Good Evening Ladies and Gentleman.

Thank you for giving me the opportunity to raise my concerns about the **Waste Incinerator** planned for **Portland Port**.

Note that I don't use the misleading description "**Energy Recovery Facility**" which is intended to mask the true nature of the plans we are discussing and to also highlight the feature that **Powerfuel Portland** believe works best in their favour.

My name is Andrew McQueen and I am a resident of Martinstown near Dorchester. I live and work in South Dorset.

My background is Oceanography for which I have a BSc Hons Degree from Swansea University in 1985. I then worked as a commercial Physical Oceanographer until 1990, mainly for Oil companies but also for the newly privatised water companies of that time.

Since 1990 I have mainly worked in IT but have maintained my interest in the sea through yachting, and interest in the environment through various activities such as walking and bird watching.

I know the waters of South Dorset and in particular Portland Harbour reasonably well.

Can I just say that there are references at the end of this speech for anyone who wishes to check some of the facts I use.

Also note that where there are gaps in my comments and to limit repetition amongst speakers, I trust that others have already or will follow up with appropriate comments and concerns to other parts of the proposal not mentioned here.

I was going to focus solely on what I think is an overlooked drawback of the proposed development – **the potential for pollution in the marine environment** – but having read much of the **Powerfuel Proposal Summary** I feel compelled to comment and respond to some of the more general points which I feel are overstated benefits or potentially misleading.

I should add that as a busy working man I do not profess to have read and absorbed all of the documentation associated with this planning proposal. I trust that those who have will take my comments and queries onboard and assess them in the context of the entire process. So apologies if I am off track with any of my material.

Let's get to the main benefit of the **Waste Incinerator** and one assessed as requiring "**very substantial positive weight**" in the argument supporting the facility by Powerfuel Portland. That is the provision of upto 15MW of shore power for visiting Cruise Ships. This is the main thrust of their proposal.

It should be noted that **Portland Port** has recently invested and continues to invest a significant amount of money in extending and improving their Cruise Ship Terminal and clearly, they see any enhancement to that as a major benefit to their business.

It is stated that the lack of shore power facilities is likely to have a detrimental effect on this business going forward. Well, the evidence suggests otherwise. Cruise Ship visits have increased from 24 in 2017 (with over 36,000 passengers) to 55 in 2023 (with over 100,000 passengers). Despite this, according to Powerfuel, several cruise lines have expressed the opinion that lack of shore power facilities would make Portland less attractive as a future destination for their ships.

Let's put this in perspective:

There is a push for all shipping to reduce emissions in line with the general climate crisis response. Therefore, any opportunity for Cruise Ships to turn their engines off and let the port take the hit on emissions for supplying power to the ship is going to be attractive. I'm sure all Cruise Lines would welcome a port with shore power facilities. This issue is not limited to Portland.

In the UK, there are currently only 2 ports with shore power for Cruise Ships – **Orkney** and **Southampton**. Other countries have more ports with these facilities and we are behind the curve but the main reason Cruise Ships visit Portland is to visit the beautiful Dorset coastline and countryside. The Jurassic Coast, Portland Bill, Corfe Castle, Lulworth Cove and Abbotsbury Swannery for example.

Some of the same locations which will be in sight of and may be blighted by the very same Waste Incinerator which is supposed to encourage the visitors in the first place. Indeed, bearing in mind that the prevailing winds are from the West and South West, most cruise ships entering the harbour are likely to sail through the downwind

plume emanating from the chimney of the Waste Incinerator before berthing and also on departure. Now there's an irony.

The emissions of the Waste Incinerator are described as "**Health impacts not significant**" which I find rather alarming and actually raises more questions than it answers. Define "**Significant**". Does that mean it's ok if you only breathe them in for a short while for example? I don't know the answer and I haven't seen it quantified anywhere.

Let's be frank. These Cruise Ships are large (upto 340m in length with deep water berth requirements) and are capable of carrying thousands of passengers. There are very few port facilities on the South Coast of the UK that can handle such vessels and none further West.

Southampton, around 70 nm to the East, is the closest and yet distant from the Dorset attractions and can only handle upto 5 ships itself. In this context, you can understand why Portland Port have developed their facilities and why they want the shore power but for exactly the reasons stated here, it is clearly misleading to say that Portland is at risk of losing this business if shore power isn't provided. Indeed, the new port facilities, without the shore power, have already attracted significantly more business.

There is no competition now or in the foreseeable future. Geography and current facilities are all in Portland's favour. There is clear demand to visit Dorset by Cruise Ship and Portland already handles that traffic without the provision of shore power.

To cap it all, the Cruise Ships are becoming more environmentally friendly themselves as they recognise the huge power demands (5-10MW per ship) are not easy to cater for and when at sea they cannot use shore power anyway so they must be efficient and clean.

It should be acknowledged that all parts of the shipping industry have to improve emissions and whilst having shore power is a bonus it is not at all clear that lack of it will jeopardise visits of Cruise Ships to Portland. And yet that is the main argument for siting a Waste Incinerator in Portland Harbour.

Just to highlight the issue further, the MSC Virtuosa was built in 2021 and is a good example of the steps taken by modern vessels to reduce emissions whether at sea or in port. This ship visited Portland 3 times in 2023 for between 8 and 12 hours each visit. It was the largest Cruise Ship to visit the port in 2023.

MSC Cruises says the following about their ship:

"Environmental Stewardship

MSC Virtuosa is one of the most environmentally-sound ships at sea and an energy-efficient role model for modern cruising.

Air emissions

• 98% reduction of sulphur oxide (SOx) and 90% reduction of nitrogen oxide (NOx) emissions thanks to the most advanced technologies.

Energy efficiency

• Wide range of energy-saving equipment to maximise efficiency such as smart heating, ventilation and air conditioning.

Wastewater & Protecting Marine Life

• Advanced wastewater treatment system with higher purification standards than most wastewater treatment facilities ashore."

As you can see, Cruise Lines are under huge pressure to limit their environmental impact irrespective of shoreside facilities. They visit some of the most beautiful and protected seas on the planet and they have to be seen to behave responsibly towards the environment.

This is contrary to Powerfuel Portland who, once they are up and running, appear under no obligation to reduce emissions going forward from their initial targets.

In fact, it wouldn't surprise me to learn that the emissions from modern ships such as the **MSC Virtuosa** are already as clean or cleaner than the emissions from the proposed Waste Incinerator and therefore using shore power, whilst reducing the direct emissions of the cruise ship, is actually more detrimental to the local environment. And into the future, newer cruise ships will get better and better, the Waste Incinerator won't.

One more fact – the total time for cruise ships in Portland port was a maximum of 660 hours (or 7.5% of the year) in 2023, assuming a stay of up to 12 hours each. The other 92.5% of the time, the excess energy from the Waste Incinerator is not required for its primary purpose. However, the emissions and noise and blight on the landscape from its presence and operation will still be there.

I suggest that somebody does the comparison and looks at future ship designs to compare the emissions against the Waste Incinerator in 10 and 20 years time. The Incinerator will most likely be the same or worse than when it is first commissioned as there doesn't appear to be any plan to check emissions going forward or to require technology upgrades in future years to reduce emissions further.

The ships will improve, the Incinerator probably won't.

So to recap, Powerfuel state the following:

QUOTE

If Portland Port is unable to offer shore power then it will be at a competitive disadvantage to other UK and European ports. This is likely to result in a lower number of cruise ship calls and a reduction in visitor numbers and tourist spend in Dorset. This will inevitably have an adverse impact on Portland Port and those local travel and tourism businesses connected to these activities.

END OF QUOTE

I think we have demonstrated that not only is this very unlikely, but the opposite is probably true. Cruise Ship visits are on the rise globally and also at Portland. That is partly because of the improved Port facilities at Portland and also linked to more people taking cruises. They take cruises to visit beautiful places, such as Dorset. You can't visit Dorset on a day trip from France or easily from Southampton or Cornwall. There are no viable alternatives to Portland Harbour.

However, putting a big, smelly, noisy Waste Incinerator right next to where the ships dock and in sight from some of the coastline the tourists are visiting is not the way to increase ship visits.

I therefore conclude this is scaremongering by Powerfuels Portland. They push the message "**No Waste Incinerator; fewer cruise ships, lost business and jobs".** It's a simple message but significantly flawed.

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One last thing before leaving the subject of power generation.

It is my belief that the area of Portland is fairly unique and a prime candidate for clean renewable energy generation in an area where all the potential consumers are local ……

That is the wholly grail of renewable energy generation. No expensive, long-distance cables are required. All the consumers are within a few miles of the generation location.

Wind Power

As stated, it is unusually windy, which makes it a good site for wind power. That doesn't have to mean 150m high turbine towers plastered everywhere. There is scope and indeed history for smaller local wind turbines as were used during the early years of the port regeneration. Indeed, the towers are still there scattered around the marina.

I believe some parts of the breakwaters could house similar sized turbines without major blight, or affecting recreational boat users.

Examples would be the North Breakwater close to the Aquaculture farm and, ironically, the South Breakwater not far from the proposed site of the Waste Incinerator.

Likewise other areas of the commercial docks and Portland Island itself could be used, again without creating significant blight.

Solar Power

Go up to the Olympic Rings on the top of Portland and look back at the Industrial units. Look down on the commercial port from the Jail House Café I mentioned earlier. There are literally acres of roofs that could be covered in solar panels. Very few currently are.

Even the top of the Mulberry Docks could house them lying flat.

Virtually no-one would see them. The breakwaters would be another candidate. Likewise houses and other properties on the Island.

Tidal Power

For many years I have eyed the Spring Tidal Flow around Ferrybridge.

Recently I have also witnessed similar flow at the narrows further up the Fleet. There is scope for generating clean renewable power from both at relatively low cost, at least for a tidal power scheme.

But this is a marine protected area and one of outstanding natural beauty I hear you say. Well, that doesn't seem to hold sway with the

possibility of marine pollution as I discuss later. And also the tidal power units would be clean in their operation and largely underwater.

The South entrance to the harbour could be another candidate for tidal power but I don't believe anyone has investigated so we don't really know. Why don't we know?

Of course, there are also the races off Portland Bill but the technical difficulties there and the associated cost make this a long-term and very expensive option so I don't include that here.

My point is, there is significant scope for clean renewable energy generation all around Portland and yet these opportunities are either not being considered or have been rejected. I think we need some grown up conversations about these options. If we don't, a hugely unpopular scheme such as this Waste Incinerator, is thrust upon us as an alternative. Very few people want that.

Why don't we talk about this as a community and find a reasonable path through it? There is after all a climate emergency to deal with as well as some hungry Cruise Ships. I would be interested in joining in the conversation. I firmly believe there is a huge opportunity to develop disparate sources of clean, renewable energy without visually blighting the landscape or resorting to dirty methods represented by this Waste Incinerator.

If we engage with the local community and allocate a proportion of the earnings to be reinvested in Portland then we all win. The Port and

Island get additional clean energy supplies and the Island gets some inward investment for community projects.

There would also be local employment opportunities similar in scale to the modest numbers proposed for the Waste Incinerator.

I think I should now focus on the potential for marine pollution associated with the construction and operation of the Waste Incinerator.

Nowhere have I read anything but passing references to the effects of the construction and operation of the facility on the nearby marine environment. In fact, environmental impacts in general are rated as "**minor**" by Powerfuel Portland and given a "**very minor negative weight**". There is also a brief mention of the possibility of contaminated groundwater, again with no major concerns.

Other parties appear to accept this with little question.

On what basis? Where is the evidence to back this up?

Of course, it isn't in their interests to have significant environmental impacts so they would say that. One would hope that other interested parties would make their own assessment…..

And yet **Natural England** make no objection and the **MMO** has raised no significant concerns. These reactions puzzle and concern me.

I have questions about the waste:

How is it handled?

Where is it handled – inside or outside the facility – or both?

What state is the waste in – before and after burning?

What are the contents of the waste?

Who certifies and checks and tests the contents of the waste at various stages of its handling?

Bear in the mind that the deepwater port allows for import of waste in large quantities from potentially anywhere in the World.

Everything in the proposal focusses on energy production, noise and air pollution and blight of the beautiful Dorset coast. These are all very valid points to consider but what about marine pollution?

Portland is an exceptionally windy location. I have experienced this many times both on and off the water.

It's part of the reason the Olympic Sailing was staged here in 2012 and why there is an ongoing high level of sail training and yachting activity.

The winds are predominantly from the West and South West blowing over Chesil beach and across Portland. For the majority of the year, emissions from the Waste Incinerator, will blow towards the Jurassic Coast, East of Weymouth. That includes Ringstead and further on towards Durdle Dor and Lulworth Cove. These are magical parts of the UK coastline and it's not clear to me if anyone has properly assessed how they may be affected by wind-borne emissions from the Incinerator.

The wind creates problems for any activity that deals with loose material which may be partially wind borne if handled in a manner that exposes it.

If you go up to the Jailhouse Café at the top of Portland next to the Verne prison, you can currently get a very clear and beautiful view of Portland harbour including the docks. Of course, when the Incinerator is in place the view will be partially obscured and certainly blighted.

If you are up there when relatively loose material is being unloaded from a ship on a windy day you may just see clouds of dust leave the crane grab and drift over and settle into the harbour waters.

Is the same thing going to happen during the construction and operation of the Incinerator? In particular when waste is moved around whether via lorry or ship.

Another thing you can see on a day when a Spring Tide is in full flow, is a strong influx of seawater through the South harbour entrance . This generates a powerful current which crosses the edge of the docks and heads for the Fleet; a highly sensitive water body designated as a marine protected area. Any contaminated dust settling on the sea at this time will head in the same direction.

Conversely, when the tides are slack it will most likely settle to the seabed near where it hits the water. And over time this material will build up on the seabed until disturbed by the propellers of a cruise ship or other large vessel docking or leaving the port. This will lead to anything toxic in the dust being carried all around the harbour and likely into the Fleet, threatening pristine marine habitats and local Aquaculture farms alike. This could ultimately lead to the tarnishing of the reputation Dorset currently has for clean seas producing abundant healthy seafood. Our seafood festival in Weymouth each Summer

could easily be affected by talk of polluted waters and tainted local seafood.

Remember, it is easy to lose a good reputation but a darn site harder to get it back. Public perception of polluted waters could extend further along the coastline such that any seafood sourced from Dorset waters would be tarred with the same brush. Bathing waters may be next to lose their allure.

If this scenario did occur, the loss of reputation and jobs would be far greater than any benefits from the operation of the Incinerator. Once the facility is there and the waters are affected, there is no going back.

So here is what I think should happen.

1) There should be a comprehensive year long study for Portland Harbour and surrounding waters to establish baselines. Sediment samples should be collected and checked for heavy metals and other pollutants over a wide area including the harbour, the Fleet and Weymouth Bay. Water quality should be checked too.
2) The Physical Oceanography of the same waters should be thoroughly surveyed to understand circulation patterns, not just at the surface but throughout the water column.
3) Biological studies of marine organisms from plankton through seagrasses and up to seals and dolphins should be undertaken to understand the current situation.

I don’t know how much is known about the above at the moment but I don’t think the Waste Incinerator can be considered until there is a thorough understanding of the current situation. In addition, these surveys will highlight where any water borne pollution is likely to travel and which ecosystems and organisms it could affect.

A University with a proven track record in marine surveying should be employed to create the baseline study over a period of at least 1 year. This would, of course, have to be paid for by Powerfuel Portland.

If at the end of this study it was deemed safe for the Incinerator to go ahead, all other issues notwithstanding, regular on-going monitoring of the marine environment should be carried out to ensure that there are no unforeseen problems from the operations. Again, this should be funded by Powerfuel Portland as part of their license to operate but carried out by the same team that did the baseline survey.

If you think third party monitoring isn’t necessary, just look at the mess we are in with the Water companies who are effectively allowed to police themselves. There was a damning BBC Panorama program on the subject just a few weeks ago.

I fail to understand why Natural England or the Environment Agency or the MMO have not insisted that the marine survey and monitoring work is carried out prior to construction and then ongoing during operations.

In my opinion these surveys are vital.

Thank you for listening to me.

Andrew McQueen

E&OE

Dec 2023

Email: XXXXXXXXXX

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