

Welcome address

Reception Copenhagen Town Hall, June 24th, 1983

Charlotte Amundsen,
Mayor of - The Department of Energy-Supply, and
- The Department of Environmental Protection

Ladies and Gentlemen.

On behalf of the Copenhagen City Council, I have the great pleasure to welcome you to the City Hall.

I welcome you as a representative of the Magistrate of the city of Copenhagen, the seven members of which constitute the "council" of Copenhagen: the Lord Mayor and six Mayors, with each their department and duties.

As Mayor of the department responsible for the energy-supply, I have, indirectly, a lot to do with concrete, because I am responsible for the enormous production of ashes from the Copenhagen power plants.

The increased oil prices during the seventies made the Danish power plants change from mostly oil-firing to mostly coal-firing.

All the power plants in the area of Copenhagen are now using coal and, therefore, we have reduced energy prices because of the cheaper coal. But in return we have an immense amount of fly ash and bottom slag.

Walking on the paths for example around the lake of Lyngby you will walk on slag from the Copenhagen power plants. This is one example of how slag has been used for many years. Until now it has been more of a problem to get rid of the fly ash.

Every year half a million cubic metres of fly ash is being produced in the metropolitan area of Copenhagen - this being half of the total Danish production. To give an example: If you filled up the Town Hall Square with the production of fly ash in one year it would be a layer 25 m thick and we would need to use the tower as the entrance to this hall.

If all the fly ash only is considered as a waste to get rid of, it gives many problems.

The use of fly ash in the production of concrete can, therefore, involve considerable advantages. It saves raw materials and energy, and fly ash in concrete makes it possible to avoid the problems with alkali-aggregate reactions.

Besides being the Mayor for the Department of Energy-Supply, I am the Mayor of the Environmental Protection.

This, of course, gives me two problems. On the one hand I am responsible for a cheap and safe energy production. On the other hand I have to prevent pollution. So you can imagine that I am especially glad when it is possible to prevent pollution from fly ash and at the same time use this fly ash in the production of concrete.

I cannot say that we earn money by selling the fly ash to the cement and concrete factories. But our costs to get rid of the fly ash has been strongly reduced (from 50 D.kr per ton to 27 D.kr).

It has been known and accepted for a long time that any production is part of a cyclic transfer of materials.

Wherever you use materials it has an influence on the earth, and whenever you produce something it will have an influence on the environment. Fly ash is an excellent example of such cyclic transfer.

For the time being we discuss in Denmark how to combine energy production and environmental protection. If we do not take into consideration all the damage that - for instance - coal firing could make on human beings, on nature, on materials and on buildings, the costs will be unbearable in the future.

There now seems to be a similar situation with concrete for which the annual costs of maintenance and construction will triple within the next 10-20 years.

You represent the concrete research and the constructors of concrete structures and you know the technical aspect of concrete.

But you also know that there is more to it than the technical aspects.

The participants in this conference are "professionals from research and practice".

This combination with the attendance from both producers and scientists means - in my opinion - that this conference will lead to useful conclusions, which - I hope - will result in firm agreements about the use of fly-ash in the cement and concrete industry.

I extend to you our heartfelt welcome and wish you a successful and fruitful conference, and I hope that you - in spite of your busy conference program - will take the time to see "Wonderful Sunny Copenhagen".

Organization

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