

PRESENTATION to CC SSD6236 SUPPLEMENTARY SUBMISSION

May 2021

1. This submission is made on behalf of No Incinerator for Western Sydney (NIWS). NIWS is a registered not for profit community representative group constituted by and from residents of western Sydney. As the Commissioner would by now be no doubt aware there has been a great deal of highly technical and contested evidence argued for and against this proposed development.
2. Our objections to this development are informed by a careful review of publically available material as well as the technical reports submitted by the applicant, technical reports of the consent authorities and other objectors in regard to the production of energy through waste incineration.
3. Despite amendments made by the proponent in response to some objections there nevertheless remains considerable disagreement in relation to their technical reports and the applicants' responses to submissions.

4. I will, however, attempt to not belabour these points of contention and hopefully avoid tedious repetition and present what I believe to be the substantive issues behind the community objections that go to the very heart of this development application and they are as follow:

5. The apparent failure of the proponent to comply with the NSW's EfW policy as referenced by the Director General's environmental assessment requirements - Pt. 4 of that policy is applicable as not all proposed fuels are listed as eligible fuels and therefore the proponent is required to nominate a reference facility utilising the same technology and like fuels in a similar jurisdiction— The Proponents nominated reference facility, Ferrybridge multifuel 1 (FM1) does not, as the evidence reveals, use like fuels as that which is proposed by the proponent and is therefore not in accordance with the requirements of Pt. 4 of the EfW policy. This is further affirmed by Ramboll in a memo, dated 26/10/2016 in which it summarises that of the eight reference facilities listed, including FM1, “that none of the listed reference facilities is an exact replica of the TNG fuel profile” In response the proponent submits that FM1 uses floc waste fractions in its' waste feedstock. Should this be correct, then FM1 would be operating in

contravention of its' UK EPA licence which prohibits the use of this feedstock. Moreover as TNG will not be conducting laboratory sampling of waste inputs prior to incineration and simply relying upon visual checking, CCTV monitoring and waste supplier documentation it will not be possible to accurately monitor whether TNGS' feedstock will comply with the EPAS' eligible waste fuels in accordance with the NSW EfW policy statement. This is particularly critical in determining the composition of the waste and thus the temperature required of 1100 degrees centigrade for at least 2 seconds for incineration in accordance with the EfW policy of wastes that exceed one (1) per cent of halogenated organic substances, expressed as chlorine.

6. Part 4 of the EfW policy is unambiguous in this respect and consent authorities must observe S.4.15 of the Environmental Planning & Assessment Act 1979.

The proponent has relied upon data from this and other non-compliant reference facilities to support its development application. This therefore raises the question as to the probative value of the evidence obtained from these sources. This is particularly so in

relation to the Air Quality Impact Assessment (AQIA) and the Human Health Risk Assessment (HHRA) submitted on behalf of the applicant. I submit that both assessments are severely compromised by the use of this data and the apparent lack of due diligence.

7. The proponent (Appellant) has contended that the technology of the proposed incinerator is such that it would be capable of processing a wide variety of different waste types and whilst this contention may be correct, it, however, does not relieve the proponent from the requirements of Pt.4 of the EfW policy.

The EfW policy provides no technological relief from P.4 reference facility requirement - This is incontestable.

8. The proponent has consistently referred to the capacity of its' proposed waste to energy incinerator to comply with the emission standards imposed by the EU IED 2010/75/EU and whilst this may be so there is no evidence to indicate that these standards will not be altered or that they are actionable by a regulatory authority in an Australian court. I will say more on this subject later.

These FAQ are intended to assist stakeholders by developing the wording and intent of the Industrial Emissions Directive (IED) 2010/75/EU so that Member States transpose and implement the Directive in a consistent manner. Note that the FAQ:

- *only concern interpretation of the English language version of the IED.*
- *should be read in conjunction with the existing FAQ on this website for the component directives of the IED.*

- *do not represent an official position of the Commission and cannot be invoked as such in the context of legal proceedings. Final judgements concerning the interpretation of the Directive can only be made by the European Court of Justice.*

9. The EU emission standards are held out to be the most stringent and whilst they are said to impose the strictest levels for emission of toxic chemicals from waste incineration the standard does not require all periods of operation to be monitored.

As previously mentioned the EU IED 2010/75/EU standards may be reviewed and amended, indeed in December 2019 the WI BREF standards were amended IAW the Seville process and now require continuous monitoring of heavy metals for all new incinerators, these amended standards were not in existence when the proponent asserted that they would be complied with during the operation of the proposed facility. We are not aware of any subsequent confirmation by the proponent that this still remains so.

These BREF 2019 standards, however, do not require all periods of operation to be monitored, in particular non-standard periods such as start- up, shut- down, stack dumps, by-pass and flashing.

10. These events are variously and innocuously described by proponents of waste incineration as “upset conditions”. What the proponents fail to mention is that during these periods of operation the

monitoring and air pollution control devices are being completely by-passed and that there is an uncontrolled and unquantified release of toxic substances into the environment. Moreover, until WILBREF 2019 there was no obligation within the European standards to monitor the frequency and duration of these events and it remains that there is still no requirement to report on the level of emissions during these “upset conditions”.

11. When this is considered in light of Australia’s regulatory regime being internationally regarded as being weak and ineffective with little or no equivalent standards or monitoring regime it does little to invoke any degree of confidence that these facilities would be operated safely in proximity to any sensitive receivers or occupied precinct within Australia.
12. This brings me to the next matter regarding the obligation upon the proponent to comply with statutory requirements is the inability of the proposed incinerator to comply with the limits of the POEO Clean Air Regulation 2010. These limits, according to the proponents’ response to submissions, will be exceeded during upset operating conditions, which could accumulatively

total sixty hours (60hrs) per year. There is no relief from the Clean Air regulation limits during these periods of operation nor, as previously mentioned, is there any obligation upon the operator to monitor the emissions during these periods of “upset conditions”.

We can do no more than speculate as to the EPAS’ response to these events when occurring.

13. The IPC is required to apply all relevant statutory and policy instruments, as is, the LEC.
14. The IPC, had it consented to application SSD6236, would have therefore been in breach of the statutory requirements and policy, having been advised by the proponent that the POEO Clean Air Regulation 2010 could not at all times be complied with.
15. S.37 of POEO Act 1997 requires judicial notice to be taken of a policy and of the date of its publication in the gazette and as the Commissioner would be aware S.39 (4) of the LEC Act 1979 states that; (Quote) “In making its’ decision in respect of an appeal, the Court shall have regard to this and any other relevant Act, any instrument made under any

such Act, the circumstances of the case and the public interest”. (End quote)

16. Speaking of public interest, whilst all matters raised in this submission are of serious concern to many residents of affected areas, one matter is of particular significant concern, that concern being, that the principal parties may seek to resolve this appeal during these conciliation conferences before the Court in such a manner as will seriously compromise the health and wellbeing of all affected residents. This concern arises from the Departments consideration of the likely impacts of the development in detail in section 6 of their Assessment report at appendix B: In which the Department concludes that all environmental impacts cannot be appropriately managed and mitigated through conditions and that the application should be refused. The Courts’ conditional approval would be an intolerable outcome for these residents.

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17. This matter can be resolved by conciliation pursuant to S.34 of the LEC Act but only in a manner consistent with what the court could itself determine

18. I now turn to other matters that have informed my earlier written submission, which are the expert reports submitted by the proponent, the Dept. Of Planning and Environment, as well as research reports from various authorities as detailed in my primary submission. The first being:

The Health Effects of
Waste Incinerators
4th Report of the British Society for
Ecological Medicine
Second Edition
June 2008

Other authorities include the US EPA Environmental Research Foundation EPA: Dioxin does cause cancer in humans.

Unilabs Environmental: Characterisation and estimation of dioxin and furan emission from waste incineration facilities in Australia.

My primary submission details the findings from some of these research institutions.

Read from submission if required.

According to Ohta et al, Japan built 73% of all the municipal waste incinerators in the world and by 1997 had become very concerned about their health effects: in the village of Shintone, 42% of all deaths between 1985–95 in the area up to 1.2 km to leeward of an incinerator (built in 1971) were due to cancer, compared to 20% further away and 25% overall in the local prefecture¹⁷³. Their data on soil contamination reinforced the importance of considering wind directions in evaluating the health effects of incinerators.

And to that end, I have provided a climatology report indicating a prevailing south westerly wind direction.

Comba found an increased incidence of soft tissue sarcoma in an Italian population living within 2 km of an incinerator¹⁷⁴.

Zambon et al looked at cases of sarcoma from a different perspective. They calculated dioxin exposure from incinerators and other industrial sources in patients with sarcoma using a dispersion model and found the risk of sarcoma increased with the extent and duration of exposure to dioxin¹⁷⁵.

In 1989 Gustavsson reported a twofold increase in lung cancer in incinerator workers in Sweden compared to the expected local rate¹⁷⁶. In 1993 he reported a 1.5 fold increase in oesophageal cancer in combustion workers, including those working in incinerators¹⁷⁷.

4.2 Birth Defects

There have been five reports of increases in congenital abnormalities around incinerators. The investigators at Sint Niklaas noted multiple birth defects to leeward of the incinerator⁹⁵. Orofacial defects and other midline defects were found to be more than doubled near an incinerator in Zeeburg, Amsterdam¹⁷⁸. Most of these deformed babies were born in an area corresponding to wind-flow from the incinerator and Other defects included hypospadias and spina bifida. In the Neerland area, Belgium, there was a 26% increase in congenital anomalies in an area situated between two incinerators¹⁷⁹. A study of incinerators in France has shown chromosomal defects and other major anomalies (facial clefts,

megacolon, renal dysplasias) 180. A recent British study looked at births in Cumbria between 1956 and 1993 and reported significantly increased lethal birth defects around incinerators after adjusting for year of birth, social class, birth order, and multiple births. The odds ratio for spina bifida was 1.17 and that for heart defects 1.12. There was also an increased risk of stillbirth and anencephalus around crematoriums¹⁸¹. The study pointed out that the figures for birth defects are likely to be substantial underestimates since they do not include spontaneous or therapeutic abortions, both increased by foetal anomalies.

In addition, several studies have noted an increase in birth defects near waste sites, particularly hazardous waste sites. The pattern of abnormalities was similar to the pattern found with incinerators, with neural tube defects often being the most frequent abnormality found, with cardiac defects second¹⁸²⁻⁸⁵. Harmful chemicals are normally stored in fatty tissue: in the foetus there is little or no fatty tissue

except for that in the brain and nervous system, which may explain the pattern of damage. A review of this subject stated “*the weight of evidence points to an association between residential proximity to hazardous waste site and adverse reproductive outcomes.*” 186

19. The proponents of waste to energy incineration will continue to dispute the findings of these research institutions due to confounding factors, however, it is now possible, according to the UKS’ National Physics Laboratory (NPL), to provide for continuous sampling/monitoring in accordance with the AMESA-D long term monitoring system for these highly toxic compounds sampling from which could establish the causal link, or refute any such linkage, to a person’s medical condition. (Quantitech)
20. The proponents of waste to energy incineration also stipulate that as these facilities operate in close proximity to major cities in other countries and contend that this is evidence of their safe operation. This evidence is of course circumstantial and anecdotally derived with no conclusive or factual evidence submitted to sustain the proponents’ contention that no teratogenic or mutagenic harm has been inflicted upon current or prior resident communities.

21. TNG has submitted a Human health risk assessment (HHRA) based on scenario 4 in its' RTS in that the incinerator will comply with the EU IED emission levels, which as previously mentioned, only apply to standard or steady state operating conditions. This once again raises the question of the credibility of the applicants HHRA which makes no reference to the risks associated with non- standard or abnormal periods of operation when the EU IED requirement for emission monitoring do not apply.

22. The proponent has consistently referred to the compliance with BAT to the operation of its' proposed EfW incinerator. I would, however, submit that the proponents' proposed method for the safe disposal of air pollution control residues including spent reagent and powdered activated carbon (PAC) is inconsistent with BAT 1/23 - See EN15445.

23. Whilst on the subject of PAC it is interesting to note that the proponent has, in its RTS, alluded to providing a nitrogen blanket over the stored PAC to mitigate the potential of a PAC dust explosion. There is no confirmation of the proponents' intention to institute this form of mitigation, nor is this matter dealt with in the HHRA including the provision of an

explosion vent in the PAC storage silo..... But I digress, and now return to the issue of APCD residues.

24. According to the:

National Research Council. 2000. *Waste Incineration and Public Health*. Washington, DC: The National Academies Press.
<https://doi.org/10.17226/5803>.

The following major concerns arise as the PAC is collected in the APCD and disposed of with the fly ash.

Ash Handling

Two concerns of on-site ash management at incineration facilities are the safety of workers and the possibility that fugitive ash will escape into the environment during handling or removal of the ash for disposal. Both concerns require that the ash be contained at all times both inside and outside the facility. In modern systems, a closed system of conveyors to transport the ash from the furnace to trucks helps to minimize worker exposure. Although some facilities have partially closed ash-removal systems, few have completely enclosed ash-handling systems throughout the plant.

We submit that the adoption of the precautionary principle would indicate that such a fully closed method should be incorporated into all new facilities, with this

contaminated ash being stabilised through vitrification, as legislatively required in Japan and some European countries, prior to removal from the licenced premises.

25. One further matter of serious concern is the question as to whether the managing director of the proponent is able to satisfy the requirements of the “fit and proper” person stipulation as defined in S.83 of the POEO Act 1997. This section requires that among other things that management or a person involved in the management of a licenced facility has not contravened any of the environment protection legislation.

25. The managing director of the proponent has in respect of his other licenced companies been convicted of contravening S.64 of the POEO ACT1997 (see 7.9 RTS Urbis final report) which offence attracts special executive liability pursuant to S.169 of the Act, and has some sixteen (16) other breaches of licence conditions for which penalty notices, warnings or official cautions have been issued.

26. This of course raises concerns as to whether this director would in fact comply with all licence conditions that may attach to TNG operations. We would therefore have serious concerns about any conditional approval that may be contemplated in resolution of this matter.

27. The proponent at 7.9 of the RTS Urbis final report, in the third last paragraph says that “it seeks approval to construct the facility, it does not propose that it will be the operator of it or necessarily the holder of the EPL in respect of it”. This comment I believe is disingenuous as it is inconsistent with previous statements by the proponent, that in respect of SSD 6236 it was seeking consent to “construct and operate” an energy from waste facility at its’ existing premises at Eastern Creek. (see 1.1.2 of the RTS Urbis final report)

28. This, I would submit, is nothing less than the managing director of this proponent engaging in deceptive and misleading conduct to avoid the test under S. 83 of the Act of being a “fit and proper person” to conduct such licensed operations.

29. An alternate view might be that the proponent is seeking to clarify its’ application to only permit construction, but not operation of an energy from waste facility at its’ Eastern Creek premises. If this be so then no such licence to operate this facility should issue as a consequence of these proceedings as no such EPL application would therefore have been

made by the appellant or any other third party. The appellants' clarification would assist.

30. Also of serious concern is the long latency or delayed onset period of any medical condition arising from exposure to incinerator operations.
31. A prudent response indicates that waste incinerator operators be required to contribute to an enduring indemnity trust fund in such amounts as are actuarially determined. This fund, I believe, should be administered by the Public Trustee from which any subsequent claims for medical harm associated with incineration operations are to be settled. I acknowledge the above mentioned may not be a matter for the Court but it is felt necessary to articulate this issue where appropriate to ensure that a legal entity remains in existence should such claims for medical harm or incapacity arise from the operation of waste to energy incinerators.
32. The terms of the trust fund are to be agreed.
Such terms could also include provisioning for incinerator de-commissioning and site rehabilitation costs.
34. If the Court pleases that now concludes my Submissions.