



**INTERNATIONAL**

Standards Worldwide

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23 December 2009

The Honorable Lisa P. Jackson  
EPA Administrator  
USEPA Headquarters  
Ariel Rios Building  
1200 Pennsylvania Avenue, N. W.  
Mail Code:1101A  
Washington, DC 20460

Subject: Fly Ash as a "Hazardous Waste"

Dear Ms. Jackson:

Enclosed please find a letter from ASTM International Committee C09 on Concrete and Concrete Aggregates and its Subcommittee C09.24 Supplementary Cementitious Materials. The letter was unanimously approved by the members in attendance at the C09 Main Committee and C09.24 Subcommittee at their meeting in Atlanta, GA, this month, and subsequently approved by the C09.90 Executive Subcommittee.

ASTM Committee C09 on Concrete and Concrete Aggregates was formed in 1914. The Committee, with current membership of approximately 1200, currently has jurisdiction over 155 standards, published in the Annual Book of ASTM Standards, Volume 4.02. These standards are essential to the integrity of the Nation's civil infrastructure

If you have any questions, please contact the C09 Staff Manager, W. Scott Orthey at [sorthey@astm.org](mailto:sorthey@astm.org), 610-832-9730.

Sincerely,

A handwritten signature in cursive script that reads 'James A. Thomas'.

James A. Thomas

cc: The C09 Executive Subcommittee



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### **Committee C09 on CONCRETE AND CONCRETE AGGREGATES**

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December 22, 2009

The Honorable Lisa P. Jackson  
EPA Administrator  
USEPA Headquarters  
Ariel Rios Building  
1200 Pennsylvania Avenue, N.W.  
Mail Code: 1101A  
Washington, DC 20460

Subject: Fly Ash Classification as a "Hazardous Waste"

Dear Ms. Jackson:

On behalf of ASTM Committee C09 on Concrete and Concrete Aggregates and Subcommittee C09.24 on Supplementary Cementitious Materials, we are writing in regards to the proposed classification by the Environmental Protection Agency (EPA) of fly ash as a "hazardous waste".

We strongly encourage the EPA to consider the negative implications of classifying fly ash as a "hazardous waste" under subtitle C of the Resource Conservation and Recovery Act (RCRA). Designation of fly ash as a "hazardous waste" will require that the ASTM standard for use of fly ash in concrete be revised to reflect this classification. A "hazardous waste" designation, even with an exclusion for beneficial use, would cause the ASTM standard for fly ash to be removed from project specifications due to concerns over legal exposure, product liability, and public perception. This will likely result in little or no fly ash being used beneficially in concrete or other applications that support sustainability objectives.

#### **ASTM International**

ASTM International is one of the largest voluntary standards development organizations in the world and is a trusted source for technical standards. Originally known as the American Society for Testing and Materials, ASTM was formed over a century ago and has been assisting industry, government and environmentalists by creating consensus standards that have made products and services safer, better and more cost-effective.

ASTM International is recognized globally as the premier developer and provider of voluntary consensus standards as well as related technical information and services that promote public health and safety. ASTM International supports the protection and sustainability of the environment and the overall quality of life while contributing to the reliability of materials, products, systems and services in order to facilitate international, regional and national commerce.

ASTM International is a not-for-profit organization with over 30,000 members from more than 100 countries around the world. The members who serve on ASTM's 130-plus technical committees include producers, users, consumers, and general interest parties, such as academicians and government representatives.

ASTM committees develop and oversee more than 12, 000 ASTM standards that are used by individuals, companies, and agencies around the world. Purchasers and sellers incorporate standards into contracts; scientists and engineers use them in their laboratories and offices; architects and designers use them in their plans; government agencies around the world reference them in codes, regulations, and laws; and many others refer to them for guidance.

ASTM standards are voluntary in the sense that their use is not mandated by ASTM. However, government agencies often give voluntary standards the force of law by citing them in laws, regulations, and codes.

### **ASTM Committee C09 on Concrete and Concrete Aggregates**

ASTM Committee C09 was formed in 1914 and has grown to a membership of approximately 1,200 members. The Committee is composed of 29 technical subcommittees that maintain jurisdiction over 155 standards that provide test methods and specifications for concrete-making materials. These standards provide a means of quality assurance by purchasers, a basis for training and certification of testing personnel, and protection against liability through their use in contracts. Committee C09 standards, together with the standards developed by ASTM Committee C01 on Cement and committees of the American Concrete Institute (ACI), are essential to construction of the nation's civil infrastructure. Collectively, these standards have been assisting the construction industry with sustainable objectives through use of fly ash and other coal combustion by-products.

### **Standards for Fly Ash**

ASTM Subcommittee C09.24 on Supplementary Cementitious Materials is responsible for creating and maintaining standard test methods and specifications relating to fly ash for use in concrete. Certain types of fly ash are currently used as supplementary cementitious materials in concrete, that is, they replace a portion of the portland cement. The beneficial uses of fly ash are well documented as contributing to the long-term strength and durability of concrete. This leads to more sustainable structures.

ASTM C618 "Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete" and ASTM C311 "Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete" have been in existence for over 40 years and have been cited in countless concrete construction specifications. The procedures and requirements contained within these two standards are based on many years of field experience and research data. They are constantly reviewed for accuracy and updated with the latest technical information. ASTM C618 is the primary standard used for specifying fly ash by the concrete construction industry. It provides requirements for the chemical and physical

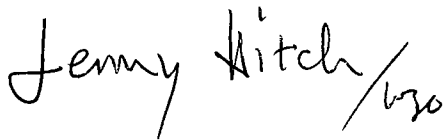
characteristics of fly ash, as well as natural pozzolans. Fly ash meeting the requirements of ASTM C618 is routinely used in construction of concrete buildings, bridges, pavements and other structures. Fly ash has historically been an integral part of concrete construction, improving the characteristics of concrete in both the fresh and hardened states.

In order to meet ASTM C618, fly ash must conform to the prescribed chemical and physical requirements. However, it is not within the scope of ASTM C618 to establish whether a fly ash is “hazardous” or not. Should the EPA decide that fly ash will be regulated as a “hazardous waste”, Committee C09 will need to modify ASTM C311 and ASTM C618 to properly reflect this classification, even if the EPA specifies that fly ash used in concrete would not be considered a hazardous waste. We anticipate that changes in ASTM C618 to reflect the EPA action will result in the standard being removed from construction specifications due to liability concerns and the “hazardous waste” connotation. Specifiers and users will simply reject use of fly ash.

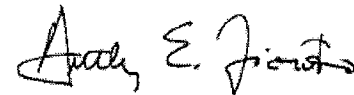
In closing, as a technical organization ASTM International, and specifically Committee C09, is concerned about the impact of classifying fly ash as a “hazardous waste” and the effect that it will have on materials standards and concrete construction, irrespective of an exclusion for beneficial use. The label of “hazardous waste” will likely have the unintended consequence of ensuring that fly ash will no longer be specified for use in concrete construction. We urge the EPA to consider the fact that fly ash is commonly used and accepted throughout the world, and it is an important ingredient for making concrete construction sustainable.

Thank you for your consideration of this matter.

Sincerely,

Handwritten signature of Jenny Hitch, with a date of 6/30 written below the signature.

Jenny Hitch, ASTM C09.24 Chair

Handwritten signature of Anthony E. Fiorato.

Anthony E. Fiorato, ASTM C09 Chair

CC:

The Honorable Cass Sunstein  
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