are toxic. The report minimises the risks by not explaining fully.

(refer Page 22) : **RESEARCH:*** Storage of whole tyres requires proper management to prevent potential health problems. Whole tyres stored outdoors may be treated with pesticides or insecticides for vector control (e.g. mosquito or other insect larvae, rodents, water snakes).

Rain may wash dirt, road oil and pesticides or insecticides off the tyres. Tyres, whole or in chips, may also leach substances into the soil.

Thus. stormwater runoff could potentially contaminate soils, groundwater or nearby surface water.

COMMENT : The report does not address the present illegal activity of storage. The Section 24 G application should include the measure to remedy and monitor. As the stockpile IS illegal, the assumption is made that it is NOT managed correctly, and consequently relocating the stockpile to an industrial facility in its entirety would be a more responsible act.

(refer Page 22) : **RESEARCH:*** A facility must develop pollution plans and implement best management practices (BMP's) to control stormwater discharges and may be required to establish a monitoring program. Control of runoff through containment (e.g berms) and capture (e.g. settling ponds) may be acceptable BMP's)

In addition, tyre stockpiles represent fire hazards. Open burning of scrap tyres could emit pollutants of health concern, including benzo(a)pyrene, benzene, lead, zinc and numerous aromatic organic compounds (5-4). Aisles and berms between and around piles provide emergency access for fire fighting equipment and serve as fire breaks.



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6. ALTERNATIVES

(refer para. 6.1 on Page 23)

No-Go does not include perpetuating illegal activity. It is the applicant's responsibility to remedy the illegal activity

(refer para. 6.3 on Page 23)

Ideally for the applicant, contrary to policy, detrimental to the environment and a burden on the community.

(refer para. 6.4 on Page 23 and 24)

Only needing rehabilitation because of the illegal activity – this is not a motivation for adding to the “wrong”

The report only states that there is a large building and there is an illegal stockpile. The stockpile can be moved, another building can be found or built. This motivation ONLY explains the solution perceived to be easiest by the proponent. An informative report would consider alternative locations realistically, weighing economic cost, penalties for illegal storage, cost to the agricultural activities, risk to health and wellbeing, violation of policy, safety risk (fire and health) against the ease of correcting the illegal status of the site.

7.2.6 IMPACT ASSESSMENT PHASE

(refer para 7.2.7 on Page 27)

Insist that the EMP is prepared alongside the EIA – there is too much that would need to be monitored and watched over for this to be tacked on afterwards. The decision makers need to know exactly how the risks will be managed, reported on, how the affected community will be involved and receive data and what avenues are open to them when things do go wrong.

(refer para 7.3.3 on Page 28)

And how well were the public INFORMED of the risks if these are still inadequately represented in this report?

(refer para. 8.2.4 on Page 31)

This report is already ignoring the constraints – the zoning does not permit this activity, the air pollution has this flagged as a priority area etc.

(refer para. 8.2.6 on Page 32)

It is also necessary to look at gaps in knowledge, unanticipated impacts and how will provision be made for these?

(refer para.8.2.8 on Page 32)

Because the material is so fine and easily carried, monitoring should not be a recommendation but an enforceable activity with penalties for breaching any of the safety/environmental limits.



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(refer para. 8.4.1 on Page 33)

What about the STORAGE concerns? Already there is scope for vermin, runoff, toxic contamination etc., etc.

(refer para. 8.5.3 on Page 34)

Serious investigation of making the project more green is needed, even in an industrial area.

(refer para. 8.5.6 on Page 35)

What is the opportunity cost to others? How does having this industrial activity in an agricultural/rural area negatively impact on opportunities which others may rightfully and legitimately expect to enjoy in a rural setting?

9. CONCLUSION

(refer last para. on Page 36)

This speaks only to the economic factors. A conclusion should also fairly and without bias explain the risk and impact to the environment. It should comment on the physical context of the proposed development, and the impact on human health and wellbeing which may follow. It should explain how and if negative impacts have been (1) avoided and where not possible to avoid (2) how mitigated. It is not clear the AVOIDANCE has been considered as an option (for the environment, not the client).

***Research** Refers to Final Report Environmental Factors of Waste Tyre Pyrolysis. Gasification and Liquefaction. California Integrated Waste Management Board. July 1995.

When a POLICY (zoning) is ignored, the decision maker has to MOTIVATE why policy is being ignored. Air quality management is a priority in our area; adding to the air pollution should not be done in the absence of a plan,(or using Johannesburg's plan!)

The storage is already an illegal activity, which has hazards and risks which need to be addressed under Section 24G. The illegal activity is NOT a motivation for furthering degrading and negatively impacting the environment. The decision needs to separate the rectification (storing) and the application (further processing).

The proposal does nothing innovative or "environmentally friendly" (I quote). This is an opportunity - in a different PLACE - to demonstrate additional benefits.

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