This report has been prepared by the Emergency Operation Control Center of the Air and Water Programs Division, Region III. The major contributors to the report were:

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Region III acknowledges with appreciation the air sampling data provided by the State and local agencies in our Region; also Region V for the Steubenville data.

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REGION III - AIR POLLUTION EPISODE - JULY, 1972

BACKGROUND

An air pollution episode occurs when adverse weather conditions - usually low winds and a temperature inversion - permit abnormally high concentrations of pollutants to build up in the air. Certain locations are more susceptible than others due to topography or heavy and concentrated industry.

The prime responsibility of preventing an air pollution emergency rests with the state and local governments within the framework of the Clean Air Act. However, the Environmental Protection Agency must take emergency action when pollution sources present an "imminent and substantial endangerment" to human health and state and local authorities have not acted to abate these sources. The Regional Office - Emergency Operations Control Center (EOCC) - is set up to coordinate all Federal activity during an episode, including data gathering, field work, public relations, and legal action should it become necessary. The RO-EOCC has assisted state and local agencies in planning and acted as coordinator between the state agencies for the past year.

EPISODE CRITERIA

A multiple stage air pollution episode procedure has been established and approved by EPA. EPA requires at least two stages with appropriate pollutant level criteria and actions to be taken. A four stage procedure is suggested by EPA. The criteria can be found in the Appendix.

FORECAST - A Forecast is triggered when a wea report from an EMSU (Environmental Meteorological Support Unit) i cates adverse meteorological conditions are likely to produce stag t air and elevated pollution levels. The involved control agenc prepare for a possible episode. The staff is alerted, and air quali monitoring is increased.

ALERT - An Alert is triggered if any one of tl pollutant levels criteria is reached at any monitoring station and if ac erse weather conditions are expected to last for 12 hours or more. De ending on the pollutant involved, appropriate abatement of emissions i requested. Inspections are made to assure compliance. The public is otified, advised to take health precautions, and asked to voluntarily c t back on use of electricity.

WARNING - A Warning is triggered if any one of the pollutant level criteria is reached at any one monitoring station and i poor weather is expected to continue for 12 hours or longer. Pollution sources are ordered to make further emission reductions in accord with pre-arranged schedules. Power plants are directed to make maximum use of low ash, low sulfur fuels and to import maximum power supplies available from outside the area to substitute for as much local generation as possible when there is an SO_2/particulate problem.

Inspectors continue to check compliance and action is taken against violators.

The public is kept informed, advised to health precautions, and asked to voluntarily reduce driving and the use of electricity.

EMERGENCY - An Emergency is declared if any one of the pollutant levels for this stage is recorded at any monitoring station and if adverse weather is expected to continue for 12 hours or more. Abatement actions taken at the emergency stage to prevent "imminent and substantial endangerment" to health. All operations in the affected area are to be shut down, except those needed for public safety and health. Manufacturing plants with prearranged emission reduction schedules are ordered to put maximum pollution abatement procedures into effect and to stop operations if possible.

The public is informed of the worsening situation and health warnings continued. Compliance inspections are continued and action taken against violators.

Federal and State episode criteria may be different, but in all cases, the State criteria must be as stringent or more stringent than the Federal. Abatement actions at each level may also be different than that suggested by EPA. It must be pointed out that the primary purpose of the episode criteria and abatement is to prevent "imminent and substantial endangerment" to health. This is the short-term health effects which accompany abnormal high concentrations of air pollution. The air quality standards are the long-term goals of ambient air concentrations. A comparison of episode criteria vs. air quality standards can be found in the Appendix.

On Monday, July 17, 1972, the Regional Office - EOCC was informed of an Air Stagnation Advisory (A.S.A.) covering the State of Maryland, State of Virginia, and the District of Columbia. The Regional Office - EOCC immediately began episode operations. Air quality data was requested from the corresponding state agencies. The air quality values were not high and no actions were taken.

On Tuesday, July 18, 1972, the A.S.A. for Maryland, D.C., and Virginia was continued. Oxidants levels exceeded 0.1 ppm, and an alert was declared in the Baltimore and Washington areas. An A.S.A. was declared for the northern and eastern areas of West Virginia. Routine communications for data gathering were initiated with the West Virginia Air Pollution Agency. Division Directors of Air & Water, Surveillance and Analysis, and Public Affairs were notified of the situations.

On Wednesday, July 19, 1972, meteorological forecasts indicated that the stagnation condition would be of significant duration, possibly for five or more days. EOCC staff increased their activities in preparation for possible episodes. Press releases were discussed with Public Affairs Division.

On Thursday, the RO-EOCC was informed that the air quality for particulate matter in Steubenville, Ohio had exceeded the alert level. The Federal Alert level for particulate matter is 375 micrograms per cubic meter or 3COH for a 24-hour sample. The 24-hour average ending at 12 Midnight on Wednesday, July 19, 1972, was 438 micrograms per cubic

meter. Later Thursday morning, the RO-EOCC received updated air quality data. An 8-hour sample of particulates from 12 Midnight until 8:00 A.M. was 578 micrograms per cubic meter. This increased the 24-hour reading to 453 micrograms per cubic meter. The Warning level is 625.

The West Virginia Air Pollution Control Agency was informed of the high levels in Stuebenville. They indicated that there was no problem in the West Virginia northern panhandle. The values of air quality in this area were on the order of 140-200 micrograms per cubic meter. Stuebenville, Ohio is part of the same Interstate Air Quality Control Region as Wheeling and Weirton, West Virginia. Within an Air Quality Control Region, the air quality in one area is interdependent upon the emissions from sources in another area. In other words, under certain meteorological conditions, the emissions from sources in one state may significantly contribute to the high air quality readings in an adjacent state.

At approximately 2:30 P.M. on July 20, 1972, the Regional Office - EOCC determined that based upon a gloomy meteorological forecast and increasing pollutant levels, additional staff would definitely be needed. A meeting was held to plan the strategy of the Regional Office and what actions would be taken.

After a discussion of the situation and the possible actions needed, it was decided to have two engineers and a lawyer in the field. The basis of this action was as follows:

1. The high levels of particulate matter in Stuebenville, Ohio.

2. The upward trend of these levels.
3. The meteorological forecast of a prolonged stagnation.
4. The possibility that the emissions from sources in West Virginia would have to be abated in order to reduce the levels of particulate in Stuebenville, Ohio.
5. The reluctance of the West Virginia Air Pollution Control Agency to initiate abatement action because the levels of particulate in West Virginia were only slightly above normal.
6. Allegheny County, Pennsylvania was in and out of the alert since Wed., July 19, 1972. Federal assistance may be requested.

The field personnel were dispatched as follows:

Pittsburgh, Pennsylvania - Bernard Turlinski and Joseph Marino

Wheeling, West Virginia - John Rasnic

The function of these field personnel were as follows:

1. Validate sampling methods and analysis.
2. To assist, recommend, and check the actions taken by the West Virginia Air Pollution Control Agency and Allegheny County, Pa.
3. Surveillance of sources if abatement is requested,
4. Assistance to the U.S. Attorney if injunctions were needed.
5. Provide a direct contact with the RO-EOCC in Philadelphia.

Additional staff on call for field work:

Baltimore - John Collins

Washington - Israel Milner, Chuck Miesse, Dan Ross

Philadelphia - Bill Belanger

Office personnel were assigned to maintain communication with the state and local agencies. They received relative air quality data and assembled information on all actions to be taken by these agencies.

Delaware, Virginia - John Herring

Pennsylvania -- Pittsburgh -- John Silvasi, Kenneth Suter

D.C. -- Maryland - Michael Cribbins

West Virginia -- Thomas Maslany

The Regional Office - EOCC remained in the office to coordinate the EPA Region III involvement. Peter Finkelstein was in charge, assisted by Abraham Ferdas, Thomas Maslany, and David Rehrer.

A board was prepared on which all air quality data for the region was tabulated. The significant readings were also posted on the topographic map of the Region in Room 264. An additional map of the Region was prepared to display the areas which were presently under an Air Stagnation Advisory. A duty roster was posted and updated. A telephone list was compiled of all relevant telephone numbers.

Air quality data was received from the Region V office via Darryl Tyler (EOCC, North Carolina) for Stuebenville, Ohio. Since readings of particulate matter were high, and the increasing trend continued, plans for abatement action would have to be prepared.

The Enforcement Division made arrangements for possible legal action. Sample injunctions were prepared from the Birmingham papers. The appropriate U.S. Attornies were contacted and informed of the deteriorating situation.

The Public Affairs Division was informed of all significant events during the episodes. Sample news releases were prepared with assistance from members of the RO-EOCC Task Force. Since state and local agencies made appropriate news releases, it was jointly decided that an EPA release would not be needed at this time.

EPA and the West Virginia Air Pollution Control Commission determined the 10 major sources in the northern panhandle of West Virginia. Darryl Tyler supplied information on what would be required to achieve "substantial cutback" for these 10 industries.

The values of particulate matter recording in West Virginia were high, but not nearly as high as the values recorded in Stuebenville, Ohio. Due to the low velocity and variable direction of the wind, there was some question as to whether the West Virginia sources were actually contributing to the high levels in Stuebenville. Also, the performance of the instruments and the validity of the data had to be substantiated.

On Friday morning, July 21, 1972, at 1:00 A.M., a reading of 720 micrograms per cubic meter for an 8-hour sample was reported in Stuebenville, Ohio. This increased the 24-hour average to 610. The warning criteria is 625. The West Virginia sources may have been particularly responsible for the high level of particulate. The information was relayed to the West Virginia Agency. After consultation with EPA field personnel, the West Virginia Agency contacted 10 major industries to voluntarily reduce emissions to the maximum extent possible. Written commitments were received from nine industries on Friday afternoon.

Windsor Power Plant in Beech Bottom failed to respond. Surveillance of the other nine industries indicated that they had significantly reduced emissions. The most flagrant violation in the valley was, however, the Windsor Power Plant. They were contacted by Carl Beard and eventually shut down for the weekend.

On Friday morning, July 21, 1972, the RO-EOCC was informed of the latest levels in the area. An eight-hour reading (12 Midnight to 8:00 A.M.) of particulates was 906 micrograms per cubic meter in Steubenville. This increased the 24-hour average to 719. The emergency stage is 875. Other levels in the area were higher than normal. The data was believed to be valid, and abatement actions were continued until the situation was improved. In the meantime, Ohio had obtained approximately 30 injunctions to abate emissions. The EPA field personnel were skeptical of the actions taken by the Ohio air pollution agency and abatement of emissions by the Ohio industries.

Also, the oxidant alerts declared in the Washington-Baltimore areas continued. The RO-EOCC continued to receive meteorological data and air quality data from this area. The Task Force of EOCC was informed of the situation; however, field personnel for this area were not needed at this time. However, our experts in traffic control did meet to discuss what control measures might be used in an emergency.

Friday afternoon the particulate level in Stuebenville was reported as 484 micrograms per cubic meter for the eight-hour period from 8:00 A.M. to 4:00 P.M. This decreased the 24-hour average to 701, which still

exceeded the warning criteria. Meteorological data indicated that the stagnation would continue. It was decided that all abatement actions would continue. It will reamin unknown as to what level of particulate matter would have been reached if the industries had not been asked to substantially reduce emissions. It was the opinion of the office that reductions in concentration were caused by reductions in emissions as well as improving meteorological conditions.

On Saturday, July 22, 1972, the Regional Office - EOCC was manned by Peter Finkelstein, Abraham Ferdas, Thomas Maslany, David Rehrer, Sheila Dorr, and Diane Bissinger.

Communications continued with the EPA personnel in Wheeling and Stuebenville. The level indicated a downward trend for particulates. The eight-hour reading ending at 12 Midnight on July 21 was 249 micrograms per cubic meter. This further decreased the 24-hour average to 546. It was felt that the situation was under control and the reduction of emissions was effective.

Meteorological forecast obtained for the western Pennsylvania and West Virginia areas on Saturday indicated a continuation of present conditions.

The meteorological forecast for the Washington-Baltimore area indicated the conditions would improve. The A.S.A. was called off, but the Washington area continued to have an oxidant problem since the reading exceeded 0.1 ppm.

The RO-EOCC reported all recent developments to the Regional EPA supervisors.

On Sunday, July 23, 1972, the Regional Office - EOCC continued its operations. The meteorological forecast indicated conditions would improve. As of 8:00 A.M., the 24-hour average for particulates in Stuebenville was down to 186 micrograms per cubic meter.

After consultation with EPA, the Ohio and West Virginia air pollution control agencies decided to terminate the episode. The West Virginia Air Pollution Control Commission contacted the industries to inform that they may resume normal operations as of Sunday, July 23, 1972. The EPA field staff returned to Philadelphia on Sunday night.

The RO-EOCC reported the recent development to the Regional Supervisors. Surveillance of the oxidant problem in Washington continued until Monday.

By going through this episode situation, a number of problems surfaced which could pose serious difficulty to EPA in future episodes should they not be solved. These include deficiencies in EPA regulations and state implementation plans.

The most serious difficulty was presented by omissions in the state plans, particularly West Virginia, which could have prevented them from taking effective action. For example, West Virginia's laws only require them to respond to air pollution levels in West Virginia and not to those levels which are measured across the river in Ohio, even though the Stuebenville area is the same Air Quality Control Region. It should be

pointed out that West Virginia is not alone in having this deficit in its plan. Delaware and Virginia also specify in their plans that all episode actions are to be based upon levels measured within the state.

The second problem lies with the kind of measurements needed for episode action. The West Virginia criteria mentions only COHS for particulate measurement. The assumption is that the COHS will correlate with particulates as measured by a Hi-Vol. However, in this episode, there was no correlation between the two, thus the state did not meet the legal criteria for alert action, even though the particulate measurements made with a Hi-Vol were above the Federal warning criteria.

The problem with Hi-Vol measurements brings up the fact that while hi vol data may be significantly higher than tape samples, there is no approved method for measuring the weight of the filter in less than 24 hours. This is not fast enough for rapidly developing episode situations.

Another problem which confronted the office more directly was that EPA cannot enforce a state's episode implementation plan, should the state fail to do so, without either giving a 30-day notice or taking a 303 action. This removes the possibility of ordering remedial action by industry at an intermediate step of an episode and forces the agency to wait for a much more serious episode to develop.

The final problem was one of communication and coordination in an episode. The various parts of EPA (Reg.III & V, EOCC, OGC) were not

well informed about the actions and responsibilities of the other involved parties. This led to some confusion and delay. To remedy this situation, much closer contact should be maintained throughout the agency during an episode.

ACTIONS TAKEN BY JOHN RASNIC RELATIVE TO THE AIR POLLUTION EPISODE IN THE WEIRTON-STUEBENVILLE AREA BETWEEN JULY 20-23, 1972

Acting on a call from Region V to Region III relative to high levels of suspended particulates being recorded in the Stuebenville area and an impression that these levels were worsening and that the State of West Virginia was not taking appropriate action, I made arrangements to fly to Pittsburgh and drive to Wheeling, West Virginia to meet with the State to discuss the situation and decide on the courses of action that would be necessary if levels continued to rise.

I arrived in Wheeling between 9:30 and 10 p.m. Thursday evening. In about half an hour, a representative from the State of West Virginia, Bob Lawyer, Deputy Director of the Air Pollution Control Commission also arrived. We discussed the situation in Wierton and Stuebenville, and it was the impression that the general situation in the area was not as bad as was being reported by the Stuebenville office. Mr. Lawyer asked why I was there and what actions I would be taking. I indicated I was there as a precautionary measure to see that those actions that are required under the emergency episode plan were carried out, and in the event that these actions were not promptly initiated at the required times, that the Environmental Protection Agency would be ready to take those necessary actions. However, I made it clear to Mr. Lawyer that it was the responsibility of the State of West Virginia to take appropriate action, and that we would only act if they failed to.

There was discussion concerning the actions that West Virginia could take because of the wording of their emergency episode plan in that it requires high readings in the State of West Virginia of which there were no high readings. This was further complicated by the fact that we were not receiving from West Virginia air quality data on suspended particulates from the high volume sampling apparatus. Their readings were all in coefficient of haze (COH). It should be pointed out that the State of West Virginia's emergency plan does not address itself to suspended particulates measured by the high volume except at the substantial endangerment level of 1000 $\mu g/m^3$. West Virginia that evening was putting out suspended particulate high volume filters in order to define those levels in West Virginia which had not previously been defined. Also, there was some discussion relative to the validity of the data being obtained from the Stuebenville office and on the procedures that were being implemented by that Office for processing the filters. The Federal Register calls for a 24 hour equilibration period, however, under the episode conditions this was not possible. The filters were being dessicated for about an hour then removed to an unenvironmentally controlled room for weighing.

At 4:15 am. on Friday, July 21, I received a call from Peter Finkelstein indicating that levels in the Stuebenville area were still on the increase and reported in the range of 720 micrograms per cubic meter for an eight-hour average between 4 p.m. Thursday afternoon and 12 midnight. Immediately I called Bob Lawyer and relayed to him the information we had received and indicated that I felt action should be initiated to curtail industrial operations in the area. Mr. Lawyer then called Carl Beard, Director of the West

Virginia Air Pollution Control Commission, at about 4:30 am and described to him the situation and the request that was being made by EPA. It was agreed that ten industries in the northern panhandle area would be contacted and asked to curtail their operations. They are as follows:

1. Ohio Power Company - Dammer Plant
2. Ohio Power Company - Mitchell Plant
3. Mobay Chemical Company
4. Industrial Chemicals Division, Allied Chemical Corp.
5. Wierton Steel Division, National Steel Corp.
6. Pittsburgh Plate Glass Industries, Inc.
7. Specialty Chemicals Division, Allied Chemical Corp.
8. Wheeling Pittsburgh Steel Corp.
9. Windsor Power Plant at Beech Bottom
10. Koppers Follansbee Plant

At 4:45 am, I talked with Paul DePerien in Stuebenville from the Region V office. He indicated to me that Ohio had already taken some action to curtail industrial operations by obtaining injunctions against 30 major industries. I might note that the actual number of injunctions has fluctuated from conversation to conversation and am still not positive as to the actual number of injunctions that were obtained. I advised Mr. DePerien of the actions that were being taken by the State of West Virginia to curtail industrial operations.

At 5:00 am I talked with Mr. Joe Marino in Pittsburgh relative to the situation of which he was aware and the actions I had asked West Virginia to take. Joe's main concern at that time was if West Virginia failed to take action, then it would be necessary for EPA

to take action or if an industry failed to respond to the State of West Virginia and the State failed to adequately handle that non-response by some recall manuever, then EPA would have to take action. I told him that to my knowledge, the industries that had been contacted at that time, all were responding to West Virginia's request and that we would be in contact should a company be recalcitrant.

I then returned to Mr. Lawyer's room to determine the actions that were being taken and the companies that were being contacted. He indicated to me that he had talked to Houston Wood, Director of Environmental Control, at Weirton Steel, and that the following actions were being taken: all small boilers were completely switched from coal to gas, one large boiler was switched from coal to gas, another large boiler was switched partially from coal to gas. The reason for not switching the boiler to all gas was because they were curtailing their coking operations which in effect did not produce sufficient gas for that boiler. They slowed down their coking cycle to a 24-hour cycle and reduced steam production.

Wheeling Pittsburgh Steel plant, under the direction of Mr. Petit, Plant Manager, indicated that they had as early as yesterday, which would have been the 20th, reduced their coal burning at two boilers and switched to gas and slowed their coking cycle to 24 hours.

Mr. Heitger, Plant Manager for Koppers Company, indicated that they had taken one pulverized boiler out of service and one distillation column out of service.

Mr. E. L. Huntley, of the Beech Bottom Windsor Power Plant, was contacted, and indicated that they would take steps to clean up their stacks by maintaining good combustion controls and refrain from soot blowing. Also, they would investigate the possibility of load switching.

Mr. Cecil Shay, of the Ohio Power Company's Kammer-Mitchell plant, was contacted and said they had cut back on interruptables yesterday, which would have been Thursday, and were investigating load switching possibilities.

Mr. Don Roy of Pittsburgh Plate Glass was contacted and he indicated at the time that they would cut back; however, he was not positive of the actual actions that would be taken.

Mr. Lawyer continued to contact Mobay Chemical Company and Allied Chemical Company for their reduction plan.

At 5:30 am, I called Mr. Wassersug and indicated to him the actions we had taken. Mr. Wassersug advised that we should get written commitments from these companies as soon as possible as to the actual actions that they had taken and those actions that they would take. He also urged that the press be notified in order that the public could be alerted to the situation of pollution build up in the area.

At 6:00 am, I talked with Carl Beard and indicated that we would need these written commitments from the companies and that we felt he should notify the press in order that the public could be alerted. He told me that he would be in contact with the Governor and that probably his Governor would make the statement. However, the Governor may not get out of bed before 9:00 am. I indicated that we felt that some statement should be made by either his office or

the Environmental [illegible] and d he would let me know what action they would take.

Later on, I talked with Carl Beard [illegible]e indicated that his Governor would make a decision [illegible] probably would not be [illegible] until [illegible] felt we had an obligation [illegible] to do so.

I then called Jim Kent and informed him of my conversations with Mr. Beard [illegible] with the press release. He read to me the [illegible] which I suggested some changes, one dealing with the [illegible] quality in Wierton, West Virginia was bad [illegible] me indicated that this was not correct [illegible] ere in Stuebenville. The other dealt [illegible] he State of West Virginia had failed to act. [illegible] y incorrect and that West Virginia was acting [illegible] question at this point as to what actions [illegible] taken had the Environmental Protection Agency [illegible] ce the State.

Mr. Lawyer [illegible] press conference at 9:00 am, Friday morning, to indicate [illegible] State was taking. The State of West Virginia [illegible] g industry for written comments and established [illegible] ions. Mr. Beard arrived in Wheeling, West Virginia [illegible] approximately 11:00 am, Friday morning, after which the [illegible] d information that levels had deteriorated to [illegible] meter in an eight-hour [illegible] extending from [illegible] to 8:00 am, Friday morning. At this time, Carl Beard [illegible] the validity of the data in

Stuebenville. Conditions as observed in the atmosphere did not appear that drastic.

As a result of the 906 reading which I had received about 11:00 am and the sense of urgency that was related to me from the Regional Office in Philadelphia, I felt a careful examination of the air quality data as it related to a 24-hour average and levels that are prescribed in the Federal Register was needed. The running 24-hour average at that time was 719 micrograms per cubic meter. This was approximately half way between the warning level and the emergency level of 875 prescribed in the Federal Register. Should a level for the next eight hours approach 1,000 micrograms per cubic meter, then the emergency level criteria would be satisfied and actions would have to be taken which, in effect, would be to shut down the industry.

In order to assess and attempt to predict what levels we would expect, I felt it was necessary to visit the area, observe the conditions, and arrive at some rational conclusion. It was the opinion that if meteorological conditions existed in Weirton-Stuebenville as existed in the Wheeling area in that there appeared to be vertical dispersion, a detectable breeze, formations of cumulus clouds, and improved visibility, we would not expect the 1,000 micrograms to be recorded during the next eight hours.

At that time, we decided to tour the West Virginia industry and visit the Stuebenville office. It was my understanding also that Mr. Marino and Mr. Turlinski were being advised of the deteriorating situation and they would be coming to Wheeling to make the proper contacts with the U. S. Attorney's Office, Mr. Camiletti.

We then left Wheeling and drove north to Wierton, observing industry as we proceeded. The most obvious and flagrant pollution source was the Beech Bottom Windsor Power Plant. (I will restrict my comments to industry on the West Virginia side of the river. There were obvious pollution sources still emitting in Ohio.) The Wheeling Pittsburgh plant appeared to have cut back on operations and was not as bad as the coke plant usually is. This same statement would apply to Koppers and Wierton Steel. The general appearance and observation of the sources and of the ambient air indicated a definite improvement, and it was the feeling among myself, Mr. Beard, and Mr. Lawyer that the situation must have drastically improved and that the ambient air at that time would not be approaching emergency levels.

We then drove to the Stuebenville office where I talked with Ron Malatesta of Region V concerning the situation. He was quite concerned about the actions being taken by the State of West Virginia and felt that they were totally inadequate because there was no hammer hanging over industries' head as was the case in Ohio, where they had obtained injunctions. I explained to Mr. Malatesta that I felt industry was responding to West Virginia's request and that regardless of the mechanism used to effect compliance, our main concern was that compliance was accomplished.

West Virginia was taking the same actions that Ohio had taken and maybe even more. It is my understanding that Ohio had only asked for cessation of open burning and incineration.

Mr. Malatesta did not have a copy that he could furnish me of the injunctions. Therefore, I am not sure as to the exact actions that were required of industry in Ohio. The actions that West Virginia had taken followed the same line that would be required under the warning stage of the alert procedures. West Virginia had taken this action prior to Ohio declaring a warning at 11:00 a.m. Therefore, it was felt by West Virginia that they had taken action starting at 4:30 a.m. as required by the warning level, whereas Ohio may not have taken action until 11:00 am. when they declared a warning.

Mr. Malatesta also complained that they were unable to get data from the State of West Virginia. I told him that if he was unable to get data, it was probably because West Virginia had no data, especially data on suspended particulates from a high volume sampler. I would discuss the data situation with the State of West Virginia in order to resolve the problem. I also indicated to Mr. Malatesta the need for West Virginia to receive promptly the data from Stuebenville since their actions were completely dictated by the readings being recorded in Stuebenville.

Mr. Beard from West Virginia met with the State Health Commissioner and Mr. Wonderle from the State of Ohio concerning the situation at that time. There was an agreement of cooperation and the need to take reasonable actions by each State.

I observed the high volume sampler located on the roof of the building with a representative from Ohio and West Virginia. The high

volume sampler was a typical design located in an aluminum V roof shelter with a recording flow chart and a buck and boost transformer. The average flow of a clean filter was between 30 to 35 CFM.

We left Stuebenville in early afternoon and drove back to Wheeling in order that I could meet with the U. S. Attorney and Daryl Tyler's group that was coming in from North Carolina. On the way back a decision was made between Mr. Beard, Mr. Lawyer, and myself that if possible, the Beech Bottom Windsor Power Plant should be shut down.

This was based on several factors as follows:

1. It was the most flagrant violation in the valley.

2. It received the most complaints from Ohio. In fact they had shown us several pictures of the plant that they had taken.

3. There was some indication that the power plant was being shut down for clean-up for one day.

4. The power plant is scheduled to go out of operation in 1973, which would indicate a state of repair may not be very good.

When we returned to Wheeling, the power company was contacted, and they indicated they had cut their power from 240 megawatts to 100 megawatts, and that if they shut back completeky, it might cause a black out. However, Mr. Beard felt that this was only talk without substance. He then talked with someone higher up in the company, and they agreed to shut down the power plant until Monday morning.

I visited the U. S. Attorney's office at about 6:00 pm and discussed with him the situation as I felt it existed at the present time. Also, I was in contact with the Regional Office in Philadelphia and was made aware of the reading in Stuebenville for the past eight

hours of 484 micrograms per cubic meter. This seemed to bear out the fact that conditions were definitely improving in the area. Our concern at that time was the next reading of which there was a possibility that the levels would again elevate during the evening hours.

Mr. Darryl Tyler arrived about 9:00 pm with experts on health effects and engineers that were familiar with plant processes in order that injunctions could be drafted and backed up with health statistics should that be necessary.

We felt at that time that the reading from Stuebenville for the next eight hours would be very important as to the actions that would be necessary. The high volume sample would be removed at 1:00 am, Saturday morning, of which we should get an answer between 2 and 2:30 am. If this reading should have elevated to 700 to 800 micrograms per cubic meter, and there was no improvement in meteorology forecasts, action would probably have to be taken.

We left the U. S. Attorney's office at about midnight and returned to the motel to await that reading. At approximately 2:15, I received a call from Carl Beard who was maintaining vigilance in the Stuebenville office, and he indicated that to his knowledge, the sample had not been removed and placed in the desicator for conditioning prior to weighing. He was very disturbed that what appeared to be the most critical sample because of the actions of which it could dictate was not being promptly processed. I told him I would contact the Stuebenville office and Darryl Tyler to see what the story was. I found out at that time that apparently every one had gone to bed.

I tried to call the Stuebenville office and Region V people but was unsuccessful due to a tie up in the telephones.

I then called Darryl Tyler and told him what the situation was. He said he did not have any information and was waiting for the 12 midnight reading. He said he would try to get some answers and call me back. He called me back between 4 and 4:30 am and indicated that he had just talked with the Region V people, and apparently the sample had been removed but was not processed promptly after removal but was held until all other samples in the Stuebenville area had been collected. He said the conditioning of the samples was not in the process of being effected and that we should have a reading within an hour. Darryl Tyler indicated he would still be in contact.

I was contacted again a little after 5:00 am, and apparently Stuebenville had misplaced the tare weight of the filter and they were arriving at some tare weight in order to reach a decision on what the levels were on that sample. However, there was indications the sample would be in the 200's.

Around 6:00 am, the tare weight of the sample apparently was located, and a final reading of 249 micrograms was recorded. I talked with Carl Beard who shortly thereafter arrived back at the motel, about the situation, and needless to say, he was very upset.

It was very apparent then that our observations as to the improvement of the conditions were accurate. However, due to the continuing adverse meteorological conditions, we would stay in the waiting status

until such time as those conditions improved.

We continued to maintain surveillance of the area and again visited the Stuebenville office on Saturday morning to observe the situation. Darryl Tyler was in a meeting at 10:00 am with Stuebenville officials concerning some medical evidence that Ohio was desiring because of a turn down by a judge of some injunctions. Darryl Tyler was unable to provide support to the Ohio agency because of the remoteness of those industrial operations and the improvement of the conditions.

We then returned to Wheeling to go over the situation and obtain data that had been collected from the West Virginia agency on conditions in the Wierton-Stuebenville area, reviewing these results from a standpoint that winds were now carrying any pollutants toward West Virginia rather than from West Virginia to Ohio. We continued in the current status because forecasts of meteorological conditions did not show improvement.

On Sunday morning, I received information from the Regional Office that levels were up again, down again, depending on the time of day the samples were collected which could be expected for the area. We received at approximately 11:00 am an indication from the Weather Bureau that a frontal system would be moving down over the Western panhandle at 4:00 pm, lifting the air stagnation advisory.

At that time, we contacted the Stuebenville office and discussed the situation, and an agreement was reached that the conditions had

improved and that there was no future danger, and the episode should be called off.

Mr. Beard then proceeded to contact those industries involved to advise them that conditions were basically back to normal and that they could resume normal operations. Also, he advised the news media. We left at approximately 2:00 p.m, Sunday afternoon. I thanked Mr. Beard and his staff for their cooperation.

APPENDIX A

METEOROLOGICAL DATA

Appendix A gives in detail the air stagnation conditions in Region III during the episode period.

The actions taken are summarized by individual Environmental Meteorological support units in our Region.

The Air Stagnation Advisories for each day during the episode are shown on the maps. The Air Stagnation areas are enclosed by the heavy lines. By July 24, 1972, there were no stagnation conditions in our Region.

Summary of Air Stagnation Advisories Conditions For the Period of July 17 to July 24

Pittsburgh, Pa. EMSU*

Tuesday, July 18, 11 a.m. - All state and local agencies notified of stagnating conditions and possible advisory.

Wednesday, July 19, 11 a.m. - Gave statement on stagnation problem.

Thursday, July 20, 9 a.m. - Issued Air Stagnation Advisory for Western Pennsylvania, Northern Panhandle of West Virginia, and two counties in Ohio.

Sunday, July 23, 3 p.m. - Air Stagnation Advisory terminated.

Charleston, W. Va. EMSU

Tuesday, July 18, 12 noon - Issued Air Stagnation Advisory for Eastern West Virginia.

Wednesday, July 19, 5 p.m. - Issued Air Stagnation Advisory for all West Virginia.

Saturday, July 22, 11 a.m. - Terminated ASA for Eastern Panhandle of West Virginia.

Sunday, July 23, 11 a.m. - Terminated ASA for Northern West Virginia.

Monday, July 24, 11 a.m. - Terminated ASA for the rest of West Virginia.

Washington, D. C. EMSU

Monday, July 17, 11 a.m. - Issued ASA for all Maryland, Virginia, and D. C.

Friday, July 21, 3 p.m. - Terminated for Maryland, D. C. and Northern and Eastern Virginia.

Saturday, July 22, 11 a.m. - Terminated for all Virginia except westernmost counties.

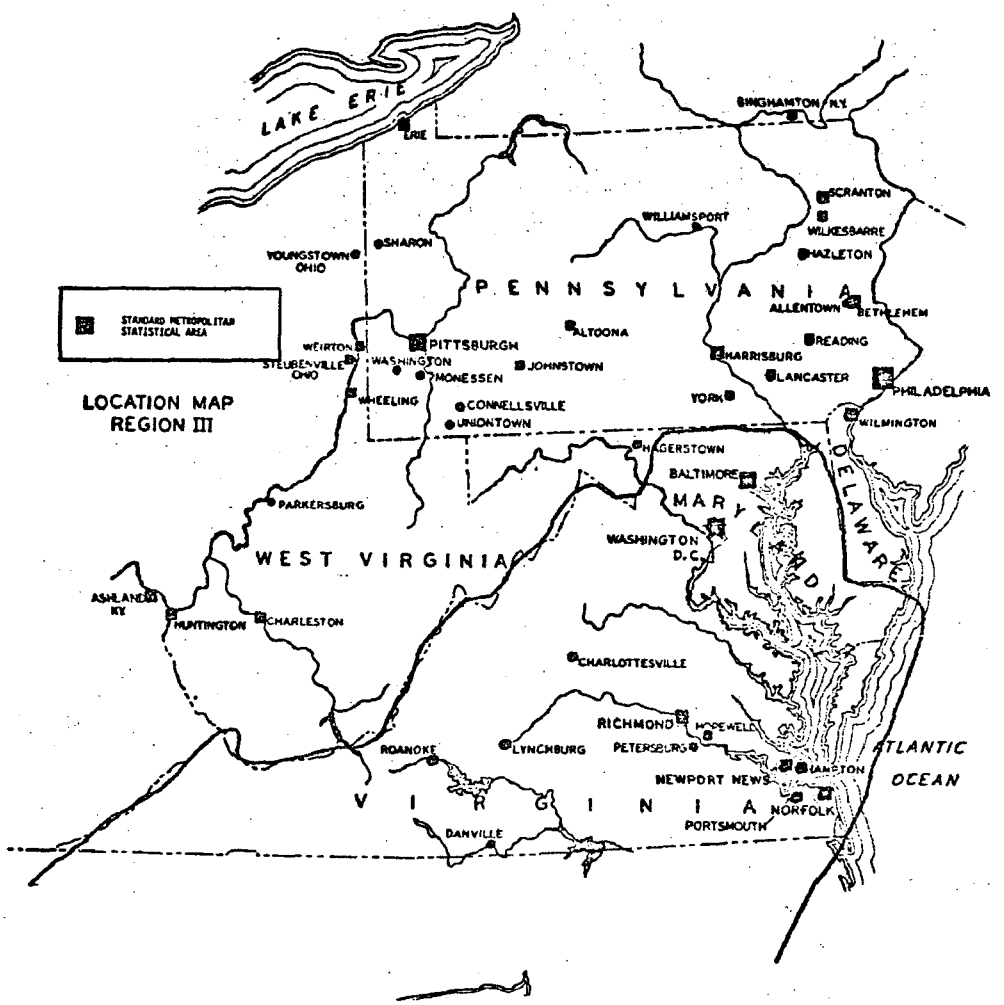
Monday, July 24, 11 a.m. - Terminated for remaining western counties of Virginia.

Philadelphia, Pa. EMSU - No ASA conditions during the given time period.

* EMSU - Environmental Meteorological Support Unit.

ASA Assignment Office	Areas
Charleston, W. Va. EMSU	West Virginia except Hancock, Broome, Ohio, and Marshall Counties
Philadelphia, Pa. EMSU	Eastern Pennsylvania; Southern New Jersey; Delaware
Pittsburgh, Pa. EMSU	Western Pennsylvania, Belmont and Jefferson Counties, Ohio; Hancock, Broome, Ohio; and Marshall Counties, West Virginia
Washington, D. C. EMSU	Maryland; Virginia; District of Columbia

July 17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WILLIAMSPORT
WILKESBARRE
HAZLETON
YOUNGSTOWN OHIO
SHARON
PENNSYLVANIA
ALLENTOWN
BETHLEHEM
STANDARD METROPOLITAN STATISTICAL AREA
ALTOONA
READING
WEIRTON
PITTSBURGH
HARRISBURG
STEUBENVILLE OHIO
WASHINGTON
JOHNSTOWN
LANCASTER
PHILADELPHIA
LOCATION MAP
REGION III
MONESSEN
WHEELING
CONNELLSVILLE
YORK
UNIONTOWN
WILMINGTON
HAGERSTOWN
BALTIMORE
DELAWARE
PARKERSBURG
MARYLAND
WASHINGTON D.C.
WEST VIRGINIA
ASHLAND KY
HUNTINGTON
CHARLESTON
CHARLOTTESVILLE
RICHMOND
HOPEWELL
ROANOKE
LYNCHBURG
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HAMPTON
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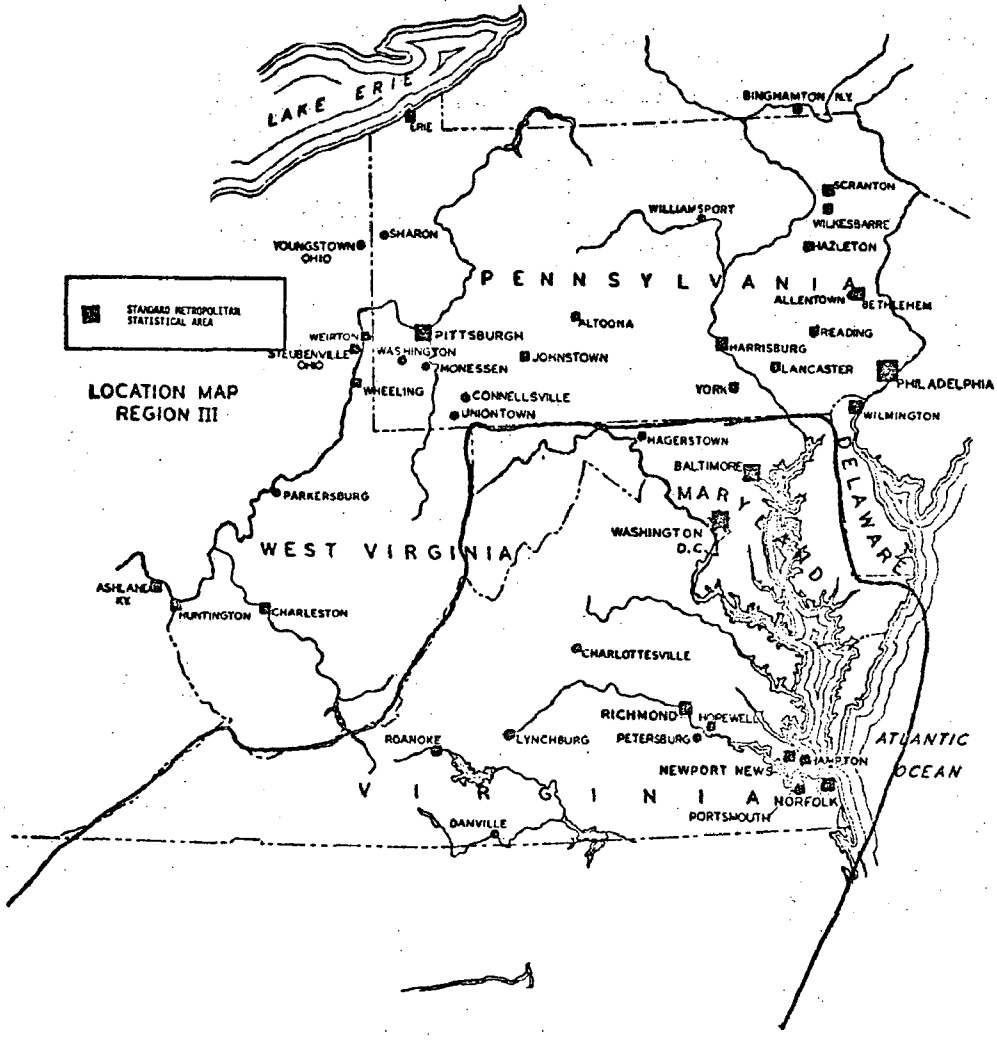
PORTSMOUTH
DANVILLE

July 18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CHARLESTON
CHARLOTTESVILLE
RICHMOND
HOPEWELL
ROANOKE
LYNCHBURG
PETERSBURG
ATLANTIC OCEAN
NEWPORT NEWS
HAMPTON
VIRGINIA
NORFOLK
PORTSMOUTH
DANVILLE
STANDARD METROPOLITAN STATISTICAL AREA
LOCATION MAP
REGION III

July 19


LAKE ERIE
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BINGHAMTON N.Y.
SCRANTON
WILLIAMSPORT
WILKESBARRE
HAZLETON
YOUNGSTOWN OHIO
SHARON
PENNSYLVANIA
ALLENTOWN
BETHLEHEM
READING
ALTOONA
PITTSBURGH
WEIRTON
STEUBENVILLE OHIO
WASHINGTON
MONESSEN
JOHNSTOWN
HARRISBURG
LANCASTER
PHILADELPHIA
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CONNELLSVILLE
UNIONTOWN
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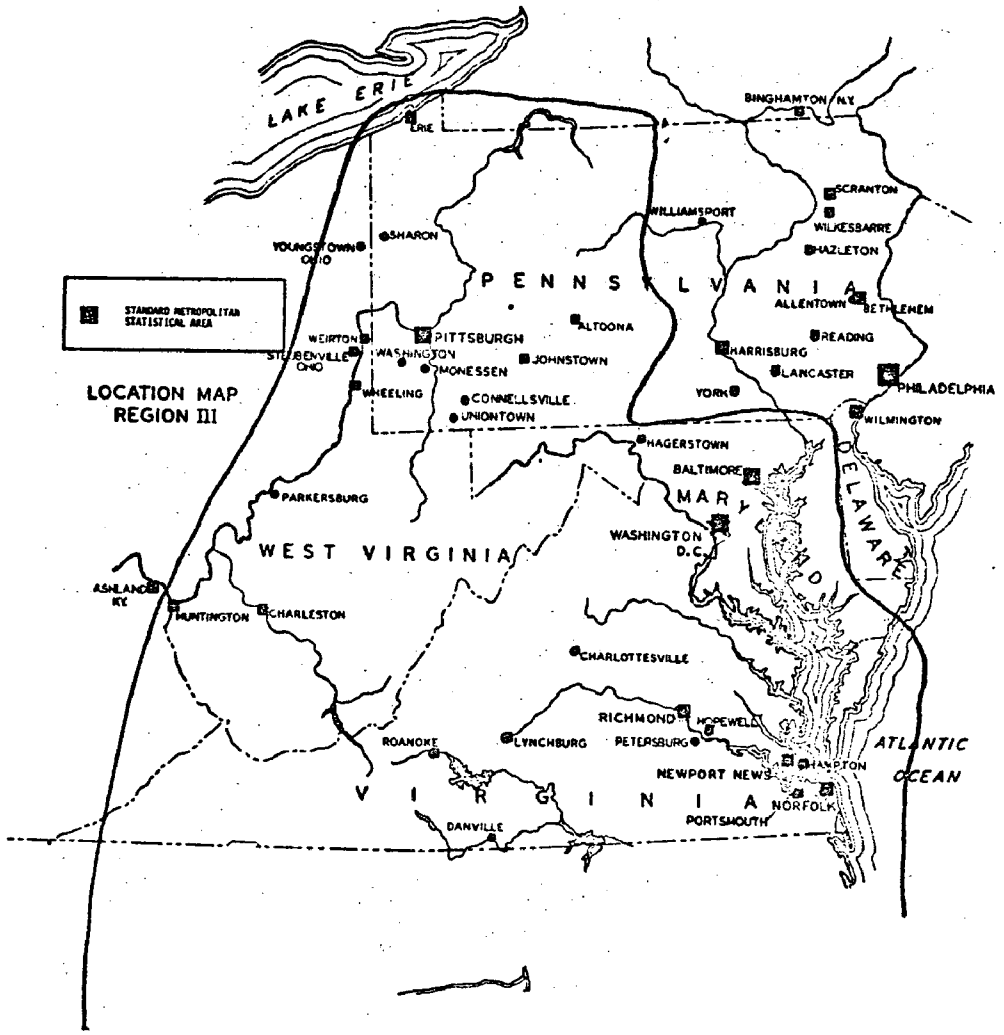
DELAWARE
PARKERSBURG
WASHINGTON D.C.
WEST VIRGINIA
ASHLAND KY.
HUNTINGTON
CHARLESTON
CHARLOTTESVILLE
RICHMOND
HOPEWELL
ROANOKE
LYNCHBURG
PETERSBURG
ATLANTIC OCEAN
NEWPORT NEWS
HAMPTON
NORFOLK
VIRGINIA
PORTSMOUTH
DANVILLE
STANDARD METROPOLITAN STATISTICAL AREA
LOCATION MAP
REGION III

July 20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LOCATION MAP
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ROANOKE
LYNCHBURG
PETERSBURG
ATLANTIC OCEAN
NEWPORT NEWS
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VIRGINIA
NORFOLK
DANVILLE
PORTSMOUTH

July 21


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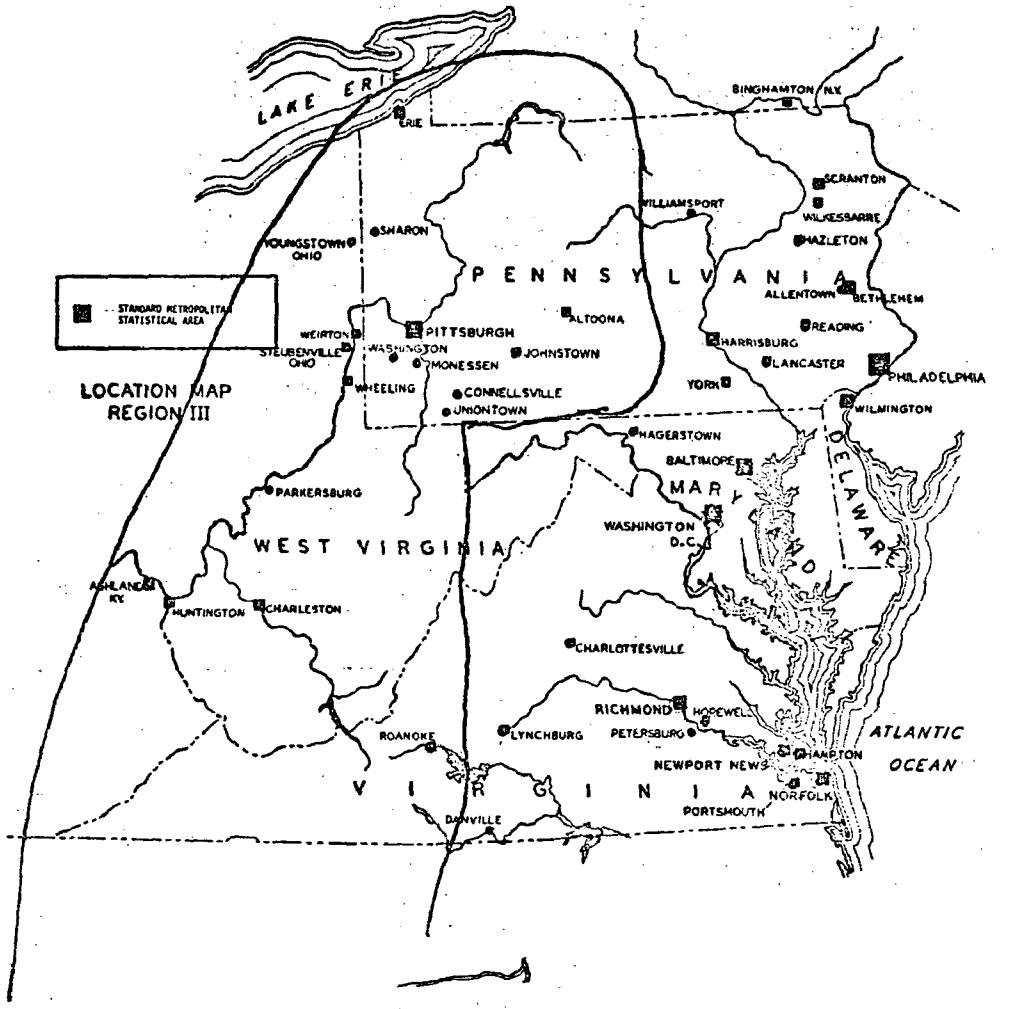
PORTSMOUTH
DANVILLE

July 22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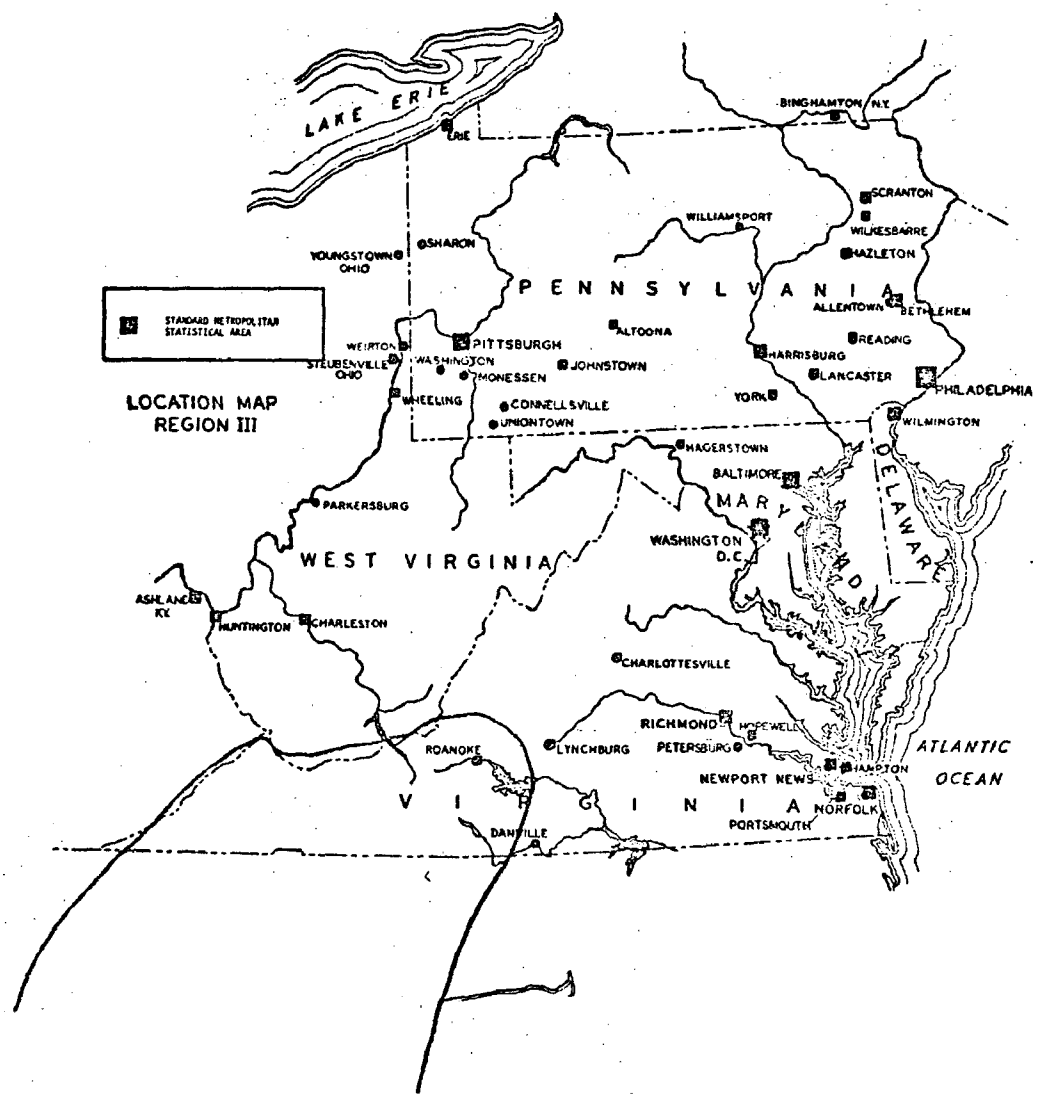
PORTSMOUTH
DANVILLE

July 23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NEWPORT NEWS
HAMPTON
VIRGINIA
NORFOLK
PORTSMOUTH
DANVILLE

APPENDIX B

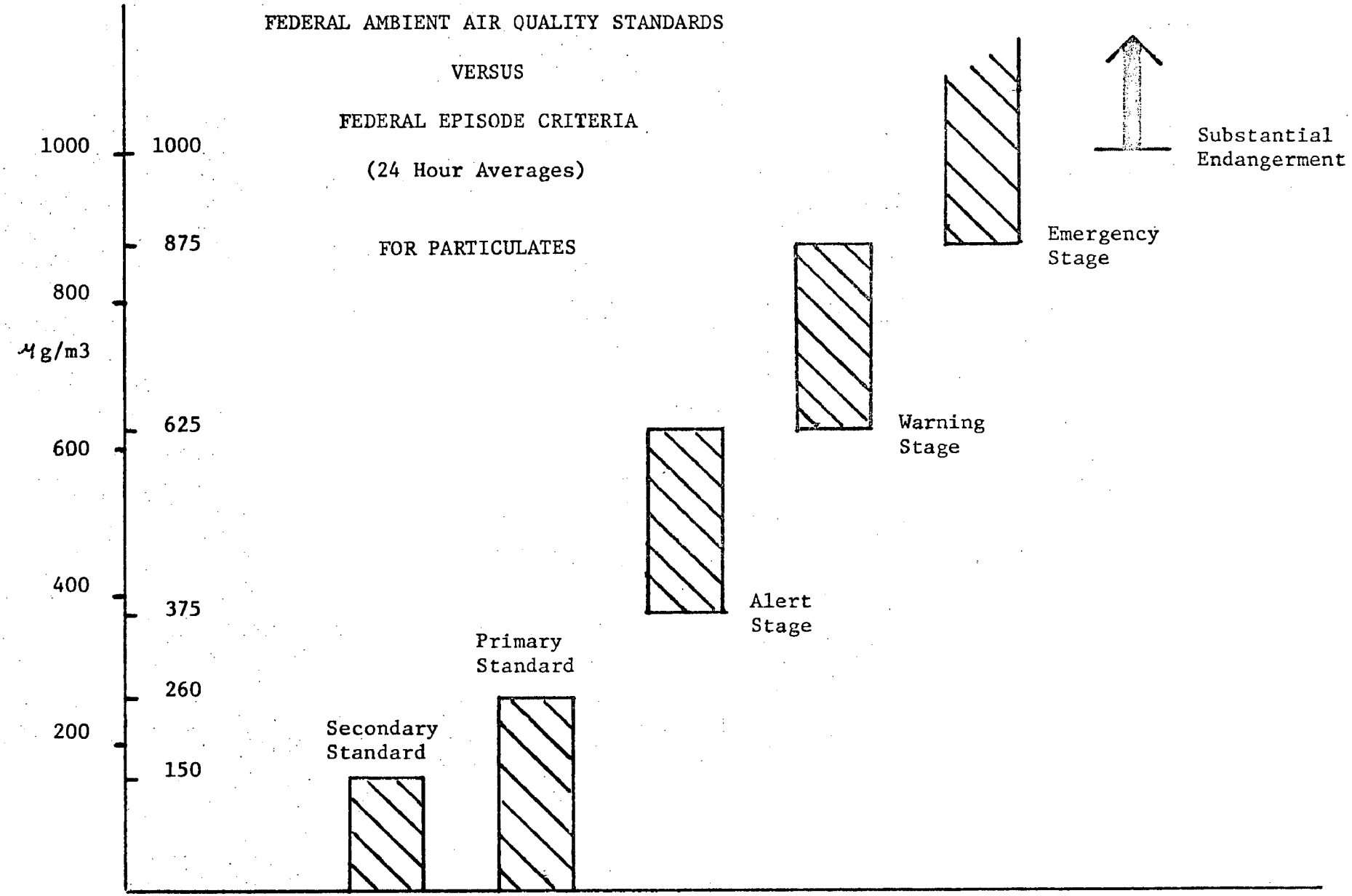
EPISODE CRITERIA

The first table shows the suggested levels for episode criteria which appeared in the Federal Register on August 14, 1971 and amended on October 23, 1971 (40 CFR 51.16 and Appendix L).

The remaining tables show the episode criteria for individual states and jurisdictions.

FEDERAL EPISODE CRITERIA

	SO_2 $\mu g/m^3$ / ppm	PART. $\mu g/m^3$ / COH	SO_2 X PART. $(\mu g/m^3)^2$ / ppm COH	CO $\mu g/m^3$ / ppm	OX $\mu g/m^3$ / ppm	NO_2 $\mu g/m^3$ / ppm
Forecast	NO AIR QUALITY CRITERIA - ONLY AIR STAGNATION ADVISORY FROM N.W.S.					
Alert	800 / 0.3 (24 Hours)	375 / 3.0 (24 Hours)	65×10^3 / 0.2 (24 Hours)	17 / 15 (8 Hours)	200 / 0.1 (1 Hour)	1130 / 0.6 (1 Hour) 282 / 0.15 (24 Hour
Warning	1,600 / 0.6	625 / 5.0	261×10^3 / 0.8	34 / 30	800 / 0.4	2260 / 1.2 565 / 0.3
Emergency	2,100 / 0.8	875 / 7.0	393×10^3 / 1.2	46 / 40	1,200 / 0.6	3000 / 1.6 750 / 0.4
Termination	AIR QUALITY CRITERIA AND METEOROLOGICAL CONDITIONS ARE NO LONGER MET					
Substantial Endanger	2,600 / 1.0	1,000 / 8.0	490×10^3 / 1.5	57.5 / 50 (8Hr) 86.3 / 75 (4Hr) 144 / 125 (1Hr)	800 / 0.4 (4Hr) 1200 / 0.6 (2Hr) 1400 / 0.7 (1Hr)	3750 / 2.0 938 / 0.5


FEDERAL AMBIENT AIR QUALITY STANDARDS
VERSUS
FEDERAL EPISODE CRITERIA
(24 Hour Averages)
FOR PARTICULATES
1000
1000
875
800
μg/m3
625
600
400
375
260
200
150
Secondary Standard
Primary Standard
Alert Stage
Warning Stage
Emergency Stage
Substantial Endangerment

POLLUTANT					ERGENCY	
SO_2		0.2 ppm				
24 hour avg.						
PART.						
24 hour						
SO_4 & NO_x		0.2				
24 hr.						
	8 hr. av.					
	4 hr. av.					
	1 hr. av.					
	30 min. av.					
	15 min. av.					
	5 min. av.	0.1 ppm			n	
	1 hr. av.	0.6 ppm			m	
NO_2	24 hr. av.	0.13 ppm			pm	

ALLEGHENY COUNTY

EPISODE CRITERIA

POLLUTANT		ALERT	WARNING	EMERGENCY	
SO_2		0.30 ppm	0.50 ppm	0.80 ppm	
24 hour avg.		0.4 ppm,12hr.	0.60 ppm,12hr.	-	
PART.		3.0 COH	6.0 COH	7.0 COH	
24 hour avg.		4.0COH,12hr	7.0 COH, 12 hr	-	
SO_2 X PART.		0.2	1.0	1.4	
24 hr. Product		0.3, 12 hr	1.5, 12 hr	.	
CO	8 hr.av.	15 ppm	30 ppm	40 ppm	
	4 hr. av.				
	1 hr. av.				
OX	4 hr. av.		0.25 ppm	0.35 ppm	
	2 hr. av.				
	1 hr. av.				
NO_2	1 hr. av.				
	24 hr. av.		0.30 ppm	0.40 ppm	

WEST VIRGINIA

EPISODE CRITERIA

POLLUTANT		ALERT	WARNING	EMERGENCY	
SO_2 24 hour avg.		0.3 ppm	0.6 ppm	0.8 ppm	
PART. 24 hour avg.		3 COH	5 COH	7.0 COH	
SO_2 X PART. 24 hr. Product		0.2	0.8	1.2	
CO	8 hr.av.	15 ppm	30 ppm	40 ppm	
	4 hr. av.				
	1 hr. av.				
OX	4 hr. av.				
	2 hr. av.				
	1 hr. av.	0.1 ppm	0.4 ppm	0.6 ppm	
NO_2	1 hr. av.				
	24 hr. av.	0.15 ppm	0.30 ppm	0.40 ppm	

PENNSYLVANIA & PHILADELPHIA

EPISODE CRITERIA

POLLUTANT		ALERT	WARNING	EMERGENCY	
SO_2 24 hour avg.		0.3 ppm 6 hr.	0.5 ppm 6 hr.	0.6 ppm 24 hr.	
PART. 24 hour avg.		4.0 COH 6 hr.	6.0 COH 6 hr.	7.0 COH 24 hr.	
SO_2 X PART. 24 hr. Product		0.3	0.9	1.4	
CO	8 hr.av.		30 ppm	40 ppm	
	4 hr. av.				
	1 hr. av.				
OX	4 hr. av.		0.25 ppm	0.35 ppm	
	2 hr. av.				
	1 hr. av.				
NO_2	1 hr. av.				
	24 hr. av.	0.2 ppm	0.3 ppm	0.4 ppm	

DELAWARE

EPISODE CRITERIA

POLLUTANT		ALERT	WARNING	EMERGENCY	
SO_2 24 hour avg.		0.30 ppm 6 hr.	0.50 ppm 6 hr.	0.60 24 hr.	
PART. 24 hour avg.		4.0 COH 6 hr.	6.0 COH 6 hr.	7.0 COH 24 hr.	
SO_2 X PART. 24 hr. Product		0.50	0.90	1.40	
CO	8 hr.av.			40 ppm	
	4 hr. av.				
	1 hr. av.				
OX	4 hr. av.		0.25 ppm	0.35	
	2 hr. av.				
	1 hr. av.				
NO_2	1 hr. av.				
	24 hr. av.	0.20 ppm	0.30 ppm	0.40	

APPENDIX C

AIR QUALITY DATA

Appendix C is a summary of the air qualit data of the areas under stagnation conditions during the episode perio . The data is part of the total data received directly by the Region 1 EOCC from the states and local agencies in our Region during the ep sode.

The Baltimore and Metropolitan Washington, D.C. data includes only oxidant readings. Oxidants were the only pollutant which reached alert levels in these two areas.

The data for the West Virginia panhandle area includes also the data for Stuebenville, Ohio due to being the highest readings in the area. Charleston, W.Va. data is included for completeness.

Data from Allegheny County for July 20th and 21st for the two highest stations are also included.

AIR QUALITY DATA
OXIDANTS (ppm)

BALTIMORE

7/14/72 - Friday

Oxidants	Hours 8	9	10	11	12	1	2	3	4	5	6
#1 Baltimore-Downtown											
#2 Baltimore-Calvert			.01	.06	.09	.11	.13	.19	.16	-	-

7/15/72 - Saturday

Oxidants	8	9	10	11	12	1	2	3	4	5	6	7	8
#1 Baltimore-Downtown													
#2 Baltimore-Calvert			.03	.05	.07	.10	.10	.09	.08	.07	.07	.06	.05

7/16/72 - Sunday

No Data

AIR QUALITY DATA
OXIDANTS (ppm)

BALTIMORE

7/17/72 - Monday

Oxidants	Hours 8	9	10	11	12	1	2	3	4	5	6
#1 Baltimore-Downtown											
#2 Baltimore-Calvert								.12			

7/18/72 - Tuesday

Oxidants	8	9	10	11	12	1	2	3	4	5	6	7	8
#1 Baltimore-Downtown													
#2 Baltimore-Calvert			.06	.07	.08	.06	-	.12	-	.08	.09		

AIR QUALITY DATA
OXIDANTS (ppm)

BALTIMORE

7/19/72 - Wednesday

Oxidants	Hours 8	9	10	11	12.	1	2	3	4	5	6
#1 Baltimore-Downtown											
#2 Baltimore-Calvert	0	.08	.10	.10	.13	.13	.15	.17	.20	.19	

7/20/72 - Thursday

Oxidants	8	9	10	11	12	1	2	3	4	5	6
#1 Baltimore-Downtown											
#2 Baltimore-Calvert		0	.02	.07	.10	.11	.10	.11	.07		

AIR QUALITY DATA
OXIDANTS (ppm)

BALTIMORE

7/21/72 - Friday

Oxidants	Hours 8	9	10	11	12	1	2	3	4	5	6
#1 Baltimore-Downtown											
#2 Baltimore-Calvert		0	.04	.08	.09	.10	.10	.11			

7/22/72 - Saturday

Oxidants	8	9	10	11	12	1	2	3	4	5	6
#1 Baltimore-Downtown				.04	.05	.06					
#2 Baltimore-Calvert			.04	.05	.06	.07					

AIR QUALITY DATA
OXIDANTS (ppm)

METROPOLITAN WASHINGTON, D. C.

7/14/72 - Friday

Oxidants	Hours 8	9	10	11	12	1.	2	3	4	5	6
#3 Suitland											
#4 Hyattesville											
#5 Silver Spring											
#6 Bethesda			.02	.06	.10	.13	.14	.12	.11	-	
CAMP											
Alexandria											
Arlington											
Fairfax											

7/15/72 - Saturday

Oxidants	8	9	10	11	12	1	2	3	4	5	6	7	8
#3 Suitland													
#4 Hyattesville													
#5 Silver Spring													
#6 Bethesda			.03	.05	.07	.08	.09	.08	.08	.07	.06	.06	.05
CAMP													
Alexandria													
Arlington													
Fairfax													

7/16/72 - Sunday

No Data

AIR QUALITY DATA
OXIDANTS (ppm)

METROPOLITAN WASHINGTON, D. C.

7/17/72 - Monday

Oxidants	Hours 8	9	10	11	12	1	2	3	4	5	6
#3 Suitland											
#4 Hyattesville											
#5 Silver Spring											
#6 Bethesda											
CAMP							.10	.10	.089	.066	.06
Alexandria											
Arlington											
Fairfax											

7/18/72 - Tuesday

Oxidants	8	9	10	11	12	1	2	3	4	5	6	7	8
#3 Suitland													
#4 Hyattesville			.03	.05	.06	.09	-	.06	-	.05	.05		
#5 Silver Spring													
#6 Bethesda								.08					
CAMP	.009	.014	.032	.057	.063	.079	.082	.11	.12	.06	.08		
Alexandria													
Arlington													
Fairfax													

AIR QUALITY DATA
OXIDANTS (ppm)

METROPOLITAN WASHINGTON, D. C.

7/19/72 - Wednesday

Oxidants	Hours 8	9	10	11	12	1	2	3	4	5	6
#3 Suitland											
#4 Hyattesville	.01	-	.03	.07	.12	.17	.16	.15	.07	.02	
#5 Silver Spring											
#6 Bethesda											
CAMP	.012	.014	.024	.048	.069	.096	.089	.11	.082		
Alexandria											
Arlington											
Fairfax											

7/20/72 - Thursday

Oxidants	8	9	10	11	12	1	2	3	4	5	6
#3 Suitland											
#4 Hyattesville		0	.01	.06	.07	.08	.10	.13	.14	-	
#5 Silver Spring											
#6 Bethesda											
CAMP	.014	.019	.04	.06	.08	.10	.10	.11	.10		
Alexandria											
Arlington											
Fairfax											

AIR QUALITY DATA
OXIDANTS (ppm)

METROPOLITAN WASHINGTON, D. C.

7/21/72 - Friday

Oxidants	Hours 8	9	10	11	12	1	2	3	4	5	6
#3 Suitland											
#4 Hyattesville		.02	.06	.11	.13	.18	.18	.19			
#5 Silver Spring		.02	.05	.07	.08	.10	.10	.12			
#6 Bethesda		.01	.04	.06	.08	.09	.09	.08			
CAMP	.014	.022	.037	.066	.082	.096	.096	.093			
Alexandria											
Arlington											
Fairfax											

7/22/72 - Saturday

Oxidants	8	9	10	11	12	1	2	3	4	5	6
#3 Suitland			.08	.08	.09	.10					
#4 Hyattesville						.11					
#5 Silver Spring			.05	.05	.05	.06					
#6 Bethesda			.06	.07	.07	.08					
CAMP			.05	.05	.05	.07	.066				
Alexandria			.027	.033	.03	.039					
Arlington			.081	.058	.068						
Fairfax			.054	.050	.051						

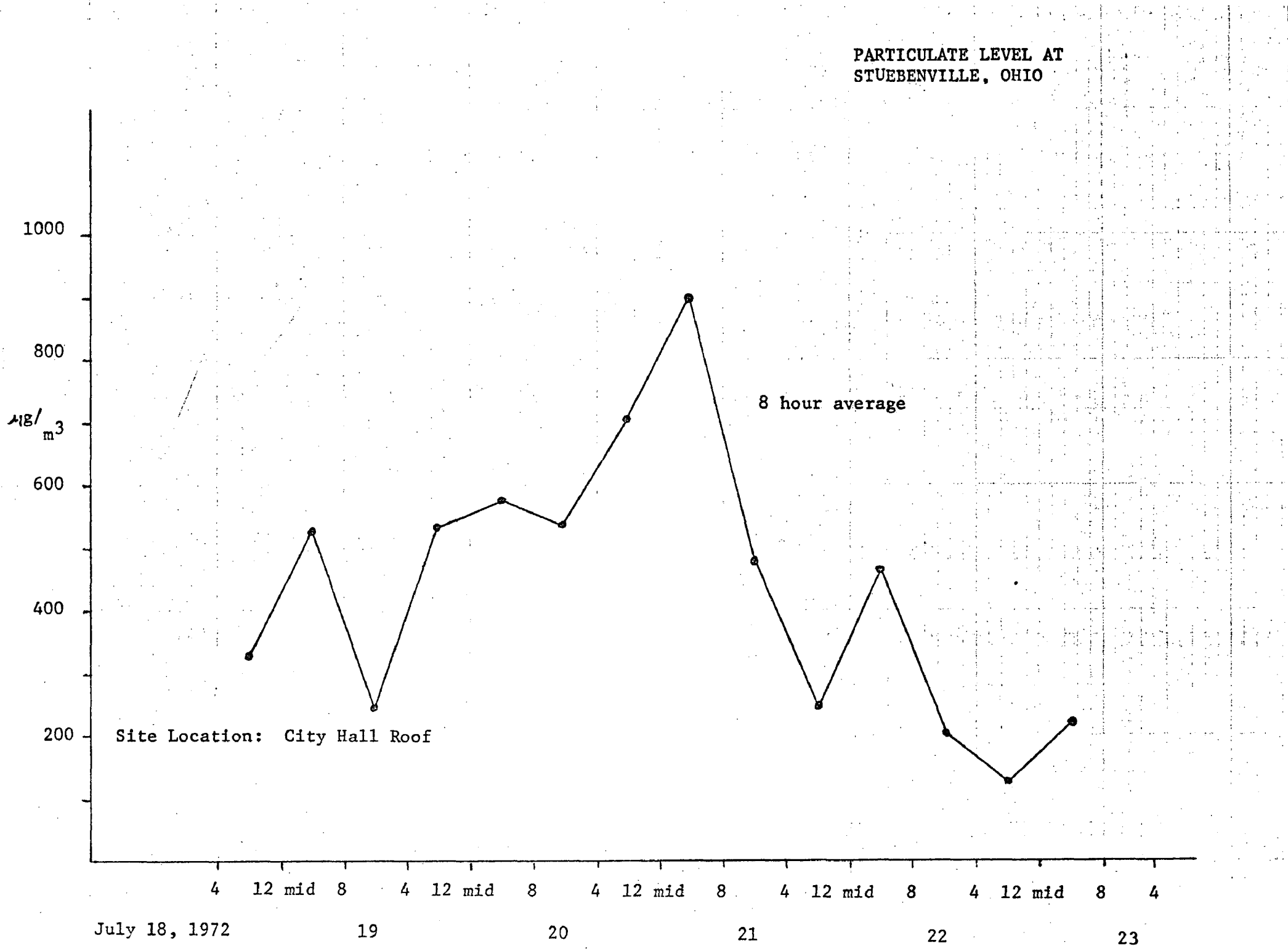
PARTICULATE LEVELS

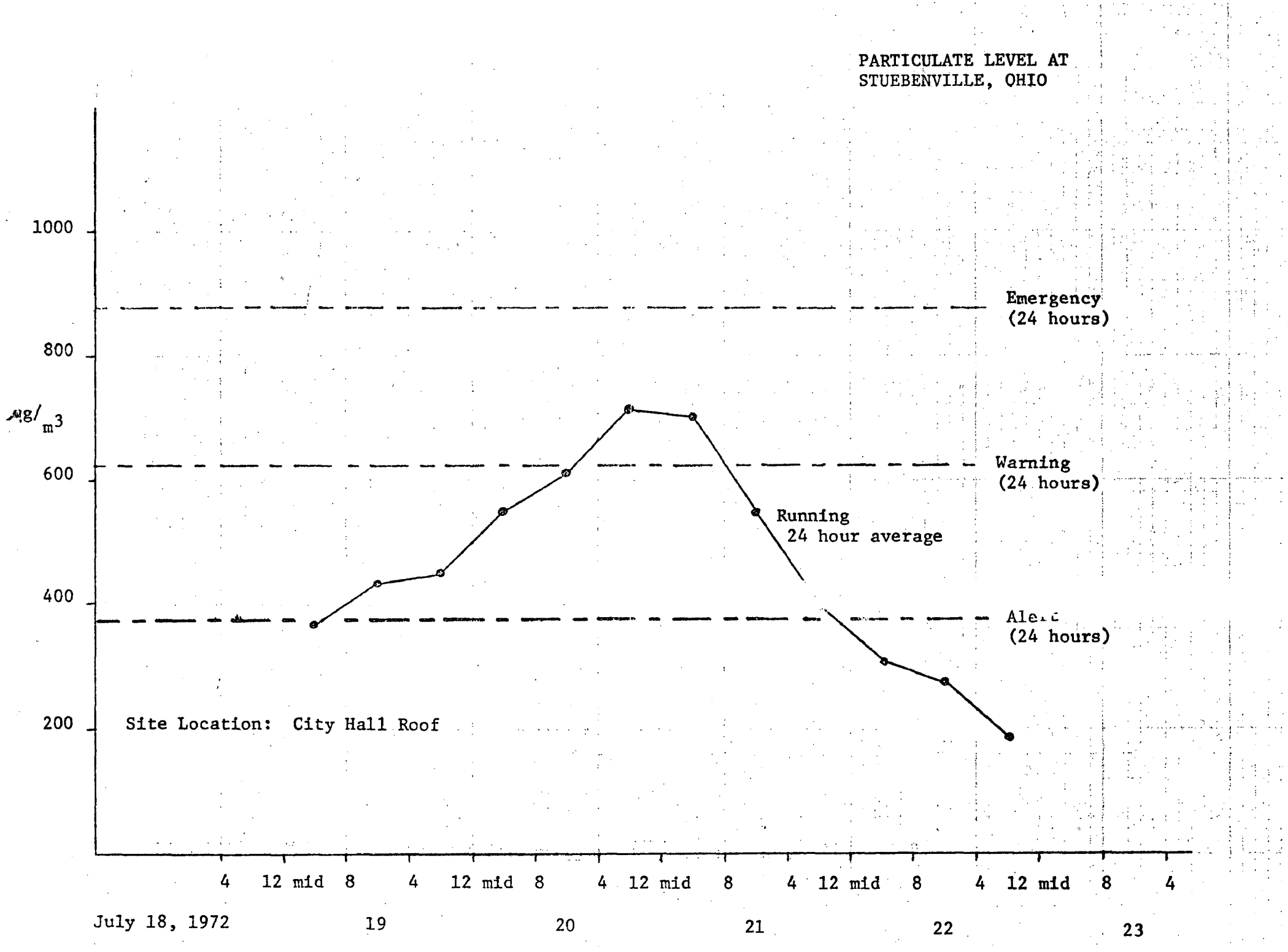
STUEBENVILLE, OHIO

Site Location: Roof of City Hall, 308 Market Street

Sample Method: High Volume Sampler

Date	Time	8 hour Average µg/m3	Running 24 hour Average µg/m3
7/18	4 p.m. - 12 mid.	324	
7/19	12 mid. - 8 a.m.	532	
7/19	8 a.m. - 4 p.m.	247	368
7/19	4 p.m. - 12 mid.	535	438
7/20	12 mid. - 8 a.m.	578	453
7/20	8 a.m. - 4 p.m.	540	551
7/20	4 p.m. - 12 mid.	712	610
7/21	12 mid. - 8 a.m.	906	719
7/21	8 a.m. - 4 p.m.	484	701
7/21	4 p.m. - 12 mid.	249	546
7/22	12 mid. - 8 a.m.	462	398
7/22	8 a.m. - 4 p.m.	206	306
7/22	4 p.m. - 12 mid.	130	278
7/23	12 mid. - 8 a.m.	226	186


PARTICULATE LEVEL AT
STUEBENVILLE, OHIO
1000
800
µg/m3
600
400
200
8 hour average
Site Location: City Hall Roof
4
12 mid
8
4
12 mid
8
4
12 mid
8
4
12 mid
8
4
12 mid
8
4
12 mid
8
4
July 18, 1972
19
20
21
22
23


PARTICULATE LEVEL AT
STUEBENVILLE, OHIO
1000
800
600
400
200
µg/m3
Emergency
(24 hours)
Warning
(24 hours)
Alert
(24 hours)
Running
24 hour average
Site Location: City Hall Roof
4
12 mid
8
4
12 mid
8
4
12 mid
8
4
12 mid
8
4
12 mid
8
4
July 18, 1972
19
20
21
22
23

PARTICULATE LEVELS

STUEBENVILLE, OHIO

Site Location: Roof of City Hall, 308 Market Street

Sample Method: Tape Sampler

Date	Time	8 hour Average COHs	Running 24 hour Average COHs
7/18	4 p.m. - 12 mid.	2.3	
7/19	12 mid. - 8 a.m.	2.4	
7/19	8 a.m. - 4 p.m.	2.1	2.27
7/19	4 p.m. - 12 mid.	2.1	2.20
7/20	12 mid. - 8 a.m.	2.5	2.23
7/20	8 a.m. - 4 p.m.	2.2	2.27
7/20	4 p.m. - 12 mid.	4.23	2.98
7/21	12 mid. - 8 a.m.	2.2	2.88
7/21	8 a.m. - 4 p.m.	0.88	2.44
7/21	4 p.m. - 12 mid.	0.4	1.16
7/22	12 mid. - 8 a.m.	0.725	.67
7/22	8 a.m. - 4 p.m.		
7/22	4 p.m. - 12 mid.		
7/23	12 mid. - 8 a.m.		

SO_2 LEVELS

CITY HALL, STUEBENVILLE, OHIO

Sample Method: Bubbler

Average: 8 hour

Date	Time	Reading µg/m3
7/18	16:00 - 24:00	169
7/19	00:00 - 08:00	172
	08:00 - 16:00	106
	16:00 - 24:00	78
7/20	00:00 - 08:00	115
	08:00 - 16:00	41
	16:00 - 24:00	143
7/21	00:00 - 08:00	253
	08:00 - 16:00	61
	16:00 - 24:00	93
7/22	00:00 - 08:00	152
	08:00 - 16:00	102
	16:00 - 24:00	75
7/23	00:00 - 08:00	55

BRILLIANT, OHIO

Sample Method: Bubbler

Average: 8 hour

Date	Time	Reading µg/m3
7/20	08:00 - 16:00	79
	16:00 - 24:00	80
7/21	00:00 - 08:00	81
	08:00 - 16:00	60

PARTICULATE LEVELS

Garfield School, Stuebenville, Ohio

Sample Method: High volume sampler

Average: 8 hours

Date	Time	Reading µg/m3
7/20	08:00 - 16:00	415
	16:00 - 24:00	407
7/21	00:00 - 08:00	634
	08:00 - 16:00	150
	16:00 - 24:00	142
7/22	00:00 - 08:00	244
	08:00 - 16:00	138
	16:00 - 24:00	103

Brilliant, Ohio

Sample Method: High volume sampler

Average: 8 hours

Date	Time	Reading µg/m3
7/20	08:00 - 16:00	372
	16:00 - 24:00	-
7/21	00:00 - 08:00	570
	08:00 - 16:00	-
	16:00 - 24:00	492
7/22	00:00 - 08:00	286
	08:00 - 16:00	265
	16:00 - 24:00	122

Mingo Junction, Ohio

Sample Method: High volume sampler

Average: 8 hours

Date	Time	Reading µg/m3
7/20	08:00 - 16:00	270
	16:00 - 24:00	492
7/21	00:00 - 08:00	448
	08:00 - 16:00	171
	16:00 - 24:00	255
7/22	00:00 - 08:00	360
	08:00 - 16:00	160
	16:00 - 24:00	146

Toronto, Ohio

Sample Method: High volume sampler

Average: 8 hours

Date	Time	Reading µg/m3
7/20	08:00 - 16:00	174
	16:00 - 24:00	339
7/21	00:00 - 08:00	312
	08:00 - 16:00	-
	16:00 - 24:00	148
7/22	00:00 - 08:00	130
	08:00 - 16:00	144
	16:00 - 24:00	83

SO_2 LEVELS

Site Location: Weirton, West Virginia

Sampler Method: Continuous (1 hour average)

Date	Time G.S.T.	Reading µg/m3	Date	Time E.S.T.	Reading µg/m3
7/20	16:00 - 17:00	≤13.1	7/22	01:00 - 02:00	15.7
	⟆			02:00 - 03:00	18.3
7/21	06:00 - 07:00	≤13.1		03:00 - 04:00	20.9
	07:00 - 08:00	41.9		04:00 - 05:00	20.9
	08:00 - 09:00	69.0		05:00 - 06:00	26.2
	09:00 - 10:00	44.5		06:00 - 07:00	36.6
	10:00 - 11:00	23.5		07:00 - 08:00	54.9
	11:00 - 12:00	20.9		08:00 - 09:00	39.3
	12:00 - 13:00	18.3		09:00 - 10:00	18.3
	13:00 - 14:00	≤13.1		10:00 - 11:00	15.7
	14:00 - 15:00	18.3		11:00 - 12:00	≤13.1
	15:00 - 16:00	29.9		12:00 - 13:00	≤13.1
	16:00 - 17:00	≤13.1		13:00 - 14:00	≤13.1
	⟆				
7/22	00:00 - 01:00	≤13.1			

PARTICULATE LEVELS

FOLLANSBEE, WEST VIRGINIA

Site Location: Follansbee Middle School, Route 2

Sample Method: High Volume Sampler

Date	Time - E.S.T. (Approximate)	Average (Approximate)	Reading µg/m3
7/18 - 7/19	10:00 - 9:00	23	253
7/19 - 7/20	9:00 - 9:00	24	199
7/21	5:30 - 18:00	12	291
7/21	18:00 - 23:00	5	180
7/22	23:00 - 8:00	9	337
7/22	8:00 - 17:00	9	171
7/22 - 7/23	17:00 - 9:00	15	113

WEIRTON, WEST VIRGINIA

Site Location: Public Library, Route 2

Sample Method: High Volume Sampler

Date	Time - E.S.T. (Approximate)	Average (Approximate)	Reading µg/m3
7/18 - 7/19	10:30 - 9:30	23	229
7/19 - 7/20	9:30 - 9:30	24	178
7/21	6:30 - 18:30	12	207
7/21	18:30 - 23:30	5	174
7/22	23:30 - 9:00	9	231
7/22	9:00 - 17:30	8	140
7/22 - 7/23	17:30 - 9:00	15	114

WELLSBURG, WEST VIRGINIA

Site Location: Central Elementary School, 15th Street

Sample Method: High Volume Sampler

Date	Time - E.S.T. (Approximate)	Average (Approximate)	Reading µg/m3
7/18 - 7/19	9:30 - 8:30	23	220
7/19 - 7/20	8:30 - 8:30	24	186
7/21	5:00 - 17:00	12	184
7/21	17:00 - 23:00	6	220
7/21 - 7/22	23:00 - 8:00	9	214
7/22	8:00 - 17:00	9	207
7/22 - 7/23	17:00 - 8:30	16	115

MOUNDSVILLE, WEST VIRGINIA

Site Location: Central Grade School, 7th & Tomlinson Streets

Sample Method: High Volume Sampler

Date	Time - E.S.T. (Approximate)	Average (Approximate)	Reading µg/m3
7/18 - 7/19	8:00 - 7:00	23	166
7/19 - 7/20	7:00 - 7:00	24	144
7/21 - 7/22	11:00 - 13:00	26	117
7/22 - 7/23	13:00 - 7:00	18	145

BENWOOD, WEST VIRGINIA

Site Location: Union High School, 1690 Marshall Street

Sample Method: High Volume Sampler

Date	Time - E.S.T. (Approximate)	Average (Approximate)	Reading µg/m3
7/18 - 7/19	8:00 - 7:00	23	137
7/19 - 7/20	7:00 - 7:00	24	143
7/21 - 7/22	11:00 - 13:00	26	114
7/22 - 7/23	13:00 - 8:00	19	135

NEW CUMBERLAND, WEST VIRGINIA

Site Location: Buck's Confectionary, Ridge Avenue

Date	Time - E.S.T. (Approximate)	Average (Approximate)	Reading µg/m3
7/18 - 7/19	11:00 - 10:00	23	180
7/19 - 7/20	10:00 - 10:00	24	147
7/21 - 7/22	7:00 - 9:00	26	124
7/22 - 7/23	9:00 - 9:00	24	113

PARTICULATE AND SO_2 LEVELS

WHEELING, WEST VIRGINIA

Sample Method: High Volume Sampler

Date: July 22, 1972

Site Number	Time	Average	µg/m3 Reading
047	12 mid. - 12 mid.	24	113
048	12 mid. - 12 mid.	24	133
049	12 mid. - 12 mid.	24	105
050	12 mid. - 12 mid.	24	85
051	12 mid. - 12 mid.	24	92

Site: Wheeling Air Pollution Office, Main Street

Sample Method: Tape sampler (particulate) and (SO_2)

Note: All readings are continuous 2 hour averages

Date	Time	Part. Reading COH	SO_2 Reading µg/m3
7/19	00:30 - 02:30		57.2
	02:30 - 04:30		85.8
	04:30 - 06:30		85.8
	06:30 - 08:30		71.5
	08:30 - 10:30	0.3	71.5
	10:30 - 12:30		57.2
	12:30 - 14:30		28.6
	14:30 - 16:30		71.5
	16:30 - 18:30		57.2
	18:30 - 20:30		57.2
	20:30 - 22:30	1.0	143.0
7/20	22:30 - 00:30		114.4
	00:30 - 02:30		85.8
	02:30 - 04:30		57.2
	04:30 - 06:30		286.0
	06:30 - 08:30		429.0
	08:30 - 10:30		143.0
	10:30 - 12:30		57.2
	12:30 - 14:30		57.2
	14:30 - 16:30		57.2
	16:30 - 18:30		57.2
	18:30 - 20:30		57.2
	20:30 - 22:30		42.9

Date	Time	Part. Reading COH	SO_2 Reading µg/m3
7/21	22:30 - 00:30		42.9
	00:30 - 02:30		42.9
	02:30 - 04:30		57.2
	04:30 - 06:30		42.9
	06:30 - 08:30	1.2	71.5
	08:30 - 10:30	1.0	100.1
	10:30 - 12:30	0.3	57.2
	12:30 - 14:30	0.3	42.9
	14:30 - 16:30	0.3	42.9
	16:30 - 18:30	0.5	28.6
	18:30 - 20:30	0.5	28.6
	20:30 - 22:30	0.5	42.9
7/22	22:30 - 02:30	0.6	42.9
	02:30 - 04:30	0.3	42.9
	04:30 - 06:30	0.6	42.9
	06:30 - 08:30	0.4	42.9
	08:30 - 10:30	0.5	57.2
	10:30 - 12:30	0.5	42.9
	12:30 - 14:30	0.6	28.6
	14:30 - 16:30	0.3	28.6

PARTICULATE LEVELS

KANAWHA VALLEY, WEST VIRGINIA

Site Location: Horace Mann Jr. High School, Charleston, West Virginia

Sample Method: High Volume Sampler

Date	Time - E.S.T. (Approximate)	Average (Approximate)	Reading µg/m3
7/18 - 7/19	12:00 - 10:00	22	113
7/19 - 7/20	10:00 - 9:00	23	141
7/20 - 7/21	9:00 - 10:00	25	102

Site Location: West Virginia Tech., Montgomery, West Virginia

Sample Method: High Volume Sampler

Date	Time - E.S.T. (Approximate)	Average (Approximate)	Reading µg/m3
7/18 - 7/19	11:00 - 12:00	25	273
7/19 - 7/20	12:00 - 11:00	23	390
7/20 - 7/21	11:00 - 11:00	24	330
7/23 - 7/24	14:00 - 7:00	17	265

Site Location: Nitro Grade School, Nitro, West Virginia

Sampler Method: High Volume Sampler

Date	Time - E.S.T. (Approximate)	Average (Approximate)	Reading µg/m3
7/18 - 7/19	10:00 - 10:00	24	63
7/19 - 7/20	10:00 - 10:00	24	120
7/20 - 7/21	10:00 - 10:00	24	64

Site Location: Charleston Federal Building, Charleston, West Virginia

Sample Method: High Volume Sampler

Date	Time - E.S.T. (Approximate)	Average (Approximate)	Reading µg/m3
7/18 - 7/19	9:00 - 9:00	24	118
7/19 - 7/20	9:00 - 9:00	24	155
7/20 - 7/21	9:00 - 9:00	24	106
7/21 - 7/22	9:00 - 9:00	24	184
7/22 - 7/23	9:00 - 9:00	24	133

Site Location: Fallsview, West Virginia

Sample Method: High Volume Sampler

Date	Time - E.S.T. (Approximate)	Average (Approximate)	Reading µg/m3
7/18 - 7/19	10:00 - 11:00	25	132
7/19 - 7/20	11:00 - 11:00	24	63
7/20 - 7/21	11:00 - 11:00	24	128
7/21 - 7/22	11:00 - 11:00	24	278
7/22 - 7/23	11:00 - 9:30	23	293

ALLEGHENY COUNTY

SUMMARY FOR THE PAST 24 HOURS

STATION DOWNTOWN

	HOURLY					12 HOUR			24 HOUR		8 HOUR		
	SO2	FP	CO	WD	WS	SO2	FP	PRODUCT	SO2	FP	PRODUCT	CO	INDEX
DATE 7/20/1972													
10-11	0.05	2.33	12.60	N.D.	**	0.03	4.60	0.16	0.03	3.94	0.12	16.21	125.39 (0)
11-12	0.02	1.80	10.50	N.D.	**	0.03	4.40	0.15	0.03	3.95	0.12	16.13	125.78 (0)
12-13	0.02	1.30	11.00	N.D.	**	0.03	4.22	0.15	0.03	3.92	0.12	16.22	125.25 (0)
13-14	0.02	1.80	10.80	N.D.	**	0.03	4.10	0.14	0.03	3.94	0.13	16.09	125.94 (0)
14-15	0.03	3.88	13.90	N.D.	**	0.03	4.07	0.15	0.03	4.02	0.13	15.72	128.51 (0)
15-16	0.05	5.86	16.80	N.D.	**	0.04	4.31	0.17	0.03	4.12	0.14	13.97	132.05 (0)
16-17	0.04	5.86	14.10	N.D.	**	0.04	4.47	0.18	0.03	4.15	0.15	13.06	132.98 (0)
17-18	0.05	1.86	8.90	N.D.	**	0.04	4.23	0.18	0.03	4.05	0.15	12.32	130.58 (0)
18-19	0.04	1.75	12.30	N.D.	**	0.04	3.88	0.17	0.03	3.96	0.13	12.29	126.94 (0)
19-20	0.01	1.50	11.40	N.D.	**	0.04	3.25	0.13	0.03	3.89	0.12	12.40	124.20 (0)
20-21	0.02	1.69	9.80	N.D.	**	0.04	2.83	0.11	0.03	3.80	0.12	12.25	121.41 (0)
21-22	0.02	1.93	13.00	N.D.	**	0.04	2.63	0.10	0.03	3.69	0.11	12.53	118.20 (0)
22-23	0.02	2.38	13.50	N.D.	**	0.03	2.63	0.10	0.03	3.61	0.11	12.47	115.84 (0)
23-24	0.02	3.53	15.70	N.D.	**	0.03	2.78	0.10	0.03	3.59	0.11	12.34	115.07 (0)
DATE 7/21/1972													
0- 1	0.02	2.42	9.70	N.D.	**	0.03	2.87	0.10	0.03	3.54	0.11	11.79	113.79 (0)
1- 2	0.03	2.87	10.30	N.D.	**	0.03	2.96	0.11	0.03	3.53	0.11	11.96	113.42 (0)
2- 3	0.03	2.29	7.50	N.D.	**	0.03	2.83	0.10	0.03	3.45	0.11	11.36	111.37 (0)
3- 4	0.05	2.41	7.10	N.D.	**	0.03	2.54	0.09	0.03	3.42	0.11	10.82	111.20 (0)
4- 5	0.07	2.55	7.00	N.D.	**	0.04	2.26	0.09	0.03	3.36	0.12	10.47	110.25 (0)
5- 6	0.06	3.15	9.00	N.D.	**	0.04	2.37	0.09	0.03	3.29	0.12	9.97	108.94 (0)
6- 7	0.07	3.42	12.20	N.D.	**	0.04	2.51	0.11	0.03	3.19	0.12	9.81	106.57 (0)
7- 8	0.03	5.34	14.80	N.D.	**	0.04	2.83	0.13	0.03	3.04	0.11	9.70	101.84 (0)
8- 9	0.03	3.37	12.80	N.D.	**	0.04	2.97	0.14	0.03	2.89	0.11	10.09	97.60 (0)
9-10	0.04	3.33	14.50	N.D.	**	0.04	3.09	0.15	0.03	2.85	0.11	10.61	96.74 (0)

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ALLEGHENY COUNTY

SUMMARY FOR THE PAST 24 HOURS

STATION - HAZELWOOD

	HOURLY SO2	HOURLY FP	WD	WS	12 HOUR SO2	12 HOUR FP	12 HOUR PRODUCT	24 HOUR SO2	24 HOUR FP	24 HOUR PRODUCT	INDEX
DATE	7/20/1972										
7- 8	0.06	5.10	SSE	2	0.04	4.20	0.17	0.04	3.11	0.13	105.70 (0)
8- 9	0.07	4.54	SSE	2	0.04	4.28	0.18	0.04	3.24	0.14	110.04 (0)
9-10	0.03	3.14	S	4	0.04	4.27	0.19	0.04	3.32	0.14	111.15 (0)
10-11	0.05	1.61	WSW	4	0.04	4.21	0.19	0.04	3.36	0.14	112.32 (0)
11-12	0.06	1.46	WNW	4	0.04	4.03	0.19	0.04	3.40	0.14	113.80 (0)
12-13	0.05	1.43	SW	4	0.05	3.94	0.20	0.04	3.43	0.15	115.19 (0)
13-14	0.05	1.01	WSW	4	0.05	3.73	0.20	0.04	3.38	0.14	113.56 (0)
14-15	0.05	1.67	WNW	4	0.05	3.62	0.20	0.04	3.42	0.15	115.34 (0)
15-16	0.06	1.67	SW	2	0.05	3.23	0.18	0.04	3.42	0.15	115.44 (0)
16-17	0.05	1.67	SSW	3	0.05	2.91	0.16	0.04	3.40	0.15	115.20 (0)
17-18	0.05	1.64	WSW	4	0.06	2.61	0.15	0.04	3.27	0.15	111.09 (0)
18-19	0.03	1.10	WSW	3	0.05	2.17	0.13	0.04	3.15	0.14	107.44 (0)
19-20	0.02	1.05	NE	2	0.05	1.83	0.10	0.04	3.01	0.13	102.92 (0)
20-21	0.01	2.11	NE	2	0.05	1.63	0.08	0.04	2.95	0.12	100.74 (0)
21-22	0.01	1.97	NE	1	0.05	1.53	0.07	0.04	2.90	0.12	99.03 (0)
22-23	0.01	1.66	NE	1	0.04	1.54	0.07	0.04	2.87	0.12	98.12 (0)
23-24	0.01	2.57	WNW	1	0.04	1.63	0.07	0.04	2.82	0.11	96.40 (0)
DATE	7/21/1972										
0- 1	0.02	1.90	NE	1	0.04	1.67	0.06	0.04	2.80	0.11	95.72 (0)
1- 2	0.08	3.50	WNW	1	0.04	1.88	0.08	0.04	2.80	0.12	96.56 (0)
2- 3	0.07	4.93	NE	1	0.04	2.15	0.09	0.04	2.88	0.13	99.66 (0)
3- 4	0.07	3.95	NE	0	0.04	2.34	0.10	0.04	2.78	0.13	97.14 (0)
4- 5	0.07	2.26	NE	2	0.04	2.39	0.11	0.04	2.64	0.12	93.54 (0)
5- 6	0.04	4.43	NE	1	0.04	2.62	0.12	0.04	2.61	0.12	92.82 (0)
6- 7	0.05	3.40	WSW	1	0.04	2.81	0.13	0.04	2.49	0.12	89.47 (0)

APPENDIX D

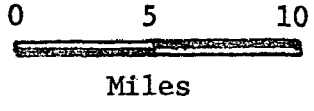
INDUSTRY COMPLIANCE IN WEST VIRGINIA

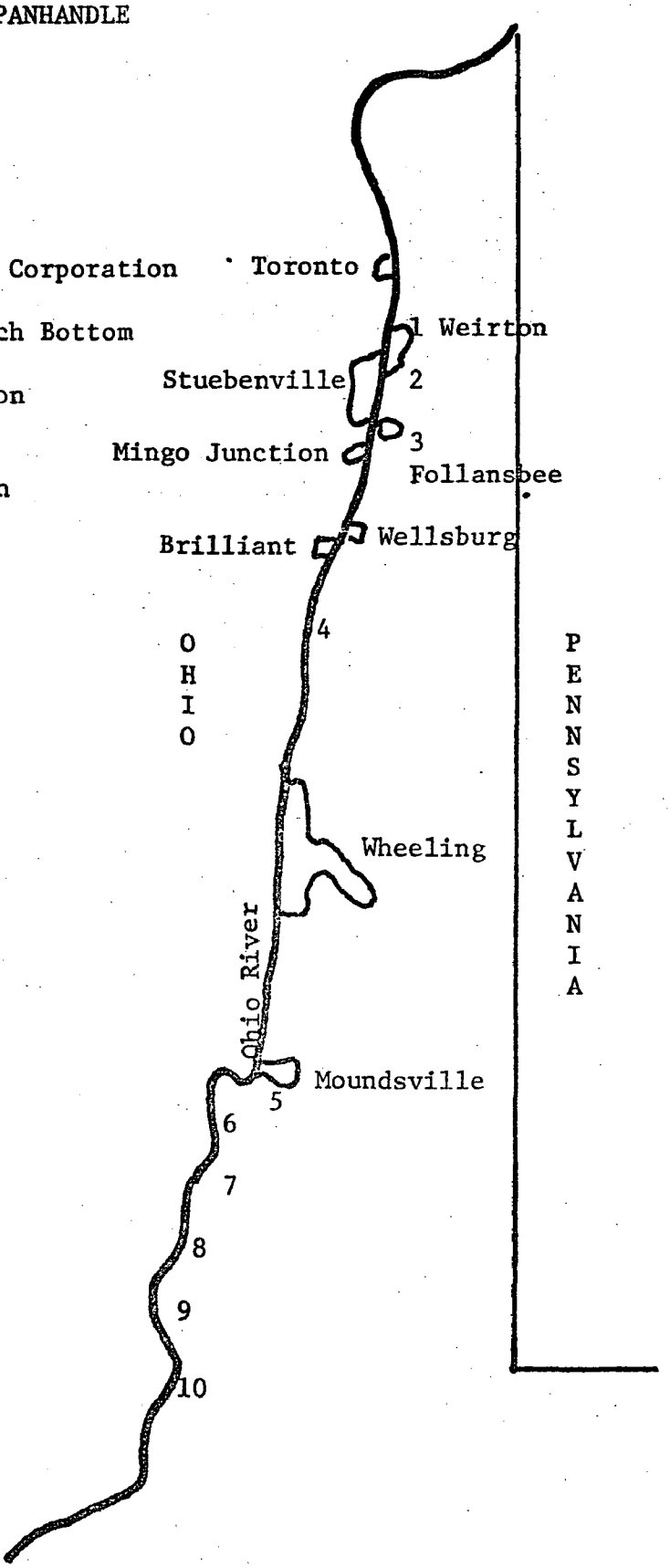
The ten major air pollutant sources in the West Virginia panhandle were identified by the state agency and notified to curtail emissions according to the West Virginia Air Implementation Plan. Nine sources replied to the state's request. One did not and was later closed for 48 hours. This source was the Windsor Power Plant at Beach Bottom.

Appendix D includes a map locating the 10 sources. Also a list prepared by EOCC in Research Triangle Park of necessary reductions in case of emergency levels. Finally, the written replies received by the State of West Virginia from the sources involved detailing the steps taken for curtailment.

WEST VIRGINIA
PANHANDLE

1. Wierton Steel Division
   National Steel Corporation
2. Koppers Follansbee Plant
3. Wheeling Pittsburgh Steel Corporation
4. Windsor Power Plant at Beech Bottom
5. Industrial Chemical Division
   Allied Chemical Company
6. Specialty Chemical Division
   Allied Chemical Company
7. Ohio Power Company
   Kammer Plant
8. Ohio Power Company
   Mitchell Plant
9. Pittsburgh Plate Glass
   Industries, Inc.
10. Mobay Chemical Company





Necessary Plant Reductions in the Weirton/Wheeling, West Virginia area

Koppers Company

Switch to low sulphur fuel, if possible

Stop batch operations

Stop operations that can be postponed
a. Steam heating of tanks
b. Sandblasting
c. Chemical cleaning of equipment

Shut-down all non-essential operations

Eliminate emissions of particulate matter from lime kilns and other dryers by ceasing seeding of new materials and phasing down operations as rapidly as possible without damage to equipment

Postpone plant start-ups that result in increased air pollution

Reduce as rapidly as possible, without damage to equipment or danger to personnel, the rate and thru-put of processes that emit pollutants

Move toward and accomplish an orderly shut-down of all processes producing air contaminants

PPG COMPANY

Eliminate emissions of particulate matter from kilns by starting no new batchs; reducing thru-put and allowing processes in operation to phase-down

Eliminate emissions of particulate matter from crushing, mixing, cleaning, conveying and transfering operations

Switch all required fuel burning equipment to low sulfur fuels

Allied Chemical Company

Switch to low sulfur fuels, if possible

Stop batch operations

Stop operations that can be postponed

Shut down all non-essential operations

Reduce, as rapidly as possible, without damage to equipment or danger to personnel, the rate and thru-put of processes that emit air pollutants particularly those in the form of sulfuric acid mist, sulfur dioxide or carbon particulates

MOBAY Corp.

Switch to low sulfur fuels, if possible

Stop all batch and non-essential operations

Move toward and accomplish an orderly shut-down of all processes producing air contaminants

Integrated Steel Mill

Cease incineration, scarfing, slag quenching, burning and other operations that can be postponed

Cease charging the coke ovens; retain finished coke in ovens as as long as possible

Cease charging of open hearth steel furnaces

Cease charging ore to blast furnaces

Cease operation of basic oxygen furnaces

Shut down sintering plants

Cease charging of electrical steel furnaces

Switch all boilers and heaters to low sulfur fuel, where possible furnaces may be kept banked or heated for protection otherwise

CNA025 EC

1972 JUL 22 AM 9 B7

LD CNA005 FM PDF TDCV FOLLANSBEE WVIR 21 645P EDT

MR ROBERT LWAYER (DLR DO NOT PHONE)

DOWNTOWNER MOTOR INN ROOM 417 WHEELING WVIR

IN REPLY TO YOUR REQUEST TO COOPERATE IN REDUCTION OF EMMISSION.

THE KOPPERSFOLLANSBEE PLANT HAS SHUT DOWN ONE COAL FIRED

BOILER AND ONE GAS FIRED DISTILATION UNIT THIS ACTION HAS

REDUCED PARTICULATE EMISSION BY AN ESTIMATED 15 0/0

BELOW NORMAL LEVELS

A E A STRUCH ASSISTANT PLANT MANAGER

7/22/72 EC 956A

R CN025 WH CM

Wheeling-Pittsburgh
STEEL CORPORATION

W. P. McSHANE
DIRECTOR
ENVIRONMENTAL CONTROL

July 21, 1972

Mr. Joseph Reach
Wheeling Air Pollution Control Bureau
Hawley Building, Room 420
Wheeling, W. Va. 26003

Dear Mr. Reach:

The attached memo regarding the Ohio Valley air pollution alert of July 20-21, 1972 is being forwarded to you at the request of Mr. Robert E. Lawyer of the West Virginia Air Pollution Control Commission, Charleston, W. Va.

Mr. Lawyer has been informed of Wheeling-Pittsburgh Steel's action. He also advised us that representatives of the Environmental Protection Agency would receive this information at your office.

We appreciate your kind cooperation.

Sincerely yours,

W. P. McShane

W. P. McShane
Director
Environmental Control

WPM/ng

Attach.

cc: C. G. Beard, II
R. E. Lawyer
M. Merick
P. J. DeLuca

AIR POLLUTION ALERT -- OHIO VALLEY
JULY 20-21, 1972

On the afternoon of July 20, 1972, Wheeling-Pittsburgh Steel received information from the following regarding the subject alert:

(1) Mr. Robert E. Lawyer
West Virginia Air Pollution Control Commission

(2) Mr. P. J. DeLuca
Steubenville Air Quality Region, consisting of
Jefferson, Columbiana, Belmont and Monroe Counties

Wheeling-Pittsburgh Steel responded to the alert promptly, and the following action was taken:

(1) One (1) boiler at Steubenville-South, firing coal, taken off immediately.

(2) All boilers at Steubenville-North and Steubenville-South were converted from coal firing to gas.

(3) All boilers at the Coke Plant on gas at a reduced rate, with some steam requirements being met with Ohio gas-fired steam generating plants.

(4) Coking time at Steubenville increased to 30 hours.

(5) Tar usage on blast furnaces (Ohio Plants) cut back.

(6) Steubenville-South BOF blowing rate reduced.

(7) Benwood Plant (W. Va.) boilers cut back to 50% and will be shut down at 11:00 p.m. July 21, 1972.

(8) No incinerator operation at any plant.

(9) Both galvanizing pots at Benwood Plant (W. Va.) down at 11:00 p.m. July 21, 1972.

(10) Five of nine boilers at Yorkville Plant (Ohio) down. Remaining four with increased air for maximum combustion with no banking.

(11) Only two of the three galvanizing lines at Martins Ferry Plant (Ohio) in operation.

(12) Sinter plant (Follansbee, W. Va.) operating [illegible]

AIR POLLUTION ALERT -- OHIO VALLEY
July 20-21, 1972

(13) Boilers at Martins Ferry Plant (Ohio) operating at 15% capacity.

(14) Beech Bottom Plant (W. Va.) boilers are gas fired.

(15) Steubenville Strip (Follansbee, W. Va.) boilers are gas fired.

Estimated Emission Reduction:

Steubenville North Boilers	--	Essentially 100%
" South "	--	" "
" East Coke Plant	--	" "
Coking time at 20 hours	--	Approximately 25%
BOF blow rate reduction	--	" 15%
Blast Furnace tar usage cut back	-	Reduction difficult to assess.
Benwood Boilers	--	Approximately 50%, 100% at 11:00 p.m. 7/21
No incinerator operation	--	Essentially 100%
Benwood Galvanizing Pot	--	Down at 11:00 p.m. 7/21 Essentially 100%
Yorkville Boiler shutdown	--	Approximately 50%
Martins Ferry Boilers	--	Greater than 50%
Sinter Plant	--	Essentially 100%

W. P. McShane
Director
Environmental Control

July 21, 1972

Specialty Chemicals Division
ALLIED CHEMICAL CORPORATION
Post Office Box E, Moundsville, West Virginia 26041 (304) 845-5670

July 21, 1972

Mr. Robert Lawyer
West Virginia Air Pollution
Control Commission
Room 420 Hawley Building
Wheeling, West Virginia

Subject: Air Pollution Alert

Dear Mr. Lawyer:

Allied Chemical Corporation is anxious to cooperate with the West Virginia Air Pollution Control Commission in improving the ambient air quality during the present air pollution alert.

As you know, our contributions to the problem are very minor. However, we have examined each of our known sources at this location with the objective of reducing emissions to the maximum extent without interruption of production.

We have taken the following actions:

(a) Curtailed the use of our waste incinerator as follows:

1. Burning of solid wastes has been stopped.

2. Burning of liquid wastes has been curtailed to minimum levels and will only be conducted between the hours of 12 Noon and 4 P.M.

(b) Curtailed the use of steam in our manufacturing processes.

(c) Reduced the operation of our acid concentrator to the extent consistent with essential production requirements.

(d) Stopped all non essential uses of combustion type motor vehicles.

Allied Chemical's North Plant will continue the above measures for the duration of the current alert. I will appreciate prompt notice from your office of the end of the alert so that I may notify the plant to resume normal operations.

Mr. Robert Lawyer
West Virginia Air Pollution
Control Commission

Subject: Air Pollution Alert

I can be contacted after 5 P.M. today at my home telephone number in St. Clairsville -- Area Code 614-695-9757.

Very truly yours,

SPECIALTY CHEMICALS DIVISION
Allied Chemical Corporation

J. W. Lobb
Plant Manager

JWL:cag

PPG INDUSTRIES

PPG INDUSTRIES, INC./BOX 191/NEW MARTINSVILLE, WEST VIRGINIA 26155/AREA 304/455-2200

I. C. KLIMAS, Works Manager
Natrium Plant, Industrial Chemical Division

July 21, 1972

Mr. Carl G. Beard, Director
W. Va. Air Pollution Control Commission
1558 Washington Streat, East
Charleston, WV 25311

Dear Mr. Beard:

In answer to your request for a written statement of our plans to meet the pollution "alert" issued by your office on July 21, 1972, the Natrium Plant of PPG Industries submits the following plan of action.

1. In-plant vehicle traffic will be kept to a practical minimum.

2. Employees have been urged to carpool in order to minimize vehicle traffic.

3. Every effort will be made to reduce activities which could contribute to pollution emissions.

4. Instructions have been issued to monitor and control processes in order to minimize pollution emissions.

5. At the present time the boilers are being operated to maintain present production levels. No activities will be initiated that would increase the heat load demand during the "alert".

6. One production facility is down for maintenance purposes and will remain down until the "alert" is over.

7. All soot blowing operations will be confined to the hours of 12 noon to 4 p.m., with the exception of about 10% of the blowers which will be operated once each day outside these hours to maintain high heat efficiency and reduce the overall pollution emissions.

8. Blending of the best available coal to reduce emissions of particulates and sulfur dioxide will be continued.

It is estimated that these actions will reduce the Natrium Plant's pollution emissions by 20%, from its reported maximum pollution emission potential.

Yours truly,

I. C. Klimas
Works Manager

ICK/rfo

Weirton Steel Division
NATIONAL STEEL CORPORATION

WEIRTON
WEST VIRGINIA
26062

July 21, 1972

Mr. Robert Lawyer
c/o Mr. Joseph Reach
Wheeling Air Pollution Control Commission
Wheeling, West Virginia

Dear Mr. Lawyer:

As per your request, the Weirton Steel Division of National Steel Corporation on or about 7:00 AM July 21, 1972 took the following actions.

1. The coking time for producing coke at the coke oven batteries was extended to alleviate emissions of sulfur dioxide and particulates.

2. All low pressure boilers at the Boiler House will use gas as a fuel, and those low pressure boilers capable of burning coal will remain shut down.

3. No. 5 high pressure boiler at the Boiler House will remain on 100 percent gas-firing.

4. Nos. 1, 2, 3 and 4 high pressure boilers will continue on coal-firing at a significantly reduced rate.

5. All plant personnel have been duly notified of the potential air pollution episode and will do everything to aid us in reducing air emissions.

6. In the event that it becomes necessary, additional steps will be taken to further reduce plant emissions as per our planned program.

Based upon the above actions, it is our estimation that emissions of sulfur dioxide and particulates have been reduced by at least 15 percent.

Very truly yours,

Houston R. Wood

Houston R. Wood, Director
Environmental Control

HRW/sr

INDUSTRIAL CHEMICALS DIVISION

Allied Chemical Corporation

P. O. DRAWER "D" • MOUNDSVILLE, WEST VIRGINIA 26041
AREA CODE 304 845-5674

July 21, 1972

W. Va. Air Pollution Control Commission
4014-A MacCorkle Avenue SE
Charleston, West Virginia 25304

Attn: Mr. Robert Lawyer

Dear Mr. Lawyer:

In accordance with your telephoned request this a.m. for an "emergency alert' exit reduction" program, the following controls have been effected.

A. One of our operations has been shut down and two others have been curtailed in rate. This will effectuate a 33% reduction from peak in steam production requirement.

B. Sufficient low-sulfur coal (.9%) has been secured to supplement our normal coal requirements enabling a 50% mix for the next 48 hours.

C. Soot blowing will not occur until the "emergency" condition is alleviated.

D. Air sampling for chlorine will be doubled during this period to assure a close control.

E. Our spare process pollution control absorption facility will be put on line to increase reliance further and assure complete absorption of possible process irritants.

F. Further controls have been instituted in the operating process to assure containment of even normally "de minimus" levels of chlorine.

We assure you of our continued concern and cooperation, especially in this period of crisis.

Very truly yours,

Robert E. Gribben

R. E. Gribben
Superintendent of Production

REG:ib

MOBAY CHEMICAL COMPANY

NEW MARTINSVILLE, WEST VIRGINIA 26155

July 21, 1972

Wheeling Air Pollution
Hawley Building
Main Street
Wheeling, West Virginia

Gentlemen:

We have cut operations back to 50% in our Nitric Acid Plant, completely shut down the liquids incinerator, and ceased charging solid material to our waste solids incinerator. These being our main source where emissions go to the atmosphere, even though these emissions are below the standards set by the authorities, we estimate that these cutbacks should result in 30 - 35% reduction in Mobay's atmospheric emission.

Yours truly,

Jack M Carpman

Jack M. Carpman
Plant Manager

JMC:macs

nerican
lectric
ower **OHIO POWER COMPANY**

KAMMER - MITCHELL PLANT
P.O. BOX K
MOUNDSVILLE, W. VA. 26041

July 21, 1972

Mr. Carl G. Beard, II
Director
West Virginia Air Pollution Control Commission
1558 Washington Street, East
Charleston, West Virginia 25311

Dear Mr. Beard:

We understand and share your concern for the quality of air currently in the Upper Ohio Valley. We will continue to extend to you our fullest operation in dealing with this situation.

Although Ohio Power has installed air pollution control equipment on its generating facilities, we have taken special steps to minimize the effect of our operations during the current situation, including the following:

1. We are utilizing every short term option available to minimize the adverse effect of our operations on the environment.

2. We have taken steps to reduce power consumption since this will reduce the amount of generation required. These steps include curtailment of service to our interruptible customers; utilizing arrangements with certain other large users to reduce their requirements; and substantially reducing our Company use of electricity by curtailment of non-essential auxiliaries and coal mining operations.

3. We are making every effort to increase the power output in plants located elsewhere on the American Electric Power System and other neighboring systems, thus enabling us to reduce our loading on the valley plants.

4. To the extent that our generating capacity exceeds our demands for power, we are giving first priority to [illegible] power [illegible]

You are well aware of the shortage of electricity in other parts of the country, particularly in the East. You also are aware that through the interconnections which exist between utility companies, every effort is made by all of the companies to help their neighbors serve critical loads in times of emergency, such as hospitals, sewerage facilities, water pumping stations and refrigeration. Before a generating plant can curtail its production, its load must first be transferred to other plants or the demand for electric service reduced in magnitude by users. If this is not done, other plants in an interconnected system will find themselves overloaded, which could lead to an uncontrolled interruption of customer service over widespread areas.

Although every effort is being made to transfer generation to power plants located outside of the Ohio Valley, this must be done in a way which does not create critical electric supply problems, and in a way which will not cause a cascading effect or widespread blackouts.

Sincerely,

C. E. Shay
Plant Manager

CES:lly