



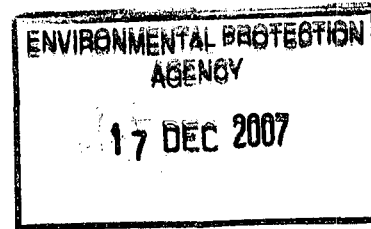
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14/12/2007

The Secretary,
Environmental Protection Agency,
P.O.Box 3000,
Johnstown Castle Estate,
County Wexford.



Waste Licence Register No: W0232-01
Applicant: Dublin City Council.
Facility proposed: Municipal Waste Incinerator at Poolbeg Peninsula.

Dear Sir,

Thank you for sending me the draft licence under the above reference which I have read with some alarm.

I am compelled to object to the confirmation of this licence on several counts as detailed below, and must also request that the Agency holds an oral hearing to investigate these and other objections which I understand will be submitted, especially considering the very large amount of further information (approximately 3,000 pages) that has been introduced by the Council since the license application was made. Given the site of the proposed facility and the Dublin residence of the majority of those who would attend such a hearing I must also strongly request that it be held in Dublin, especially as I have some constraints on my mobility. I attach my cheque for € 300 to cover the necessary fees.

At this stage I should say that many of my concerns arise from the recent decision of An Bord Pleanala to grant permission for the construction of this facility and the discrepancies that arise between that permission and the current draft licence. As someone who attended the full oral hearing into the application and who is dismayed by the way in which serious concerns put forward at that investigation that have implications for the operation of the facility and the health of the surrounding communities, as well as the economics of the process, were apparently ignored by the Bord I must emphasise my very real doubts if the procedure followed to date can possibly assure the wellbeing of the communities surrounding the proposed site, the natural heritage of the protected areas and the environment itself. I will enlarge on this later in my objection.

Obj 3
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1. Non-identification and Confusion of Responsibilities:

Before and during the oral hearing repeated requests were made for the Council to produce the supposed contract with the proposed contractor which was said to have been signed in 2005. It then transpired that no contract was actually in place, but in the period since the hearing it has again been stated that one has been signed. The Council stubbornly refuses to expose this highly crucial document, so that the contractual responsibilities of the various parties remain shrouded in mystery.

At the hearing the Council gave the very strong impression that waste would be delivered on their behalf to the entrance of the plant and all subsequent treatment would be the responsibility of the contractor. Had they not done so there would have been very strong representations made regarding the competence of the Council to operate any kind of process plant.

The experience of the local communities over many years with the large municipal sewage plant at Poolbeg confirms that Dublin City Council is quite incapable of operating any process plant within stipulated limits, and that their communication with the communities in such regard has been quite inadequate and gives rise to deep suspicion. The Council has also proved quite ineffectual in discharging its enforcement responsibilities for breaches of environmental legislation by third parties.

In the introduction to the draft licence the Agency assumes a quite different arrangement, which is carried through the body of the document, where the Council would assume the responsibility for the operation of the facility and would be assisted by "professional agents". Given some of the disconnections in responsibility that will be demonstrated in following sections this suggests a most dangerous confusion, exactly the kind that has produced serious problems with many similar operations in the past. This confusion would undoubtedly be exacerbated, if not resolved at this stage, by the proposed arrangement for two companies from different continents, with different technologies and cultures (and even language), to share responsibility for construction and operation. **At least, that is the current best assumed interpretation of the contractual arrangement.** In this confusion I would submit that either the Agency or ABP must now insist on the production of the supposed contract so that some definition and certainty can be introduced into the process.

Until this is done the position of objectors and all those outside the Council and contractors must be based on guesswork, which invariably leads to misinterpretation and subsequent problems of safety, performance and excess costs.

It is quite clear from the two documents that both ABP and the Agency have limited their remits to avoid any consideration of this vital defect, but at this stage it is essential that something as fundamental must be properly examined.

Such considerations should, by this stage, have been well resolved in municipal incinerators operating in Europe, and it is impossible to understand why the contractual structure cannot be revealed here. The dangers inherent in the current status will be fully set out at the requested hearing, and examples will be offered of problems with other operating incinerators that have arisen, including those where facilities have had to be shut down.

One way in which these problems have been resolved in current European operations is by the appointment of independent engineers on site to monitor the ongoing operation of the facility with powers to close it down if critical limits should be exceeded. The imposition of some such regime here would go far to reassure any community on which such a monstrous plant was being imposed.

2. Licenced Activities:

Class 12 in the Third Schedule of the Waste Management Act covers the repackaging of waste prior to submission of any action associated with incineration. No proposal has ever been submitted for any such activity at the proposed Poolbeg site, and its inclusion in the licence is obscure and should be justified if it is indeed necessary.

3. Licensed Waste Recovery Activities:

In the table of permitted activities under the Fourth Schedule classes 3, 4 and 8 give very wide scope for expansion of activities at the site to include many which are currently not sought and which would be most objectionable to the surrounding communities. This requires clarification and much improved definition of limits and conditions before any licence is confirmed.

4. Glossary of Terms:

Consignment Note: This appears to define the control of all movements of waste into and from the proposed facility. However it does not refer to the relevant EU legislation governing the trans-frontier movement of incinerator ash residues which would appear to have significant impacts on the design and operation of the plant. These concerns were raised at the oral hearing and were not adequately addressed, and the proposed licence is deficient following their omission.

Inert Waste: This definition is unsatisfactory in that it is not referred to other standards and is open to interpretation.

Liquid Waste: No permission has been sought or granted, so far as is known, for the transport of liquid waste by tanker to the proposed facility, and this condition should be corrected before any licence is confirmed.

Residual Waste: The definition given appears to conflict fundamentally with the operating system proposed by the Council in the EIS and confirmed in great detail at the oral hearing, where the system proposed was mass burn of unsorted waste..

Sludge: While the definition given is technically correct it does not restrict the sludge for this proposed facility to municipal sewage sludge. The licence would, therefore, allow the processing of other kinds of sludge, e.g. animal manure sludge, for which no planning permission was sought or granted. This definition should be corrected.

Turning now to the Decision:

5. Part I:

Licensed Waste Disposal and Recovery Activities:

The activities covered have already been discussed in Section 2, and it is again emphasised that their scope far exceeds anything proposed by the Council (so far as the communities have been informed, which does not necessarily mean that they may not be intended for the future) or for which permission has been granted. Classes 12, 3, 4 and 6 should be removed or, at minimum, much more rigorously defined.

6. Part III:

Condition 1. Scope:

- 1.3 It should be made clear that this paragraph includes relevant European Laws under the various applicable Directives. The permission granted by ABP appears to contravene these in several respects and is presently being audited.
- 1.7 No definition has been established for "hazardous waste", and it is important that this be done before the licence is issued because of possible differing interpretations of EU and national legislation.
- 1.9 While this condition is admirable in itself it is purely aspirational, as no adequate mechanism has been stipulated for ensuring compliance in the operation of the facility. If the incinerator is wrongly designed/constructed/operated there are very serious potential health and welfare outcomes for humans and wildlife, and giving the operator a "smack on the wrist" for an excursion at some later date cannot rectify the damage, even if the excursion can be confirmed. This is the fatal flaw in the control system proposed.
- 1.10.b This sentence should be changed to read "*Site management infrastructure or control with possible adverse environmental significance*".

Condition 2. Management of the facility:

This whole condition sets out a set of ideal conditions for the management of the proposed facility, but ignores the "fatal flaw" referred to above. Because of capacity, operational and economic constraints there would be every encouragement to the operators to minimise, conceal and even ignore excursions from correct operating practice. In the absence of any significant real-time reporting system to an independent authority (e.g. the Agency) there can be no confidence that the system would prevent the kind of concealment, obfuscation and downright deception that has been reported from similar facilities in other countries.

Unfortunately, there is a similar history of denial and deception for various facilities in this Country (e.g. fertiliser production, pharmaceuticals, mineral extraction and treatment, communications come to mind) that does not permit any argument that "Ireland is different". This is especially so when a split-responsibility partnership is supposedly involved, where each partner would naturally attempt to hold the other responsible for any incident and subsequent penalties.

The above will tend to be dismissed as unduly pessimistic (similar suggestions were totally ignored by the ABP Inspector), but the comments are based on wide personal experience of Irish and overseas process and utility plant operation over a period of more than half a century!

- 2.3.2.2. This condition does not make sense, given that the licensee is already required to carry out the stipulated activities under the terms of National Waste legislation.
- 2.3.2.5. The terms of this condition should be approved by the Agency before the facility is permitted to start testing.
- 2.3.2.7. It is quite inadequate to leave it to the licensee to prepare the proposed list of process control parameters, especially given its inexperience in such matters
- 2.3.2.8 This section suggests a regime where the Council sets up an interactive and transparent communication programme to inform the adjoining communities and the public at large about conditions in the facility. Past experience with the Council means there would be absolutely no confidence in a system such as that proposed unless it were monitored and verified by a completely independent body.

2.3.2.8.b. This condition should be modified to read "~~information via the internet at all times~~-----"

2.3.2.8.b.i. The requirement for internet access to real-time data is welcomed. However the licence must stipulate the information to be provided and the required frequency of refreshment.

7. Condition 3. Infrastructure and Operation:

3.2.1.2. The whole site selection and operation of the proposed facility is postulated on the assumption that no hazardous emissions would be discharged from the stacks, so that the nearby residential areas would not be at risk. The requirement for a windsock to be erected clearly shows that the Agency is not convinced that this situation will obtain and that it would be important to know the direction of the wind in the case of an accident or excursion. This being so, and considering the sensitive location of the proposed facility, no operating licence should be issued

3.3.2. All the information to be displayed on the proposed board would be useful if any reliance could be placed on the numbers being manned and there being some kind of effective enforcement available if the conditions were breached.

The experience of the local communities is that requests for enforcement of existing legislation by the Council are met with total inaction, especially if commercial interests are involved, and that the only way in which the Council can be forced to undertake its statutory duties is to refer the matter to a higher authority. This suggests that no licence should be granted until proper independent enforcement mechanisms are available.

3.4.2. Given that the transport and ship loading of waste ash is an integral part of the operation of the facility the proposed CCTV system should include the wharf where loading is proposed to take place.

3.5. No mention of any of these requirements was put forward at the ABP oral hearing. As they will require substantial modification to the layout of the building and the proposed operation of the facility this condition, if upheld, will surely require that the permission issued by ABP be invalidated and the hearing re-opened to consider the implications and safety measures required.

3.5.3. As there is no control of the contents of incoming waste shipments proposed by the Council in the EIS, there can be no certainty that the drainage from the proposed inspection areas would be suitable for use as process water.

3.9. The proposed storage capacity for bottom ash is completely inadequate. This point was clearly explained to the oral hearing in the light of relevant European legislation and was ignored in the ensuing grant of permission.

3.10.1. The negative pressure regime within the building envelope can only be maintained when the induced draught fans are running. When the plant is shut down for any reason it will be quite possible for dust and odours to escape, so that this condition cannot be implemented as it stands.

It should also be emphasised again that the ship loading operations for bottom ash are proposed for an open quayside so that a completely separate dust control system will have to be implemented there. The requirements for this should form an integral part of the licence.

- 3.15.2. This condition would require waste removal to the ship loading facilities to take place at peak traffic hours. As it is proposed to move some 10,000 tonnes of waste in a relatively short period it is clear that there will be intense truck movement during this activity. It is submitted that, before any licence is confirmed, much more definition must be given by the licensee regarding the operating method that is proposed for this activity. No consideration whatever has been given to any special precautions that might be necessary at the loading quay or aboard the ship, or to the cleaning of the loading area and the disposal of cleaning wastes after the operation, especially if the berth is to be used for other purposes.

It should also be pointed out that this method of waste disposal will not be available for the full planned life of the facility, as it is proposed to move the port to another location and to use the vacated land for housing (See report "A Vision for Dublin Bay" issued by the Council in October 2007). It would appear that the current planning confusion for the area should demand that no licence be issued until the situation has been resolved and a coherent approach defined. This point was strongly made to the oral hearing but was ignored.

- 3.16.2. A further condition should be inserted here.

"The sensitivity of the site to marine flooding shall be re-examined in the light of current knowledge to ensure that the facility is protected from all possible future flooding events".

- 3.17.2 (e) The licensee must be asked to demonstrate the thermocouples offer the most reliable and accurate measurement of this critical variable. This should be required before the licence is confirmed.

- 3.17.2 (f) This conditions should be modified to include a list of backup equipment and methodology for the proposed control and SCADA system.

- 3.18.1. This condition is merely aspirational. No requirement is stipulated for immediate shut-down or other action in the case of an excursion, nor as to how this condition would be monitored in real life operation.

- 3.18.2. The proposed capacity is excessive, given that the Council has nowhere demonstrated that the available supply of residual waste would even approach that figure unless based on grossly inflated and now discredited estimates of population growth for the Dublin Region, or on the import of residual waste from a much wider area.

- 3.18.3. Given that the Council has not demonstrated the necessary competence in the operation of sophisticated process plant it is only a statement of hope to propose that they could do so for this proposed facility

- 3.18.5 This condition should be expanded to require that the critical 850° C temperature be reached or exceeded all across the gas stream. Spot measurement does not provide the requisite guarantee of elimination of toxic substances, and problems of laminar flow could also arise.

- 3.18.6. Given that sophisticated control equipment is proposed for this facility there should be provision in this condition for trend monitoring to start the auxiliary burner before the temperature drops below the critical point if a prolonged temperature decline is noted.

- 3.18.6. Given the capacity of the system and its inertia the Agency should stipulate the response time required from this system in this condition.
- 3.18.7. As the supply of hydrocarbon fuels is forecast to become severely restricted or ended well within the proposed lifetime of the proposed facility this condition may not be always capable of being met.
- 3.18.5 – 8. The charging system proposed for this facility relies on manual operation, making it less suitable for automatic intervention in case of excursions, and the sheer size of the combustion lines entail considerable inertia being inherent. These conditions and those in condition 3.19 should be further examined and refined to ensure that the intention of the Agency to promote the safest operation possible will actually be facilitated by their requirements. This needs to be done before detailed design of the proposed facility commences.

Note: Despite the ruling of ABP it appears to be very hazardous in the case of an inherently dangerous facility such as that proposed to grant planning permission and issue an operating license without any definition of the technical specification proposed, as problems can be introduced at the design and procurement stages that are almost impossible to rectify once the plant has been built. This leads to the commissioning of non-compliant equipment, operational problems and politically motivated concealment of the true situation, as has already been seen in this area.

- 3.23. This condition is also aspirational, though worthy. No standards are stipulated nor is any monitoring mechanism set out to ensure compliance by the licensee.
- 3.24.1. Despite the strong objections of the local communities the construction works on this facility are proposed to take place continuously, 24 hours every day, and this condition needs to be strengthened to ensure compliance: "Appropriately qualified" appears to be a subjective requirement, open to considerable argument after construction begins, and the Agency should set out how it is proposed that it should be fulfilled.

8. Condition 4. Interpretation:

- 4.2. It is the strong contention of the local communities that virtually all danger posed to the receiving waters of the Liffey Estuary and its important populations would be removed if air-cooling of the condensers were adopted. This point was not adequately considered by ABP and the Agency should re-examine this simple and highly effective method of hazard removal.

This condition states in very strong terms what "shall" happen. While this would be very reassuring if it could be believed, but there must be a suspicion that this would not be the situation in a real world process plant, unless very widespread use were made of automatic control systems. If this is the intention of the Agency it should be stated in much more explicit terms.

9. Condition 5. Emissions:

- 5.3. This condition is too vague, what defines a "significant" impairment or interference?
- 5.5. Given that the site of the proposed facility adjoins an Important Bird Area, designated as a Special Protection Area, the interpretation of this condition must be given much more definition and clarity. Animals classified as "vermin" while on the site could well be part of the food chain for protected birds outside (e.g. Kestrels), and measures to control

birds on the site could easily have a serious impact on those outside. This is a fundamental defect in the siting of the facility and the control methods referred in this condition should be subject to prior approval by the NPWS if the licence is confirmed.

- 5.7. This condition is defective in that it does not make any provision for the measurement of nano-particulate matter, which is now known to pose a hazard to health. The proposed annual submission of dust emission figures would appear to be totally inadequate and should be revised.

10. Condition 6. Control and Monitoring:

- 6.2 The proposed frequency of noise measurement appears completely inadequate.
- 6.4 This condition is also a worthy aspiration but lacks bite unless compliance is audited by a competent, independent agency. This applies to all the requirements for monitoring in this condition.
- 6.8 Noting the complex nature of the automated analysis and the sensitivity of the sensors to contamination the frequency proposed for surveillance and calibration appears quite inadequate.
- 6.10 Referring to the argument under condition 5.5 this condition also requires much further definition, in particular of the meaning of bird-caused nuisance. Given the proximity of the protected areas and populations the phrase "immediate surrounds" also requires rigorous definition.
- 6.17. The meaning of this condition is far from clear. "Final effluent" should be properly defined.
- 6.19/6.20. These conditions would appear to give an excellent appraisal of any possible damage to the waters of the estuary after 12 months of operation. However no consequent actions are stipulated in the case of damage being evident, which reduces the value of the condition. It is clear that it would, at that stage, be politically impossible to abandon the plant, and very expensive to convert to air cooling

11. Condition 11. Resource Use and Energy Efficiency:

- 7.1 The Agency will no doubt be aware that the introduction of district heating would further reduce the generating capacity of the proposed facility which, in any case, appears incapable of reaching the figures stated in the specification. It is suggested that a properly engineered and costed proposal should be required from the Council before any licence is confirmed, as afterwards it would be too late to make any difference to the outcome.

12. Condition 8. Materials Handling:

- 8.2.3 (a). No proposal for waste inspection at the point of entry to the facility were put forward in the EIS or put to the oral hearing, other than "spot checking". This condition would clearly influence the layout of the facility and have a possible adverse impact on the environment in the area. This confusion should be resolved before a licence is confirmed.
- 8.2.3.(b). The thrust of this condition is fully supported, and possible problems arising in this area were put to ABP and ignored. However as these problems would appear to have very

significant potential to impact on the design and even viability of the proposed facility it is suggested that they should be resolved long before a licence is confirmed.

8.2.3. (d). This condition has similar potential impacts to those described in the previous paragraph, and should also be resolved before licence is confirmed. It is again emphasised that the proposed method of handling bottom ash does not appear to have been used anywhere before this conceptual proposal.

8.2.3. (e). This condition is vague and needs to be defined. The Council has never made any proposal to carry out such determination and would, in all likelihood, plead that it was not possible in practice to conform with that condition.

8.3. No provision has been made in the conceptual design or put before the oral hearing for a waste quarantine area. Once again the fundamental design of the proposed facility is being altered without any opportunity being afforded to objectors to consider the implications arising.

8.5-8.12. All these conditions have potential impacts upon the design and operation of the proposed facility, and no proposals that would meet their requirements were put before the oral hearing. The process is thus degenerating into a series of ongoing modifications that, if confirmed as is, would render the EIS, the supplementary information amounting to almost 2,500 pages and the submissions given to the oral hearing completely redundant.

It has always been maintained that the design produced for the planning application was, at best, conceptual, and that the final plant, if permitted, would bear little resemblance to that design. The introduction at a late stage of an additional partner to the PPP process, with a different technological background, appears guaranteed to make this situation even more difficult. At this point it appears impossible for anyone to predict the cost or performance of the proposed facility, and that the only safe course for the Agency if it is to safeguard the environment and human health would be to suspend the process until a basic definitive design and operation methodology have been put forward.

13. Condition 9. Accident Prevention and Emergency Response:

9.4.1 (b). It is assumed, and should be stated, that this condition does not apply to waste comprising fly ash, boiler ash or bottom ash, as its requirements could not be met by the proposed facility and its operation.

14. Condition 10. Decommissioning:

This section appears to have limited relevance to the current situation; though decommissioning will clearly be required at some stage if the proposed facility as allowed to proceed. However the political reality is that the facility, once commissioned, would be most unlikely to stop unless the most serious malfunction or operational deficiency was to be proved, which was confirmed by the Council at the oral hearing

The sorry saga of the adjoining sewage treatment plant bears abundant witness to the approach of the Council to such a situation, and there is no reason to think that the much greater danger arising from the incineration process would change their philosophy in any way.

This means that if the facility were to proceed its decommissioning would be so far in the future that conditions made to govern it at this point would probably be obsolete and thus redundant.

Condition 11. Notification, Records and Reports.

It has already been noted that problems have arisen in other jurisdictions when records of serious excursions have proved to be unavailable for a variety of reasons when subsequently sought. All the sub-conditions in this section are very worthy in themselves and the records would be of great importance in the event of any incident.

However no responsibility is allocated for ensuring that the Council would devise and implement a modern, safe system of archive management and safe storage, with rigorous controls, and this should be included in this condition before any licence is confirmed.

11.7.1. The Annual Environmental Report proposed should be available to the general public at a reasonable cost.

11.11.1 The processes named in this condition are not, so far as can be ascertained, proposed to fall within the work scope of the Council. In this circumstance it is hard to see how any reports that the condition requires would have any real meaning

It should be noted in this connection that the proposed facility would not appear to comply with current EU and National waste legislation.

15. Condition 12. Financial Charges and Provisions.

This whole section is founded on the assumption that financial compensation is an adequate remedy for loss of life and/or health, or damage to property or other interest. It is most strongly contended that the duty of the Agency is to prevent hazards to the health of humans, wildlife and the environment and that any significant risk that cannot be removed at the design stage should prevent the commissioning of the facility until it has been overcome.

This, in turn, would require that a significant amount of detailed design be completed before any licence could be confirmed. This is especially relevant where the technology is untried in previous practice.

12.2.6. It is again emphasised that it is extremely unlikely that the proposed facility would ever close, apart from turbine maintenance periods, once it had been commissioned. Certainly this is the intention of the Council as stated at the oral hearing.

16. Schedule A: Limitations:

It is again emphasised that a treatment capacity of 600,000 tonnes per annum is grossly in excess of the requirements of the Dublin Region.

17. Schedule B: Emission Limits:

B.3 Limits should be stipulated for emissions to sewer given that it is proposed that these will directly run to the adjoining sewage treatment plant and that there are many substances that could cause damage to the process involved in this treatment.

18. Schedule C: Control and Monitoring:

C.1.1. The proposed list of key equipment appears unduly restricted. Given the immense size of the proposed bottom ash bunker and the nature of the material it is difficult to see how any measurement of "quantity and type" could be meaningful.

No condition is imposed to require adequate built-in redundancy for critical measurements in case of equipment failure, and this should be included before any licence is confirmed.

C.1.2. The proposed quarterly measurement schedule for many of the pollutants in the stack gas stream appears to be totally inadequate. The EIS was based on the combustion of unsorted waste, so that the composition of the stack gas could have varied significantly and excursions could have been frequent. The definitions included in the proposed licence have changed this, but if this is seen as having a large impact on the composition of these gases then new modelling should be carried out and this aspect re-examined.

C.2.1. The parameters being monitored by the equipment proposed in this condition are of critical importance to the estuarine wildlife populations, and there should be provision for "hot" backup in case of equipment failure. It is not sufficient to stipulate "spares held on site".

C.3.1. Allowing emissions to flow to sewer without monitoring or control appears dangerous, as previously stated. This condition should be re-considered.

C.4.2. Given the very large quantity that it is proposed to hold in the bunker and the need for structural integrity of this construction it seems most unlikely that any sort of representational testing of the bottom ash for the elements and compounds mentioned would be possible.

C.6.2. The proposed noise monitoring at yearly intervals appears inadequate, especially in the early days of operation if the facility were allowed to proceed

No provision is made in Condition C for ongoing monitoring of the effect of project, both before and after commissioning, on the bird populations in the adjoining protected areas, under the Birds Directive. This is a serious omission and should be rectified.

19. Schedule D: Annual Environmental Report.

It is again stressed that the proposed report must be available to the general public in good time after its publication and at a reasonable cost.

20. Conclusion:

The proposed licence has been examined in great detail and has been shown in the foregoing comments to have serious defects. Many of these arise from discrepancies between the findings of An Bord Pleanála and the proposals of the Agency, but it is submitted that they pose significant risks if the facility were to be built as the documents stand.

In particular the confusion and conflict that obtains in the planning process for the Poolbeg area must surely demand that the licensing process for this large, intrusive and dangerous facility should be halted until a proper plan has been agreed.

If this is not done then it would appear very likely that the serious, ongoing problems that beset the sewage plant would be repeated on an even larger scale.

I urge the Agency to deal with this by calling a public oral hearing and look forward to my participation therein.

Yours faithfully

Maurice Bryan