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MEMORANDUM

To: T.J. Ross

From: Don Kopec

Date: July 26, 2013

Re: Supplemental questions regarding CMAQ proposal DR13143957 – Indiana Harbor

Belt Railroad Locomotive Fuel Conversion

T.J., thanks for your supplemental questions concerning the Indiana Harbor Belt CMAQ proposal. We forwarded your questions to the IEPA (the sponsor) and the railroad. Their responses are below. One of the questions was forwarded to the United States Environmental Protection Agency, since it pertained to their activities. Another question was forwarded to the Federal Highway Administration, since it concerned their procurement policies. The responses are as follows:

- Q: The dual fuel engine kit manufacturer is specified. Will this have to be bid out under federal procurement rules?
- A: The Federal Highway Administration responded, "It would not have to bid out if FHWA can issue a Public Interest Finding consistent with 23 CFR 635.411."
- Q: Research on the Eco dual fuel kit indicates it is for the trucking industry. Does EPA have a separate certification/duty cycle for engines used in locomotives versus trucking?
- A: The United States Environmental Protection Agency responded. "EPA's clean alternative fuel vehicle and engine conversion rules target only light-duty vehicle and heavy-duty highway vehicle and engine clean alternative fuel conversion systems. Nonroad engines and equipment are not covered by these requirements."
- Q: If Eco dual goes out of business how will the dual fuel system on the engines be maintained?
- A: The Eco Dual product has been internally judged by the IHB as the best solution to achieve maximum emission reductions, using a certified technology, and in conjunction with certified locomotive engines. As part of the forceful solutions enacted by the IHB prior to our CMAP application, we demanded the following safeguards to maintain the access and integrity of the EcoDual technology:

- Satisfactory evaluation of Eco Dual as an ongoing business venture, including credit worthiness, and financial dedication to the technology, history of the company, and the technology deployed
- 2. Required the Prime Vendor, Motive Power and Equipment Solutions (MP&ES) to train their employees on the installation, use, care and maintenance of Eco Dual technology
- 3. Required the Prime Vendor to maintain at least 3 employees on their staff at all times with high skills level in Eco Dual technology
- 4. Required Eco Dual and the Prime Vendor to train all of the IHB locomotive mechanics on the EcoDual technology
- 5. Required the Prime Vendor to permanently site a minimum of one employee on IHB property full time until 2018. This MP&ES employee is required to be on 24 hour call-out to service the Eco Dual/Cummins locomotive engines. This on-site position must be continually filled, without exception. MP&ES has committed to supplying the necessary trained personnel to meet this mandate
- 6. Required the Prime Vendor to obtain licensing agreements from EcoDual to ensure continuity of the technology as a third layer of redundancy and protection.
- Q: Do we know the current financial health of the proposed CNG conversion package supplier?
- A: Motive Power and Equipment Solution (MP&ES), the prime vendor for the conversion, has a 26 year unblemished record of service to railroads world- wide. Their growth has been fueled by internal revenue, and strong creditworthiness, displaying the respect held for them in the locomotive repair and rebuilding field.
 - MP&ES has provided written confirmation of their financial and management commitment to this endeavor. A copy of their most recent letter is attached to this answer package.
- Q: If the locomotive engine was rebuilt to pre-1965 standards could the dual fuel system be installed and operated? What would be the emission reduction from that conversion versus the new tier three engine with the dual fuel feature? Since the engine is running on NG a majority of the time isn't the tier three engine redundant emissions reduction?
- A: The IHB has sought to strictly adhere to the tenets of the CMAP program, and the CMAQ prerogatives established in Washington DC. This affected our search for only certified technologies that could be brought to bear on IHB locomotives to reduce emissions. There are certifications for the Cummins engine family to be used, and for the Eco Dual technology. We did not find any certifications for any pre-1965 family of locomotive engines. Additionally, no natural gas additive manufacturer, including Eco Dual, would attach their technology to the old pre-1965 locomotive engines.
- Q: Are the current pre-1965 engines due for overhaul in the next few years?
- A: The pre-1965 engines are not currently scheduled for any overhaul. In approximately 11 years, the engines are scheduled to be evaluated for overhaul, but this is no guarantee that any work will be done to the units.

- Q: Why were the engines not upgraded to a lower emission configuration when they were rebuilt in 2003-2004?
- A: There was no regulatory requirement in 2003-2004 to rebuild the engines to lower emission configurations. The IHB is now under no regulatory requirement to move any locomotive to meet lower emissions requirements.

This current CMAP effort is a strictly voluntary effort by the IHB to lower emissions emanating from our locomotives along our route system. It is a strictly voluntary effort to reduce the emission affecting communities closest to our route system that have documented high rates of poverty and asthma.

The current IHB management is utilizing the great leap in certified natural gas technology that was not previously available to IHB management of previous generations.

Please let me know if you have further questions.



Your Environmentally Friendly Solution Provider

July 3, 2013

Mr. Michael Nicoletti
Director of Purchasing
Indiana Harbor Belt Railroad, Co.
2721- 161ST Street
Hammond, IN 46323

Ref: Capability Letter

Dear Mr. Nicoletti;

Motive Power and Equipment Solutions (dba/MP&ES) is an international firm specializing in the production, rebuilding and retrofitting of locomotives. We provide service globally, with headquarters and major production facilities in Greenville, SC. The founder of MP&ES has been designing, remanufacturing and manufacturing locomotives for 26 years. MP&ES is a privately held company which was incorporated as a result of Mr. Wilkerson's extensive experience and vision in 1999.

Our clients include those in mining, port transfer, commodity freight, oil refining, and heavy industry. Our proven in house capabilities range from electrical engineering, structural engineering, fuel retrofitting, engine remanufacturing, retrofits, repowers and a wide range of locomotive products including complete turnkey design, manufacturing and delivery for special applications. We have made concerted efforts and expended considerable resources to develop a specialty in alternative fuel technology as applied to locomotives. These efforts have been based upon the clean Cummins family of engines, and a dual fuel platform for off-road vehicles, all of which are EPA certified during the manufacturing process.

MP&ES has committed financial and knowledge resources to the management of the intended project for the Indiana Harbor Belt Railroad. The IHB CMAP project will be completed along with other projects that MP&ES has scheduled for the 2014-2018 time period. MP&ES has appropriated the necessary internal capital, and maintains robust lines of credit to support all MP&ES projects. There will be no delay in providing the locomotives as specified in the IHB CMAP application.

Thank you for allowing us the opportunity to partner with IHB as leaders in the rail industry, delivering the alternative fuels technology that sets the emissions bar high for all other manufacturers to follow.

David Wilkerson President

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