



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

OCT 31 2014

REPLY TO THE ATTENTION OF:

Mr. Lee Robbert
Pellet America Corporation
2601 West Second Street
Appleton, Wisconsin 54912-7136

Dear Mr. Robbert:

In a letter dated August 13, 2013, Joshua J. Neudorfer and Nicole L. Braun of The Sigma Group requested that the U.S. Environmental Protection Agency confirm that Pellet America Corporation fuel pellets (PAF) produced at the Appleton, Wisconsin Pellet America facility, are a non-waste fuel when burned in combustion units in accordance with the requirements in 40 CFR part 241.3(b)(4). Additional information to support this request was submitted in correspondence dated December 9 and 11, 2013 and May 15, 2014.

To be designated as a non-waste fuel under 40 CFR part 241.3(b)(4), discarded non-hazardous secondary material (NHSM) must undergo processing as defined in 40 CFR 241.2. Also, after processing, the NHSM must meet the legitimacy criteria for fuels in 40 CFR 241.3(d)(1).

Based on the information provided in the correspondence and conference calls, we believe that the PAF produced by Pellet America when burned in combustion units for energy recovery would constitute a non-waste fuel under 40 CFR part 241.¹ The remainder of this letter provides the basis for our position. *If there is a discrepancy in the information provided to us, it could result in a different interpretation.*

Processing

Processing is defined in 40 CFR 241.2 as operations that transform discarded NHSM into a non-waste fuel or non-waste ingredient, including operations necessary to: remove or destroy contaminants; significantly improve the fuel characteristics (e.g., sizing or drying of the material, in combination with other operations); chemically improve the as-fired energy content; or improve the ingredient characteristics. Minimal operations that result only in modifying the size of the material by shredding do not constitute processing for the purposes of the definition.

¹ A non-waste determination under 40 CFR Part 241 does not preempt a state's authority to regulate a non-hazardous secondary material as a solid waste. Non-hazardous secondary materials may be regulated simultaneously as a solid waste by the state, but as a non-waste fuel under 40 CFR Part 241 for the purposes of determining the applicable emissions standards under the Clean Air Act for the combustion unit in which it is used.

The determination of whether a particular operation or set of operations constitutes sufficient processing to meet the definition in 40 CFR 241.2 is necessarily a case-specific and fact-specific determination. This determination applies the regulatory definition of processing to the specific discarded material(s) being processed, as described in correspondence and supporting materials, taking into account the nature and content of the discarded material, as well as the types and extent of the operations performed on it. Thus, the same operations may or may not constitute sufficient processing under the regulation in a particular circumstance, depending on the material being processed and the specific facts of the processing. In some cases, certain operations will be sufficient to “transform discarded non-hazardous secondary material into a non-waste fuel,” and in other cases, the same operations may not be sufficient to do so.

According to information submitted to EPA, the feedstock materials accepted by Pellet America include a variety of wax corrugate, label stock, matrix waste, roll film and paper and cardboard products from a variety of paper, packaging and manufacturing companies, largely from the Fox Valley area of Wisconsin. All of the material that is used is pre-consumer, with no post-consumer municipal solid waste used in the feedstock. Pellet America uses physical examination and analytical testing of feedstocks to select a mix that has desirable fuel characteristics. Pellet America also reviews the product information and Material Safety Data Sheets from its suppliers. It is only after a careful review of the information and the analytical data of the potential incoming materials that Pellet America will allow the material to be shipped to the Appleton location.

Rejected feedstock are not delivered to the facility and include the following examples: municipal scrap waste, lunch room scraps, polyvinylchloride (PVC), aluminum/tin cans, glass, sludge, material having a chlorine level over 2,000 ppm or those with a low BTU value. If a customer puts some of the rejected material into an accepted load, it will be disposed of in a landfill, per Pellet America’s agreement with the customer.

At the Pellet America facility, the accepted feedstock goes through a process of sorting, shredding, and consolidation. The feedstock is sent through a series of grinders, and as it moves through the system, it passes through a variety of magnets designed to remove any residual metal contamination. After the material is ground, it is metered to control the flow and volume that enters the pellet mill dies, creating fuel pellets that measure approximately 3/4 inches in diameter² and ranging from 1/4 to 3 inches in length.

The fuel pellets are then cleaned to remove excess fines, which are returned in a closed-loop system for incorporation into the next PAF pellet stream. The final processed PAF pellets are then conveyed to the end of the process and stored in hopper cars.

Based on this description including the pre-screening of potential customer’s material before it is received, the feedstock acceptance practices at the Appleton facility, the shredding and mixing

² The facility also has additional dies (1/2 diameter) and lengths can be adjusted per the customer specifications

transforms the pre-consumer feedstock into a non-waste fuel provided it meets the legitimacy criteria.

Legitimacy Criteria

Under 40 CFR 241.3(d)(1), the legitimacy criteria for fuels include: 1) management of the material as a valuable commodity based on the following factors, storage prior to use must not exceed reasonable time frames, and management of the material must be in a manner consistent with an analogous fuel, or where there is no analogous fuel, adequately contained to prevent releases to the environment; 2) the material must have a meaningful heating value and be used as a fuel in a combustion unit that recovers energy; and 3) the material must contain contaminants at levels comparable to or less than those in traditional fuels which the combustion unit is designed to burn.

Manage As A Valuable Commodity

Regarding the first criterion, the May 2014 correspondence explained that the PAF pellets are sold and removed quickly from storage, with the longest storage time being ninety days. While in storage, the PAF pellets are always kept dry, whether stored inside or outside. This has been accomplished by Pellet America retrofitting the storage hoppers to include roofs. The finished product is then sent across the scales and stored in the covered train cars, until time for shipment.

The PAF pellets undergo quarterly testing to demonstrate both the BTU value and the chemical characteristics to end users.³ The fuel pellets are shipped on a need-to-use basis to the customers whom are expected to store the material in a manner consistent with their operating permits until their use.

Based on this information, the PAF pellets are managed by Pellet America as a valuable commodity and storage does not exceed a “reasonable time frame” as discussed in the NHSM final rule (40 CFR 241.3(d)(1)(i)(A)).⁴ The train cars, with their enclosed structures, appear to be adequate to prevent releases to the environment. Please note that the facilities that receive the PAF pellets must also manage it as a valuable commodity for the material to remain a non-waste fuel, when combusted.

Meaningful Heating Value and Used As A Fuel to Recover Energy

Regarding the second legitimacy criterion, information provided indicates that the PAF pellets have been analyzed and found to have heating values between 9,525 BTU/lb and 11,088 BTU/lb, with an average heating value of 10,182.4 BTU/lb, a level comparable to that found in coal. It is

³ Pellet America tests the fuel pellets for the following parameters: arsenic, ash, beryllium, cadmium, chloride, chlorine, chromium, lead, mercury, moisture content, nickel, silver, sulfate and zinc.

⁴ As discussed in the NHSM final rule (76 FR 15520) “reasonable time frame” is not specifically defined as such time frames vary among the large number of non-hazardous secondary materials and industry involved.

intended that industrial boilers will use the PAF pellets mixed with the coal. As the EPA stated in the preamble to the NHSM final rule, NHSMs with an energy value greater than 5,000 BTU/lb, as fired, are considered to have a meaningful heating value (see 76 FR 15541, March 21, 2011). Thus, we believe that PAF pellets meet the second legitimacy criterion.

Comparability of Contaminant Levels

Regarding the third criterion on contaminant levels, the letter submitted to EPA requests confirmation that the PAF pellets meet the contaminant legitimacy criterion when compared to coal, the traditional fuel for which the combustion unit is designed to burn. In supplemental information submitted to EPA in December 2013 and May 2014, the contaminant levels in the PAF pellets was compared to contaminant data for coal as outlined in the "Contaminant Concentrations in Traditional Fuels: Tables for Comparison."

Quarterly test results between August 2012 and March 2014 were compared in the contaminant table. As indicated in attached Table, the PAF pellets meet the legitimacy criterion for these contaminant levels when compared to coal. The conclusion that Pellet America meets the contaminant legitimacy criterion for units designed to burn coal assumes that Pellet America tested for any contaminant expected to be present. Any additional contaminants for which the PAF pellets were not tested must be present at levels comparable to or lower than those in the appropriate traditional fuel.

Conclusion

Overall, based on the information provided in the August 13, 2013 letter and follow-up correspondence, we believe the facts indicate that PAF pellets meet both the processing definition and the legitimacy criteria outlined above. Accordingly, we would consider this NHSM a non-waste fuel under the 40 CFR Part 241 regulations.

If you have any other questions, please contact Ms. Carol Staniec, of my staff at 312-886-1436.

Sincerely,

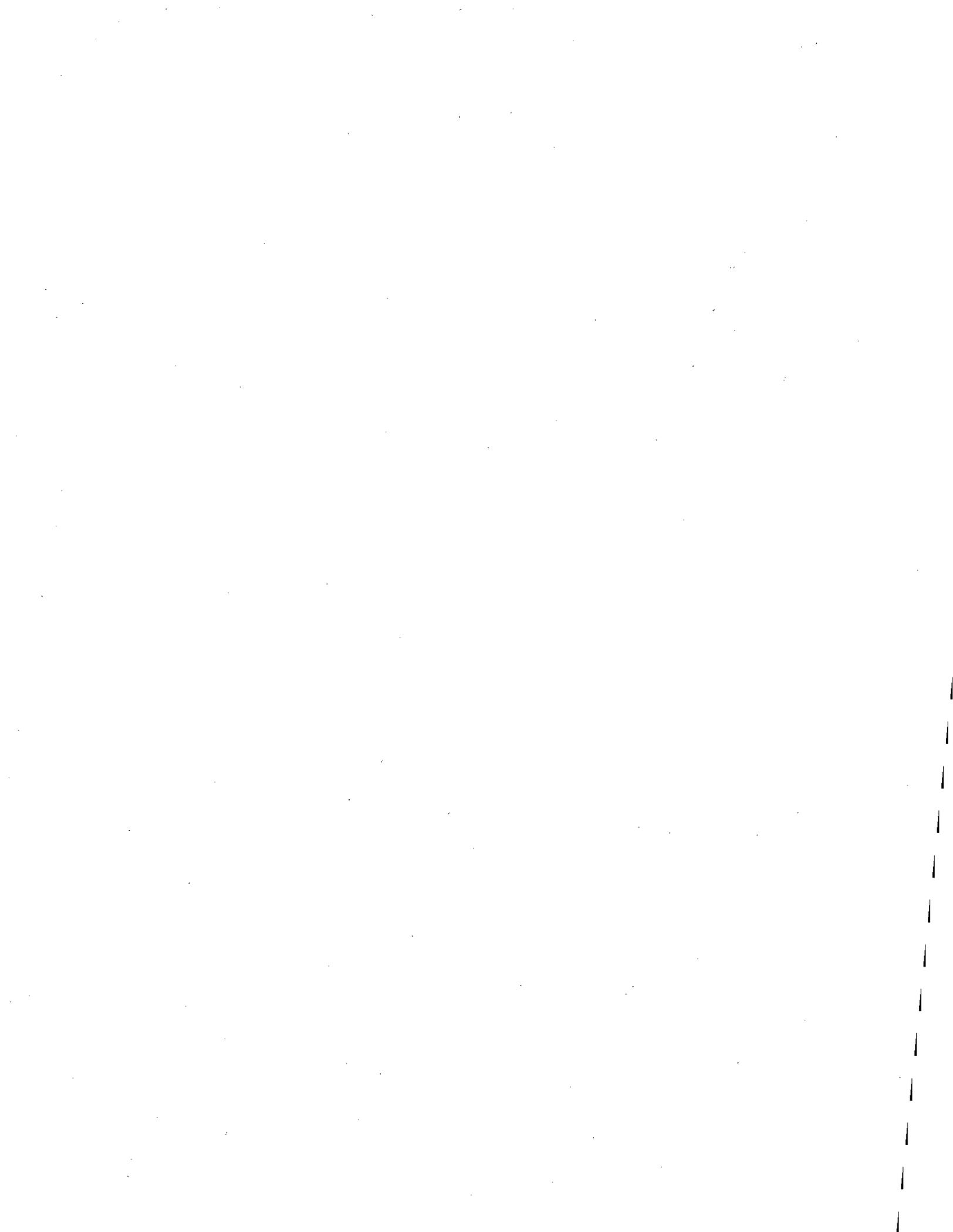


Margaret M. Guerriero
Director
Land and Chemicals Division

Enclosure

cc: Brad Wolbert, Wisconsin DNR

Bcc: George Faison, EPA/ORCR



Attachment:

Contaminant-by-Contaminant Comparison, Elemental Contaminants

Contaminant	Units	Pellet America Range ¹	Pellet America Average ²	Coal: Range ²	Coal Average ³	Results of Comparison
Metal Elements - dry weight basis						
Antimony (Sb) ⁴	ppm	See Comment 4	<1.6	ND - 10	1.7	Lower than coal
Arsenic (As)	ppm	<1.08 - <0.449	0.291	ND - 174	8.2	Lower than coal
Beryllium (Be)	ppm	<0.28 - <.038	<0.34	ND - 206	1.9	Lower than coal
Cadmium (Cd)	ppm	<0.28 - .038	<0.34	ND - 19	0.6	Lower than coal
Chromium (Cr)	ppm	<0.85 - 2.1	1.23	ND - 168	13.4	Lower than coal
Cobalt (Co) ⁴	ppm	See Comment 4	1.0	ND - 25.2	6.9	Lower than coal
Copper ⁶	ppm	8.4-19	13.28	No coal information to compare against		
Lead (Pb)	ppm	<0.68 - 1.9	1.36	ND - 148	8.7	Lower than coal
Manganese (Mn) ⁴	ppm	See Comment 4	4	ND - 512	26.2	Lower than coal
Mercury (Hg)	ppm	0.01-0.08	0.04	ND - 3.1	0.09	Lower than coal
Nickel (Ni)	ppm	<0.54-.76	<0.69	ND - 730	21.5	Lower than coal
Selenium (Se) ⁴	ppm	See Comment 4	<0.109	ND - 74.3	3.4	Lower than coal
Zinc ⁶	ppm	22-73	41.0	No coal information to compare against		
Non-metal elements - dry basis						
Chloride (Cl)	ppm	70-287	135.2	No information to compare against		
Chlorine (Cl)	ppm	405-2100	878	ND-9,080	992	Lower than coal
Nitrogen (N) ⁵	ppm	See Comment 5	2000	13600 - 54000	15090	Lower than coal
Sulfur (S)	%	0.02-0.06	0.03	740 - 61300	13580	Lower than coal
Notes:						
<ol style="list-style-type: none"> 1. Pellet America sample results are from one facility. The range value includes eight samples from the plant. The PAF data are based on average tests completed on the following dates: August 21 and November 26, 2012, February 23, May 13, August 14, and November 13, 2013 and March 20, 2014. 2. Ranges for Coal are from a combination of EPA data and literature sources, as presented in EPA document <i>Contaminant Concentrations in Traditional Fuels: Tables for Comparison</i>, November 29, 2011, available at www.epa.gov/epawaste/nonhaz/define/index.htm 3. Averages are weighted averages of individual facilities responding to the OAQPS survey. Averages only include samples above detection limits. 4. These parameters were only sampled once on December 12, 2013. 5. This parameter was sampled only once on June 14, 2013. 6. The parameters of zinc and copper are not identified as contaminants in 40 CFR 241.2. The information was supplied by the company and included in the tables for reference only. 						

