



FEB 6 1991

State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

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FILE COPY

February 1, 1991

IN REPLY REFER TO: 4512-1

- Mr. Michael Koerber, Technical Director  
Lake Michigan Air Directors Consortium  
2350 East Devon Avenue, Suite 242  
Des Plaines, IL 60018

SUBJECT: Additional Routine Monitoring in Wisconsin - LMOS, Summer 1991

Dear Mr. Koerber:

This letter is Wisconsin DNR's commitment to operate additional "routine" monitoring stations in Wisconsin during the upcoming 1991 summer Lake Michigan Ozone Study Field Measurement Program. WDNR will operate all ten routine monitoring stations (#19 through #28, including #21 - the First Wisconsin building) in Wisconsin which will monitor continuously for ozone, meteorology and/or nitrogen oxides following installation and initial calibration of all new monitoring equipment by the Routine Monitoring contractor (ESE/ENSR - i.e. "the contractor") as specified in the attached list (Figure 1). Our goal is 95% data capture and we guarantee 75% data capture. WDNR will operate such equipment utilizing the Standard Operating Procedures and Quality Assurance Project Plans supplied to LADCO by ESE/ENSR and/or WDNR. The following conditions apply to this commitment:

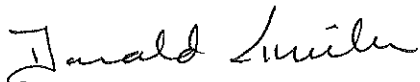
1. WDNR will not operate nor take any responsibility for the collection of VOC canisters or carbonyl cartridges other than to recommend local site operators to the LADCO contractor;
2. LADCO will arrange for the lease or purchase of six 4-channel strip chart recorders (plus the necessary strip chart paper) to provide backup for the data acquisitions system at the five entirely new monitoring stations in Wisconsin (#20, #21, #25 - two recorders, #26, #27). Strip chart recorders already at existing sites which will have additional equipment or monitors added on by the contractor will have sufficient capacity to accommodate the additional channels; no additional recorders will be necessary for those sites.
3. The contractor will be responsible for the selection, leasing, utility connections, and installation of the new monitoring stations (trailers) and the installation and shutdown of the monitoring equipment at the stations (including data loggers, meteorological towers, etc.), including the start-up (initial) and shutdown calibrations. WDNR will provide assistance when possible in selecting the specific location of such new sites, including intervention when necessary (and possible) with local

authorities or local units of government to obtain access to such sites. The contractor will supply all consumables (including zero/span gases) and any necessary auxiliary equipment required.

4. WDNR will plan together and coordinate with the Routine Monitoring contractor to assure a smooth working relationship and assure maximum data capture. We trust the contractor will reciprocate in such a cooperative relationship.
5. When any equipment supplied by the contractor fails at Wisconsin monitoring stations, WDNR will replace the malfunctioning analyzer or equipment but will not attempt to repair such equipment. WDNR will work out a procedure with the contractor to arrange for transfer of such malfunctioning equipment (owned by the contractor or by LADCO) which will be the responsibility of the contractor to restore to the full performance level. Transfer of such restored equipment back to WDNR will also be arranged. Additional backup equipment or on-site repair services which may be required during periods of multiple equipment failure will be provided by the contractor, except when WDNR may have available such backup equipment of its own.
6. LADCO will be purchasing a spare NO<sub>x</sub> analyzer and providing such spare to WDNR for use as a replacement for malfunctioning NO<sub>x</sub> analyzers during the study period.

We are preparing a work plan which will outline our needs for additional limited term employee (LTE) hours (above and beyond the LTE hours already planned for WDNR to assist in the aircraft and other studies) for conducting the additional routine monitoring as specified in the attached Figure 1.

Sincerely,



Donald F. Theiler, Director  
Bureau of Air Management

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cc: Steve Gerritson - LADCO  
Lake Michigan Air Directors:  
-Bharat Mathur - Illinois  
-Bob Miller - Michigan  
-Tim Method - Indiana  
Julian Chazin - AM/3  
Ed Miller - Southeast District  
Larry Bruss - AM/3

FIG. 1.

PROPOSED SPECIAL MEASUREMENT SITES

WISCONSIN

SITE NAME	LONG	LAT	O3	NOX	MET
19-WI Chiwaukee	87.81	42.50	Ex	x	Ex
20-WI (Paddock Lake)	88.10	42.56	x		x
21-WI (Milwaukee 1st WI bldg.)	87.90	43.10	x	X	
22-WI Grafton	87.94	43.32	Ex	x	Ex
23-WI Slinger	88.28	43.33	Ex		x
24-WI Portage	89.43	43.45	x	x	Ex
25-WI (Sheboygan)	87.74	43.67	x	x	x
26-WI (west of Sheboygan)	87.90	43.67	x		x
27-WI (west of Manitowoc)	87.90	44.10	x		x
28-WI Milw UWM North (WI)	87.88	43.07	Ex	Ex	Ex

N  
N  
C  
N  
N

EX - EXISTING

X - PROPOSED NEW MONITOR

N - NEW SITE

C - CONVERSION SITE (INDUSTRIAL TO SLAMS)  
NEW SITE NO. (AIRS)