



S.T.I.G.

St.Dennis Incinerator Group

June 2008

Objections and Concerns

Consultee Response to CERC Planning Application

Consultee
St.Dennis Incinerator Group (S.T.I.G.)

Applicant
Sita Cornwall Ltd.

Application Reference
08/00203/WAS

Address of Proposal
Land at
Rostowrack Farm
St.Dennis
St.Austell
Cornwall
PL26 8DX

Proposal
Construct and Manage a
240,000 TPA Energy Recovery Centre
(Mass Burn Incinerator)

Objections and Concerns

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Objections and Concerns

Objections Summary

Prejudicial Interest

Whilst the application may be from SITA, in identifying the site Cornwall County Council have worked with, or indeed for, the applicant on this project. Even if Planning Officers are able to separate CCC's partnership with SITA and the Planning Authority's duty to carefully scrutinise the planning application, elected members appear to be prejudiced in favour of granting planning permission to the proposed Mass Burn Incinerator. Councillors are well aware of the potential financial penalties to be incurred by the County Council, and indeed this will be a material consideration when deciding on the application.

STIG objects to the application on the grounds that the application will not be considered independently or viewed objectively. Additionally, STIG believe that the Planning committee who will handle the application have a prejudicial interest under 'The Local Authorities Code of Conduct 2007'.

Non Compliance with the Waste Hierarchy

The proposal is for a waste disposal facility. As such it is to be judged on whether or not waste will be managed in accordance with the waste hierarchy. The proposed facility fails this simple test.

STIG objects to the application on the grounds that proposals do not comply with the waste hierarchy, in that waste incineration should not be used in preference to waste reduction, reuse, recycling and composting (including anaerobic digestion).

Non Compliance with the National Waste Strategy

The May 2007 National Waste Strategy encouraged Local Authorities to use anaerobic digestion for biodegradable waste. This is based on recent research demonstrating "that anaerobic digestion has significant environmental benefits over other options [including incineration]..." The digestate produced by anaerobic digestion has a range of potential uses on land, including as a fertiliser or soil improver. The building of a waste incinerator is bound to have a detrimental impact on recycling and composting rates.

STIG objects to the application on the grounds that waste incineration will result in non-compliance with the National Waste Strategy.

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Non Compliance with the Proximity Principle

Under the Waste Framework Directive, National Waste Strategies should reflect the 'proximity principle'. The proximity principle requires that waste is disposed of as close to its source as possible. The proximity principle also alerts waste producers and the general public to factors concerning quantity and disposal, which in turn encourages waste reduction. The Proximity Principle is an important factor in the assessment of waste disposal.

STIG objects to the application on the grounds that the proposals do not comply with the proximity principle.

Disposal of Hazardous Waste

In the Regional Spatial Strategy for the South West Policy W3 Hazardous Waste states :-

"At present there are two hazardous waste sites in the SW region – one near Swindon and one at Gloucester. Permission for the latter is due to expire and a degree of uncertainty therefore prevails over its future. Neither exists for any reason other than historical accident, and while both may be reasonably well sited to meet needs generated from surrounding regions, they are not well located relative to the western peninsula of the south west region."

STIG objects to the application on the grounds that the proposals for the disposal of the hazardous fly ash to Gloucester do not represent the best locations regionally or nationally.

Lack of Need

The applicant provides no convincing evidence of need. Regardless of whether or not a credible case could have been made in 2002 to justify this application, it must now be considered in light of the current and likely future situation. As such, the applicant provides no convincing evidence of need. In fact, the figures provided by the applicant demonstrate that any incinerator would have to rely upon Commercial and Industrial Waste. This waste could be imported from outside of the County, in violation of the proximity principle.

STIG objects to the application on the grounds that evidence of need has not been supplied.

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Site Selection

The site of Rostowrack Farm was included in site searches as under the Minerals Local Plan 1997 as the land is identified as an area that can be used to house an *ancillary to the China Clay Industry*. It was progressed further by CCC due to Lord Evelyn Boscauens willingness to lease the land to CCC for the development of a mass burn incinerator.

STIG objects to the application on the grounds that it is a misuse of land and contravenes The Minerals Local Plan. An incinerator is not an ancillary to the china clay industry. Moreover, a better reason for the choice of a green field site will have to be advanced, apart from the fact the owner is prepared to lease the land.

Traffic and Transport

The overall distance of waste will increase as waste from across the county is sent to St.Dennis. The proposed development is predicted to generate an extra 350 vehicular movements a day which will traverse both strategic and local road networks. The proposals also require the construction of a new road to access the site.

STIG objects to the application on the grounds that it will place unnecessary strain on the strategic and local road networks. The access road will cut across a buffer zone, in place to protect the village of St.Dennis from encroaching industrialisation from the Clay Industry.

Nature Conservation

STIG does not feel that adequate attention has been given to the application's potential negative impacts on local nature habitats and biodiversity.

STIG objects to the application on the grounds that the risk posed to nature conservation is unacceptable, and that the site is unsuitable for the development proposed due to its close proximity (within one mile) to Sites of Scientific Interest (SSI), Sites of Special Scientific Interest (SSSI), a National Nature Reserve (NNR) and The River Fal.

Landscape / Visual Impact

The green field site Rostowrack Farm is in close proximity to the village of St.Dennis (400yards). The scale of the proposed plant and its ancillaries will dominate the surrounding residential area and local vantage points.

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STIG objects to the application on the grounds that the proposed development is in such close proximity to the village of St.Dennis that its effects cannot be mitigated successfully or acceptably. Furthermore it will be an intrusion on the areas of SSI/SSSI and a NNR.

Objections

Prejudicial Interest

The planning application submitted by SITA will be determined by Cornwall County Council. On the 20th July 2005 Cornwall County Council members identified and voted on the site they wish a SITA owned incinerator to be built on. Indeed, David Whalley (Leader of the Council) is quoted on BBC News as saying:

"While I sympathise with the people in St.Dennis, it will be good for the village". He further comments that: "It will bring new jobs into the area and will provide some additional employment. It will also provide heat at a very much reduced rate to make sure the factory that is already there remains viable, so there are some positives there."

As the quote above demonstrates, Cornwall County Council has made their view on the planning application clear, three years before the planning application is submitted.

Furthermore, out of the 22 Cornwall County Council Planning Committee members who will consider SITA's application, 19 of them have made their views on the planning application public (11 of them are recorded as voting for the contract with SITA to be signed, and 8 voted against). This contract was based on the Cornwall County Council identified site at Rostowrack Farm, and the site which the planning application is for.

Whilst the application may be from SITA, in identifying the site, Cornwall County Council has worked with, or indeed for, the applicant on this project. Even if Planning Officers are able to separate CCC's partnership with SITA and the Planning Authority's duty to carefully scrutinise the planning application, elected members appear to be prejudiced in favour of granting planning permission to the proposed Mass Burn Incinerator. Councillors are well aware of the potential financial penalties to be incurred by the County Council, and indeed we have been told that this will be a material planning consideration, this places emphasis on elected members to pass the plans, and they should therefore not be empowered to decide this application.

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It is STIG's view that the financial implications or consequences of not getting planning consent should not be considered as part of an application for planning consent. This is incorporating a factor that has nothing to do with the actual planning consent for the site in question. Nobody else can submit their preliminary costs and possible losses as part of a planning submission.

STIG objects to the application on the grounds that the application will not be considered independently or viewed objectively. Additionally, STIG believe that the Planning committee who will handle the application have a prejudicial interest under 'The Local Authorities Code of Conduct 2007'.

Non Compliance with the Waste Hierarchy

The Waste Strategy for England May 2007 places greater emphasis on waste reduction and minimisation and treating waste as a resource wherever possible. This is with the intention of breaking the link between economic growth and environmental impact of waste. As such SITA's application is to be judged on whether or not waste will be managed in accordance with the waste hierarchy. The proposed facility fails this simple test.

Discarded material that can be reused, recycled, composted or more efficiently utilised to generate energy, would instead be incinerated. Such a process typically produces toxic ashes and residues that are sent to landfill. The proposal under consideration could create some 60,000 tonnes per annum (tpa) of ash and residue to be sent to hazardous landfill sites for disposal.

In relation to the waste hierarchy, it is universally agreed that recycling and composting is to be favoured over incineration of kitchen waste, yet the applicant intends to burn the majority of Cornwall's municipal compostable waste.

Incinerators require continuous feeding of material of sufficiently high calorific value "primarily provided by...materials that can be recycled...[limiting] the effectiveness of local recycling initiatives" [Bostock A (2005) Waste Incineration and its Impact on Health, the Environment, and Sustainability, October 2005 Version 1.3, p.34]. Local Authorities become locked into contracts to supply high volumes of waste, capping recycling in some areas, while leading to refusals to grant planning applications in others.

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Examples:

East Sussex County Council in 2006 was “so worried it may not be able to fulfil its contract that it has now capped Lewes and Wealden’s recycling levels – effectively penalising them if they recycle more than about 30% of their waste” [Vidal J Burning issue Guardian newspaper Wednesday 9th August 2006].

In 1995 Cleveland County Council signed a contract to supply waste for incineration. A 12,000 tonnes ‘shortfall’ in the first year led to penalties of £147,000 [ENDS (1996) Emission deadline heralds new era in municipal incineration]. The Associate Director of Environmental Services at Stockton Borough Council said “essentially we are into waste maximisation... constrained from doing even a modest amount of recycling”.

An application to expand the Edmonton incinerator was rejected because a larger incinerator would give the local authority “little incentive to do more recycling over and above the statutory minimum; and meeting or bettering recycling targets would lead to a shortfall...[resulting in] waste being imported from other areas, in contradiction of the proximity principle” [Statement by Energy Minister Brian Wilson, 23 May 2002].

The Inspector considering the Ridham Dock application concluded that if permission were granted the “provision of greater incineration capacity than necessary would tend to undermine efforts to increase waste recycling and recovery locally, and encourage the transportation of waste from a more widespread catchment area” [Planning Inspectorate (2002), Ridham Dock, Kent, 17 Oct 2002 APP/W2275/A/01/1061392].

STIG objects to the proposal on the grounds that they do not comply with the waste hierarchy, in that waste incineration should not be used in preference to waste reduction, reuse, recycling and composting (including anaerobic digestion).

Non Compliance with the National Waste Strategy (May 2007)

The waste hierarchy is reaffirmed in the new National Waste Strategy. Although the Strategy is referred to in Sita’s application, the quote is misleadingly taken out of context. It should be noted that the excerpt from the strategy quoted relates to anaerobic digestion, and not to incineration. The full quote should read: “The Government wishes to encourage more consideration of the use of anaerobic digestion both by businesses and local authorities...Our recent research [Carbon Balances and Energy Impacts of the Management of UK Wastes, March 2007] has suggested that anaerobic digestion has significant environmental benefits over other

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options [including incineration] and may be particularly cost effective for food waste [see www.wrap.org / biowaste for further information]...The digestate produced by anaerobic digestion has a range of potential uses on land, including as a fertiliser or soil improver”.

The National Waste Strategy acknowledges that: “Although anaerobic digestion is currently a commonly used technology in some other European countries this is not the case in England”. In light of this, the UK Government has offered double Renewable Obligations Certificates (ROCs) for anaerobic digestion.

Minister Joan Ruddock (minister responsible for waste and recycling 2007) gave a key note speech at the Environmental Services Association (ESA) conference on anaerobic digestion in Westminster (16.10.07). During which she highlighted two major Government initiatives to help promote the use of anaerobic digestion. Firstly, the protocol being developed by the Environment Agency and WRAP, which could see digestate fertiliser reclassified as a “non-waste” if it meets certain standards. The second initiative would provide additional support for anaerobic digestion via the Government’s Renewable Obligation Certificate scheme. According to the Minister, “The Energy Bill is to double the current subsidies available for producers of renewable energy for energy generated via anaerobic digestion”.

She revealed that “central government doesn’t usually have a preference” when it came to waste treatment technologies, but said her Department considered anaerobic digestion as the “*best process*” for dealing with food waste.

It is worth noting that Sita intend to burn kitchen waste and other biodegradable (and therefore compostable) material, as well as recyclable material such as plastic carrier bags, bottles and other recyclable plastics, in the proposed waste incinerator. Finally, as the facility would require constant input of feedstock, the building of a waste incinerator is bound to have a detrimental impact on recycling and composting rates.

Other speakers at the ESA anaerobic digestion conference raised the concern that the government’s increasing use of the Private Finance Initiative to fund major waste treatment plants could act against its desire for local authorities to develop AD facilities.

David Collins of the Renewable Energy Association, in particular, warned that councils seeking PFI funding would be tied up in long-term “inflexible” PFI contracts that would be “difficult to penetrate by emerging technologies like AD”.

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STIG objects to the application on the grounds that waste incineration will result in non-compliance with the National Waste Strategy 2007.

Non Compliance with the Proximity Principle

Under the Waste Framework Directive, National Waste Strategies should reflect the 'proximity principle'. The proximity principle requires that waste is disposed of as close to its source as possible. This reduces time, energy, the possibility of accidents and the expense of long distance transport. The proximity principle also alerts waste producers and the general public to factors concerning quantity and disposal, which in turn encourages waste reduction. The Proximity Principle is an important factor in the assessment of waste disposal.

A centralised waste strategy which is solely reliant on one mass burn incinerator also contradicts the Regional Spatial Strategy for the South West Policy W2, which states:

Waste should be managed on the site where it arises, wherever possible (waste minimisation), and :-

- Waste that is not managed at its point of arising should be managed according to the proximity principle.

For rural areas and smaller towns there should be provision of :-

- A network of local waste management facilities concentrated at, or close to, centres of population identified through Development Policy B, and/or
- An accessible network of strategic waste facilities.
- Major sources of waste arising in rural areas will be treated locally, unless specialised facilities are required.

STIG objects to the application on the grounds that the proposals do not comply with the proximity principle or the Regional Spatial strategy for the South West. The adoption of one mass burn incinerator to deal with all of Cornwall's municipal waste over a decentralised approach does not allow waste to be dealt with as close to its point of origin, thus it does not reduce the risk of pollution and harm to the environment, minimise transport needs or educate the public.

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Lack of Need

In 2002 campaigners failed to convince CCC, in a public enquiry, that one central facility to treat waste was unsustainable and not in Cornwall's best interest. However, STIG does not believe that Cornwall needs one mass burn incinerator to deal with Landfill Taxes.

We recognise that when CCC embarked on its procurement process the desire to invest in a quick fix to Cornwall's mounting waste problem to avoid Landfill Taxes was at the forefront of disposal choice. Since that time however, household recycling in Cornwall has risen, and looks likely to continue to escalate as the result of the growing public commitment to waste reduction and increased reuse, recycling and composting. Moreover, with the introduction of waste packaging legislation, super-market waste reduction agreements, the Waste Electrical and Electronic Equipment regulations, and the phasing out of plastic carrier bags; household waste requiring disposal is decreasing.

Incineration is played off against untreated waste sent directly to landfill, but not favourably measured against anaerobic digestion, yet "several studies commissioned by DEFRA and WRAP have concluded that anaerobic digestion has the greatest greenhouse gas reduction benefits for the management of food waste over in-vessel composting and incineration with energy recovery [Environmental Benefits of Recycling, WRAP (2006)

Also, according to "Future Directions for Municipal Waste Management in Wales": "A recent study of food waste anaerobic digestion systems used extensively across Europe indicates that this is a mature technology that has significant benefits, particularly the production of a renewable fuel/energy [Anaerobic Digestion of Biodegradable Municipal Waste: A Review carried out by the University of Glamorgan with support from the Assembly Government]."

A recent report by the National Assembly for Wales concludes that recycling rates of 70% and above are both possible and economic. "During the recent modelling exercise...and based on detailed scrutiny of the data, it was estimated that up to 93.3% of Welsh municipal waste could either be recycled or composted / anaerobically digested".

STIG object to the proposals and on the grounds that regardless of whether or not a credible case could have been made in 2002 to justify this application, it must now be considered in light of current and likely future scenarios. In this regard, no convincing evidence of need can be provided by the applicant to burn 240,000 tonnes of waste per annum for twenty five years.

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Site Selection

The site of Rostowrack Farm was included in site searches as under the Minerals Local Plan 1997 as the land is identified as an area that can be used to house an ancillary to the China Clay Industry. It was progressed further by CCC due to Lord Evelyn Boscawen's willingness to lease the land to CCC for the development of a mass burn incinerator.

The site is in close proximity to the village of St.Dennis (400yards). This in contradiction to Cornwall County Councils Sustainability Appraisal 2005 (Review issue Q Page 29) which states that

"These issues coupled with public concerns about health impacts are principal determinants of a suitable location for a waste facility. A 6 Km. to 10 Km. separation from housing of any type may be suitable but greater separation may be appropriate".

The selection of Rostowrack Farm is in contradiction to The Waste Local Plan (WLP) 2002.

Policy L6 of the WLP states that:-

"Within the Central Cornwall Area of Search (Inset 1) applications for Energy from Waste Plant will be approved where the proposals:-

- Can demonstrate that any adjacent ancillary development will be in accordance with the spatial strategy contained in the relevant development plan; and
- Do not adversely effect the integrity of a candidate Special Area of Conservation;

Policy L6A of the WLP States:

"Applications for an EfW plant should fully assess and quantify any landscape and visual effect and demonstrate that proposals will not adversely impact on the special character of Cornwall's landscape, or cause significant adverse impact on the visual amenity of local residents or recreational users. Any adverse effects will be taken into account in determining the planning application".

Planning permission will not be granted for EfW proposals which would :-

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- Harm landscape features such as ancient woodland, significant areas of other woodland, historic parkland, extensive areas of semi-natural vegetation, hedgerows or trees of significant landscape or nature conservation importance;
- Cause loss of important local landscapes;
- Be incompatible with local landscape character in terms of location, scale, building design or choice of planting;
- Cause significant light pollution of surrounding rural landscapes;
- Cause significant impact on the visual amenity of local residents or recreational users.”

The site of Rostowrack Farm does not meet the above quoted criteria.

The proposed development site also contains over one hectare of grade 3a agricultural land. DEFRA estimate that 21 % of agricultural land is classified as Grade 3A.

Policy E7 of the WLP states that

Applications for waste management facilities on land classified as the most best and versatile agricultural land Grades 1, 2 and 3A will not be permitted unless:

- The benefits of the development would outweigh the need to protect the land
- Sufficient land of a lower grade is unavailable

STIG objects to the application on the grounds that it is a misuse of land and contravenes The Minerals Local Plan. An incinerator is not an ancillary to the china clay industry. The site does not meet criteria set out in The Waste Local Plan. STIG believes that the only reason the site is considered suitable for the proposals is because it is the only site available.

Traffic and Transport

Domestic, Industrial and Commercial waste will be transported throughout the County to St.Dennis. Moving this waste will generate some estimated 350 vehicle movements a day and a considerable number of journey miles. The lorries moving the waste will be large, each one will be some 50 ft in length. Each lorry will emit pollutants at a level which is many more times that of the family car. The transport network in Cornwall becomes congested at peak times. Notably at times when people commute to and from work and during peak holiday periods. Coincidentally holiday periods are the peak period for generating waste. The lorries will not only

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contain waste but will transport the by products of the incineration process. These will be classified as Hazardous Waste due the toxicity of the materials being transported. Vehicles associated with the site will not only use the main trunk roads but rural roads of a much lower classification.

The application fails to meet the basic criteria laid out in EU, UK Government, Regional and Cornwall County Councils own policies.

- Sustainable Transport.
- Proximity.
- Reduced Carbon Footprint.
- Cornwall's Waste Local Plan.
- Environment.
- Cycleau Project

The data which the vehicle movement numbers are based on is not factual but modelled on SITA's business plan. This and other data submitted with this application is averaged, based on theoretical models or supposition and incomplete. The data does not model conditions over the full life of the proposed mass burn incinerator.

The design of the road infrastructure and junctions are fundamentally unsafe and flawed. The safety of the users of the road network in general and the C184 in particular is compromised by the poor junction design and the size and volume of the additional traffic.

Given the nature of incineration, the hazards of the waste being transported and the significant increase in traffic on the local road network it is surprising that the application has no contingency plans for emergencies.

In times when governments are forcing the reduction in the use of highly polluting vehicles, we should all do our part and reduce emissions. This application fails to recognise the importance of the applicant's responsibilities for reducing air pollution. In current times of oil crisis the application fails to recognise the need to reduce our dependency on fossil fuels.

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The application does not take into account the full impact of the construction phase. Figures quoted in the Transport Assessment are an estimation and are understated. It does not take into account the safety, nuisance and inconvenience to the people of St.Dennis, Treviscoe and local villages.

In terms of transport the application fails to meet all aspects of policy, environment, safety and quality of life of the people of Cornwall and is detrimental to the county's image.

STIG object to the application on the grounds that it will place unnecessary strain on the strategic and local road networks. The access road will cut across a buffer zone, in place to protect the village of St Dennis from encroaching industrialisation from the Clay Industry. It does not recognise European Union and U.K. Government policy on sustainable transport, pollution and reduction on the reliance on fossil fuels.

Nature Conservation

STIG does not feel that adequate attention has been given to the application's potential negative impacts on local nature habitats and biodiversity. There is a strong presumption against development, unless an overriding need for the development can be demonstrated, or conditions can be imposed to prevent damage to the interest of the SSSI. The introduction of the Countryside and Rights of Way Act 2000 (CROW) further strengthened the protection given to SSSIs and the powers of English Nature (now Natural England). Part of this protection was the amendment to the Wildlife and Countryside Act 1981 that now requires public bodies (including planning authorities) to take reasonable steps to further the conservation and enhancement of the features for which a SSSI is designated (Section 28G).

There are 4 SACs within 10 kilometres and 5 SSSIs within 5 kilometres of the proposed site for the CERC. Species warranting legislative protection at the highest level are found to use the site and the adjoining areas. Disturbance of these is not permitted unless the proposed development can be demonstrated as essential and no alternative location is suitable.

During construction there will be considerable and significant effects on the natural environment. There will be clearance of vegetation and removal of soil from the site and the translocation of ancient Cornish dry stone walls. There will also be a section of wet woodland area that will be removed when the construction of the haul road and bridge over the River Fal takes place. The construction work in the vicinity of the River Fal could result in an environmental pollution incident and would cause an impact on the ecology of river, for example, the smothering of the river bed or toxic effects on invertebrates, otters and fish that inhabit the river.

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The operational effects of acid and nitrogen deposits on the adjacent Breney Common, Goss and Tregoss Moors are also of concern. Although the stack has been increased to 120 metres no guarantees can be given to prevent contamination of these SAC and SSSI sites.

Whilst all wildlife is essential to local ecology, particular species will be more affected than others. SITA assure us that 'badgers, bats, birds and otters will all be safeguarded within the scheme'. However there are other high ranking and protected species that occupy the site and the surrounding area (e.g. owls, buzzards and slow worms), whose survival would be made perilous by the activities of an incinerator.

The proposals contravene The County Council's Preferred Option 28 (Protected Species). It states that :-

"An application for a waste management facility which is likely to cause harm to protected species or their habitat will be subject to careful scrutiny and will only be permitted where the protection of the species or habitat can be secured".

The selected site also contravenes The WLP which states in policy E3

Applications for a waste management facility likely to have a significant adverse effect on National Nature Reserves and / or Sites of Special Scientific Interest will be subject to the most rigorous of examination and will only be permitted if :-

- Damaging impacts can be prevented.
- The benefits of the development outweigh the nature conservation of the site.
- The development includes proposals to enhance the conservation value of the site as part of the management restoration scheme.

STIG objects to the application on the grounds that the risk posed to nature conservation is unacceptable, and that the site is unsuitable for the development proposed due to its close proximity to Sites of Scientific Interest, Sites of Special Scientific Interest, a National Nature Reserve (NNR) and The River Fal. Furthermore no guarantees can be given to the protection of protected Species or local wildlife.

Landscape / Visual Impact

A Waste Treatment Plant of such magnitude will have a detrimental effect on the surrounding countryside and area. In the application documents it clearly states that an area of 15km radius will be affected by this proposal in one way or another. No

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amount of mitigation can overcome the visual impact this plant will have on the village and surrounding areas.

From the evidence provided within the documents it is clear that in most cases the impact on residents and the local environment is in the high category.

In 2004 Cornwall County Council published the Cornwall Industrial Settlements Initiative (CISI) St.Dennis (Hensbarrow Area). Recommendation: 5 states:-

‘Protect historic landscapes around the village. Pursue designations recognising the intrinsic value and importance of historic landscapes, including the remnant medieval field system and associated hamlets. Reason: To preserve and enhance the valuable historic landscapes and the historic context of St.Dennis within the wider environment of the expanding china clay industry’ (Page 24)

Recommendation 13 further states that back land and tracks be recognised as they are ‘an important aspect of St.Dennis’ character. Reason: To preserve and enhance St.Dennis character’ (Page 26)

STIG objects to the application on the grounds that SITA’s proposals will close a Gold Status footpath which connects the village of St.Dennis to the hamlet Treviscoe. Furthermore the proposed incinerator, with its stack of over 400 feet, will desecrate the historic landscape which is recommended as being preserved and enhanced.

Other Concerns

Bottom Ash Safety

According to the Environment Agency’s website, Gary Bower (the EA’s Technical Advisor – Hazardous Waste), from 27 Oct 2006 the Environmental Services Association (ESA) facilitated an initiative to identify a protocol for the ecotoxicity testing of Incineration Bottom Ash (IBA) using a direct testing method on IBA.

The study showed that: “Almost certainly, zinc will be present in IBA, commonly as zinc oxide amongst other zinc substances. The recent revision to the Approved Supply List (ASL) (version 8) introduced an ecotoxic classification for zinc oxide (H14 by R50/53 Very toxic to aquatic organisms and may cause long term effects in the aquatic environment). The substance was not classified as ecotoxic in previous versions. The assessment of the H14 status of IBA has historically been dependent on the level of ‘total’ lead substances in the sample. However, the recent amendment to the ASL means that zinc substances need to be considered in addition to lead and other ecotoxic heavy metals. Levels of lead and zinc in a number of isolated

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compliance monitoring samples have exceeded the hazardous waste threshold for H14”.

Further investigation revealed that about 12% of the bottom ash samples tested was found to be hazardous. Samples came from a wide range of incinerators, so there is a strong argument that each batch should be tested – or all the ash classified as hazardous waste. The relevant incinerators were: Wolverhampton; SELCHP; Edmonton; Coventry; Kirklees; Billingham and Dudley.

And what of the dangerous and hazardous Flue Gas Treatment residues?

The APC residues are cited as hazardous and so will require treatment and, as the document states, will be landfilled in Gloucestershire. Has the distance travelled from the incinerator to this landfill site been factored into the Life Cycle Analysis for the plant with regard to emissions from these vehicle movements?

PM 2.5 and Smaller (Nano) Particles

Who would measure, monitor and manage the widely recognised serious risks posed by <PM 2.5, fine and ultra fine particles, and nanoparticles? How can these be controlled if they escape through modern filtration systems?

Persistent Organic Pollutants

Persistent organic pollutants (POPs) include a range of pollutants that persist in the environment for many years. The list of POPs includes toxic dioxins, furans and PCBs. Such is the level of concern over POPs that several countries, including the UK, have signed up to the Stockholm Convention on Persistent Organic Pollutants. The aim of the convention is to *reduce and eliminate* the production of persistent organic pollutants.

The Dioxin, PCBs and Waste Working Group of IPEN (International Persistent Organic Pollutants Elimination Network) Report demonstrates that waste incineration residues represent a serious threat to both [the] local and global environment as they contain high quantities of unintentionally produced persistent organic pollutants listed under Annex C of the Stockholm Convention (dioxins, PCBs and hexachlorobenzene). This study also shows that, especially, waste incineration fly ash and APC residues contain also high levels of other Persistent Organic Pollutants not listed under [the] Stockholm Convention.

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Human Health

DEFRA concluded that whilst the information on the health and environmental effects of waste management is incomplete and not ideal; the weight of evidence from the studies to date is that present day practices for managing MSW have at most a minor effect on human health and environment. However in an article published in the Daily Mail in March of 2006 it reports that Government advisers have said that air pollution could trigger heart attacks and strokes. Clear links have been found between toxic air (mainly from traffic fumes) and deaths and hospital admissions for heart disease. The report concluded that the findings should concern the public and advised the Government that they should take precautionary action. The report, written by the Committee on Medical Effects of Air Pollution, particularly focused on nitrogen dioxide, sulphur dioxide and carbon monoxide. All of which are found particularly in traffic fumes and concluded that there are clear associations from exposure to air pollutants and damage to the cardiovascular system in humans. It was unclear how the pollutants cause the damage, but it could be in a number of ways, such as particles affect the control of the hearts rhythm, breathing in particles can cause chemical reactions in the body which trigger strokes and that plaques break away from the artery walls and cause heart attacks. The Department of Health stated that the report underlined the need to reduce levels of pollution and particularly the need to reduce the levels of pollutants in the air to protect the UK's public health.

Another study published in the New England Journal of Medicine published in 2007 also concludes that particulates are far more hazardous than previously thought. Fine particles are measured in micrograms – millionths of a gram – per cubic metre. Research has shown that for each ten microgram rise it is matched by a 76% increase in people's chances of dying from any cardiovascular cause. Professor Joel Kaufman said that soot particles that are created by fossil fuel combustion from vehicles and power plants contain a complex mix of chemicals. These tiny particles along with the pollutant gases that travel along them cause harmful effects when breathed in. It could lead to a cellular and biochemical process that starts in the lungs and goes into the cardiovascular system. It may also be that these very minute particles actually enter into the blood stream via the vessels in the lungs which then began affecting blood vessels throughout the body. He states "Preventing these effects requires reducing the pollution at source. If the average concentration of fine particulate air pollution can be reduced, it would potentially translate to the prevention or delay of thousands and thousands of heart attacks, strokes and bypass surgeries, not to mention fewer early deaths" After reading this report Professor Jeremy Pearson, Associate Medical Director of the British Heart Foundation said "This robust research adds to the mounting evidence that air pollutants should be taken seriously as a risk factor for cardiovascular disease."

Objections and Concerns

Dr. Dick van Steenis MBBS provided STIG with research showing that “Incineration of waste causes a shortening of lifespan of up to 12 years, often in the prime of life, by increasing a range of diseases especially heart attacks and cancers”. Dr van Steenis went on to highlight “a 20-year university-led study in Belgium detailed diseases and deaths caused, ending up with a 480% rise in cancer incidence on top of the country’s rise”. He asserted that, based on his research findings, and on the work of Mike Ryan, the proposed 120m chimneys would spread the damage some 26-30 miles, noting that: “Incineration of waste vaporises heavy metals making the particulates emitted even more lethal inhaled into your lungs. Emissions will consist of microscopic (PM2.5) particulates which mostly pass through the abatement equipment (filters) entering the deepest part of your lungs when inhaled...”.

“Interaction of gases and ultrafine particles from other PM2.5 emitting facilities in the area will form secondary PM2.5 particulates increasing the incinerator’s devastating effects on health downwind. Wind direction, speed and temperature inversions are crucial factors. When you inhale PM2.5 particulates the soluble fraction gets into the bloodstream and your cells, while the insoluble fraction is partly dealt with by macrophages and T-lymphocytes with the remnants walled off in the lungs causing Chronic Obstructive Pulmonary Disease (COPD). The resultant inflammatory process can cause asthma and clinical depression. When in the cells, mutations will occur due to heavy metals, Poly-Aromatic Hydrocarbons (PAHs), dioxins, PCBs, and any radioactivity. Without adequate selenium in your blood to neutralise the metals, mutations from these substances will cause birth defects, cancers and altered gene function. In USA even 12 year olds had 20% loss of lung peak-flow due to PM2.5 induced COPD. Unlike USA, where PM2.5s have been rigorously monitored and regulated since 1997, in the UK only PM10s (PM10 down to PM4—none of which gets into your lungs) are measured using instruments that can be adjusted to minus (e.g. Brighton during June 2007 where PM2.5s read a fraudulent minus 107uG/m³. There is no adequate regulation in the UK to protect the public.

Dr van Steenis argues that the range of illnesses caused by inhaling PM2.5 particulates from waste burning includes:-

- Birth defects, low birth weight babies (in direct proportion to PM2.5 levels).
- Premature deaths of babies, infants and adults. e.g. In London the infant mortality in zones downwind of the incinerators is 7 times higher than in wards upwind. (9.0 cf 1.3/1000 --- ONS data 2003/5)
- T-lymphocyte diversion to lungs with depletion causes SIDS, cot deaths, autism, MS, and GBS.
- Attention deficit and other behaviour problems, some leading to crime.
- Lower IQ & educational achievement down 2 years, worse GCSE grades (due partly to PAHs).

Objections and Concerns

- Asthma, COPD, viral & bacterial respiratory & other infections (especially boys).
- Coronary heart disease, heart attacks, arteriosclerosis, strokes, SADS.
- Diabetes type 2, (sometimes type 1). Endometriosis & other hormone disruption.
- Multiple chemical sensitivity with allergies & arthritis.
- ME, CFS, Hypothyroidism with low T3 level (adding to obesity).
- Clinical depression & suicides, apathy, which increases the obesity problem.
- **CANCERS:** nonHodgkins lymphoma, brain, breast, colon, lung, prostate, kidney, liver etc.
- Breast cancer for example can be caused by faulty genes (2%), HRT (5%) radiation, OP pesticides/herbicides, and from chimneys—cadmium, dioxins (& similar), & PAHs.

“Analysis of 9 health parameters in Telford by ward in 2005 revealed increases in illnesses, SMR & age adjusted mortality in 7 polluted wards compared with 24 less polluted wards. An incinerator built in Colnbrook 1990 caused Slough SMR to worsen from 88 to 121 by 2001 meaning 11 years off lifespan...”

In light of Dr van Steenis’ findings, who will ensure the health of human beings and animals living within the 25-30-mile vicinity of the proposed facility?

STIG believe that Cornwall County Council should implement the ‘Precautionary Principle’ as there is no clear evidence to support the claims made by DEFRA. Any effect, no matter how minute, should not be tolerated; the public’s health should not be put at any further risk than it already is in an area where there is already air pollution present from the Clay Industry and nearby Power Station.

Chimney Stacks

If the 2-stack design was chosen for reasons of ‘style’ what are the implications for emissions? What is best for maintaining highest possible temperatures in order to maximise the destruction of pollutants (and the avoidance of (re-) formation of dioxins? Was consideration given to the local misty conditions when the stack height of 120m was calculated?

Objections and Concerns

Likely Emissions

Many volatile organic compounds (VOC's) are found in incinerator flue gas - and many more could not be recognized with the library in the mass spectrometer. Current regulation addresses those few chemicals for which there is proof of harm, but such harm is likely to be the tip of the iceberg. There is a deeper level at which emerging harm can be identified but is not fully proven, despite clear warning signs. Below this, there are damages that occur with long latency periods, in which harmful exposure has occurred but the manifestation of the damage has yet to appear. And below this there are exposures that are doing harm but which will never be recognized due to the difficulties of detection. Chemical exposures proliferate much faster than their neurodevelopmental toxicities can be understood, the true dimensions of the toxic threat will always be underestimated by "currently available knowledge".

Dioxins - Only Monitored Twice a Year, Some Not Monitored At All

The dioxin 'issue' has not gone away. Only 17 out of possible 5,100 halogenated dioxins are monitored - and then only twice each year. Brominated and mixed chloro-bromo dioxins are ignored, and ten percent of the UK incinerators failed the test in 2006 - as did Nottingham when continuously sampled. But most dioxin is now in the 'fly' ash.

House Prices

House prices in The Clay Villages are already valued significantly lower than houses of a similar type in St Austell. STIG have been informed by local residents who have sold their properties in the last two years that when solicitors have carried out searches and the proposed incinerator is revealed loss of sales or significant reductions in the agreed sale price have resulted. STIG's own research into house prices around incinerators (for example Edmonton) demonstrates that there is a considerable drop in price the closer the property is to the incinerator.

Employment

Waste recycling generates far more employment than disposal through incineration. For every 100kt waste treated, it has been estimated that 200 jobs are created in recycling programmes compared to only 50 jobs for incineration. (http://ec.europa.eu/environment/waste/pdf/epec_report_05.pdf)

Objections and Concerns

Un-sustainability

Resources such as paper, card, textiles, garden waste and some plastics, that could have been easily recycled and used again, are lost once burnt. This means more raw materials, and more fossil fuels, will have to be mined and processed to produce, and transport, similar products again. Given the Earth's finite resources, this is not a sustainable process. The requirements of the incineration, or energy recovery, process are effectively in conflict with any strategy that seeks to reduce, re-use or recycle.