

**MADISON COUNTY FISCAL COURT
MADISON COUNTY, KY
RESOLUTION 20-102**

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COUNTY CLERK: KENNY BARGER
DEPUTY CLERK: LANDRY LUXON
COUNTY: MADISON COUNTY
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**A RESOLUTION APPROVING SIGNATURE OF A MEMORANDUM OF
UNDERSTANDING (MOU) BETWEEN BLUE GRASS CHEMICAL ACTIVITY (BGCA),
BLUE GRASS ARMY DEPOT (BGAD), AND MADISON COUNTY FOR
THE BLUE GRASS METEOROLOGICAL SYSTEM**

WHEREAS, the Madison County EMA participates in the CSEP Program; and

WHEREAS, this MOU provides for the maintenance of the Blue Grass Meteorological System and space for the system equipment including MetView computers in the Blue Grass Army Depot (BGAD), Emergency Operations Center (EOC), and the Madison County EOC; and

WHEREAS, the Madison County EOC will provide a location for the MetView PC and associated equipment. The County will provide space for the meteorological towers and equipment in Madison County; and

WHEREAS, the Madison County EOC will request from BGCA desired meteorological data or reports; and

WHEREAS, this MOU is in effect upon the date of the last signature and shall continue in effect until superseded or rescinded by mutual agreement.

**NOW, THEREFORE, BE IT RESOLVED THAT THE FISCAL COURT DOES HEREBY
APPROVE TO ENTER INTO THE AGREEMENT AND AUTHORIZES THE JUDGE
EXECUTIVE TO EXECUTE SAME ON BEHALF OF THE COUNTY.**

Motion made by Tom Botkin, seconded by John Tudor.

Vote:

Yes

No

Judge Reagan Taylor
Magistrate Larry Combs
Magistrate John Tudor
Magistrate Roger Barger
Magistrate Tom Botkin

<u>X</u>	<u> </u>
<u>X</u>	<u> </u>
<u>X</u>	<u> </u>
<u>X</u>	<u> </u>
<u>X</u>	<u> </u>

Signed:

Reagan Taylor
Reagan Taylor
Madison County Judge Executive

Attested:

Kenny Barger
Kenny Barger
Madison County Clerk

MEMORANDUM OF UNDERSTANDING
BETWEEN
BLUE GRASS CHEMICAL ACTIVITY,
BLUE GRASS ARMY DEPOT
AND
MADISON COUNTY, KENTUCKY

SUBJECT: Meteorological Data and Meteorological System Understanding between Blue Grass Chemical Activity, Blue Grass Army Depot, and Madison County

1. PURPOSE: This Memorandum of Understanding (MOU) provides for the maintenance of the Blue Grass Meteorological System and space for the system equipment including MetView computers in the Blue Grass Army Depot (BGAD) Emergency Operations Center (EOC) and the Madison County EOC.

2. REFERENCES:

- a. Chemical Stockpile Emergency Preparedness Program (CSEPP) Planning Guidance, current version.
- b. Meteorological Monitoring Guidance for Regulatory Applications, EPA-454/R-99-005, February 2000.

3. DEFINITIONS:

a. *Blue Grass Meteorological System*: The meteorological system is composed of the MetView computers in the BGAD EOC and the Madison County EOC, the demil tower (tower-1), three Chemical Stockpile Emergency Preparedness Program (CSEPP) towers on BGAD, four CSEPP towers in Madison County, and one tower in Fayette County.

b. *Extended Outage*: An outage of the BGAD MetView computer or demil tower for more than 48 hours.

4. DISCUSSION: The objective is to provide access to the Blue Grass Meteorological system data, the maintenance of the system, and space for the equipment.

5. RESPONSIBILITIES:

a. Federal Government Responsibilities:

(1) The BGAD will request from Blue Grass Chemical Activity (BGCA), with an information copy of the request to the Argonne National Laboratory (ANL) site representative, any desired meteorological data or reports. BGAD will continue to provide space for the meteorological towers and equipment on BGAD. The BGAD will notify the Kentucky Department for Environmental Protection (KDEP) if an extended outage of the meteorological system is expected.

(2) The BGCA will provide a location for the MetView PC and associated equipment. The BGCA will notify BGAD and Madison County Emergency Management Agency (EMA) if an extended outage of the meteorological system is expected. The BGCA will coordinate with the Chemical Materials Activity (CMA) CSEPP Office to ensure the system is maintained by ANL.

SUBJECT: Meteorological Data and Information Exchange MOU between BGCA, BGAD and Madison County

(3) If desired by Madison County, ANL as the action agent, for BGCA, will maintain a MetView computer in the Madison County EOC that can monitor the system as a backup source of data. The ANL will maintain the Blue Grass Meteorological System as directed by the CMA CSEPP Office. The ANL will maintain an archive of the meteorological data measured by tower-1 and provide meteorological data and reports as approved by BGCA or the CMA CSEPP meteorologist. The ANL will notify the CMA CSEPP meteorologist and BGCA if an extended outage is expected for MetView or tower-1. The tower-1 sensor array will be maintained as specified in Table 1. The sensor array may be increased or improved; however, any reduction in the capabilities of the system will be coordinated with and approved by the signatories of this MOU. The calibration and audit schedule for tower-1 will follow the requirements of the Meteorological Monitoring Guidance for Regulatory Applications.

b. Madison County Responsibilities:

(1) If desired, Madison County EOC will provide a location for the MetView PC and associated equipment. The County will provide space for the meteorological towers and equipment in Madison County.

(2) The Madison County EOC will request from BGCA desired meteorological data or reports.

6. EFFECTIVE PERIOD: This MOU is in effect upon the date of the last signature and shall continue in effect until superseded, or rescinded by mutual agreement. The BGCA will review the MOU annually to ensure accuracy.

7. APPROVAL:

DUSTIN HEISER
EMA Director
Madison County

Date:

EDWARD E. WILLIAMS
Lieutenant Colonel, U.S. Army
Commanding
Blue Grass Chemical Activity

Date



REAGAN TAYLOR
Judge Executive,
Madison County

Date:

STEPHEN D. DORRIS
Colonel, U.S. Army
Commanding
Blue Grass Army Depot

Date

Table 1 Summary of meteorological equipment specifications for Blue Grass Army Depot meteorological tower compared to USEPA recommendations.

Parameter	Proposed Equipment	Specifications		EPA Recommendations
		Parameter	Value	
Air Temperature	Air Temperature Sensor YSI: 703 Aspirated Radiation Shield Climatronics: 100325	Range Resolution Accuracy (-50°C to 50°C) Time Constant	-30°C to 50°C 0.02°C* ±0.10°C 3.6 sec	NA 0.1°C ±0.5°C ≤ 1 min
Relative Humidity	Vaisala, HMP-45D	Range Accuracy at 20°C (laboratory) Accuracy (field) Response Time Operating Temperature	0.8 to 100% RH ±1% RH ±2% (0 to 90% RH), ±3% RH (90 to 100% RH) 15 sec -40 to 60°C	NA NA NA NA NA
Precipitation	NovaLynx: 260-2500E	Resolution Accuracy (1-in./hr to 3-in./hr) Accuracy (0-in./hr to 6-in./hr) Operating Temperature	0.25 mm ±1% ±3% -40°C to 60°C	0.3 mm ±10% of observed or ±0.5 mm NA
Pressure	Barometer and Pressure Sensor (800 mb -1100 mb) Setra: 276	Range Resolution Accuracy	800 mb to 1100 mb 1 mb* ±0.25 mb	NA 0.5 mb ±3 mb
Solar Radiation	Solar Radiation Sensor with Level Eppley: Black and White, 8-48	Resolution Accuracy Time Constant Spectral Response Operating Temperature	10 W/m ² * ±5% 10 µsec 285 nm to 2,800 nm -40 to 65°C	10 W/m ² ±5% of observed ~ 5 sec 285 nm to 2,800 nm -20°C to 40°C
Temperature Differential	Air Temperature Sensor YSI: 703 Aspirated Radiation Shield Climatronics: 100325	Range Resolution Accuracy Time Constant	-10°C to 10°C 0.02°C* ±0.1°C 3.6 sec	NA 0.02°C ±0.1°C ≤ 1 min
Wind Direction (horizontal)	F460 Wind Direction Sensor Climatronics: P/N 100076	Range Threshold Resolution Accuracy Distance Constant Damping Ratio Operating Temperature	0° to 360° 0.22 m/s (0.5 mph) 0.1°* ±2° 0.9 m > 0.4 at 10° initial angle of attack -40°C to 60°C	NA ≤ 0.5 m/s at 10° 1° ±5° ≤ 5 m 0.4 to 0.65 NA
Wind Speed (horizontal)	F460 Wind Speed Sensor Climatronics: P/N 100075	Range Threshold Resolution Accuracy (low speeds) Accuracy (high speeds) Distance Constant Operating Temperature	0 m/s to 50 m/s (0 mph to 112 mph) 0.22 m/s (0.5 mph) 0.1 m/s* ±0.07 m/s (±0.15 mph) ±1% 1.5 m -40°C to 60°C	NA ≤ 0.5 m/s 0.1 m/s ±0.25 m/s ±5% ≤ 5 m NA

* Value estimated based on performance of sensor with the datalogger