

STATES OF JERSEY

Environment Scrutiny Panel Public hearing: Ash Disposal review

FRIDAY, 21st SEPTEMBER 2012

Panel:

Deputy J.H. Young of St. Brelade (Chairman)

Deputy S.G. Luce of St. Martin

Connétable P.J. Rondel of St. John

Witnesses:

Deputy K.C. Lewis of St. Saviour (Minister for Transport and Technical Services)

Deputy J.A.N. Le Fondré of St. Lawrence (Assistant Minister for Transport and Technical Services)

Chief Officer, Transport and Technical Services

Principal Engineer, Transport and Technical Services

Mr. J. Agnew (Senior Consultant, Fichtner Consulting Engineers)

In attendance:

Mr. P. White (Panel Adviser)

Scrutiny Officer

[13:34]

Deputy J.H. Young: of St. Brelade (Chairman):

Good afternoon and welcome to this Environment Scrutiny Panel public hearing on the review of ash policy disposal and methods. This is the second hearing and today we have the Minister for Transport and Technical Services and his team with us. We have set the timescale of this afternoon's meeting finishing at 3.30 p.m. You will notice we have a gentleman with us on the panel, Mr. Phil White, who is Technical Director of AEA. Could I ask you, Minister, whether you are prepared to answer supplementary questions from Mr. White at the panel? Would you be agreeable to that?

The Minister for Transport and Technical Services:

No problem at all.

Deputy J.H. Young:

Thank you very much. As explained, this is obviously a technical subject. We have given due notice to the Minister of the range of questions which we will be asking in this review. Following on from our meeting with the Minister for Planning and Environment, the purpose we are trying to get to is to investigate the review of the current method of ash disposal policy and alternatives, including benefits, costs and so on. We will be dealing with a number of subjects; one we refer to as I.B.A. (Incinerator Bottom Ash), which not everybody will be familiar with but most will, and the other one is A.P.C.R. (Air Pollution Control Residues), which is also arising. Can we start with members' introduction? We will start on this side. John Young, I am the Chairman of the Environment Scrutiny Panel.

Deputy S.G. Luce of St. Martin:

Deputy Steve Luce. I am Vice Chairman of the panel.

Connétable P.J. Rondel of St. John:

Constable Phil Rondel, panel member.

The Minister for Transport and Technical Services:

Deputy Kevin Lewis, the Minister for Transport and Technical Services.

Assistant Minister for Transport and Technical Services:

Deputy John Le Fondré, Assistant Minister for T.T.S. (Transport and Technical Services).

The Minister for Transport and Technical Services:

We have our chief officer to my left.

Chief Officer (Transport and Technical Services):

Chief Officer, Transport and Technical Services.

Principal Engineer (Transport and Technical Services):

Principal Engineer, T.T.S.

Mr. J. Agnew:

Jon Agnew, Senior Consultant, Fichtner Consulting Engineers.

Deputy J.H. Young:

Thank you very much. We will go straight into our first question. Minister, having been now in office for a year ... you were Assistant Minister I think under the previous regime.

The Minister for Transport and Technical Services:

Yes.

Deputy J.H. Young:

You, presumably, are very familiar with the Transport and Technical Services plans in respect of waste processing. Could you please advise us whether your commitment that was made to the recycling of I.B.A. to recover metals and secondary aggregates that is common practice in the U.K. (United Kingdom) and Europe in Waste Strategy 2005 is still your commitment?

The Minister for Transport and Technical Services:

Absolutely.

Deputy J.H. Young:

Could you advise us with where you are in progress towards achieving it, please?

The Minister for Transport and Technical Services:

Where would you like to start?

Deputy J.H. Young:

Where we are as far as I.B.A. is concerned. If your officers want to answer that it is fine.

Chief Officer (Transport and Technical Services):

As we have discussed before with incinerator bottom ash with our previous incinerator we did not have a quality of ash that was appropriate for recycling. We commissioned our new plant and we have known for a long time that the scrapyards residues from the existing scrapyards operation would cause problems with bottom ash and we are just in negotiations with the preferred bidder to change that regime as of 1st January. So we are now starting testing and monitoring the ash that has been produced at the new plant. Trials have commenced but we are hoping,

particular after January, that the quality of ash that comes out of the incinerator waste plant will be far better than what we have seen in the past, which should allow us to do successful trials and successfully recycle bottom ash on-Island.

Deputy J.H. Young:

So that is testing of what material at the moment?

Chief Officer (Transport and Technical Services):

The incinerator bottom ash coming from the new plant.

The Deputy of St. Martin:

Minister, we questioned the Minister for Planning and Environment this morning in particular about the quality of bottom ash and whether he had set any specific targets and eventually we got to the conclusion that it was more general within a particular band, say heavy metals or other pollutants, that bottom ash might become acceptable for processing through aggregates. Are you aware of those targets? Have you got targets personally or in the department that you are setting that you would like to achieve?

The Minister for Transport and Technical Services:

We just want to make bottom ash as clean as possible. As they used to say in America: "Garbage in, garbage out." So we try and put the minimum amount of non-recyclables into the incinerator. What I mean is we have battery sites outside of most supermarkets and such like and we will have a new scrapyards provider very soon, so that should reduce it considerably.

The Connétable of St. John:

Can I come in there, please? You talk about making the bottom ash as clean as possible. What work is being done on separation at source, i.e. within parishes?

The Minister for Transport and Technical Services:

Several parishes have recycling schemes at the moment, St. John being one I must say, and that is something which we are trying to encourage other parishes to follow.

The Connétable of St. John:

Should you not bring forward legislation to make sure separation happens so we minimise the material going into the incinerator?

The Minister for Transport and Technical Services:

That would not be a bad idea but it is very difficult to legislate what people put in their rubbish. We are obviously encouraging as much recycling and I think most parishes have their own recycling points: glass, aluminium, cardboard and so on, but it would be difficult in a parish like St. Helier where there are lots of apartments, et cetera.

Chief Officer (Transport and Technical Services):

The parish of St. John has led the way with recycling on the kerbside and is to be congratulated for that. I am disappointed that the take-up of the other parishes has not happened. Dare I mention St. Saviour as a parish that has not done this, which is represented in this room, and also St. Brelade I believe is represented in this room. So it is a disappointment and it is something which needs to be addressed ideally in Jersey. Using legislation to build these things, especially when it comes to Constables, is a very negative thing to do.

Deputy J.H. Young:

Do you think the fact that that is the case is still contributing to a level of contamination in the ash stream that is preventing us doing this processing of I.B.A. into secondary aggregates?

Chief Officer (Transport and Technical Services):

No.

Deputy J.H. Young:

It is not?

Chief Officer (Transport and Technical Services):

The majority of household metal packaging is very easily separated from the bottom ash and does not cause a detrimental effect to the ash in terms of leachability. So if you put a baked bean tin through an Energy from Waste plant it comes out as a baked bean tin. Although it has been burnt and it is a bit rusty, you can then pull that out of the ash and you can recycle it as a secondary recycling. None of that baked bean tin leaches out. It stays as a baked bean tin. The things that affect bottom ash

are scrapyard residues, batteries and some of the other sort of lighter metals that go into the waste stream.

Deputy J.H. Young:

So it is the issues we are told this morning by the Minister for Planning and Environment. Issues such as mercury and cadmium and so on, present in batteries and so on, he believes are a significant source of contamination that he would want to see improved in any proposal to recycle or to deal with I.B.A. as far as secondary aggregates are concerned. Do you share that view?

Chief Officer (Transport and Technical Services):

The ideal is to not get it in the first place, but there are more and more products now. In fact I bought a toothbrush which has a built-in battery and you cannot get the battery out. Once the toothbrush has worn out, the battery is flat and it gets chucked in the bin. Now, that is how modern society is going which means that every little bit has a bit of battery in it. That is the wrong way for recycling. So you have to be able to cope with some elements of that because it is inevitable and not everybody is going to recycle their batteries.

Deputy J.H. Young:

I think we will come back to that. The other element of testing is market development. What is your progress in looking at what market opportunities there might be to process I.B.A. into secondary aggregates that are useful on the Island to prevent us having to build up ash pits?

The Minister for Transport and Technical Services:

Specific market development has not really started but we have had in principle discussions with the industry and these discussions have been positive in as much as the industry has stated that it is willing to work with us to determine if recycled product has a viable and economic use. Until such time as I.B.A.A. (Incinerator Bottom Ash Aggregate) from the characterisation trials is available, it is not possible to progress any product development.

Deputy J.H. Young:

Characterisation trials, as I understand it, means the chemical composition. That is the nature of I.B.A.?

Chief Officer (Transport and Technical Services):

Yes, and there are opportunities. We have seen a trial done by the aggregate recycling contractor down at La Collette. Both of the quarries are interested in working with us with respect to incinerator bottom ash, but the key thing is finding the right products and the products which are sustainable and the market within the Island.

Deputy J.H. Young:

You are working on that?

Chief Officer (Transport and Technical Services):

We are working on that. There are meetings next month with another one of the quarries. But, again, you have got to say: "This is the product," and present them with a product to see if they can do some trials in terms of what to do with it.

Deputy J.H. Young:

One of the issues that was mentioned this morning with the Minister for Planning and Environment on this subject of what it would take to be able to get approval for I.B.A. recycling was also not just market and the chemicals but a thing called risk assessment. What have you been led to understand is meant by site-specific risk assessment?

Chief Officer (Transport and Technical Services):

If you can class the material as inert material and material that is fit for recycling then that risk assessment will diminish.

[13:45]

Certainly the majority of people who do bottom ash recycling it is approved by the agencies to be used anywhere, but their company policy is to not use it next to a watercourse or S.S.S.I. (Site of Special Scientific Interest) or somewhere where it could very easily cause a potential environmental problem. So they have got a precautionary role. It is not something which requires legislation. It is just a way the company protects its own reputation. That is when you talk about unbound material. When incinerator ash becomes a bound material, like it is mixed with tar to make a

tarmac product or it is mixed with cement to make a cement-based product, then it becomes a different and a far easier material to use.

The Deputy of St. Martin:

I think, Minister, we are just trying to get to the point where incinerator bottom ash is of a quality, if I use that word, to be used in some of the products which the Chief Officer refers to. We understand and we know exactly where you are coming from on the new quality which we will achieve when the scrapyards change hands in the New Year but I think we are also aware that you are recycling, if I can use that word, some material which came from Bellozanne through the new incinerator which may have an effect on quality. Have you got a timescale where you could say to us: "We would expect at this particular time the quality of inputs into the incinerator will be significantly improved"?

The Minister for Transport and Technical Services:

I think the start of the new contracts for the scrapyards will be a good place to start. At the moment vehicles are shredded there and everything turns up with shredding: bits of cables, bits of ground-up circuit board. You have bits of lead wheel weights coming through mixed up with seatbacks, seat back covers, et cetera.

The Deputy of St. Martin:

But there is no other material which came from Bellozanne that was stockpiled at La Collette which has been fed slowly through the incinerator?

Chief Officer (Transport and Technical Services):

Yes. There was an element of bulky waste towards the end of the life of the old plant which we stockpiled at La Collette and we are still working through. That has issues with high levels of H.Cl. (Hydrochloric Acid) which causes us to use more lime in the A.P.C. (Air Pollution Control) process, but it would not have a detrimental effect on bottom ash. If there are metals in it, it will be big lumps of metal. So it will not be things that will have a leachability effect on bottom ash.

The Deputy of St. Martin:

So to be quite clear then, when the scrapyards contract finishes and we start the new contractor and we are relatively happy with the quality of the bottom ash coming out of the incinerator it will not change very much going forward? So there will not be

any future steps where it will make significant improvements again. We can start testing in February/March time and hopefully that will be a well-replicated trial that moves into the future.

Chief Officer (Transport and Technical Services):

Correct. The vision we have got is if the bottom ash is not good enough in January we have got to look at what goes into the Energy from Waste plant and change that to make sure that it is good enough because piling it up down at La Collette is not sustainable and not something which we believe in. So if it is not recyclable we have got to find what is causing that and then take it out of the waste stream.

The Connétable of St. John:

Given that you are going to have better recycling in relation to not only the perishables but also the scrap vehicles and such at Bellozanne, how much drop in material going into the incinerator do you envisage in thousands of tonnes per annum?

Chief Officer (Transport and Technical Services):

You can put as much metal as you want through an Energy from Waste plant and it does not affect the throughput or the operation of the Energy from Waste plant because metal goes in and metal comes out. There is probably about 30 tonnes a week of scrapyards residue. Probably 25 tonnes of that is non-metal.

The Connétable of St. John:

Of the non-metal, how much of it may be tilt switches or whatever that might have mercury or other substances in it?

Chief Officer (Transport and Technical Services):

Absolutely. It is an amalgam of stuff which you do not want to put in an Energy from Waste plant.

The Connétable of St. John:

Yes, exactly.

Chief Officer (Transport and Technical Services):

In terms of capacity, we believe it is a high-risk element of the waste stream which we want to eliminate but it is not a high-capacity element of the waste stream.

The Connétable of St. John:

So that would be 5 tonnes a week, roughly, of high-risk?

Chief Officer (Transport and Technical Services):

I do not know what the makeup is but, yes, potentially of that order. The contamination of the bottom ash is a very small amount, but we want to make sure that it is safe to use. So we need to be very careful.

The Connétable of St. John:

Minister, would that discussion mean that, as well as treating or measures to be able to process the ash, the investment needs to be made front-end, pre-sorting or removing the materials from the waste stream, to prevent us having to take them out later on?

The Minister for Transport and Technical Services:

That would be desirable, yes.

Deputy J.H. Young:

Thank you very much.

The Deputy of St. Martin:

Can I ask, Minister, have you done any testing of bottom ash previously?

Chief Officer (Transport and Technical Services):

Yes, we have done loads. We did a significant report about 5 years ago on the old plant which showed a lack of burnout on the grate; so the organic content within the ash was too high for recycling and it showed big spikes in terms of contamination when scrapyards residue was put through the plant. So we know where the problems are. Without the scrapyards residue on the old plant it then was an effective bottom ash. So we are hoping in the new one we will replicate those figures.

The Deputy of St. Martin:

How soon into the New Year do you expect to start testing again on the basis that you will have a different product coming out?

Chief Officer (Transport and Technical Services):

As soon as we stop putting scrapyards through.

The Connétable of St. John:

When is that: one month, 2 months, 3 months; the backlog?

Chief Officer (Transport and Technical Services):

I do not know. I do not have the exact details. I am hoping on 1st January we stop having scrapyards.

Deputy J.H. Young:

But that has got to be an assumption at the moment?

Chief Officer (Transport and Technical Services):

It has got to be, I am afraid. Yes.

Deputy J.H. Young:

I wonder if I could turn to our adviser now. Do you have any questions about this technical side of the I.B.A. and the standard of it and what is in it and so on?

Mr. P. White:

I think we have got a couple of questions on other ...

The Deputy of St. Martin:

Could I just ask a question, Chairman? Minister, we mentioned batteries, but tyres and specifically treated waste wood have, in the past, given us issues. Do we have either of those entering the Energy from Waste plant currently?

The Minister for Transport and Technical Services:

Tyres are sort of way up the list, if you like, or down the list, depending on which way you are going, but it is other things. Tyres burn very hot.

Chief Officer (Transport and Technical Services):

Yes, we put tyres through. We put tyres and waste wood through.

The Deputy of St. Martin:

Do tyres contribute or otherwise to the quality of the bottom ash?

Chief Officer (Transport and Technical Services):

No. There is a recent WRAP report that says the best utilisation of shredded tyres is to incinerate them in a modern incinerator and it is better than burning wood.

Male speaker:

It burns very hot.

Chief Officer (Transport and Technical Services):

It is quite an interesting view. But they do not affect bottom ash as such.

The Deputy of St. Martin:

Treated wood?

Chief Officer (Transport and Technical Services):

Treated wood? Jon, can you ...

Mr. J. Agnew:

Treated wood can contain materials that come out in the bottom ash because it is whatever it has been treated with. I guess it affects the quality of the bottom ash but it is proportional to the amount of treated wood that goes through the plant.

The Deputy of St. Martin:

I raise the question because I think we are all aware some years ago now we had an issue with treated wood being chipped and spread in areas where it contaminated watercourses. I was just wondering whether putting treated wood through the incinerator would affect the quality of the bottom ash to the detriment of then being able to use it for recycling for aggregates.

Mr. J. Agnew:

I think I understand the historical context of it but I suspect, if the treated wood was treated in a similar manner to that, most of the material that would be of concern

would come out in the combustion process and then where you would probably find an increase in their composition would be in the air pollution control residues at the end of the plant.

The Connétable of St. John:

On that point, of the substances that we are talking about that we found some years ago contaminated water supplies, once this time is burnt does that kill off things like arsenic and other chemicals?

Mr. J. Agnew:

Arsenic in itself would not necessarily be destroyed but it would be taken up in the flue gas and then it is absorbed into the activated carbon that is injected as part of the flue gas treatment. That is then held within the matrix of the carbon and would be disposed of either where it is at La Collette at the moment or at a future disposal point.

Deputy J.H. Young:

Is the new plant more efficient at extracting those materials than the previous one?

Mr. J. Agnew:

Absolutely. The last one did not have any activated carbon injection.

Deputy J.H. Young:

To what extent?

Mr. J. Agnew:

One hundred per cent.

The Minister for Transport and Technical Services:

It went from nothing to having it.

Deputy J.H. Young:

Therefore, a lot of these materials we could assume we could tackle that in the way we do on A.P.C. rather than the I.B.A.? If what you are saying is so, we should not be seeing that material that the Constable was referring to in the I.B.A.

Chief Officer (Transport and Technical Services):

That material is now being caught in the carbon which is in fact the A.P.C. residue.

Deputy J.H. Young:

Right. So the problem we are left with then is metal content and so on in the I.B.A.?

Chief Officer (Transport and Technical Services):

Correct.

The Deputy of St. Martin:

Are there any other contributing factors that you think might affect the quality of the I.B.A. after the scrapyards residue has been removed? Are you expecting to find other issues and other things that you may have to address?

Chief Officer (Transport and Technical Services):

For me, I think the Constable's point of kerbside recycling. Putting a baked bean tin through an Energy from Waste plant is a futile experience. It does not help anybody and any sort of kerbside system will improve that. The key thing is, apart from maybe some commercial stuff, once you have been through scrapyards residues you are pretty much back to batteries as the main source. Jon, is there anything else?

Mr. J. Agnew:

The only other thing would be anything remaining from demolition waste, from materials used in the construction industry from years gone by. The Jersey incinerator takes on a very high proportion of commercial industrial waste, probably far higher than most of the U.K. plants. So it is slightly more sensitive to possibly what other materials were used in commercial industrial processes over the last 10, 20, 30 or 40 years.

The Deputy of St. Martin:

Can I ask why that is that we take a higher proportion in Jersey than in the U.K.?

Mr. J. Agnew:

It is just the way that the U.K. often processes waste and the way that waste contracts are allocated. A lot of the waste incinerators in the U.K. are designed and sized around a municipal waste contract. So they receive a contract within a

municipality, whether it is a local authority or something, and they will build a plant with a certain amount of additional capacity where they can get additional money from commerce and from industry, but for purposes of financing it tends to be sized more around contracted waste volumes.

The Connétable of St. John:

So taking that a little bit further, you mentioned 30 or so years ago, but there is still an awful lot of property and waste that would come in from historical properties which would have, say, lead paintwork which would go through the incinerator.

Mr. J. Agnew:

That is correct.

The Connétable of St. John:

Would that be lifted out or will that drop into the ash?

Mr. J. Agnew:

As with most materials that have got metal contamination in them, some of the metal may end up in the bottom ash. Depending on its qualities, particularly under a thermal process, lead sublimes at quite a low temperature. So you would hope that most of that would be caught up in the A.P.C.R., but it depends on the property of the metal that is within the contamination.

Deputy J.H. Young:

Are you doing tests to establish the extent of this contamination from this source?

Chief Officer (Transport and Technical Services):

Within the ash, yes. That is accepted that we are doing it.

Deputy J.H. Young:

What I am hearing from you is that there is a selected range of materials that, if extracted from the waste stream, could help you achieve that standard to recycle I.B.A. or process it. Have you issued any guidance on those particular subjects?

Chief Officer (Transport and Technical Services):

We have got waste exceptions criteria which have been issued as part of our licensing agreement. The key thing for us is any Energy from Waste plant will have to accept a certain amount of contamination because people either do not understand, do not care, just need to get rid of it or whatever. You can put as much legislation and stuff as you want. You have got to assume the worst in terms of the controlling of emissions and the bottom ash. It is about testing and making sure that the bottom ash is safe and then, if you are well below that level, it is safe to use. So you build a factor of safety into your testing regime.

The Minister for Transport and Technical Services:

We have also just re-launched our waste electrical amnesty as well at Bellozanne where people bring in their electrical items that are broken or no longer used. So it keeps that out of the stream, too.

Chief Officer (Transport and Technical Services):

Also we have built our robot to promote electrical recycling, which is St. John at the moment.

The Connétable of St. John:

I have not seen it yet. It may be, but I have not seen it.

Chief Officer (Transport and Technical Services):

Very close to your parish hall.

The Connétable of St. John:

Right. I will have to have a look this evening.

Deputy J.H. Young:

There is, I understand, a process for making I.B.A. into material. I understand it is called I.B.A.A. - through a treatment of maturation.

Chief Officer (Transport and Technical Services):

Yes.

Deputy J.H. Young:

Would you like to describe that to us and tell us what your experience is with that? Have you done any of that? Have you got a licence to do it?

Chief Officer (Transport and Technical Services):

We tried some trials last year.

Principal Engineer (Transport and Technical Services):

They were not very conclusive.

Chief Officer (Transport and Technical Services):

They were not very conclusive. We have been to plants that do it and it is a bit of a science in itself. There are commercial sensitivities around it. A company that does it on a large scale basically monitors pH because the pH basically gives them a test in terms of the leachability of the metals within it.

[14:00]

Once the pH has got to a certain figure then they put it through a plant which does ferrous and non-ferrous separation out of the aggregate and then grades the aggregate and then it goes for re-use. But it is a tricky science at the moment. It is very dependent on what ash you put in, in terms of what products you get out. Our first start point is to make sure that the ash we put in is going to be safe to use at the other end.

Deputy J.H. Young:

When you get to that point is this a step down you will look at? In other words, trials of using this I.B.A. technique, is that something you will test?

Chief Officer (Transport and Technical Services):

Simply, you have got a pile of stuff of mixed size and it has got metals in it. It has got non-ferrous in it and it is of different grades and it has got clinker and various other things in it. It is almost pretty much a standard process. What we saw with the aggregate recycling contractor, that grading process and that selective process is what you do to produce viable products at the end of it. All the science is known about this. You are not going into some of the more esoteric things that happen with A.P.C. residue. This is fairly simple proven technology.

Deputy J.H. Young:

So it is low-key, low-tech stuff.

Chief Officer (Transport and Technical Services):

It is proven technology. It is still a big investment. It is £1 million worth of plant and then you have got separators and lots of grading and fairly specialist plant, but it is known and it is repeatable and done elsewhere.

Deputy J.H. Young:

Is this a process that uses water to damp it down? Is that the process or is that something different?

Chief Officer (Transport and Technical Services):

No, we try and avoid water. You may put some water into the process but just to avoid dust.

The Deputy of St. Martin:

This process would have to happen inside a shed?

Chief Officer (Transport and Technical Services):

It would.

The Deputy of St. Martin:

That would require a licence from the Environment Department to build and what have you?

Chief Officer (Transport and Technical Services):

It would.

The Deputy of St. Martin:

Could you tell us, from your experience (and I use the word "windrows" just as a useful description), what size are the heaps? Is there a restriction on how high you can go with these heaps for weathering or have you got to keep them to a certain surface area to weather?

Mr. J. Agnew:

I think, generally, the size of the windrows is just governed by the practicalities of using mechanical shovels for moving it around. So it behaves a bit like a mixed aggregate where it falls at a certain angle of repose and it is generally handled during the maturation process by someone driving a big front-end shovel.

The Deputy of St. Martin:

So there are no restrictions on the height of the heap that you can make, for example? You would not have a requirement whereby every part of the material would need to be no further than, for example, 5 metres away from the air?

Mr. J. Agnew:

Theoretically, no. It is just a practical limitation.

The Deputy of St. Martin:

So it is just a big shed with a lot of concrete on the floor with heaps of I.B.A. waiting to be treated. It is after how many months ...

Chief Officer (Transport and Technical Services):

Just for clarity, you would leave the I.B.A. outside. It is preferable to weather it in an open situation so you get rainwater on it, you get weathering on it, you get ...

The Deputy of St. Martin:

The requirement for storage is outside and the processing is done inside?

Chief Officer (Transport and Technical Services):

The processing is inside.

The Deputy of St. Martin:

But you do not store the material inside previous to process?

Chief Officer (Transport and Technical Services):

No.

Deputy J.H. Young:

The reason why I ask that is because the Minister for Planning and Environment, in our discussions with him this morning, expressed a great concern over that process of leaving this material exposed to the weather in terms of leaching potential.

Mr. J. Agnew:

The processes that do this in the U.K. sit it on a concrete pad that has an engineered drainage system. So it is not left on ...

The Deputy of St. Martin:

So any leachate that comes out of it is captured?

Mr. J. Agnew:

Correct, and discharged under licence.

Deputy J.H. Young:

So it is not an uncontrolled process. So there are 2 stages to the process: open air maturation and then into the sheds and processed. Can I ask have you had discussions with the Minister for Planning and Environment explaining what is involved with that sort of process? Have you been able to do that yet?

Chief Officer (Transport and Technical Services):

Not with the Minister. With the officers, yes.

Deputy J.H. Young:

What sort of feedback and advice are you getting from the officers?

Chief Officer (Transport and Technical Services):

We had a discussion a long time ago on incinerator bottom ash and they are open to our options but we have got to prove to them that the incinerator bottom ash is going to be safe to use and we have got to develop a viable market for it.

Deputy J.H. Young:

Have they set standards for that?

Chief Officer (Transport and Technical Services):

No, not yet.

The Deputy of St. Martin:

It is your understanding that it would be I.B.A. Before any other processes start that they would want testing to prove that it is of a level where it can be stacked on concrete and the leachate would not be seriously contaminated?

Chief Officer (Transport and Technical Services):

That is right.

The Deputy of St. Martin:

Before we move away from leachate, you mentioned that it would be disposed of, obviously, after it is captured. Would that be through your liquid waste plant or would that be straight into the sea or what do you do with that leachate once it is captured?

Chief Officer (Transport and Technical Services):

None of it would go to sea. That is the simple answer. The majority will probably be recycled on site. You would try and recycle it on site and if there is excess liquid it will go to the sewer.

The Connétable of St. John:

Then in turn it could go to sea in part.

The Deputy of St. Martin:

That would also require a licence from the Environment Department, I presume.

Chief Officer (Transport and Technical Services):

No, it would require a licence from us because we administer the drainage law.

Deputy J.H. Young:

Is that what happens to the leachate from the pits at the moment?

Chief Officer (Transport and Technical Services):

The leachate from the pits at the moment is tankered back to Bellozanne, yes.

The Connétable of St. John:

So in answer to my question, part of it would go back to sea.

The Deputy of St. Martin:

We have had an indication that the weathering process could take 12 to 18 months. Was it 12 to 18 months? No, weathering is 6 months, is it not?

Mr. P. White:

Twelve to 18 weeks maybe; 3 to 6 months potentially.

The Deputy of St. Martin:

Is that a size of heap that it going to give you an issue at La Collette?

Chief Officer (Transport and Technical Services):

Yes.

The Deputy of St. Martin:

How big an area?

Deputy J.H. Young:

How many tonnes would it be, roughly?

Chief Officer (Transport and Technical Services):

Until you start the trials, until you see how the waste reacts to the weathering, it is really hard to define.

Deputy J.H. Young:

Sorry, how the what reacts?

Chief Officer (Transport and Technical Services):

How the waste reacts to the weathering and the pH corrects. The site we went to see in Sheffield, we are talking about a 3 to 4-week maturation prior to process, but they get more rain in Sheffield. I think it is incinerator and environment, i.e. the climatic conditions, dependent.

The Deputy of St. Martin:

You talk about more rain in Sheffield, but we get more sun in Jersey. Is dust going to be an issue?

The Connétable of St. John:

That is right and the wind; will that be an issue?

Chief Officer (Transport and Technical Services):

We would have to engineer those solutions as we do with our other processes. Yes, there will be a tank of water which we will use to spray the systems ...

Deputy J.H. Young:

You will have to spray the leachate on it.

Chief Officer (Transport and Technical Services):

Spray the leachate back on it.

Deputy J.H. Young:

I think these are the issues that were raised by the Minister for Planning and Environment, but he has not given you any guidance yet of what criteria would be set in order to decide whether or not such a process was permissible or not?

Chief Officer (Transport and Technical Services):

The environmental impact assessment for putting this process in, the engineering, the feasibility study, all those elements of work, have not been undertaken. We have been to see some sites. We know what works and what does not work. All those things will be resolved then. We sort of know what the solutions will be, but we have not had those finite discussions.

The Deputy of St. Martin:

I think it is fair to say we pressed the Minister quite hard this morning on a quality assurance paper, if you like; a specification sheet that he thought I.B.A. should come to for you guys to target at. Unfortunately he did not really give us a very specific answer, but he did assure us that officers from both departments should be working together to come up with the best option that we can, which was good news. Although we were not given a specification for you to target, which we did try very hard to get, we are assured that it is hoped officers from both departments will work to make sure that we can attain the situation where we can turn I.B.A. into I.B.A.A.

Chief Officer (Transport and Technical Services):

Absolutely.

Deputy J.H. Young:

Yes. I think we are all working today, particularly your team, Minister. Could I ask, before we leave this subject of I.B.A., are there any particular tactical aspects in terms of the constitution of I.B.A. standards and so on that our technical adviser would like to clear up?

Mr. P. White:

We covered a couple of different types of testing, I think. Can I just confirm that the testing you are doing now is just testing on the ash as it comes out of the plant, rather than ash that has been matured or subject to weathering or subject to metals extraction?

Principal Engineer (Transport and Technical Services):

There are 2 elements of testing as part of our general monitoring. There is testing of what comes out of the plant. That is fed back to the regulator, is it not?

Male speaker:

Yes.

Principal Engineer (Transport and Technical Services):

Beyond that, what we have been doing over past months is to try and characterise the incinerator bottom ash that is coming out of the plant because, while the Environment Agency in the U.K. did a study which established a range of expectations for bottom ash in terms of the pollutants present, it does vary. Our experience when we visited the Isle of Man to look at the progress they had made on their I.B.A. trials and bearing in mind the site we visited was they had built a slab ready to go, spent about £500,000 on it and when we visited they were about 12 months in to trials to try and get to the point that they had a product that they could then start processing on the slab. All they had managed to do was resolve metal separation and start to characterise their bottom ash. We are utilising Keith Knox Associates who are advising them to give us a protocol to look at how we could characterise our bottom ash so that we know what sort of range we have got so we then could start trials confident that we were using typical materials. The general

conclusion, which is yet to be fully reported up, from several months of sampling from our incinerator bottom ash is it falls within the sort of range that you would expect within the U.K. So that has given us the confidence to now move on. We have started our first, as it were, pilot trial of our first pile or windrow, as the Deputy called it, of bottom ash which is now weathering. Now, the process that we are going to be following is that we will look at leachability before the material is processed and the leachability after that process is completed. We will be doing some engineering properties tests, same type tests and also some bulk leachability testing, which is a custom test that Keith Knox developed for the Isle of Man. In the Isle of Man they are more onerous in their requirements than the U.K. in that they want to specifically risk assess the use of bottom ash if it is used in roads or whatever situation. So, in order to look at if we have got some bottom ash in a road and there is some permeability into the road and some leaching, we need to have the source term, which is what pollution load you will get. Keith Knox has developed these specific tests that replicate that situation; so we will be able to feed that in.

The Deputy of St. Martin:

When you have a product I.B.A. that you think is ready to be tested, are you sending quantities of it to the U.K. to be put over a machine that is going to screen it and crush it and take metal out?

Principal Engineer (Transport and Technical Services):

No. At the moment we are concentrating entirely, at this stage, on leaching; the risk of pollution from the material. Once we have done the first windrow trial we will be doing those mechanical tests. They are fairly standard tests. We should be able to get them done locally because it is the same as for any other aggregate that is recycled under the WRAP protocol.

Deputy J.H. Young:

Phil, was your question answered?

Mr. P. White:

I was going to ask, in terms of the testing method, are you confident that using ...

Principal Engineer (Transport and Technical Services):

It is an upward percolation test, yes.

Mr. P. White:

So is that following the standard test for ...

Principal Engineer (Transport and Technical Services):

We are doing the standard C.E.N. (Comité Européen de Normalisation) but the concern with the standard C.E.N. test that came out of the work in the Isle of Man was, because it is a laboratory rapid-flush test, it does not give us what we are looking for, which is a simulation of it if it was in a road. So what you have got is an upward percolation test where you have got a continual flow until you get a stabilisation of that leachate and then that leachate can be used as the source term in the risk assessment model.

Deputy J.H. Young:

You said the Isle of Man apply high standards and I was interested in this risk assessment which I think indicated that the standards might be different according to the use that you put of this material. Would that be right?

Principal Engineer (Transport and Technical Services):

It depends on the location. Generally speaking, I.B.A.A. has been used in fill situations - for instance if you are building a motorway you might use it as an embankment, not below water table but above ground - in those situations, it depends on how much water is coming in and how much is washing out what your pollution load from that is. So in order to model that more precisely ... because when we had a meeting with the regulators here, their concern was that Jersey's water environment is much more sensitive. You could almost describe Jersey as all a sensitive receptor from a water quality point of view.

[14:15]

So we do not have some of the situations like a motorway embankment where it is sort of high and dry and well away from a watercourse. We have started a dialogue with the regulators. Keith Knox has proposed this risk assessment model that looks at the specific situation. You can feed in the characteristics, the source term of our

bottom ash, and then you can come out with an evaluation. We have started that dialogue. There is a further dialogue to be had when we have got more information.

Deputy J.H. Young:

So that is a dialogue with our environmental team, our officers there?

Principal Engineer (Transport and Technical Services):

Yes.

Deputy J.H. Young:

Does that point towards that we might, as an Island, have a need to have higher standards from our I.B.A. in view of what you have just said is the higher risk of water contamination in Jersey? Does that point to that being a possibility?

Principal Engineer (Transport and Technical Services):

In terms of Jersey, in an unbound form - so this is just putting the aggregate as it fell - it is quite an onerous situation in Jersey because most of the Island is very sensitive.

Deputy J.H. Young:

In an unbound form?

Principal Engineer (Transport and Technical Services):

Yes. I mean the alternative that could be looked at would be, as Jon mentioned, rather than just use it as a fill material, would be to incorporate it into a concrete mix or into an asphalt mix. So that is the other one. As you say, you have had discussions with quarries on that.

The Deputy of St. Martin:

Do you feel, Minister, that we have got the potential in Jersey to absorb all the I.B.A.A. that we could produce, if we get that far?

Chief Officer (Transport and Technical Services):

As we have shown before, it is going to replace the bottom low-quality elements of the triangle of aggregate. If we can get the right products and get the right standards then I am sure we can do something with it, yes.

Deputy J.H. Young:

It is not going to be an easy path.

Chief Officer (Transport and Technical Services):

It is not an easy path and it is not going to make us millionaires. You know, this is not going to be a ...

The Deputy of St. Martin:

I think where I was going to possibly was would we be in a position where we would be prepared to pay to export it off-Island after it has been treated? Would it be likely that we found ourselves in a position that it is almost inert but not quite good enough because of our topography in Jersey, but we would export it and it would be used on motorway construction, for example?

Chief Officer (Transport and Technical Services):

I think if it is for re-use somewhere it would be something we would look at. The difficulty is it is heavy and it is expensive to transport about. So if we can find a local, viable, sustainable solution that would be preferable on all counts, especially the environmental count.

The Deputy of St. Martin:

Unfortunately we are producing 50-plus tonnes of it every day of the year.

Chief Officer (Transport and Technical Services):

10,000 tonnes a year.

The Deputy of St. Martin:

So it is a considerable amount.

Deputy J.H. Young:

How many lorry-loads is that?

The Deputy of St. Martin:

Well, I presume the issue is, if you start mixing it as an aggregate to blend, your total volume of your aggregate, instead of being 50 tonnes, is considerable more; maybe 4, 5 or 6 times. So you end up with 3-400 tonnes a day and then all of a sudden you

have a significant heap of product at the end of the year which you are trying to find an end use for.

Chief Officer (Transport and Technical Services):

From the Isle of Man Government perspective, their type 1, type 2, recycled and I.B.A. total is of the order of about 250,000 tonnes a year and, of that, 10,000 tonnes is I.B.A. We are sort of aligned to that. So it is not a huge quantity, but it is at the bottom end of the pyramid. That is the only issue.

Deputy J.H. Young:

So it might be that we use some on-Island and export others?

Chief Officer (Transport and Technical Services):

I am sure Guernsey would.

The Deputy of St. Martin:

Our I.B.A. production at the moment is about 20,000 a year, is it not?

Chief Officer (Transport and Technical Services):

I.B.A. is about 18,000.

The Deputy of St. Martin:

That is still 47-48 tonnes a day.

Chief Officer (Transport and Technical Services):

Yes.

The Connétable of St. John:

We were talking about leachates earlier which was not answered, Minister. Can I take my question to the C.E.O. (Chief Executive Officer), given that he did not make a reply to my leachates sewer comment and onwards possibly in part to sea, as being affirmative? Well, I would take it as affirmative.

The Minister for Transport and Technical Services:

I think eventually everything goes to the sea.

Chief Officer (Transport and Technical Services):

In the limit, yes, there is an element but it is a massively diluted element.

Principal Engineer (Transport and Technical Services):

The studies that we have carried out looking at the leachate that arrives in the bottom of our I.B.A. at the moment, in terms of heavy metals, it is akin to a sort of dirty road run-off. So, yes, it has got heavy metals in but, in terms of how polluted it would be, it is not the highest order. That goes through our sewerage treatment works at the moment and it is less than one per cent of what we put into the sewerage treatment works. So in terms of contribution to what goes out into the sea, it is a low amount because much of it drops out into the other processes within the sewerage treatment works.

The Connétable of St. John:

Therefore, on that point, some of it would go to sludge cake which in turn gets returned to land.

Principal Engineer (Transport and Technical Services):

Yes.

Chief Officer (Transport and Technical Services):

But also, just to bear in mind to get the scale of this, a road that has not been rained on for 2 weeks, when it rains, gets a higher level of contamination washed off it into streams, directly into the sea, into the local fields. So it is about an order of magnitude here. We are in a position ...

The Connétable of St. John:

I do appreciate that.

Chief Officer (Transport and Technical Services):

In modern times we can test to levels which are hugely low. It is a terrible term, but when you start talking about nanogrammes and stuff. It is getting the scale now up which is then appropriate for people to understand.

The Connétable of St. John:

I appreciate that. Thank you.

Deputy J.H. Young:

I think our adviser wants to get in just a further question on trials.

Mr. P. White:

Just briefly on the trials, I think it is for the Principal Engineer again. Could you describe how you set the trials up? Are you taking the same sort of small pilot version of the process that you would then install if you went ahead with I.B.A. reprocessing at a later time, so that those results are then transferable?

Principal Engineer (Transport and Technical Services):

Yes, absolutely. The trial that was set up in August was exactly as you describe. It is a mini version of a typical process and the key reason we are doing that is so that in around about 3 months we get to see how the weathering process goes. If, at that point, the upper limit has dropped and the pollutants have more locked in - and this is what leaching tests will show - that will give us some material that, with some mechanical processing, we will be able to then go to the local quarries and say: "In terms of this material, is it of a nature that you could utilise as a product?"

Mr. P. White:

So mechanical processing after weathering, was that just grading?

Principal Engineer (Transport and Technical Services):

Just in terms of getting to that grade, yes.

Deputy J.H. Young:

This is a question, Minister, really tied up strongly with the Minister for Planning and Environment's role in securing whatever consents we need to export material. If I am right in our preamble and, I think, in what you have said so far is that you are open to all I.B.A. options including export in order to achieve that. Have you arrived at the understanding from the Minister for Planning and Environment/Environment Department, either of those, whether or not permission to export I.B.A. is likely to be accepted by another jurisdiction in the E.U.? Have you any views on that? Have you set any views on that based on information that you have been given?

The Minister for Transport and Technical Services:

If we can export it we will export it, but there seems to be some confusion as to whether permits would come through or not.

Deputy J.H. Young:

Have you been given any indication what the key factors would be in whether or not those permits will be forthcoming?

Chief Officer (Transport and Technical Services):

For I.B.A.A. it does not mean ...

Deputy J.H. Young:

We are talking I.B.A. here.

Chief Officer (Transport and Technical Services):

For unprocessed I.B.A.?

Deputy J.H. Young:

Yes. Well, not unprocessed. What consents would be required? What are the key elements that would allow us to export I.B.A. in whatever form?

Chief Officer (Transport and Technical Services):

We have always assumed that I.B.A. needs a local solution. Due to the quantity and weight of I.B.A. if we manufacture an I.B.A.A. which meets standards for recovery and for re-use it will not need any licensing or permitting. What Deputy Luce suggested is if we have got a local market for, say, 10,000 tonnes but we are producing 18,000 tonnes then we may export 8,000 tonnes. That will not require any licensing in terms of D.R.R. (duly reasoned requests) or anything like that because it is a product.

Deputy J.H. Young:

Because that is not a hazardous waste?

Chief Officer (Transport and Technical Services):

Because it is not a hazardous waste.

Deputy J.H. Young:

So I.B.A.A. is not a hazardous waste, therefore there is no consent, therefore we can reach what agreements we like. The Minister told us though, this morning, even though there would not be a E.U. consent that he would have to license under the waste management law such in and out movements. He told us that this morning. Is that something that is likely that you have indicated would be forthcoming?

Chief Officer (Transport and Technical Services):

We have not investigated incinerated bottom ash export to that degree at present.

Deputy J.H. Young:

Okay. Thank you. One of the criteria we were also advised where consent is required is whether or not Jersey can manage I.B.A. in an environmentally sound manner itself. Is that also your understanding too, that that is a key factor in whether or not we get consent?

Chief Officer (Transport and Technical Services):

Not if it is a product. If it is a product it is irrelevant.

Deputy J.H. Young:

If it is a product that is okay?

Chief Officer (Transport and Technical Services):

Yes.

Deputy J.H. Young:

If it is not a product the assumption is I think where we finished up is that if we are able to process the material ourselves we would be unlikely to get a licence to export it.

Chief Officer (Transport and Technical Services):

If we cannot process incinerated bottom ash then it is time to give up, is it not?

The Deputy of St. Martin:

Absolutely.

Deputy J.H. Young:

So your absolute preference then is that we should process it and we should deal with it locally?

Chief Officer (Transport and Technical Services):

Yes.

Deputy J.H. Young:

Where we cannot export that? That is your preferred objective?

Chief Officer (Transport and Technical Services):

Yes.

Deputy J.H. Young:

Is that yours, Minister? Is that the goal you are setting your team?

The Minister for Transport and Technical Services:

I support everything but we need to find the funding.

Deputy J.H. Young:

You think it is a funding thing?

The Minister for Transport and Technical Services:

Partly funding, yes. If we can process it into useful products locally then that would be great.

The Deputy of St. Martin:

Perhaps, Chairman, I could go a bit further and take you even further than your preferred option. Minister, given that what we do with I.B.A. at the moment is pretty much unsustainable inasmuch as it still contains things which we do not like, we put it in an engineered pit and we seal it up, the option is to treat it with the weathering and the crushing and all the other bits and pieces and produce an aggregate which is inert. Can we have an assurance that your department will continue to work strenuously towards that target and not just have it as a preferred option, but something that you will do until you succeed?

The Minister for Transport and Technical Services:

Absolutely.

The Deputy of St. Martin:

Thank you.

The Connétable of St. John:

Can I come in there? Given that some of the products might be something similar to a lytag block, would it not be useful, and I know you are speaking to some quarries and to contractors in the recycling field, to see what kind of markets there would be to ship some of this? If we had 18,000 tonnes per annum of this you would not be making that quantity of blocks to sell on-Island. It would have to be exported off-Island. Is any work being done to see what kind of markets there would be to sell that product off-Island?

Chief Officer (Transport and Technical Services):

We have looked at what products you can produce from I.B.A. but clear market testing and that mix iteration has not been done because we do not know what product we are going to give to them in the first place. We need to say: "This is X, and if we turn it into Y this is what we can do." You are absolutely right, we need some innovation here in terms of what products we can produce. We may be able to make something that can be exported and used somewhere else. What we have got to do is make sure what we give to the contractors who are doing this work is safe, repeatable and a viable product for them to use. That is our first stage.

The Connétable of St. John:

So no work has been done at this time?

Chief Officer (Transport and Technical Services):

Not to any extent.

The Deputy of St. Martin:

Yes, Minister, just before we close and this really will be the last one, in your road map for the future management of ash it says here you are going to secure funding and design and construct a maturation facility for I.B.A. by late 2015. Have you got that money identified in the M.T.F.P. (medium-term financial plan)?

Chief Officer (Transport and Technical Services):

Yes, we have.

Deputy J.H. Young:

I am going to move now to A.P.C.R. (air pollution control residues). Minister, your current option is in a temporary disposal arrangement, as we understand it, in a hazardous waste cell which at the moment is open. Could you just explain to us that at the time the Energy from Waste Plant was put into operation what was considered to be the timescale of that temporary disposal arrangement for A.P.C. residue?

[14:30]

Chief Officer (Transport and Technical Services):

At the time of commissioning of the Energy from Waste Plant, that was not a temporary disposal option. Through the build of the Energy from Waste Plant the direction of travel as agreed with the Regulator was to use it as a permanent disposal area for A.P.C. residue. It is only since the Minister took office that we reviewed that strategy and tried to make it a temporary situation to try to promote the export of A.P.C. residue or treatment of A.P.C. residue as per our new strategy.

Deputy J.H. Young:

So there has basically been a change of thinking in light of new information and so on?

Chief Officer (Transport and Technical Services):

Of political guidance, yes.

Deputy J.H. Young:

Because someone mentioned, Kevin, that you were the Assistant Minister I think at the time and we now have a different Minister of the Environment or was it the same Minister of the Environment who gave that consent for a permanent solution at the time the Energy from Waste Plant was commissioned?

Chief Officer (Transport and Technical Services):

I do not believe so.

Deputy J.H. Young:

So could it be that we have just got 2 new Ministers and we have now moved from a permanent to a temporary solution? How long in your view now is temporary?

Chief Officer (Transport and Technical Services):

Just to clarify this as well, the world is changing in terms of A.P.C. residue and the ability to recycle it and to do alternative things with it, so this is burgeoning technology which we are trying to latch on to. When the plant was specified there was not really an opportunity to recycle A.P.C. residue in the ways that have been developed since that time so it is a change of policy and strategy based on looking out and seeing what best practice is.

The Deputy of St. Martin:

Was it a political decision not to seek a licence or otherwise to export A.P.C.R. when you commissioned the new plant at that time and installed it?

Chief Officer (Transport and Technical Services):

We did not have the duly reasoned request. Again, we have always dealt with our fly ash locally, on Island. What we did not envisage was A.P.C. residue to be much different than fly ash but it is and it is separated and treated differently in looking at what other people do. We have never had the ability to export fly ash, and we have never had a duly reasoned request asked for, for exporting fly ash. Probably because no one else had it because all the other plants that just had fly ash had been closed down in 1996, so we stood alone for a long time. When we started producing A.P.C. residue because we were collecting all the contaminants that were coming out of the chimney then we had to reappraise ourselves then and start looking into the possibility of export.

The Deputy of St. Martin:

So was it a little bit of a surprise all of a sudden, and maybe: "surprise" is the wrong word, but because it is something that we have not had to cope with previously it did not occur to us that we might have to cope with such volumes in the future?

Chief Officer (Transport and Technical Services):

We knew what the volumes were. The bit that really rung home was the legacy issue of it. It is a tricky substance to handle and to deal with. The other thing is the cost of

the ash pit, to build it to an appropriate standard to encapsulate the A.P.C. residue was such that it started to ring alarm bells in terms of the real viability of storing it at La Collette long term.

The Deputy of St. Martin:

On the basis that it is the Minister of the Environment who would have to ask for a duly reasoned request have you asked him if he might put one in for the export of A.P.C.R.?

Chief Officer (Transport and Technical Services):

He has already done it. It was done by his officers in the last week.

The Deputy of St. Martin:

Are you aware of the results of that discussion?

Chief Officer (Transport and Technical Services):

There is a 12-week consultation with the E.A. (Environment Agency) and Defra but we had discussions with the E.A. 2 weeks ago when they were over and they have got a positive view about it but obviously they need to go through the process.

Deputy J.H. Young:

You have said that now there has been a change of heart from both yourself and we know that the Minister of the Environment favours that too, of looking at other options. Our advisers have produced for us a table of options which they have looked at in co-operation with your officers and I think our Environmental Officers. For those Members present at the meeting who have not got the table, it lists down a series of alternative options for the management of A.P.C. residues. Some of those are in Jersey and some of those are exporting and there are some options for disposal and some for recovery. I think before we ask you to comment on them, perhaps if I can ask our adviser just to sum up what the range of options is that they have looked at and we are going to ask you to comment on briefly.

Chief Officer (Transport and Technical Services):

Can I just suggest that we can hand out our A3 table?

Deputy J.H. Young:

Touché.

The Deputy of St. Martin:

Is it because your printer obviously does more different colours than ours?

Deputy J.H. Young:

I think if we were playing a card game we would be trumped. Who is going to look at whose sheet? Who is going first?

Chief Officer (Transport and Technical Services):

I think what it shows is we are predominantly green, are we not?

Deputy J.H. Young:

I am hoping that between these 2 sheets that they tie up, so I wonder if you might let our adviser just tell us what we put in, and then we will look at yours and try and get to a point where we can agree. Can you just sum up briefly?

Mr. P. White (Adviser):

I will do. So what we are looking at, we have got 7 options for managing A.P.C. on Island and 8 for managing that as an export option. There is a lot of crossover between the technologies, between on and off Island, whether those technologies can be located here or elsewhere. So going through the Jersey disposal options, the analysis shows that the current practice at La Collette is viable now. If it becomes less and less acceptable which I think is accepted, then that is the case. Alternative options for disposal in Jersey involve stabilisation which would essentially mean a slurry type material being tipped into the cells which I think is again overall accepted that that is not an appropriate way to move forward, so those options can be ruled out. In terms of recovery options in Jersey we have with those options obviously a level of infrastructure to be put in place which rules those options out in the immediate short-term, so dealing with the legacy ash in Cell 33 or in the short term within the next 2 years, 2 of those options become viable in the medium to long-term potentially. You have got a key on the back of that map which shows that the amber colouration is quite a conservative position in a sense. Those 2 options have specific commercial or technical issues that may be resolved that allows them to become green and become more viable options for the medium to long term. In terms of the export options, the 3 that you see there, disposing to salt mines, assuming that is the

U.K. designation of salt mines as a disposal option, or stabilisation options for A.P.C. in another jurisdiction again are coloured amber. The reason for that in all of those cases is because again they would need a D.R.R. to be in place and there is a risk that that D.R.R. may not happen. If that D.R.R. is accepted by the destination country of export then those options again become green and become a viable solution. Finally, the export and recovery options, most of those options are ruled out on the basis that there is not plant capacity in the U.K. in plants that we are aware of coming on-stream or there is too much technical risk. The only option that becomes viable in the short term moving forwards is an established process to treat A.P.C. using acid, similar to gypsum, which is used as an input to ordinary Portland cement. So overall that puts it into context and the Chief Officer and I have been on a combined visit to a couple of processors and I think the people who are represented here today and this table takes forward some of the findings and advice to you and from 2011 as well, so it should not be too much of a difference in opinion.

Chief Officer (Transport and Technical Services):

I think the only comment that I would make is depending on the scale and the market the accelerated carbon technology could be an export joint ownership plan which then has a more viable outlet to a bigger concern in terms of industry, so there is a potential opportunity there which might help with one of those. Because then it is a similar thing to the amount of market there is for us producing blocks out of A.P.C. residue.

The Deputy of St. Martin:

If I might put a question that I put to the Minister of the Environment this morning, I said to him if we had an A.C.T. (accelerated carbon technology) plant in Jersey, a small one, and the option of exporting to an A.C.T. plant on the south coast of England which would cost considerably less per tonne because it is much larger and therefore economically viable, would he consider that as an alternative. Minister, would you consider exporting A.P.C. to be treated on the south coast in an A.C.T. plant as opposed to building one here in Jersey?

The Minister for Transport and Technical Services:

It depends on the economics but I would be happy to look into that.

Deputy J.H. Young:

Having seen this for the first time, hopefully since this has been arrived at by a process involving your officers and this list is complete, is there anything that is missing from it in terms of options?

Mr. J. Agnew:

The only bit that I would possibly seek clarification on is that we have medium to long-term solutions for an A.C.T. on Jersey but as the Chief Officer pointed out and I think as you hinted there is probably a medium to long term opportunity to send your stuff to a commercial facility in the U.K. It is red at the moment but I thought it might be orange.

Deputy J.H. Young:

I think what he is saying is the economics really suggest that A.C.T. technology belongs in the export box?

Chief Officer (Transport and Technical Services):

No, I would not say that. It is burgeoning technology. It depends on the scale and market really, but the plant that myself and Phil went to see is next to a block making company which dwarfs a Parish of Jersey, so you have got to realise the scale of what these guys are up to and what sort of industries that they link into. Also the carbon process needs a carbon source, so they need somewhere that is producing CO₂ locally, so there are quite a few intricacies which make it more sustainable environmentally.

Deputy J.H. Young:

So you need a limestone source, or something?

Mr. P. White:

Liquefied CO₂.

Chief Officer (Transport and Technical Services):

So you need to find the right place. The other thing I would just flag up here is the risks around plasma gasification as an on Island solution, if anybody is brave enough to build one. I do not think I am but I am very happy for the Minister of the Environment to have a go.

Deputy J.H. Young:

So would you be able to indicate your preferences for this? Perhaps the order of attraction? Maybe it is a question for your officers perhaps at the moment, having seen this list for the first time, the ones that you would strike as being immediately ones that one should look at first?

Chief Officer (Transport and Technical Services):

Can I suggest that we turn on to our A3 sheet?

Deputy J.H. Young:

All right. Okay. Have you done this already?

Chief Officer (Transport and Technical Services):

If you look at the left two-thirds of the graph, this is about A.P.C. residues. We have started building up A.P.C. residues and we have got a backlog now of A.P.C. residues which are bagged in single use bags. Ideally if we gain a duly reasoned request what we would like to do is ship those off for disposal. Because the A.P.C. residue has been bagged and it is very hygroscopic it would probably not be suitable for many of the processes that we have seen apart from the disposal ones. We will try the other ones but that is my understanding.

Mr. P. White:

There are one or 2 processors that may take it. One of the acid treatment processors would, but they would have to pre-process the material and as you said it would have solidified to an extent, I mean it is crushable, but it does rule it out of options such as the accelerated carbonation process, just because of that handling. They could not take that.

Chief Officer (Transport and Technical Services):

So our priority is to get rid of the backlog then we have got to re-engineer the Energy from Waste Plant to the storage on Jersey so that we can transfer the bulk powder of the A.P.C. residue on return loads from the lime containers that come in and also the empty vacuum tankers back out to wherever we take them to.

[14:45]

What we would like to do is to go back to the market place for a 2-year or a 3-year period to set up a process, hopefully a process for recycling but we have got to be careful not to tie ourselves into one provider there without the capacity. Once we have done that then we can look at the long-term agreement to either build it on the Island, our own process, or co-ownership or a long-term relationship with an A.P.C. recycling company. That would be the preferred option on the timeline.

The Deputy of St. Martin:

Minister, if the Environment Agency via the Department of the Environment in Jersey grants you a D.R.R. to export A.P.C. for disposal in salt mines for the legacy that we have at La Collette currently, what would be the argument not to continue that D.R.R. into the future and not build an A.C.T. plant in Jersey or send it to an A.C.T. in the U.K.?

Chief Officer (Transport and Technical Services):

Environmentally we would like to move up the hierarchy and try and recycle it and commercially there is pressure on the salt mines in terms of the capacity of dealing with the A.P.C. residues in the U.K. is limited. I do not think it would be a long-term solution. I am not sure it is the right solution for our A.P.C. residue.

The Deputy of St. Martin:

In Germany they put it in salt mines for recovery purposes as opposed to a disposal. Would you consider exporting it to Germany, Minister?

The Minister for Transport and Technical Services:

The team have been looking into that.

Chief Officer (Transport and Technical Services):

It is just cost, because it is a lot further.

Deputy J.H. Young:

So those choices downstream are economic ones?

Chief Officer (Transport and Technical Services):

No, ethical and economic. I think it is a combination. I do not think it is ethical to be dumping our A.P.C. residue in another country. I think it is ethical and moral to be recycling our A.P.C. residue in another country.

The Deputy of St. Martin:

You do not consider recovery in Germany as recovery, then? I take that as a no.

Deputy J.H. Young:

On the economic grounds, if it is viewed as recovery off-Island, and it is possible to get a derogation for it, a comparison with building and investing in an on-Island recovery facility and using an external one, would that not be economic?

Chief Officer (Transport and Technical Services):

One of the technology cells is very scalable and operable in Jersey. There is no question about that. It has got huge potential but we have got to find a source of carbon dioxide in liquid form which we have got to get here. We have then got to find a market for the products that that plant produces. Now if we cannot do that then we are better off shipping the basic product over for recycling. We do not need a duly reasoned request for that, because it is going to a plant for recycling. We have got a long way to go. One of the key things in discussions with one of the technology providers is it is very dependent on the type of A.P.C. residue that they receive how effective their process is, so there is mileage in all of this. None of this is instant solution. The only instant solution we have is probably the export to a salt mine or maybe some of the acid wash and stabilisation processes. For the more exotic new processes there is a timeline where we have got to work with them with our A.P.C. residue so they can understand the characteristics of it, and then they have got to see that, pilot it, put it through their processes, and see what comes out. If it is recyclable and usable, then we can look at working with them in terms of either a long-term commercial arrangement on Island or off Island.

Deputy J.H. Young:

But the A.P.C. will not change its character from now?

Mr. J. Agnew:

No. What I think the Chief Officer is alluding to is for example the plant that everybody went to see has an approval from the Environment Agency for the

material it produces at the moment. It produces that from A.P.C. from a plant and it varies from plant to plant and from technology to technology. I think what the Chief Officer is saying is that you have to work with them to make sure that when you send your stuff to them the output meets the same quality. If it does not and there is no market for that then it instantly becomes waste again and then you need to dispose of it.

The Deputy of St. Martin:

Notwithstanding that information, can we take it from you that you see the road to carbonation technology as the way forward, or the option that you would be using for recovery, as opposed to derogation or the others?

Chief Officer (Transport and Technical Services):

It is a very welcome technology to this industry as far as I am concerned. It is backed by a big company, it has got good science behind it, it has got good approvals from the E.A. I think it has got a lot of potential.

The Deputy of St. Martin:

Just for the record, could you list the other options that you have looked at?

Chief Officer (Transport and Technical Services):

They are all on this spread sheet.

Deputy J.H. Young:

So that is at the moment your frontrunner but it has got a way to go? You have got to check out the commercial negotiations, these off-Island operators. I would like to flag up, because if I have read this sheet correctly, you have gone from salt mines to negotiations off-Island and then we go back to on-Island. Can you just explain that a bit?

Chief Officer (Transport and Technical Services):

Yes. The on-Island solution would be a technology like carbonation or equivalent. Whether or not that is an on-Island solution or it is a partnership with a south coast solution is something that we need to review. It could be a plasma plant but I just do not think we are brave enough. Up to that point we will not have time to set anything else up on-Island. Everything else will be off-Island. Ideally we would like to export

off-Island to a technology we like which would provide us with recovery, and then we get into a long-term agreement and relationship with that company. That would be ideal.

Deputy J.H. Young:

So off-Island with recovery?

Chief Officer (Transport and Technical Services):

Off-Island with recovery would be the preferred objective.

The Deputy of St. Martin:

Do you have any indication at all of the difference in cost per tonne of a small A.C.T. plant in Jersey versus the cost of shipping to a larger A.C.T. plant on the south coast of the U.K.?

Chief Officer (Transport and Technical Services):

We have not got to that stage yet. The benefit of recycling is you do not pay land fill tax on the back end of it. The benefit of doing it locally means that you do not have to ship anything but it is pointless if you have not get an end market for the products that you produce.

The Deputy of St. Martin:

What we are certainly conscious of in the south coast of the U.K. is the plant is alongside a block making plant and they have access to all the ingredients they need to process. It works very much more seamlessly than it would in Jersey where we might have to accumulate an amount of aggregate before we could use it, we might need a specific source to use it in. It would be simpler to do the process on the south coast of the U.K. except that we have the shipping cost to get it there.

Chief Officer (Transport and Technical Services):

We are shipping north as well, which again shipping north there is less ...

The Deputy of St. Martin:

It is less expensive on the basis of exporting rather than importing.

Chief Officer (Transport and Technical Services):

That is right, because there is less traffic going in that direction.

Mr. J. Agnew:

I think the other thing, just from a pragmatic point of view, is that the treatment processes for the A.P.C. would produce a product that would have to compete with your recycled I.B.A. as well and you have got to create markets for both and it may well be more appropriate to create a market for the recycled I.B.A. product than it is for a recycled hazardous waste product.

Deputy J.H. Young:

Yes, so a local market for I.B.A. recycled and then an A.P.C. off-Island and also the emerging technology gives you a chance to trade out. Here you have put: "Beyond 2014." Is that an optimistic timetable for achieving all of that? Is that achievable?

Chief Officer (Transport and Technical Services):

We said: "and beyond."

Deputy J.H. Young:

Minister, you said about money. You said you thought it all depended on money in the end, that there was a massive cost implication in doing this.

The Minister for Transport and Technical Services:

Not just money, but obviously that is a large part of it. As the Chief Officer said, there is the ethical approach as well that it should not really be dumping our rubbish on somebody else. It is great if we can deal with it ourselves if it is at all possible.

Chief Officer (Transport and Technical Services):

The big driving force now is I do not want to commission another A.P.C. cell at La Collette. So the legacy A.P.C. we have there now I want off the Island and I want a new system set in as soon as possible because it is half a million quid to build an A.P.C. cell and that, for me, is just wasted money. If we do not get a duly reasoned request, we will go back to plan A.

Deputy J.H. Young:

Right, so to do that we need the Minister for Planning and Environment to deliver the D.R.R.

Chief Officer (Transport and Technical Services):

That is right, which has been sat with him since Christmas last year.

Deputy J.H. Young:

So the information required for that you submitted ...

The Connétable of St. John:

Can you repeat what you said please?

Chief Officer (Transport and Technical Services):

The duly reasoned request has been waited for since Christmas last year.

The Connétable of St. John:

Nine months, thank you.

The Deputy of St. Martin:

Can I ask how much capacity you have left time-wise in cell 33?

Principal Engineer (Transport and Technical Services):

It depends on how you assess it. To build to the top level which is what we have currently got approval for, it is spring next year.

The Deputy of St. Martin:

Spring of next year?

Principal Engineer (Transport and Technical Services):

Yes.

The Deputy of St. Martin:

How long does it take you to commission building of the new engineered bit? How long will that take you to fabricate?

Chief Officer (Transport and Technical Services):

That will be 3 months, 4 months.

The Deputy of St. Martin:

On that basis, you need a decision before Christmas?

Chief Officer (Transport and Technical Services):

Yes.

Deputy J.H. Young:

Is that the final date? Is that the final date and if you do not hear a decision by Christmas you have to start to build?

Chief Officer (Transport and Technical Services):

Yes, to be fair the duly reasoned request has been submitted and the deliberation normally takes 8 weeks, the maximum is 12 weeks, and we have got some confidence of the outcome.

Deputy J.H. Young:

You have provided all of the information required by the Environment Minister for that, have you?

Chief Officer (Transport and Technical Services):

We have indeed, yes.

The Deputy of St. Martin:

Is the Environment Minister aware of the fact that at Christmas if a decision is not forthcoming you will have to commence building a new pit to be finished in time for the completion of cell 33?

Chief Officer (Transport and Technical Services):

His officers are aware of those issues.

The Connétable of St. John:

The long term life of these pits, we know they are 30, 50 years et cetera, is it the aim to get these pits, if for any reason you cannot ship off-Island, is it the aim to retain them then at the La Collette or is it the aim to recycle somewhere else on the Island? I put the question because should they not be on a clay base?

Chief Officer (Transport and Technical Services):

The geology of La Collette does not lend itself to long term storage of A.P.C. residue which is one of the mitigations we put in our duly reasoned request. If that fails, perhaps the review might look for a more appropriate site on the Island. I am not aware of any.

Principal Engineer (Transport and Technical Services):

Geologically, we do not have the low permeability clays. There are silting materials but they do not have the low permeability which would be required to meet European standards.

The Connétable of St. John:

Thank you.

Deputy J.H. Young:

We heard just a few minutes ago that you had had some preliminary indications as a result of the request being considered to allow that export and that we heard that you had had preliminary signs that were positive. Could you expand on that a bit please and what information we have?

Chief Officer (Transport and Technical Services):

We have had discussions with the fabricators in the U.K. who came over to view what we do and to look at the duly reasoned request.

Deputy J.H. Young:

So there has been direct approach from the U.K. environment agency?

Chief Officer (Transport and Technical Services):

Yes, they kindly came over and saw us and saw the Environment regulator and met with us.

The Deputy of St. Martin:

Have you made any initial inquiries with the people who operate the salt mine disposal facility?

Chief Officer (Transport and Technical Services):

We have not gone out on the commercial route. We contacted all of the providers. We were mainly doing a fact finding tour which we did with your adviser at the same time to expedite some of the trips. We know what the salt mine does and we know that there is some testing of some capacity there. We have not gone into commercial negotiations as yet.

The Deputy of St. Martin:

But you are aware that they would have capacity for some of our A.P.C. should we need to move some in a hurry?

Chief Officer (Transport and Technical Services):

Yes. Jon has been working on getting nominal prices so they can look at viability and achievability of that but the transportation, the risk assessments, the Duly Reasoned work. Until the duly reasoned request is in place, then there is no point going out to market if you have not got the right place because they will say, "Have you got your duly reasoned request?", and if you said, "No", they will say, "Well, come back when you have". You have got to get that in place before you start.

The Deputy of St. Martin:

This is a very vague question but would you have any idea at the moment the difference between what you think you might have to pay ball park to put A.P.C. in the salt mine compared to the cost per tonne of building a small A.P.C. plant in Jersey and processing it?

Chief Officer (Transport and Technical Services):

The market is defined by itself so if one operator is saying it has cost £100, let us make it fixable at £100 per tonne plus the landfill charge, the tax, if someone can do it for £95 a tonne plus landfill plus annual tax at Y they will get more business. All the costs in terms of export and treatment seem to be of a similar nature. There is no-one half the price. When it comes to building out a technology like we have seen and looking at the ongoing costs of that and the licensing and the operation of that, we are nowhere near that as yet. What I would say is the plant that we went to see, their nominal through costs were suggested to be quite cheap relative to market.

[15:00]

The Deputy of St. Martin:

Was that cheap relative to the disposal in the salt mine as well?

Chief Officer (Transport and Technical Services):

Yes, yes.

The Deputy of St. Martin:

Is that based on the initial ...

Mr. J. Agnew:

That is cheap based on a particular set of circumstances.

Chief Officer (Transport and Technical Services):

Yes. We are really careful with that because the building was free, I think.

Mr. J. Agnew:

Next door are the people that want it.

Chief Officer (Transport and Technical Services):

They are next door to the people that want it.

Mr. J. Agnew:

They are next door to the people that want it. The labour would be a low cost in that part of the U.K.

Deputy J.H. Young:

Presumably you have taken account of your transport costs too.

Chief Officer (Transport and Technical Services):

We have got some estimations. Transport is a tricky one because if you can find a return load of the empty bulk tanker coming back, it would make a really effective transport solution.

The Deputy of St. Martin:

Are you aware of any particular requirements to ship hazardous waste on curtain side trailers? It has been suggested that the lime that arrives on a trailer, the trailer

could be reloaded with A.P.C. to return to the Midlands, but would you need any special requirements?

Chief Officer (Transport and Technical Services):

Yes, there are all sorts of transfrontier shipping (T.F.S.) licensing and all sorts of licenses you have. We ship hazardous waste all the time off Jersey. You do that in a very straight forward manner with all the approvals and licensing and paperwork.

Deputy J.H. Young:

Those licenses are from the Environment Department?

Chief Officer (Transport and Technical Services):

The Environment agency, the U.K. environment department, transshipment agreements and all that.

Deputy J.H. Young:

When we spoke to the Environment Minister this morning, he was particularly emphasising his own role in approving such applications. Do you know whether or not the solution you have put there and the proposals you have put forward are dependent upon the Environment Minister giving particular approval or can this be dealt with through the approvals through the U.K. authorities?

Chief Officer (Transport and Technical Services):

I do not know the Environment Minister's responsibilities in that.

Deputy J.H. Young:

No, I mean the Environment Minister raised with us lots of points of law this morning which rather went over my head.

Chief Officer (Transport and Technical Services):

I know we have got an issue with a conflict on asbestos which I think you are aware of so I have been a bit confused myself on what the Environment Minister ...

The Deputy of St. Martin:

We deliberately have not spoken about asbestos because we do not want to get confused.

Deputy J.H. Young:

No, no, no. Okay, well, to sum up where I think what you have said to us is you have got a plan. This has gone forward 9 months ago. There is precedence for this. This is what you would expect it to be and if that happens then we have got the opportunity to avoid building the next ash cell.

Chief Officer (Transport and Technical Services):

That is the price, is it not?

Deputy J.H. Young:

Yes, and so therefore that would allow you to deal with the backlog of the A.P.C. residues and then we could then look at further steps in order to deal with the stream as and when it arises, and on the right-hand side of the chart you would also then deal with these local initiatives and seeing what can be done about I.B.A. as we discussed earlier.

Chief Officer (Transport and Technical Services):

Correct.

Deputy J.H. Young:

That is your strategy. Do you want to follow that?

The Deputy of St. Martin:

Minister, if all that happened that would be marvellous and we would stop putting ash under heaps of ground at La Collette to form hills. Is there anything in the future that you see that you might be attempting to do to reduce the hills that are already there in as much as would you be looking to dig out some of that material and try to reprocess it? Is that in your mind that it is something that we could do in the future?

The Minister for Transport and Technical Services:

I would like to do that but whether that is feasible I am not quite sure at the moment.

Chief Officer (Transport and Technical Services):

It is very tricky. The old Energy from Waste plant was nasty at best and the bottom ash quality was pretty poor. You would definitely have to be very sure of what you

are doing and what you are trying to achieve before you move down that sort of stream and that thought process.

The Connétable of St. John:

That particular waste could be there for forever and a day. Because it is not in a clay bonded area, would that mean that that would still have to be moved?

Principal Engineer (Transport and Technical Services):

What we are doing in terms of the cells as they are being completed, I think the best example is the northern mounds, what we call the northern mounds, the north near the Energy from Waste plant, both cells have been completed, bearing in mind it is not the hazardous waste from the A.P.C. So both cells are completed and then there has been a capping put over the top which because it is not in contact with the ash materials that is a clay impregnated mat material. So effectively we have got a clay cap over the top. So there is no water getting in the top. There should be no build up of leachate. We are monitoring for that. So those cells are high and dry. We just have to continue to monitor that in the future.

The Connétable of St. John:

That is acceptable to Defra and others?

Principal Engineer (Transport and Technical Services):

Yes, it is regulated.

The Deputy of St. Martin:

Are there any circumstances at all under which we might be able to export that ash?

Chief Officer (Transport and Technical Services):

What? Where to? To do what with it?

The Deputy of St. Martin:

Anything. Is there any way but I guess the answer would be hopefully in the future technology will provide us with the answer but currently it is there to stay as it is at the moment.

The Minister for Transport and Technical Services:

The good thing is that technology is changing by the month and there is always something new coming out. So obviously the team is keeping a very close eye on things as they progress.

Deputy J.H. Young:

Maybe I can just go back to the subject of cost? Given the strategy you have outlined on here, you have put forward certain proposals for the medium term financial plan which we yet do not know if they are going to go through or not, is your feeling that this plan here is doable within the lifetime of the medium term financial plan that we have put forward, the figures that we have put in for the handling of ash, or are we in the situation where this will not be possible without additional funding? You presumably have done some preliminary estimates on that.

Chief Officer (Transport and Technical Services):

We are happy with the funding that is in the M.T.F.P. The only issue we have got is where we have assumed capital, we may have to convert it to revenue, for example from 2013 to 2015 we have got £3.15 million in for ash cell construction. If we are successful in the duly reasoned request and we can get approval from the Treasury for that, we can convert that money into revenue and utilise that.

Deputy J.H. Young:

That needs to happen, does it? It matters which box it is, whether it is capital or revenue.

Chief Officer (Transport and Technical Services):

I am afraid so, yes.

Deputy J.H. Young:

Can we just ask you to explain that a bit more?

Chief Officer (Transport and Technical Services):

States funding is separated into revenue stream, capital stream and capital needed to provide an asset. So if you are building an Energy from Waste plant, a pumping station or a road then that is capital spend. Revenue spend pays for the maintenance of that asset and the staff and all the other things. If we are not producing an ash cell which is a capital expenditure but we are exporting that ash for

recycling or for disposal then we need to make a capital to revenue transfer which has to go via Treasury under the finance law.

Deputy J.H. Young:

But there might be an on-Island facility required, for example under I.B.A. we spoke about some kind of low tech plant, did we not?

Chief Officer (Transport and Technical Services):

Yes, that is right and we have got ...

Deputy J.H. Young:

And this shed and so on, would that not be capital?

Chief Officer (Transport and Technical Services):

We have got £1.5 million set aside in 2014 to build an I.B.A. plant.

Deputy J.H. Young:

You have already got that?

Chief Officer (Transport and Technical Services):

Yes, it is part ...

Deputy J.H. Young:

That can be done from existing funding on the I.B.A. side?

Chief Officer (Transport and Technical Services):

That is in the M.T.F.P., yes.

Deputy J.H. Young:

For what years?

Chief Officer (Transport and Technical Services):

That is 2014.

Deputy J.H. Young:

So we do not need to worry about that. The approval then is to move money from cells which are regarded as an asset ...

Chief Officer (Transport and Technical Services):

From an accountancy term.

Deputy J.H. Young:

Yes, accountancy ... how do you value the value of a hazardous waste cell? Maybe we should ask the Assistant Minister to tell us that value ...

The Deputy of St. Martin:

Description of the assets and liabilities might come into ...

Deputy J.H. Young:

But it is dependent though on the transfer from one box to the other.

Chief Officer (Transport and Technical Services):

That is right which we do not envisage to be a problem.

Deputy J.H. Young:

But that would be an ongoing cost, would it not, or if ...

Chief Officer (Transport and Technical Services):

It is a recurring cost.

Deputy J.H. Young:

It is a recurring cost.

The Deputy of St. Martin:

Maybe we could move, Minister, to the subject of Guernsey seeing as we are talking about the M.T.F.P. We notice that there is income that is budgeted for in the M.T.F.P. for the burning of Guernsey waste. Is it still your intention to import Guernsey waste?

The Minister for Transport and Technical Services:

It is but I want to get all the previous stuff sorted prior to that if at all possible, if not in train.

Deputy J.H. Young:

What are the advantages, Minister, of bringing in Guernsey waste?

The Minister for Transport and Technical Services:

They do a lot of recycling so it would be clean rubbish, if I can use that term. They would pay us to take their refuse. We would burn it, generate electricity which we would be selling to the Jersey Electricity Company which just leaves the question of the ash.

The Deputy of St. Martin:

What is your current feeling, Minister, about the returning of ash, both bottom and top ash, to Guernsey? Do you think you are going to be allowed to do that?

The Minister for Transport and Technical Services:

Those discussions are still ongoing but not necessarily back to Guernsey. It could be onward to somewhere else or treatment here if we have that set up.

Chief Officer (Transport and Technical Services):

My understanding is Guernsey solution for A.P.C. residue is always to export it and if Guernsey waste came to Jersey then as part of our export of A.P.C. residue your Guernsey waste would be tied into that. In terms of the exportation of incinerated bottom ash back to Guernsey which is a favoured option for me, my understanding is the law does not allow that but the law would allow the export of I.B.A.A. which is a recycled product which could go back to Guernsey.

The Deputy of St. Martin:

So if we had our plant up and running we could send Guernsey a certain tonnage of product back.

Chief Officer (Transport and Technical Services):

Correct.

Deputy J.H. Young:

We could.

The Connétable of St. John:

Which law does not allow it?

Chief Officer (Transport and Technical Services):

The Environment Director informed me of that status.

The Connétable of St. John:

Over here? The local Director?

Chief Officer (Transport and Technical Services):

Yes.

The Connétable of St. John:

All right. But he has not told you which law.

Male Speaker:

They need a license ...

Chief Officer (Transport and Technical Services):

He would have done but I cannot remember.

The Connétable of St. John:

I see.

Deputy J.H. Young:

I thought I heard the Environment Minister tell us this morning that he was the licensing person for the waste management law.

Mr. J. Rogers(?):

That would be right.

Deputy J.H. Young:

Therefore any shipping of material in and out of the Islands of this nature would require a license from him.

Chief Officer (Transport and Technical Services):

Or from his Department, yes.

The Connétable of St. John:

What are the disadvantages to the Island apart from the ash? What other disadvantages are there?

Chief Officer (Transport and Technical Services):

Working together with Guernsey? Just in the round, the more waste you put through a plant the more maintenance you have got to have, so there is an additional cost to that. I think there are very few disadvantages and lots of advantages. I think we have a plant which would then provide an income for Jersey which can then be used in other areas that need it. I think if you ask a philosophical question, "How many incinerators should the Channel Islands have?", I do not think the answer is 2. I believe working together with our fellow Island who has struggled to build a decent facility, who has a very old-fashioned and unsustainable solid waste solution which is a landfill site which is filling up very quickly I think working together would be very positive but it is a very political decision and it is something which, as an engineer, I do not see a problem against it, and as a citizen I do not see a problem of us getting money from Guernsey to do this, but as a politician I think there are perhaps other issues.

Deputy J.H. Young:

How many tonnes are involved?

Chief Officer (Transport and Technical Services):

They normally talk about a maximum of 30,000 tons.

Deputy J.H. Young:

A year?

Chief Officer (Transport and Technical Services):

Hopefully dropping down to 18,000 tonnes when they start recycling more.

Deputy J.H. Young:

That is a 40 per cent of our volume of refuse, yes?

Chief Officer (Transport and Technical Services):

Yes.

Deputy J.H. Young:

What is the thought on how this would be transported into the Island? Would it be trucked round in lorries?

Chief Officer (Transport and Technical Services):

It would be containers and either lift-on, lift-off or roll-on, roll-off. Lift-on, lift-off is probably more elegant because it could go into Victoria Quay.

The Deputy of St. Martin:

Minister, they recycle a great deal more in Guernsey than we do here in Jersey. Does that make their end product that would come into our incinerator more combustible than what we take at the moment, or less combustible maybe?

Chief Officer (Transport and Technical Services):

It is more in line to U.K. waste because their commercial waste, you have got to remember in Guernsey waste from Cuet is £138 per ton at the gate, and our gate fee in Jersey is zero. There is a huge disparity and a bigger incentive in Guernsey, natural incentive, because of the £138 a tonne, to do other things with waste as opposed to taking it to a landfill.

The Deputy of St. Martin:

But does what they do in Guernsey make the product that they would send here more combustible than what we put in? I mean, I guess if you cut to the chase, is their waste more likely to put out our fire than our waste?

Chief Officer (Transport and Technical Services):

Normal ...

Mr. J. Agnew:

It really depends what it is that they are taking out. If they are taking out cans and tins then they are taking out ash so energy content of the fuel goes up. If they are taking out plastics then the energy content may come down. Either way I would be very surprised if the way in which they recycle some of the waste would push the energy content of the fuel outside the operating range of the plant. The boiler is designed to operate over quite a large range of energy content, and I would be surprised given that it is probably quite similar to what happens in the U.K. that it would take it outside that range.

Deputy J.H. Young:

How many lorry loads? I mean, 30,000 tons, how many shiploads is that a week?

[15:15]

Chief Officer (Transport and Technical Services):

It is a great question to ask me ... Steve?

The Deputy of St. Martin:

It is about 600 tonnes a week or something like that.

The Connétable of St. John:

Getting back to the amounts and how much is it going to give revenue to our Island given there was a figure originally, I think, it was 3 million, is that figure still on the table as 3 million or was that down to 1.5 million?

Chief Officer (Transport and Technical Services):

No, what I agreed with the Treasurer of the States is we will go 50/50 on any money we get out of Guernsey, so there is nominally 3 million.

The Connétable of St. John:

Is that after expenses?

Deputy J.H. Young:

What do you mean, 50/50?

The Connétable of St. John:

Is that after expenses? If your expenses come to 2.5 million, you just share the profit we made with the Treasurer and the remainder stays with T.T.S. or do they take 1.5 million and we have to run the show on the other 1.5 million?

The Deputy of St. Martin:

Could I ask, sorry ...

The Connétable of St. John:

Can you answer the question? You only did the Treasury.

Chief Officer (Transport and Technical Services):

Yes.

The Deputy of St. Martin:

I want to know the thinking behind giving half the money back to the Treasury, please, Chief Officer?

The Connétable of St. John:

Can you answer my question first?

Chief Officer (Transport and Technical Services):

Okay. Let us start with ...

Deputy J.H. Young:

You have started us off now ...

Chief Officer (Transport and Technical Services):

All right. The issue of the money has not been resolved. These are nominal figures because when it comes to the commercial dealings it is about risk, responsibility, cost of ash, cost of all the other things. Nominally the majority of costs in Energy from Waste plant is fixed costs. So the number of staff does not change whether you run at full capacity or half capacity, the cost of the plant does not change. The plant will wear out quicker so there is a real element of maintenance we need to establish there. What I see is an opportunity with that money to do more environmental good for Jersey but I also saw, and one of the things I discussed with the Treasurer, huge pressures on the States finances which means that, you know, health may need

more money, the States coffers need more money and it is one of those where if you get in quick you then save a little bit of it because T.T.S. are pretty poor at hanging on to money so I did a deal early with the Treasurer.

The Deputy of St. Martin:

But, Minister, we have got a liquid waste plant which is wearing out so we need £30 million to repair it or replace it, surely you should be keeping your money.

The Minister for Transport and Technical Services:

Well, it is early days yet. Discussions are still ongoing with the Chief Officer and Treasury.

Chief Officer (Transport and Technical Services):

1.5 million a year is not going to pay for a new liquid waste plant. So the liquid waste plant is something I'm talking to the Treasurer about and they are looking at innovative solutions for providing those.

The Deputy of St. Martin:

1.5 million over 20 years would pay for liquid waste plant.

Deputy J.H. Young:

You say, "The environmental gains", where does the environment gains thing come from bringing in Guernsey's waste?

Chief Officer (Transport and Technical Services):

We could speak to the Environment Minister and see what he wants to spend it on, could we not?

Deputy J.H. Young:

So you are now saying that that money would go into the Environment services of the Island?

Chief Officer (Transport and Technical Services):

It could do.

Deputy J.H. Young:

Does the M.T.F.P. propose that now?

Chief Officer (Transport and Technical Services):

The M.T.F.P. showed some options for gaining extra monies to balance the books and what we did not want to do was put in all of the money because that meant my department and the Environment did not get any benefit from it. If Jersey suffers a small environmental detriment of bringing in Guernsey's waste, then I believe that it is only right and proper that we have a big financial benefit for environmental benefit within Jersey. That was the thought process.

Deputy J.H. Young:

All right, so your position then is 1.5 million goes into T.T.S. as operating cost budgets and the other 1.5 million goes into environmental gains.

Chief Officer (Transport and Technical Services):

No, 1.5 million goes into T.T.S. operating budgets and environmental gains, and 1.5 million goes back to Treasury to help other needy departments.

The Deputy of St. Martin:

So notwithstanding the cost of running the plant, whether we have X tonnes per year or Y tonnes per year which includes Guernsey, if for whatever reason we do not import Guernsey waste, the M.T.F.P. is flawed by £3 million.

Chief Officer (Transport and Technical Services):

No, because in the M.T.F.P. those are options. There is a suite of options on our sheet. That does not guarantee ... because this is not a guaranteed deal with Guernsey then that is just put down as a suite of options. There are other options in there like you can charge for commercial waste. You know, Guernsey charges £138 a tonne, we charge nothing. There are lots of other options we could instigate but the Guernsey waste option is one of many on that sheet which is in the M.T.F.P. but they are not part of the M.T.F.P.

Deputy J.H. Young:

All right, so ongoing discussions on that.

The Connétable of St. John:

Minister, are you happy negotiating with Guernsey given historically they are very difficult to negotiate with whether it is on our sea routes and they let us down and turned a contract on its head, the fishing industry contracts that were pulled together with the French, they turned that on their heads and more recently over the lottery which was a lottery which fell flat? Are you happy negotiating with Guernsey given that in recent times they have turned on any agreement or would not help in any agreements?

The Minister for Transport and Technical Services:

I am always advocating working closer with Guernsey and indeed all the other Channel Islands which sit within the Northern Bailiwick. I know exactly what you are talking about regarding previous contracts and agreements, and I would like to think we have moved on from that. There has been greater co-operation in recent times at all levels of Government and I am quite happy to pursue this one.

Deputy J.H. Young:

Would there be increased operating costs, unloading vehicles, bringing that rubbish in and so on, and moving it? Have you taken account of that in these figures?

Chief Officer (Transport and Technical Services):

That is Guernsey's problem.

Deputy J.H. Young:

Are they paying the costs of that?

The Minister for Transport and Technical Services:

Yes.

Deputy J.H. Young:

On top of the 1.5 million?

The Minister for Transport and Technical Services:

Yes, they get it here. Also the fact that we have got the split with Treasury, we also have the revenue brought back to us from selling the electricity to the Jersey Electric Company (J.E.C.). It all helps and with regard to the quality of refuse from Guernsey, our T.T.S. technicians down at the Energy from Waste plant, I like to think of them as

master blenders, if you had the guided choice or the grab as it comes in, they will blend various piles to make sure, what is the expression, the calorific value is constant.

The Connétable of St. John:

The revenue you get from the J.E.C. currently, what percentage are we producing of electricity? Is it running at 6 or 7 per cent?

The Minister for Transport and Technical Services:

It can be between 7 and 10.

The Connétable of St. John:

7 and 10 per cent. What kind of revenue would you get on that extra 40,000 tonnes, 30,000 tonnes?

Chief Officer (Transport and Technical Services):

If you could answer that I would be impressed.

Mr. J. Agnew:

The agreement with the J.E.C. that was set up prior to the commissioning of the plant effectively provides a flat unit rate for the power that goes through the meter on to their system. Providing that we supply above a minimum level, I am not sure how much, this is probably commercial, is it not, as long as we provide above a minimum level that flat unit commercial rate then is applied to all the electricity.

The Connétable of St. John:

All right, so give me a ballpark figure. In 12 months how much have you brought in if it had been running at 7 per cent? Is it 100,000? Is it a million? Give us a figure.

Mr. J. Agnew:

Well ...

Chief Officer (Transport and Technical Services):

We have not prepared an answer for that. We were answering questions on A.P.C. residue and we were very happy to answer that.

The Connétable of St. John:

Okay, fine.

Mr. J. Agnew:

There is no problem getting an answer is there?

Chief Officer (Transport and Technical Services):

We could get you an answer, no problem, but I do not think ...

Mr. J. Agnew:

It's Friday afternoon. It is hardly a fair question.

The Connétable of St. John:

You should know that ...

Chief Officer (Transport and Technical Services):

If possible.

The Deputy of St. Martin:

Minister, if we could just return to I.B.A. briefly before we finish? There was an indication given to us this morning by the Environment Minister there are other options to deal with I.B.A., would you like to comment on that? Obviously the preferred option that you have discussed with us is the fairly easy straight forward one but there are other options. Have you looked at any alternatives for dealing with I.B.A., as in vitrification or other things like that?

Chief Officer (Transport and Technical Services):

Vitrification of I.B.A.?

Deputy J.H. Young:

Can you pick it up?

Mr. P. White:

It was raised this morning. We questioned the Panel this morning on whether they considered there might be any other options, it is not necessarily our view but they raised the possibility in their view there might be other techniques for dealing with

I.B.A. They mentioned carbonation and they mentioned vitrification. Just share your view on that.

Chief Officer (Transport and Technical Services):

Carbonation is possible. We have mentioned that to the operator of Carbon8 as a possibility. Cost, I believe, is the key. Vitrification is a very surprising solution for incinerator bottom ash. Vitrification, it is a volcano. It melts rocks. You know, this is a serious piece of equipment turning solid rocks into a molten lava which is then solidified in a very simplistic manner. It takes a huge amount of energy and a huge amount of effort and complication. It would be very odd to utilise technology like that on a simple bottom ash.

Principal Engineer (Transport and Technical Services):

I think to put a scale to it, you would be spending £500 a tonne to produce material, it would probably be worth £10 a tonne.

The Connétable of St. John:

It could be dumped.

Principal Engineer (Transport and Technical Services):

It could be used as an aggregate but certainly it would be equivalent to crushed glass and you could use that as a recycled aggregate. It is probably about £10 a tonne.

Chief Officer (Transport and Technical Services):

The environmental footprint of that in terms of the energy cost and the carbon balance of doing that would be something I would be extremely surprised that that would make any sense at all.

Deputy J.H. Young:

Thank you for that. One other issue that came up in discussion with the Environment Minister was the current life of cell 33. I think we have heard from you that the life is 6 months and that you need to make a decision in January. We were advised this morning that it was 18 months. Would you like to comment on that? The remaining useful ...

The Deputy of St. Martin:

The Environment Department believe that there is 18 months life left in cell 33 and you have indicated there is 6 months' life.

Chief Officer (Transport and Technical Services):

Their view is incorrect.

Deputy J.H. Young:

I think you have another point you want to make.

Scrutiny Officer:

That was the same question.

Mr. J. Agnew:

I think your view is based on 2 layers filling the cell and that is what you have consent for.

The Deputy of St. Martin:

What does the license say?

Chief Officer (Transport and Technical Services):

2 layers.

The Deputy of St. Martin:

2 layers.

Chief Officer (Transport and Technical Services):

If we procrastinate more, we may be able to build 3 layers but then we would have to readjust our license and it becomes very tricky.

Principal Engineer (Transport and Technical Services):

We would have to have temporary cover as well.

The Deputy of St. Martin:

Have you a cover over the second layer that is there at the moment or part of the second layer that is there?

Chief Officer (Transport and Technical Services):

No.

The Deputy of St. Martin:

No.

Deputy J.H. Young:

On a more positive note, we closed our meeting with a question as to the process from now on and the Environment Minister gave us assurance that he was working well with yourself, Minister, and your officers and Environment officers to try and bring the preferred solution to a conclusion. Can you give us your assurances that that process is working and you are confident that that will deliver the proper examination of alternatives to current practice and the time scale that you seek?

The Minister for Transport and Technical Services:

Absolutely, Chairman. You are well aware that both T.T.S. and Planning and Environment share a building and the Chief Officers and other officers of both Departments are in constant communication. We just want the cleanest, greenest environmental solution we can do for this problem.

Deputy J.H. Young:

Thank you very much, Minister. Any further questions?

The Connétable of St. John:

No, I am very happy for the generally straight forward way they answered.

Deputy J.H. Young:

You, Steve, are you happy?

The Deputy of St. Martin:

No, I am fine, thank you. I am reassured by the words you have spoken about I.B.A. and the way you will deal ceaselessly to get to a product which is acceptable and also I think what you have described in the way forward for A.P.C. is also very encouraging.

Deputy J.H. Young:

I would also like to add my words to Phil's. I think you have given us a very clear presentation today and you have answered our questions openly and very succinctly and positively, and I think that has been very helpful to us today in what is a complex and difficult subject. Thank you for that.

The Minister for Transports and Technical Services:

Thank you very much, Chairman, and to your Panel.

[15:29]