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WRITTEN QUESTION TO THE MINISTER FOR TRANSPORT AND TECHNICAL SERVICES BY DEPUTY G.P. SOUTHERN OF ST. HELIER
ANSWER TO BE TABLED ON TUESDAY 15th MAY 2012

Question

Following the report compiled by Capita Symonds in April 2011 "La Collette Energy from Waste (EfW) Residues: Technical Options and Disposal Sites", what further investigation, if any, has the Department conducted into potential treatment methods for the two forms of residue from the EfW plant, Air Pollution Control residues (APC) and bottom ash?

Will the Minister outline for members what the current practice is for the treatment of both APC and bottom ash?

In light of the possible acceptance of Guernsey's waste, what new technologies, if any, have been investigated for the treatment of the more hazardous components, APC residues and, in particular, what assessment has been made on technical and cost grounds of the potential of Accelerated Carbon Technology for the treatment of Jersey (and Guernsey) APC residues?

Answer

The Planning permit for the new EFW required TTS to produce an ash strategy to set out how the residues from the plant will be dealt with. This was submitted in October 2010. The strategy described the continuation of disposal via engineered cells at La Collette and committed to a detailed review of leading practice in ash management in other jurisdictions.

This work commenced with the technical assessment by Capita Symonds and continued through 2011 including officer visits to UK facilities where IBA is being successfully recycled as a construction aggregate. The review team also visited a facility chemically treating APC and met with companies offering hi-tech solutions such as plasma-arc vitrification.

With regards to the specifics of carbonation technologies for treating APC, these are currently being assessed by the Department's technical advisors and will form part of the options assessment.

Alternatives to disposal in cells clearly exist but none of the options are immediately available. Local recycling of IBA into an aggregate requires a detailed characterisation of the material produced by the new plant which is currently being carried out. The product, once processed, is low grade in construction terms so work will be required to build confidence within the industry in accepting its use. As a government we will also need to be confident that the material is safe to use locally where our water catchments are all classified as 'sensitive' in environmental terms.

For APC, which is classified under European standards as 'hazardous', local treatment will be difficult to achieve efficiently with such low volumes. Export for treatment is an attractive option but would require permission from the receiving authority under the terms of the Basel Convention. The negotiations for this have been initiated.

There are a number of workstreams underway on this subject. Some will take time to produce the results required to inform decision making so the Department has created a 'roadmap' to set out a way forward and ensure ash management policy evolves effectively for our Island setting. The Environment Scrutiny panel has now commenced a review of the emerging strategy.

Current Disposal Practice

Incinerator Bottom Ash (IBA)

The non-hazardous IBA generated from the new EFW plant continues to be managed within lined cells at La Collette. The cells are constructed above the Mean High Water Spring level within the site and are engineered to a high standard through a rigorous construction quality assurance process to ensure no hydraulic connectivity with the surrounding environment.

To provide further re-assurance of the integrity of this method and of historic cells, TTS has recently completed a 6 month baseline water quality monitoring survey of the site and surrounding marine waters. The results indicate that the ash cell system is doing its job. A quarterly, continuous monitoring programme is now in place to provide ongoing surveillance.

Air Pollution Control Residues (APC)

The new plant has a state-of-the-art emissions control system which collects potentially harmful substances from the exhaust gasses. These more hazardous residues form only around 20% of the ash from the plant and are collected separately in the process. APC is placed in large bags and currently placed in a high specification lined cell. The cell can provide a secure method of disposal for this material or act has a safe holding store should the ash strategy review lead to a decision being taken to export APC to off-Island treatment facilities.

In summary the Department has a reliable and tested solution in place for managing EFW residues. However with EFW now a mainstream waste technology in Western Europe alternatives for dealing with ash outputs are rapidly evolving. TTS is assessing these for technical applicability in Jersey including financial appraisals of the options.