March 23, 2011

Information Quality Guidelines Processing Staff
Mail Code 2811R
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460

RE: Request for Correction – RFC #10003

Via Fax, U.S. Mail & E-mail

Dear Sir or Madam:

On July 1, 2010, Public Employees for Environmental Responsibility (PEER) submitted a Request for Correction (RFC #10003 – EPA Coal Combustion Products Partnerships Web Site and Related Documents) pursuant to the Data Quality Act of 2000 [Section 515 of the Fiscal Year 2001 Treasury and General Government Appropriations Act, Pub.L. 106-554], the Office of Management and Budget (“OMB”) Guidelines for Ensuring and Maximizing the Quality, Utility, and Integrity of Information disseminated by Federal Agencies (“OMB Guidelines”),1 and the United States Environmental Protection Agency Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency (“EPA Guidelines”)2 to the United States Environmental Protection Agency (EPA) [ATTACHMENT 1]. PEER asked EPA to rescind and correct certain printed and online information found on the EPA Coal Combustion Products Partnerships’ (C2P2) website regarding greenhouse gas emissions reductions resulting from the “beneficial use” of coal combustion waste products. Specifically, we requested the following information be removed and corrected:

- The EPA Coal Combustion Products Partnerships “Results” webpage asserts greenhouse gas reduction claims under the heading “Greenhouse Gas Reduction:”
  - In addition, C2P2 established a goal to reduce greenhouse gas emissions from concrete production by approximately 5.6 million metric tons of carbon dioxide equivalent by 2011, compared to a 2001 baseline. Each ton of fly ash that replaces cement in the production of concrete reduces greenhouse gases emissions by a little less than a ton of carbon dioxide equivalents. In 2008, the total use of fly ash in

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2 U.S. ENVTL PROT. AGENCY, EPA/260R-02-008, GUIDELINES FOR ENSURING AND MAXIMIZING THE QUALITY, OBJECTIVITY, UTILITY, AND INTEGRITY OF INFORMATION DISSEMINATED BY THE ENVIRONMENTAL PROTECTION AGENCY (2002).
concrete reduced greenhouse gas emissions by about 11.4 million tons of carbon dioxide equivalents.3

- The EPA C2P2 “Case Studies” webpage introduces a series of downloadable documents with this statement:
  o The following case studies ... are intended to be illustrations of coal combustion product applications that the Agency believes can be beneficial to the environment. Case Study 05: Carbon Burn-Out for Fly Ash Beneficiation, is linked from the website with no disclaimer. The case study displays the EPA logo in the top left corner, and the body of the document cites savings of "CO2 releases from the production of Portland cement of the order of 8/10ths of one ton of CO2 saved for every ton of fly ash used."4

- EPA C2P2 “CCP Benefits and Risks” Webpage states:
  o Under the heading, “Environmental Benefits:”
    - Greenhouse Gas and Energy Benefits. The reuse of CCPs reduces the emission of GHGs in many ways. The primary way CCP use reduces GHG emissions is through coal fly ash for it takes the equivalent of 55 gallons of oil to produce a single ton of cement. In addition, chemical reactions that occur during the production of Portland cement also produce GHGs. The pozzolanic properties of coal fly ash make it a useful replacement for a portion of the Portland cement used in making concrete. Fly ash can typically replace between 15 to 30 percent of the cement in concrete with even higher percentages used for mass concrete placements. As an added benefit, it makes the concrete stronger and more durable than concrete made with only Portland cement as the binder. Another way that using CCPs in place of virgin materials reduces GHG emissions is by reducing the energy-intensive mining operations needed to generate virgin materials. Reduction in mining energy use leads to reduction in GHG emissions.5

- Using Coal Ash in Highway Construction: A Guide to Benefits and Impacts6 contains the following statements:
  o The increased use of these materials, which would otherwise be discarded as waste, can reduce greenhouse gases in the atmosphere, reduce energy consumption, and conserve natural resources.7
  o Specifically, using coal combustion products in lieu of other materials, such as Portland cement, reduces energy use and greenhouse gas emissions and conserves natural resources.8
  o This energy-intensive process typically emits nearly one ton of greenhouse gases for each ton of cement created and requires the equivalent of a barrel of oil per ton. Using fly ash—which would otherwise be disposed of—in concrete has the potential to significantly reduce the quantity of greenhouse gases emitted and the amount of

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7 Id.
8 Id. at 16.
fuel used. Typically, between 15 to 30 percent of Portland cement in concrete can be replaced with fly ash.9
  o In 2002, the American Coal Ash Association estimated that 12.6 million tons of fly ash was used as a substitute for Portland cement in the United States. The industry set a goal to increase its use to 20 million tons by 2010. EPA estimates that this would reduce the future generation of greenhouse gasses by more than 6.5 million tons a year.6 (*The footnote to this sentence states, “Estimated using EPA’s Waste Reduction Model, Solid Waste Management and Greenhouse Gases, Second Edition, EPA 530-R-02-006, Office of Solid Waste. June 2002.”)7
  o One ton of fly ash used as a replacement for cement ... reduces the equivalent of two months of an automobile’s carbon dioxide emissions.11
  • EPA Wastes Speeches contains text of speeches with the following statements:
    o “Substituting just 12.6 million tons of fly ash for Portland cement would save 350 million cubic feet of landfill space, reduce greenhouse gas emissions by 11 million tons, and conserve crude oil valued at over 140 million dollars.”12

Furthermore, PEER specifically alleged that the above-mentioned statements were subject to the Data Quality Act for the following reasons:

• The challenged statements are covered by EPA Guidelines because they constitute “information” that EPA “disseminates” to the public;
• The challenged statements are “influential information” subject to higher standards of quality;
• The challenged information does not comply with the Guidelines because it does not represent the quality, including the objectivity and utility, required by ONB and EPA information quality Guidelines, in that –
  o The challenged information fails to meet EPA Guideline requirements for objectivity because the information is not presented in an accurate, complete, or unbiased manner;
  o The lack of quality of the challenged information means that the information has insufficient utility to the intended audience; and
• PEER is adversely affected by the information error.

PEER recommended the following actions with respect to the challenged information to facilitate EPA’s compliance with the Data Quality Act:

• Remove the misleading greenhouse gas reduction claims from the EPA website. Remove Using Coal Ash in Highway Construction: A Guide to Benefits and Impacts from official publication and cease further distribution;
• Issue a public statement, posted on official websites, that the claims for greenhouse gas savings from reuse of coal combustion waste products have been withdrawn from publication due to violations of the Data Quality Act;

9 Id. at 16-17.
10 Id. at 17.
11 Id.
• Undertake a new externally peer-reviewed assessment concerning the lifecycle greenhouse gas emissions resulting from production of coal combustion waste electricity co-products and subsequent reuse applications; and
• Make underlying assumptions, regional variations, and unknown variable-clear in any future claims to coal combustion waste benefits. Underlying data and methodologies should be transparent and reproducible, in accordance with OMB Guidelines.

In a letter dated September 29, 2010, EPA provided a status update of this request and indicated that it was conducting an internal review and anticipated sending a final response within 90 days [ATTACHMENT II]. On December 28, 2010, EPA provided another status update, indicating that it was conducting a final review and anticipated sending a final response within 30 days [ATTACHMENT III].

In a letter dated February 16, 2011, after the 30 days passed, EPA informed that it would address the concerns PEER raised in the RFC by providing “a written response to [PEER’s] information quality concerns either in the preamble to the final rule or in the accompanying Response to Comment document” [ATTACHMENT IV]. EPA further indicated that it would not comply with PEER’s request that the Agency undertake a new externally peer-reviewed assessment concerning the lifecycle of GHG emissions, and that it would only assess whether to do so after it assessed the information received during the public comment period. EPA concluded that “its reevaluation of these issues in the final rule, statements in the proposed rule, and the background documents reflect the approach used by the Agency.” While PEER recognizes that EPA removed the CP2 website while the program is being reevaluated, the Agency has not made the requested corrections or assurances that the challenged information will not be used as a scientific basis for potential regulations during the rulemaking process—actions that are necessary for EPA to comport with the requirements of the Data Quality Act and its own Guidelines.

EPA’s assertion that it will address the issues PEER brought forth in our RFC through the rulemaking process and in a written response in either the preamble or accompanying Response to Comments document of the final rule appears to be drawn from EPA Guideline 8.5, which reads in relevant part: “...it is EPA policy to consider requests for correction prior to the final Agency action or information product in those cases where the Agency has determined that an earlier response would not unduly delay issuance of the Agency action or information product and the complainant has shown a reasonable likelihood of suffering actual harm from the Agency’s dissemination ...”

This rationale is insufficient in this instance and the deferral violates the agency guidelines for the following reasons:

1. While some of the documents PEER is seeking are technical support documents in the rulemaking docket regarding the risks from the disposal of coal combustion waste, some are not. EPA has no rationale for not addressing the challenged materials that are not part of the rulemaking docket.
2. The challenged documents predate the advent of rulemaking and were not created to serve as background technical support documents for the proposed rulemaking. Including such documents within the same category as the supporting documents that were created to facilitate the rulemaking is an inappropriate after-the-fact gambit to insulate them from scrutiny as to accuracy and reliability.
3. The fact that some of “the issues raised in [our] RFC are among those presented for public comment” in the rulemaking process is not a valid reason to address all of our information quality concerns through that process, as EPA Guidelines do not apply to “issues” but to specific information—information that we have specifically challenged. Moreover, PEER already filed
specific comments on the proposed rulemaking and was not utilizing this Data Quality Act challenge as a means to obtain redundant feedback from the agency; rather, we are seeking independent redress of our concerns that do not precisely relate to the rulemaking.

4. The underlying issues involved in the PEER challenge are only tangentially related to the rulemaking in terms of relationship to the agency assertion that it wants to initiate a “national dialogue” on coal combustion waste and reuse. Neither the specific C2P2 rulemaking, nor any other rulemaking address the fallacies our information quality challenge raises about specific documents. Thus, EPA resolution of the PEER challenge would not impact the EPA rulemaking process in any material way.

5. In its final response, the agency stated that the materials challenged by PEER will continue to “reflect the approach taken by the Agency” for an unspecified period of time. Thus, the accuracy of this material has implications which transcend the rulemaking; they implicate the basic posture that EPA has assumed for nearly a decade—and perhaps a decade to come—that, as detailed in our original challenge is accurate, misleading, endangers public health and is inconsistent with agency guidelines.

In conclusion, EPA’s reliance on a jurisdictional dodge in order to avoid analyzing the accuracy and completeness of documents that it has been actively promoting is disappointing and makes a mockery of the spirit of the Data Quality Act.

By this letter, PEER hereby appeals that deferral and respectfully submits this Request for Reconsideration.

I look forward to the timely resolution of this appeal.

Sincerely,

[Signature]

[Name]
Executive Director
July 1, 2010

Information Quality Guidelines Staff
Mail Code 2811R
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460


Dear Sir or Madam:

Public Employees for Environmental Responsibility (PEER) hereby submits this Information Quality Complaint ("Complaint") pursuant to the Data Quality Act of 2000 [Section 515 of the Fiscal Year 2001 Treasury and General Government Appropriations Act, Pub.L. 106-554], the Office of Management and Budget ("OMB") Guidelines for Ensuring and Maximizing the Quality, Utility, and Integrity of Information disseminated by Federal Agencies ("OMB Guidelines")\(^1\), and the U.S. Environmental Protection Agency Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency ("EPA Guidelines")\(^2\). PEER respectfully requests that the United States Environmental Protection Agency (EPA) rescind and correct online and printed information regarding alleged greenhouse gas emissions reductions resulting from "beneficial use" of coal combustion waste products.


PEER Information Quality Complaint
A. DESCRIPTION OF CHALLENGED INFORMATION THAT NEEDS TO BE CORRECTED TO COMPLY WITH OMB AND EPA INFORMATION QUALITY GUIDELINES

- The EPA Coal Combustion Products Partnerships (“CCP2”) “Results” webpage asserts greenhouse gas reduction claims under the heading “Greenhouse Gas Reduction”:
  - In addition, CCP2 established a goal to reduce greenhouse gas emissions from concrete production by approximately 5.6 million metric tons of carbon dioxide equivalent by 2011, compared to a 2001 baseline. Each ton of fly ash that replaces cement in the production of concrete reduces greenhouse gases emissions by a little less than a ton of carbon dioxide equivalents. In 2008, the total use of fly ash in concrete reduced greenhouse gas emissions by about 11.4 million tons of carbon dioxide equivalents.¹

- The EPA CCP2 “Case Studies” webpage introduces a series of downloadable documents with this statement:
  - The following case studies … are intended to be illustrations of coal combustion product applications that the Agency believes can be beneficial to the environment. Case Study 05: Carbon Burn-Out for Fly Ash Beneficiation, is linked from the website with no disclaimer. The case study displays the EPA logo in the top left corner, and the body of the document cites savings of “CO2 released from the production of Portland cement of the order of 1/10th of one ton of CO2 saved for every ton of fly ash used.”²

- EPA CCP2 “CCP Benefits and Risks” Webpage states:
  - Under the heading, “Environmental Benefits”:
    - Greenhouse Gas and Energy Benefits. The reuse of CCPs reduces the emission of GHGs in many ways. The primary way CCP use reduces GHG emissions is through coal fly ash for it takes the equivalent of 55 gallons of oil to produce a single ton of cement. In addition, chemical reactions that occur during the production of Portland cement also produce GHGs. The Pozzolanic properties of coal fly ash make it a useful replacement for a portion of the Portland cement used in making concrete. Fly ash can typically replace between 15 to 30 percent of the cement in concrete with even higher percentages used for mass concrete placements. As an added benefit, it makes the concrete stronger and more durable than concrete made with only Portland cement as the binder. Another way that using CCPs in place of virgin materials reduces GHG emissions is by reducing the energy-intensive mining operations needed to generate virgin materials. Reduction in mining energy use leads to reduction in GHG emissions.³

¹ EPA CCP2 Results, http://www.epa.gov/wastes/partnerships/ccp2/results.htm (last accessed on June 23, 2010).
² CASE STUDY 05: CARBON BURN-OUT FOR FLY ASH BENEFICIATION, available at http://www.epa.gov/wastes/partnerships/ccp2/cases/05-burnout.pdf

PEER Information Quality Complaint
Using Coal Ash in Highway Construction: A Guide to Benefits and Impacts contains the following statements:

- The increased use of these materials, which would otherwise be discarded as waste, can reduce greenhouse gases in the atmosphere, reduce energy consumption, and conserve natural resources.
- Specifically, using coal combustion products in lieu of other materials, such as Portland cement, reduces energy use and greenhouse gas emissions and conserves natural resources.
- Using fly ash—which would otherwise be disposed of—in concrete has the potential to significantly reduce the quantity of greenhouse gases emitted and the amount of fuel used. Typically, between 15 to 30 percent of Portland cement in concrete can be replaced with fly ash.
- In 2002, the American Coal Ash Association estimated that 12.6 million tons of fly ash were used as a substitute for Portland cement in the United States. The industry set a goal to increase its use to 20 million tons by 2010. EPA estimates that this would reduce the future generation of greenhouse gases by more than 3.5 million tons a year. (The footnote to this sentence states, "Estimated using EPA's Waste Reduction Model, Solid Waste Management and Greenhouse Gases, Second Edition, EPA 530-R-02-006, Office of Solid Waste, June 2002.")
- One ton of fly ash used as a replacement for cement reduces the equivalent of two months of an automobile’s carbon dioxide emissions.

EPA Wastes Speeches contains text of speeches with the following statements:
- "Substituting just 12.6 million tons of fly ash for Portland cement would save 350 million cubic feet of landfill space, reduce greenhouse gas emissions by 11 million tons, and conserve crude oil valued at over 140 million dollars." (The footnote to this sentence states, "Substituting just 12.6 million tons of fly ash for Portland cement would save 350 million cubic feet of landfill space, reduce greenhouse gas emissions by 11 million tons, and conserve crude oil valued at over 140 million dollars.")

THE CHALLENGED STATEMENTS ARE COVERED BY EPA GUIDELINES BECAUSE THEY CONSTITUTE "INFORMATION" THAT EPA "DISSEMINATES" TO THE PUBLIC

EPA’s Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Environmental Protection Agency ("EPA Guidelines") state that EPA has as a goal that "all parties of society—including communities, individuals, businesses, State and local governments, Tribal governments—have access to

9 Id.
10 Id. n 16.
11 Id. n 17.
12 Id. at 17.

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accurate information sufficient to effectively participate in managing human health and environmental risks. EPA’s Guidelines apply to “information” that EPA disseminates to the public. The Guidelines define “information” as “any communication or representation of knowledge such as facts or data, in any medium or form.” EPA is considered to be “disseminating information to the public” when EPA initiates distribution of information “if EPA prepares the information and distributes it to support or represent EPA’s viewpoint, or to formulate or support a regulation, guidance, or other Agency decision or position.” The EPA publications and web content listed above are communications that have been prepared by EPA and disseminated in print or online. The text of the speech discussed above is “information” covered by the guidelines because the speech was given by an EPA official in support of an EPA position. The text of the speeches exist on EPA’s website and represent EPA’s views to the public without disclaimer warning of potentially historic and outdated content.

C. THE CHALLENGED STATEMENTS ARE “INFLUENTIAL INFORMATION” SUBJECT TO HIGHER STANDARDS OF QUALITY

EPA’s Guidelines define “influential” as meaning that EPA can reasonably determine that dissemination of the information will have or does have a clear and substantial impact on important public policies or private sector decisions. EPA also recognizes that “influential scientific, financial, or statistical information should be subject to a higher degree of quality (for example, transparency about data and methods) than information that may not have a clear and

14 Id. at 15.
15 Id.
16 Id. at 19.
substantial impact on important public policies or private sector decisions."\(^{17}\) Finally, EPA also notes that it is "important that analytic results for influential information have a higher degree of transparency regarding (1) the source of the data used, (2) the various assumptions employed, (3) the analytic methods applied, and (4) the statistical procedures employed ... and that all factors be presented and discussed."\(^{18}\)

In explaining the purpose behind requiring agencies to be transparent about how analytic results are generated, OMB guidelines explain that the "more important benefit of transparency is that the public will be able to assess how much an agency’s analytic result hinges on the specific analytic choices made by the agency."\(^ {19}\) EPA’s Guidelines also state that "[i]t is important that analytic results for influential information have a higher degree of transparency regarding ... the various assumptions employed... [i]t is also important ... and that all factors be presented and discussed."\(^ {20}\)

The challenged information is "influential" because the EPA can reasonably determine that dissemination of the information will have or does have a clear and substantial impact on important public policies or important private sector decisions. Public policy-makers and agency staff may rely on EPA’s representation of greenhouse gas emission reduction benefits when making decisions about procuring concrete with fly ash content and in decisions to allocate carbon credits in carbon emissions trading schemes. For example, this information is used to support top agency actions such as the EPA Region 8 Climate Change Strategic Plan, which includes activities such as achieving climate change results through pursuit of voluntary

\(^{17}\) Id. at 20.
\(^{18}\) Id. at 21.
programs such as the Coal Combustion Products Partnership. EPA Region 8’s decision to highlight participation in the Coal Combustion Products Partnership as an activity it is undertaking to support the Regional climate change strategy shows how the EPA C2P2 program greenhouse gas claims have clearly and substantially impacted high level agency activities.

The information also clearly and substantially influences public and private sector decisions beyond the federal sector. One example is the July 21, 2009, decision by the Massachusetts Department of Environmental Protection (MassDEP) to approve an Application for Certification of Greenhouse Gas Credits to a private project processing coal ash for use in place of Portland cement. The Final Approval letter explains that the estimate of the number of greenhouse gas credits was calculated based on an emission reduction figure—0.71 tons CO2 equivalent reduced per ton fly ash used as cement replacement—provided in two EPA reports.

In the Response to Comments on another greenhouse gas credit application, MassDEP noted that although various methods are available to estimate tons of greenhouse gas emissions avoided by fly ash cement projects, support for the selected model was obtained from EPA’s C2P2 website. EPA can therefore reasonably determine that dissemination of greenhouse gas reduction information posted on EPA’s C2P2 website can have a clear and substantial impact on public and private sector decisions. These express references to C2P2 in public policy determinations illustrate the influential nature of the assertions that are the subject of this complaint.

D. THE CHALLENGED INFORMATION DOES NOT COMPLY WITH THE GUIDELINES BECAUSE IT DOES NOT REPRESENT THE QUALITY,

23 Id. at 4.
INCLUDING THE OBJECTIVITY AND UTILITY, REQUIRED BY OMB AND EPA INFORMATION QUALITY GUIDELINES

1. The Challenged Information Fails to Meet EPA Guideline Requirements for Objectivity Because the Information Is Not Presented in an Accurate, Complete, or Unbiased Manner.

EPA's Guidelines state that "objectivity" requirements are intended to ensure that disseminated information is presented in an "accurate, clear, complete, and unbiased manner," and that information "is accurate, reliable, and unbiased."25

1. The Challenged Information Is Inaccurate

EPA's claims about greenhouse gas benefits from coal combustion waste reuse are inaccurate because they rely on faulty lifecycle assessments that fail to take into account whole system boundaries. EPA's Office of Research and Development National Risk Management Research Laboratory's Lifecycle Assessment: Principles and Practice describes the system boundaries that should be included when conducting lifecycle assessments:

"In defining system boundaries, it is important to include every step that could affect the overall interpretation or ability of the analysis to address the issues for which it is being performed. Only in well-defined instances can life-cycle elements such as raw materials acquisition or waste management be excluded. In general, only when a step is exactly the same in process, materials, and quantity in all alternatives considered, can that step be excluded from the system. In addition, the framework for the comparison must be recognized as relative because the total system values exclude certain contributions. This rule is especially critical for LCAs used in public forums rather than for internal company decision making."26


The EPA National Risk Management Research Laboratory publication notes that co-products (outputs from the process that are “not treated as wastes”) that are marketed to other manufacturers should be treated as co-products and quantified.23 “In performing co-product allocation, some means must be found to objectively assign the resource use, energy consumption, and emissions among the co-products.”25 This process is contrasted to waste materials that are reused within the same process and therefore part of an “internal recycling loop” and thus not included in the inventory (since [materials in an internal recycling loop] do not cross boundaries of the subsystem”).29

EPA’s Coal Combustion Product Partnership website and publication claims about greenhouse gas emission reductions associated with using “coal combustion products” are inaccurate because the analysis ignores significant upstream greenhouse gas emissions associated with the processes that generate coal combustion waste “co-products.” EPA’s Using Coal Ash in Highway Construction: A Guide to Benefits and Impacts contains multiple statements about greenhouse gas emission reductions associated with using coal combustion products in place of other materials. EPA provides a source for only one of the greenhouse gas reduction claims—that meeting an industry goal of increasing fly ash substitution for Portland cement from 12.6 million tons to 20 million tons “would reduce the future generation of greenhouse gases by more than 6.5 million tons a year.”30 However, as EPA points out in a footnote, this emissions reduction figure is based on EPA’s Waste Reduction Model (“WARM”).

This is problematic because the WARM model is designed to assist waste managers in quantifying the greenhouse gas benefits of various waste management practices, and it assumes

23 Id. at 21.
24 Id.
25 Id. at 23.
coal combustion fly ash starts off as a greenhouse gas neutral material. With coal-fired electricity, in particular, this assumption can lead to grossly inaccurate lifecycle greenhouse gas emission estimates, and faulty cost-benefit conclusions when comparing materials. Electricity generation is the largest single source—contributing around 40%—of total CO2 emissions in the United States, and electricity generators use coal—a fuel source with relatively high CO2 emissions—for over half of their total energy requirements.

EPA also makes overly broad assertions that are inaccurate and lack supporting documentation. In one publication, EPA states, "using coal combustion products in lieu of other materials, such as Portland cement, reduces energy use and greenhouse gas emissions and conserves natural resources." However, while EPA may have conducted some supporting analysis for fly ash in cement—flawed as it is—EPA fails to identify the source for the broad claim that reuse of all categories of coal combustion wastes produced nationwide leads to net reductions in greenhouse gas emissions. EPA’s WARM model analysis of coal combustion wastes is limited to fly ash. In another example, EPA asserts on its C2WP "CCP Benefits and Risks" website that "reuse of CCPs reduces the emission of GHGs [greenhouse gases] in many ways ..." the primary way CCP use reduces GHG emissions is through coal fly ash for it takes the equivalent of 55 gallons of oil to produce a single ton of cement." While there is no footnote on the webpage to indicate a source for this claimed greenhouse gas benefit of coal combustion product reuse, another C2WP webpage titled "C2WP Key Resources" contains a link to

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31 U.S. ENVTL. PROT. AGENCY, EPA 530-R-03-016, BACKGROUND DOCUMENT FOR LIFE-CYCLE GREENHOUSE GAS EMISSION FACTORS FOR FLY ASH USED AS A CEMENT REPLACEMENT IN CONCRETE 3 (2005) ("As a coal combustion product (CCP), fly ash is unlike other materials for which EPA has developed emission factors ... its production results from the industrial combustion of coal; therefore, there are no manufacturing emissions associated with the first generation product ... [and] it cannot be recycled in a closed loop.")

32 See id. at 12.

33 Id. at 12.

EPA's Waste and Materials-Flow Benchmark Sector Report: Beneficial Use of Secondary Materials – Coal Combustion Products under this heading, "General Use Guidelines and Information." This publication is newer than EPA's background document for the WARM model fly ash analysts and examines both using fly ash as a replacement for finished Portland cement and using fly ash desulfurization (FGD) gypsum in wallboard manufacturing. However, the document also notes that "this analysis only examines the beneficial impacts of substituting fly ash for finished Portland cement in concrete and substituting FGD gypsum for virgin gypsum in wallboard manufacturing ... [t]hese two processes represent less than 50% of the total beneficial uses of CCPs." There is no apparent documented support for the assertions that reusing coal combustion waste products in general leads to net reductions in greenhouse gas emissions. This statement is inaccurate and unsupported and when made by EPA implies to the public and private sector decision-makers that increased reuse of all coal combustion wastes is an effective strategy to reduce greenhouse gas emissions.

ii. The Challenged Information Is Incomplete

Another example is EPA's selective use of underlying methodologies to support its coal combustion waste "beneficial reuse" greenhouse gas emission reduction claims; EPA excludes underlying assumptions and variables in its reporting of the final numbers. For example, in the EPA Offset of Solid Waste report, "Waste and Materials-Flow Benchmark Sector Report: Beneficial Use of Secondary Materials – Coal Combustion Products Final Report," EPA states that the BEES model "may over- or underestimate the national impacts of using fly ash in concrete construction projects because site-specific environmental conditions and proximity to

sources of fly ash may affect the resulting benefits and influence the net effect of choosing fly ash over Portland cement.\(^{38}\)

EPA’s highlighted greenhouse gas reduction claims fail to provide a transparent accounting for regional differences in cement plant emissions or transportation factors. For example, the California Department of Transportation website notes that the cement industry in California is among the most energy efficient, and—according to the California Cement Industry—the energy efficiency of California cement plants is 15 percent better than the average U.S. value.\(^{39}\) At the same time, California is a relatively small producer of coal fly ash and thus transportation-related impacts from moving coal ash from utilities to cement markets may be greater than the national averages underlying EPA claims.

EPA’s coal combustion waste greenhouse gas claims also fail to adequately include impacts associated with processing ash for use in cement. Occasionally, additional processing is used to transform fly ash—such as high carbon fly ash that can result from activated carbon injection for mercury control—to meet project specifications. It is unclear from EPA’s public greenhouse gas claims whether, and to what extent, any additional processing impacts are taken into account by EPA’s models. If EPA greenhouse gas assertions do not include clear notes about underlying assumptions (i.e. the assumption that fly ash is always produced in a ready-to-use form), then decisions about whether and how many greenhouse gas “credits” to award for fly ash use in cement may be based on incomplete EPA ash lifecycle estimates.

Factors such as these can change the greenhouse gas reduction benefit ratios and should be noted explicitly along with any numeric greenhouse gas emission reduction claims. EPA’s


claims of coal combustion waste greenhouse gas benefits are used to support public decisions, but the challenged website statements and publications fail to meet EPA Guideline requirements for a high degree of transparency at the source of data used and assumptions employed. Without explicit reference to the underlying assumptions and presentation and discussion of all factors in the analysis, the challenged information is incomplete.

iii. The Challenged Information Is Biased

EPA’s statements, without caveats and clear explanations of assumptions used in the models, are misleading and inaccurate. For example, in contrast to multiple statements PEER found on EPA websites and publications promoting the benefits of recycling coal combustion wastes, only a single statement contained a qualifier to the utility of relying on coal combustion waste reuse to actually achieve greenhouse gas emission reductions. Buried in Appendix E—on the very last page of EPA’s Benchmark Report—is a statement that “allocated emissions from primary production (i.e., coal combustion) may occasionally be greater than the documented benefits of beneficial use for some metrics” and “the beneficial use of CCPs may not be an efficient method for reducing overall emissions of CO2 and SO2 to the environment.”40 This is an important caveat to all the statements by EPA that reuse of coal combustion wastes results in greenhouse gas benefits. EPA’s unequivocal greenhouse gas benefit claims can mislead public decision-makers as to the actual efficacy of pursuing greenhouse gas reductions through increasing use of coal combustion wastes. This lack of complete transparency also misleads the public that trusts EPA to make unbiased assessments of health and environmental risks and benefits.


PEER Information Quality Complaint
Taken together, these inaccurate and incomplete statements skew the public debate on the merits of recycling coal combustion wastes. EPA’s biased promotion of coal combustion waste recycling may contribute to EPA’s own performance goal to increase recycling of coal combustion wastes, but when the challenged information is disseminated without qualification, EPA risks misleading decision-makers interested in legitimate strategies to reduce greenhouse gas emissions. EPA’s continued reliance on greenhouse gas reduction claims lacks reliable and transparent supporting documentation and thus appears to have been perpetuated by EPA to buttress a politically-motivated decision by the agency to continue to promote coal combustion waste materials in support of its internal waste management performance goals rather than a scientifically justifiable strategy to reduce greenhouse gas emissions.

2. **The Lack of Quality of the Challenged Information Means that the Information Has Insufficient Utility to the Intended Audience.**

“Utility refers to the usefulness of the information to the intended users.”⁴¹ EPA’s coal combustion waste recycling greenhouse gas emission reduction claim vary in quantity of reductions claimed, unit of measurement, and supporting documentation (when it is available). The EPA C2P2 “Results” webpage states, “Each ton of fly ash that replaces cement in the production of concrete reduces greenhouse gases emissions by a little less than a ton of carbon dioxide equivalents.”⁴² Another EPA C2P2 webpage contains links to “Case Studies” that are “intended to be [illustrative] of coal combustion product applications that the Agency believes can be beneficial to the environment”; Case Study 05 bears the EPA logo and states, “CO2 releases from the production of Portland cement of the order of 8/10ths of one ton of

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CO2 saved for every ton of fly ash used." EPA's Benchmark Report cites avoidances of 636,170 grams CO2 and 539 grams methane that result from using one ton of fly ash as cement substitute in concrete.

If the discrepancies are due to modeling uncertainties, then EPA should include a citation to the source of the data and exact units for each claim. If discrepancies are due to changing or updating emissions and lifecycle models, then EPA should still include citations to data and methods used to support claims. Without citations, these assertions vary so much as to be of limited practical utility to regulators, the public, or the private sector.

In addition, EPA uses inconsistent units without citing to conversion calculators. For example, in one instance EPA cites benefits as equivalent to "two months of an automobile's carbon dioxide emissions," while in another instance, EPA cites benefits in terms of gallons of oil saved. This practice makes it difficult to use the information to directly compare benefits from using fly ash in place of other materials. This pattern of vague and unsupported claims can lead to a loss of confidence in EPA's choice of strategies. Additionally, public policy-makers implementing strategies to account for greenhouse gas emissions will make policy and procurement decisions based on misinformation and inaccurate greenhouse gas emissions account.

E. PEER IS AFFECTED BY THE INFORMATION ERROR

PEER is a non-profit organization chartered in the District of Columbia with the mission to hold government agencies accountable for enforcing environmental laws, maintaining scientific integrity, and upholding professional ethics in the workplace. PEER is an "affected person" in that PEER has thousands of employee and citizen members nationwide, including employees both within EPA and in other public agencies whose work is hampered by reliance upon inaccurate, incomplete and poor quality information that is the subject of this complaint.

Further, PEER has been investigating EPA promotion of recycling, or "beneficial use," of coal combustion wastes since 2009. PEER has issued news releases and supported media investigation of EPA's apparently biased and inconsistent promotion of coal combustion waste reuse benefits, including varying claims of greenhouse gas avoidances through increased use of coal combustion waste materials. PEER is concerned that federal and state public employees, as well as the interested public, may be making procurement decisions and reporting environmental benefits based on inaccurate information.

F. RECOMMENDATIONS FOR CORRECTION OF THE INFORMATION CHALLENGED BY THIS COMPLAINT

Accordingly, PEER demands that the U.S. Environmental Protection Agency take the following steps to comply with the Data Quality Act:

1. Remove the misleading greenhouse gas reduction claims from the EPA website. Remove Using Coal Ash in Highway Construction: A Guide to Benefits and Impacts from official publication and cease further distribution.

2. Issue a public statement, posted on official websites, that the claims for greenhouse gas savings from reuse of coal combustion waste products have been withdrawn from publication due to violations of the Data Quality Act.

PEER Information Quality Complaint
3. Undertake a new externally peer-reviewed assessment concerning the lifecycle greenhouse gas emissions resulting from production of coal combustion waste electricity co-products and subsequent reuse applications.

4. Make underlying assumptions, regional variations, and unknown variables clear in any future claims to coal combustion waste benefits. Underlying data and methodologies should be transparent and reproducible, in accordance with OMB Guidelines.

CONCLUSION

Based on the foregoing information, PEER respectfully requests that the EPA rescind and correct its online and printed information regarding alleged greenhouse gas emissions reductions resulting from “beneficial use” of coal combustion waste products. Pursuant to the EPA Guidelines, I look forward to your response to this Complaint within 90 days. Thank you in advance for your prompt attention to this matter.

Sincerely,

Jeff Ruch
Executive Director
Public Employees for Environmental Responsibility (PEER)
Mr. Jeff Rush
Executive Director
Public Employees for Environmental Responsibility
2000 P Street, NW
Washington, D.C. 20036

RE: Request for Correction (RFC #10003) - EPA Coal Combustion Products Partnership Web site

Dear Mr. Rush:

I would like to provide you with a status update regarding your Information Quality Guidelines Request for Correction (RFC #10003), which was submitted to the Environmental Protection Agency on July 1, 2010. EPA managers and staff conducted a thorough review of your information quality concerns. The Agency is currently conducting an internal review of the draft response. I anticipate that a final response will be sent to you within 90 days.

Thank you for your interest in environmental information quality.

Sincerely,

Reggie Cheatham
Director, Quality Staff
Mr. Jeff Ruch
Executive Director
Public Employees for Environmental Responsibility
2000 P Street, NW
Washington, D.C. 20036

RE: Request for Correction (RFC #10003) - EPA Coal Combustion Products Partnerships Web site

Dear Mr. Ruch:

I would like to provide you with a status update regarding your Information Quality Guidelines Request for Correction (RFC #10003), which was submitted to the Environmental Protection Agency on July 1, 2010. The Agency is conducting the final review of the draft response. I anticipate that a final response will be sent to you within 30 days.

Thank you for your interest in environmental information quality.

Sincerely,

Katherine Chalfant
Acting Director, Quality Staff
Mr. Jeff Ruch
Executive Director
Public Employees for Environmental Responsibility
2000 P Street, N.W.
Suite 240
Washington, D.C. 20036

Dear Mr. Ruch:

This is the response to your July 1, 2010, Request for Correction (RFC #10003 – EPA Coal Combustion Products Partnerships Web Site and Related Documents) on behalf of the Public Employees for Environmental Responsibility (PEER). In this RFC, you request that the United States Environmental Protection Agency (EPA) rescind and correct printed and online information found on the EPA Coal Combustion Products Partnerships (“C2P2”) web site regarding greenhouse gas emissions reductions resulting from the "beneficial use" of coal combustion waste products. As you are aware, the C2P2 web site has been removed, while the program is being re-evaluated.

Many of the specific documents referenced in your RFC serve as background technical support documents for EPA’s proposed rulemaking to address the risks from the disposal of coal combustion residuals generated by electric utilities and independent power producers: "Hazardous and Solid Waste Management System: Identification and Listing of Special Wastes: Disposal of Coal Combustion Residuals from Electric Utilities.” In addition, the issues raised in your RFC are among those presented for public comment in that rule. Accordingly, EPA has decided to address your information quality concerns through the rulemaking process for the rule. The RFC, which includes specific EPA statements being challenged, has been placed in the docket (EPA-HQ-RCRA-2009-0640) for this rule. At the conclusion of the rulemaking process, EPA will provide a written response to your information quality concerns either in the preamble to the final rule or in the accompanying response to Comments document. The Response to Comments document will be placed in the rulemaking docket at the time the final rule is signed. Regarding your request that the Agency undertake a new externally peer-reviewed assessment concerning the lifecycle GHG emissions, after the Agency reviews the information received during the public comment period, EPA will determine the appropriate follow-up actions which...

1 http://www.epa.gov/waste/coalpp/index.htm
2 Hazardous and Solid Waste Management System: Identification and Listing of Special Wastes: Disposal of Coal Combustion Residuals from Electric Utilities

Internet Address (URL): http://www.epa.gov
Printed with Vegetable Oil-Based ink, on 100% Postconsumer, Process Chlorine Free Recycled Paper.
may include the need for further assessment and peer review. In the interim, until EPA concludes its reevaluation of these issues in the final rule, the statements in the proposed rule and the background documents reflect the approach used by the Agency.

If you are dissatisfied with the Agency’s decision to respond to your information quality concerns as part of the final rule or the accompanying Response to Comments document, you may submit a Request for Reconsideration (RFR). EPA requests that the RFR be submitted within 90 days of this letter. If you choose to submit a RFR, please send a written request to the EPA Information Quality Guidelines Processing Staff via mail (Information Quality Guidelines Processing Staff, Mail Code 2811R, US EPA, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460); electronic mail (quality@epa.gov); or fax ((202) 565-2441). If you submit a RFR, please reference the request number assigned to the original Request for Correction (RFC #10003). Additional information about how to submit an RFR is listed on the EPA Information Quality Guidelines Web site at http://www.epa.gov/quality/informationguidelines.

Sincerely,

[Signature]
Mathy Stanislaus
Assistant Administrator

cc: Malcolm D. Jackson
Assistant Administrator and Chief Information Officer
Office of Environmental Information