

DATE: November 23, 1994

FILE CODE: 4560

FID #: 246046790

TO: Daniel L. Johnston - AM/7

FROM: M. Harder - AM/7 *MH*.

SUBJECT: Quantification of Emission Reduction from the Shutdown of the City of Port Washington's Municipal Waste Incinerator

The City of Port Washington informed the Department in a letter dated September 8, 1992 of the intent to shutdown their municipal waste incinerator to comply with s. NR 445.05(5), Wis. Adm. Code. As the shutdown was due solely to hazardous air pollutant emissions, the associated nitrogen oxide emissions are considered as incidental reductions. Administrative Order #AM-93-205 required the shutdown of the unit; the effective date of the shutdown was November 1, 1992.

In a letter dated November 17, 1994, the City of Port Washington requested certification of the nitrogen oxide emission reductions generated by the shutdown of the incinerator. The letter included a claim of 13.1 TPY of reduction and supporting calculations, and a notice of the intent to transfer the certified reductions to Charter Steel.

#### Analysis:

The September 8, 1992 letter provided the prior notification to the Department of the intent to shutdown. The unit was operated in 1990 and was included in the baseline inventory. The contemporaneous period for a shutdown is five years back from the date of the certification request, or from October 31, 1989 to November 1, 1994 (inclusive). The representative period chosen by the applicant is the last two years of operation or November of 1990 to October of 1992 (inclusive).

The applicant kept daily records of the amount of material burned. These records were summarized monthly. The method used to quantify the nitrogen oxide emissions was to use the burn records along with the emission factor of 3.6 lb NO<sub>x</sub>/ton of material burned from page 2.1-7 of AP-42 (mass burn unit).

The unit was designated as I40, S10 in permit #85-SJK-018. The permit limit was 9.06 lb NO<sub>x</sub>/hr, which represented the maximum expected emission rate and was included to document the allocation of air resources. There was no stack test conducted to determine the

actual emission rate of nitrogen oxides. The following calculations will be used to determine if the unit was in compliance with its allowable emission rate:

Data from December 1990, assume the unit operated 16 hrs/day (note that the actual operations was usually 24 hrs/day):

Total material burned: 1,043,570 lbs

Total days of operation: 18 (fewest days of operation in representative period)

Allowable emission:  $9.06 \text{ lb NO}_x/\text{hr} \times 18 \text{ days} \times 16 \text{ hr/day} = 2,609 \text{ lb/month}$

Actual emissions (based on the emission factor):

$3.6 \text{ lb NO}_x/\text{tons burned} \times (1,043,570 \text{ lbs} \times \text{ton}/2,000 \text{ lb}) = 1,878 \text{ lb/month}$

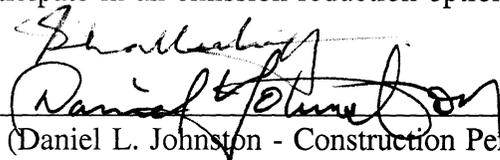
Therefore, based on worst case assumptions the unit was in compliance with the permit limit. The calculation of offsets requires the use of the lower of actual or allowable emissions. The actual emissions estimated using AP-42 emission factors will be used to quantify the creditable reduction.

An inspection report dated June 11, 1992 indicated that the source was not in compliance with the requirement to conduct a biennial test for TSP and HCl, the requirement to maintain a minimum temperature of 1500°F in the secondary chamber and the requirement to keep daily records of ESP operating parameters. None of these violations would have a significant affect on the NO<sub>x</sub> emission rate.

The daily burn records are included as Attachment 3 of the Technical Support Document submitted with the letter of November 17, 1994 requesting certification. The monthly summary and emission estimates are included in Attachment 1. The calculations in the daily records were spot checked and the calculations in Attachment 1 were checked and found to be correct. The calculation of the emissions from natural gas combustion were also checked and found to be correct.

The total creditable reduction from the shutdown of the Port Washington municipal waste incinerator is determined to be 13.1 TPY of nitrogen oxides. Notification of this result will be given to the City of Port Washington along with the notification required by s. NR 407.15 to cancel permit #85-SJK-018. It has been determined that Administrative Order # AM-93-205 makes the shutdown enforceable so an elective operation permit is not needed for this source to participate in an emission reduction option.

Approved:

  
11-28-94  
(Daniel L. Johnston - Construction Permit Unit Supervisor)

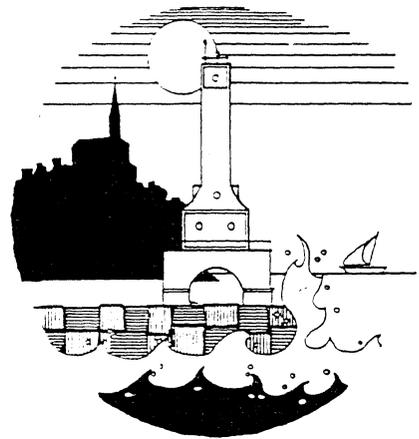
  
11/29/94  
(Dale Ziege - Permit Section Chief)

cc: Gerry Bevington - SED

city of  
**Port Washington**

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Administrative Office (414) 284-5585  
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December 15, 1994

Mr. Mark Harder  
Department of Natural Resources  
P. O. Box 7091  
101 South Webster Street  
Madison, Wisconsin 53703

RE: Transfer of NOX Credits to Charter Manufacturing Company, Inc.

Dear Mr. Harder:

This letter will confirm that the City of Port Washington has transferred to Charter Manufacturing Company, Inc. the NOX emission reduction credits generated by the shutdown of the City's municipal solid waste incinerator. These credits were certified pursuant to your letter to the City dated November 23, 1994.

We appreciate your consideration and if you have any questions, please call.

Sincerely,

A handwritten signature in cursive script that reads "Mark E. Grams".

Mark E. Grams  
City Administrator

cc: John R. Stubbles, Ph.D.  
Mr. Lou Skibicki  
Thomas P. McElligott, Esq.

DEC 20 1994