

**Illinois Environmental Protection Agency
July 2000**

Responsiveness Summary

**In the matter of: Material Service Corp. to Construct and Operate
Two Aggregate Crushers and Three Conveyor Belts
at a Site Located in the Village of McCook, Illinois**

**Bureau of Air
Permit Application Number: 00010018
Identification Number: 031174AAD**

**Bureau of Water
National Pollutant Discharge Elimination System Permit Application Number: IL0001945**

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Illinois EPA Decisions

An air pollution control permit is generally required to construct or operate an emission source or air pollution control equipment in the state. The air permit regulates emissions from the source or control equipment. The Illinois Environmental Protection Agency (Illinois EPA) Bureau of Air issued a joint construction and lifetime operating permit to Material Service Corporation (MSC) on July 7, 2000. The permit will allow the company to use new equipment to crush rock in addition to the existing equipment previously permitted by the Illinois EPA. The Illinois EPA Bureau of Air determined that the permit application met all state and federal requirements related to Air Pollution Control. A copy of the permits can be obtained on the Internet at www.epa.gov/ARD-R5/permits/ilonline.htm (please look under All Permit Records, State Construction Permits, New) or by contacting Brad Frost at the following address:

Illinois EPA
1340 N. Ninth St.
P.O. Box 19506
Springfield, Illinois 62794-9506

The Illinois EPA's Bureau of Water has not yet made a decision concerning the National Pollutant Discharge Elimination System (NPDES) permit. When a decision is made, you will be notified of the decision.

An NPDES permit is required if a facility's operations could result in a discharge or have the potential to cause water pollution without a construction permit. The NPDES permit regulates wastewater discharges to the waters of the state and establishes water quality limits that must be met by the permittee.

The application submitted to the Bureau of Water on January 11, 2000, by MSC explains that the site will be mined at a rate of 5 to 15 acres per year, with an expected life of 16 years. Mine operations will include the removal and stockpiling of overburden for use in reclamation or the construction of berms on the perimeter of the site and the excavation, crushing, screening, sizing, stockpiling and loading of limestone aggregate.

Groundwater seepage, storm water runoff and pit pumpage will collect in the proposed and existing pits and is directed to two settling basins prior to discharge. Water from these sources is discharged at an average rate of 2.6 million gallons per day to the McCook Ditch and Outfall 001. This empties to the Chicago Shipping and Sanitary Canal.

Illinois EPA Review

Each bureau evaluates applications, such as those applied for by MSC, to determine if the proposed activities will comply with applicable pollution control regulations. As a part of the review process for applications, the Illinois EPA may publish a public notice in a local newspaper. A public comment period follows the public notice, during which, the Illinois EPA accepts comments on the permit application and draft permit. At the discretion of the Director of the Illinois EPA, a public hearing may also be held.

Following the close of the public comment period, a Responsiveness Summary is compiled collecting all comments and questions raised at the hearing and during the comment period.

Within the Responsiveness Summary, citizens' comments and questions are answered by Illinois EPA personnel.

After the review process and public comment period are complete, if the permit application contains information sufficiently demonstrating that the applied for activities will meet all applicable regulations, the Illinois EPA is required by law to issue a permit.

Background Information

The Material Service Corp. has been mining and crushing rock at the McCook quarry at 9101 W. 47th Street since the early 1900's. The facility represents a typical example of an aggregate processing plant. The rocks are blasted in the aggregate pit (as much as 300 feet deep) and hauled to the primary and secondary crushers located in the same pit. Crushed stones are transferred through the conveying system to the secondary plant located on the ground level and enclosed in a building. In the secondary plant, the stone undergoes multiple crushing and screening operations. The final products are transferred to the storage piles and silos on the site. The crushing and handling of the rock requires a permit from Illinois EPA's Bureau of Air. The water discharge from the site requires a National Pollutant Discharge Elimination System (NPDES) permit from the Illinois EPA's Bureau of Water.

The permit application submitted to the Bureau of Air is for the construction and operation of two aggregate crushers (which are replacement units), two feeders and three conveyors. This construction project will not increase annual plant throughput. The operation of this equipment will be incorporated into MSC's existing lifetime operating permit. The lifetime operating permit will include a total of nine crushers, thirteen screens, seventy conveyors, feeders and elevators, and fifteen storage silos and hoppers.

Illinois EPA Public Hearing and Comment Period

Upon review of the MSC permit applications, the Illinois EPA issued a public notice on April 10, 2000 of the Illinois EPA's intent to issue the permits. Because of public interest, the Illinois EPA determined that a public hearing should be held.

The public comment period began on April 10, 2000 when the notice of the public comment period and hearing appeared in the Daily Southtown. Notice also appeared in the Daily Southtown on April 17 and 24, and in the Suburban LIFE Citizen on April 12, 19, and 26, 2000. The Illinois EPA provided local access to the applications and draft permits at the Illinois EPA's offices in Maywood and Springfield and in the Brookfield Public Library. The public hearing was held on May 25, 2000 at 7:00 p.m. in the LaGrange Village Hall at South LaGrange Road, LaGrange. The public comment period closed June 19, 2000.

Questions and Comments

Air Quality

- 1. The amount of dust that infiltrates our homes and schools and accumulates on our vehicles, in our yards, and on plants and vegetable gardens is unacceptable. The dust interferes with the quality of life for area residents.**

The Illinois EPA has become aware of the significant concern for dust in the vicinity of the quarry. The Illinois EPA continues to investigate the facility as a source of the dust and to explore ways in which the dust can best be addressed.

MSC is only one potential source of dust in the area. MSC is prohibited from causing or allowing dust emissions off-site and causing a nuisance. MSC is required to develop and implement a plan to minimize fugitive dust and the risks of off-site migration. MSC has such a plan, and has recently enhanced this plan. The enhanced plan will be incorporated into MSC's lifetime operating permit. The Illinois EPA will continue to ensure that MSC's plan is not only sufficient, but is being properly implemented so as to preclude off-site dust and nuisance. Additionally, the Illinois EPA will continue to work with the Lyons Township Quarry Advisory Council on issues impacting the community over which the Illinois EPA has jurisdiction, including fugitive dust control.

Part of the Illinois EPA's discussions with the Lyons Township Quarry Advisory Council centers around setting up a complaint process that will be responsive to the complainant and include all entities that need to be involved to resolve the complaint, including the facility, municipality and the Illinois EPA. Until this process is finalized, the Illinois EPA encourages residents to call the Illinois EPA when they have a complaint about dust migrating off-site. Residents should call Harish Narayen in the Illinois EPA's Maywood Field Office at 708/338-7969.

- 2. The Illinois EPA should establish a quantitative estimate of the uncontrolled fugitive sources at this facility. This estimate should be incorporated into the permit.**

MSC's fugitive emissions are only subject to opacity limitations not mass emission limitations under state and federal regulations. Opacity limitations are incorporated in the permit. MSC is, however, required to report fugitive PM₁₀ emissions in its Annual Emission Report.

- 3. Processing operations at this site include crushing, screening, size classification, material handling and storage operations. All of these processes can be significant sources of PM and PM₁₀ emissions, if uncontrolled. However, the estimates for Total Suspended Particles (TSP) do not address emissions from transport, handling, roadways, and storage piles, nor do they present a "worst-case" scenario if wet suppression were to fail to maintain a 1.5% moisture level.**

Total particulate emissions from all crushing, screening and conveying operations are less than 25 tons per year. PM₁₀ emissions from these emission units are less than 10 tons per year. At this emission rate the MSC facility is not a major source of particulate matter emissions and MSC is not required to obtain a Clean Air Act Permit Program Permit. The

permit issued to MSC on July 7, 2000 is federally enforceable.

Moisture content of no less than 1.5% reflects actual operational conditions of the facility. The company has committed to this moisture level in their permit in order to facilitate compliance with applicable opacity requirements. Therefore MSC is not allowed to operate these emission units without proper moisture content. The MSC is required to test the moisture content on weekly basis and maintain these records for three years available for IEPA inspections.

4. How can Illinois EPA know whether MSC is complying with proper procedures for wetting materials and other dust suppression measures if your inspectors only visit the site twice a year?

MSC is required to test the moisture content on weekly basis and maintain records of measurements of the moisture content of processed aggregate and detailed records of the application of control measures to the roadways and stockpiles. All these records are available for IEPA inspection and review. The Illinois EPA periodically conducts a review of these records.

5. How can the Illinois EPA say that air quality in this region is improving when this area is a non-attainment area for the federal PM₁₀ standard?

The Illinois EPA monitors for particulate matter less than 10 microns in diameter (PM₁₀). PM₁₀ are very small particles and individually not visible to the human eye. PM₁₀ is regulated because it can penetrate deep into the respiratory system and cause health problems. Larger particles are captured by the nose and throat. Most particulate matter emissions from quarrying operations are larger than PM₁₀.

Although the area is still classified as non-attainment, monitoring data indicates that the area has been in attainment of the PM₁₀ air quality standard since 1993, the last year a monitored exceedance was recorded. As compared to historical levels, PM₁₀ air quality in the area has improved. The Illinois EPA has completed the process that would allow redesignation, but has not yet submitted a request to the USEPA to redesignate the area as attainment for the PM₁₀ standard. Until the area is redesignated by the USEPA, the area will be considered non-attainment and sources in the area will be regulated as if the area does not meet the standard. Even after redesignation to attainment, a maintenance plan and contingency plan would be in place, as part of the Illinois EPA's State Implementation Plan to assure that the area does not relapse to non-attainment.

6. Are the operations of the quarry complying with the Clean Air Act?

The crushing, screening, conveying, storage and loading operations, as well as traffic areas, are regulated under the Clean Air Act and Illinois Environmental Protection Act. The crushing, screening and conveying operations are required to comply with regulations limiting the particulate matter from each unit. These operations and the traffic areas are required to operate pursuant to a program designed to minimize fugitive particulate matter emissions. Additionally, MSC is prohibited from emitting dust off-site or causing a nuisance.

Available informational and recent inspections of the quarry indicate MSC is in compliance with these requirements, with one exception; during a recent inspection, fugitive dust was observed blowing off-site. This incident will be addressed through the Illinois EPA's enforcement process. This incident does not afford the agency a basis upon which to deny the application for permit at issue.

7. Material Service Corporation should be making improvements to reduce fugitive emissions such as paving roads, using street sweepers and spraying down trucks prior to leaving the facility.

The IEPA had several discussions with MSC about decreasing the dirt carryout. As a result of these discussions, the company agreed to pave all internal roads that experience intensive traffic up to exit gates. The MSC is using street sweepers with water sprayers on public roads in the vicinity of the quarry.

8. In an urban residential area that is already designated as non-attainment for PM₁₀, I believe that it would be better to work to reduce the number of air sources in an area, rather than allow one to expand.

Although the area is designated as a non-attainment area for PM₁₀, facilities are not prohibited from obtaining permits in such an area. Rather, facilities are subject to regulations that are more stringent. MSC complies with these regulations. The Illinois EPA permits and regulates the polluting activities such that each activity that will contribute to pollution in Illinois is properly limited or controlled.

Health Concerns

9. I have asthma. Will expansion of the quarry affect my health?

It is not known specifically what causes asthma. Many factors have been linked with asthma: exposure to allergens (e.g., molds, pets, dust mites, insects), environmental tobacco smoke, and respiratory infections, just to name a few. Air quality in the United States is improving even while the number of severe episodes of asthma attacks (as evidenced by hospitalization incidents) increase. Air quality has not been directly linked to developing asthma, although it can make symptoms worse in people with asthma. The total number of people who have the disease in Chicago is similar to the national average.

If you have further questions or concerns about asthma and your health, you may contact Dr. Sandra Thomas (312/747-9674) at the Chicago Department of Public Health or the Illinois Department of Public Health, Division of Chronic Disease Prevention and Control (217/782-3300).

10. What are the health effects from drinking water and breathing air containing dust from the quarry? Will sensitive populations like children and elderly be affected?

Particulate matter enters the human body by way of the respiratory system. The size of the particle determines its depth of penetration into the respiratory system. Particles larger than 10 microns in size are generally deposited in the nose and throat and can be effectively removed by the body's respiratory system. Particles smaller than 10 microns in size (PM₁₀) can penetrate deeply into the respiratory system. PM₁₀ is very fine, non-

visible particulate matter.

The U.S. EPA has set maximum allowable outdoor air concentration limits for common air pollutants. These limits are known as National Ambient Air Quality Standards (NAAQS). The standards are intended to protect everyone, including sensitive individuals such as asthmatics, young children and the elderly. The USEPA has set a standard for PM₁₀. As discussed above, the area around MSC has been meeting this NAAQS since 1993.

Particulate Matter in drinking water is effectively removed during standard treatment at the municipal public drinking water treatment works.

11. Dolomite, which contains lead, was mined from this site. Are residents being exposed to it as uncovered trucks haul rock from the site?

Galena deposits in dolomite generally have been found in Northwestern Illinois, not in Northeastern Illinois. The Department of Natural Resources (IDNR), Illinois State Geological Survey, has performed analysis of samples of dolomite from the Vulcan Quarry in McCook and did not find detectable amounts of lead. The MSC quarry and Vulcan quarry sit on the same dolomite deposit. In 30 years experience with dolomite deposits in Illinois, IDNR has not observed lead in the quarried bedrock of the Chicago area. If you have further questions about the dolomite deposits, you may contact Don Mikulic, IDNR, Illinois State Geological Survey, at 217/244-2518.

Blasting

12. Residents at the public hearing complained that houses as far away as one mile suffer the effects of shock waves from the constant blasting at the site. Many residents live in close proximity (in some cases 200 feet away) from the quarry site. Residents spoke of cracks in the walls, ceilings and foundations of their homes and in their driveways. Some residents are worried that this has resulted in diminished property value.

The Illinois Department of Natural Resources (IDNR), Division of Mines and Minerals, investigates these types of complaints. Residents may contact Barry McCauley at IDNR's Ottawa district office at 815/433-7060. We have attached a copy of IDNR's letter concerning MSC quarry blasting as a part of this response summary.

13. The blasting at the MSC facility creates noise pollution that is a constant nuisance to the surrounding communities. Can Illinois EPA do anything about that?

IDNR Mines and Minerals responds to complaints of blasting noise. The performance limits in effect for companies doing blasting are measured in decibels, although the frequency is below that which can be detected by the human ear. The maximum decibel for airblast (also known as air overpressure) is from 129 to 134 (peak) depending on the frequency range. Airblasts are felt as airborne waves and may travel quite a distance from the source of the explosion. If residents believe that blasting in the area exceeds the prescribed limits, they may complain to IDNR Mines and Minerals, Barry McCauley at the Ottawa office (815/433-7060).

Residents may also experience noise pollution from general operations, such as scraping of the rock substrate, dropping of rock into trucks or hoppers and other handling processes. This noise, which is clearly audible to the human ear, is measured differently than the air blast described above. Enforceable limits for this type of noise are: 61 decibels (daytime) and 51 decibels (nighttime). 61 decibels equates to a normal conversation between two people three feet apart. If residents experience a situation where they believe they are experiencing an unacceptable level of noise pollution, they may contact the Illinois EPA's Noise Lab at 217/785-7726.

- 14. A primary water main, which supplies the entire community of LaGrange, is located under East Avenue. The reservoir for the water supply borders the new site. If the pipe were to break as a result of blasting, the community would face severe consequences. Doesn't the quarry operation so close to a community's source of public drinking water constitute an imminent danger to the water supply and, therefore, to public health?**

The Illinois EPA requires that each municipality with a public water distribution system guarantee the integrity of the system. If there were a leak from a distribution system pipe, the water provider, in this case, the Village of LaGrange, would have to make repairs to the pipe consistent with provisions of the Illinois Environmental Protection Act.

- 15. Could the blasting allow contamination in the soil to reach the groundwater table beneath the site?**

While it is theoretically possible for contamination to reach groundwater through fractures in the dolomite rock underlying the site, Illinois EPA has no evidence of soil contamination on the property that MSC purchased for additional mining purposes. Parcel number 1 of GM's Electro Motor Division, the property in question, was given an informal "no further remediation needed" status by a letter from Illinois EPA to GM's Electro Motor Division on June 30, 1999. After a Phase I environmental site assessment, it was decided that "given the fact that no potential release areas were found in Parcels #1 or 2, no further remediation is necessary in those areas." If you have further questions about the ongoing cleanup that GMC is doing on the various parcels at the Electro Motor Division site, please contact Karen Nachtwey, Illinois EPA Bureau of Land, 217/524-3273.

Permit Conditions

- 16. The draft permit should include restrictions on operating hours. Consideration should be given regarding the close proximity of residential areas.**

The Illinois EPA does not have authority to regulate operating hours. However, the municipality may govern hours of operation for facilities located within its borders. The municipality or neighbors could work directly with MSC to work out an agreed upon time for operation.

- 17. The large amount of truck traffic leaving the site creates an unsafe environment for area residents, especially children, and damage roadways. Who has jurisdiction to restrict the amount of truck traffic leaving the site, or possibly the truck routes?**

The Illinois EPA cannot regulate truck traffic. The Illinois Department of Transportation sets limits on the load a road can handle, but it is law enforcement officers (state, county or local depending on the road) that enforce those limits.

- 18. What impact do emissions from the increased truck traffic have on air pollution?**

The Illinois EPA Permit Section regulates emissions from stationary sources. Mobile sources, such as vehicles, are regulated by federal emission standards on the engines. The air quality of the Chicago-metropolitan area reflects the effects of both stationary and mobile sources.

- 19. Aren't the trucks all supposed to be tarped when they leave the site? Often, they are not tarped, and the windshield on my car has been broken by flying rocks from MSC trucks on more than one occasion. Who has authority to require that these trucks be tarped?**

The Illinois Vehicle Code requires the use of tarps. The provisions of the vehicle code are enforceable by police authorities.

- 20. Dust accumulates on roadways near the MSC site, mostly from the tires and sides of trucks leaving the site. It is so bad that it obscures the painted traffic lines on the roads and makes the roads slippery and unsafe when they are wet. Can Illinois EPA or anyone else do anything to stop MSC from letting their trucks leave the site dirty?**

The Illinois EPA is looking into requiring MSC to include procedures in its fugitive dust plan to minimize the amount of dirt that falls off of the trucks after it leaves the site and also to require the use of a vacuum sweeper to keep the roads outside of the facility cleaner.

- 21. Is it possible to include as part of the conditions of the Illinois EPA permit that the facility engage the services of a third-party on-site inspector to monitor operations? It would provide a certain level of assurance to all the surrounding communities if there were someone checking on a regular basis regarding whether the facility is actually wetting aggregate when appropriate to reduce dust, cleaning truck tires before exiting the site, tarping trucks, etc.**

Third party monitoring is not authorized by the Illinois Environmental Protection Act. Rather, third party on site monitoring must be by agreement of the facility or by court order.

Monitoring

22. **I don't believe that the location of the air monitor allows it to be reflective of the air quality in the area. The monitor is not equipped with instrumentation to determine and record aerometric data: wind speed and direction. The absence of such information means that the Illinois EPA is unable to identify the possible source or sources of particles captured by the monitor at any given time. Also, the location of the station, which is south of the MSC facilities, makes it highly unlikely to capture any emissions from either site with any regularity during the months of greatest activity.**

The Illinois EPA's particulate monitor is east of the quarry at 50th Street and Glencoe. This monitor measures PM₁₀ and smaller particulate matter. The monitoring station at McCook is equipped with a continuous particulate matter emissions monitor that provides real time data, 24 hours a day, 7 days a week. Since prevailing winds in the area are out of the southwest, a major component of the prevailing wind blows directly at the monitor. Any problem sources in the area would impact the monitor at some time and high values would be detected illustrating a problem. The site is appropriately located to measure concentrations of PM₁₀ in the area where they are expected to be the highest and where the public would be impacted.

Monitoring of wind direction/speed by the Illinois EPA is conducted at 26 sites statewide, 13 sites in the Chicago area and one site within two miles of the McCook monitor. Data from these stations is more than adequate to correlate particulate measurements at McCook.

Miscellaneous

23. **McCook approved the zoning of the site for this quarry operation. However, that approval does not take into consideration the safety and welfare of the other surrounding villages/municipalities. The 250 citizens of McCook have benefited at the expense of 40,000+ citizens of Countryside, LaGrange, Lyon, and Brookfield, to name a few.**

The Illinois EPA does not have authority over local land uses and, therefore cannot address the concern you raise. Zoning of industrial sites is normally under the purview of local municipalities.

24. **What would happen if the quarry were blasting at the same time a freight train was passing by on the adjacent railroad tracks? Would there be a derailment? What if a train containing hazardous materials were derailed?**

The Illinois EPA has no information to believe that blasting at the proposed site would cause train derailment. If a train derailment were to occur local officials would contact Illinois EPA's Emergency Response Unit. The Illinois EPA's role would be to provide direction and guidance on what needs to be done to correct the situation and safeguard the area residents. Illinois EPA personnel would coordinate approval for the work plans for the cleanup with the local officials and the contractor for the railroad.

- 25. The existing structure from which Material Service Corp. operates used to be an old Electro Motive plant. Could there be chemical contamination at the site?**

Parcel number 1 of GMC's Electro Motive Division was purchased by MSC in June 1999 after a Phase I Environmental Site Assessment concluded in a letter from Illinois EPA that required "no further remediation" on parcel numbers 1 and 2. The site assessment included visual observations, a review of historical records, local, state and federal records and discussions with site personnel. No potential release areas were found on parcels number 1 or 2.

- 26. Residents have seen trucks they suspect carry "special waste" enter and leave the site very late at night. Is MSC doing something with chemicals illegally that could lead to contamination?**

To the best of the Illinois EPA's knowledge Material Service Corporation is not involved in any removal of hazardous waste from the site. GMC entered into the State's Site Remediation Program in 1996 with a goal to clean up parcels 1 through 7 of its site as needed to receive "no further remediation" letters for those parcels. GMC has hired environmental contractors to legally and properly remove and dispose of the hazardous waste from the parcels that did have contamination in evidence. Parcel number 1, which was purchased by MSC, did not show evidence of contamination.

- 27. Has the Illinois EPA done any testing at the Electro Motive site to find out what chemicals are present? What will come out of the ground when the blasting starts?**

As was stated in the response to question #25, only a Phase I environmental site assessment was needed on parcel #1. Other parcels did undergo Phase II site assessment, which included soil and groundwater investigation. Testing of soil and groundwater has been or is in the process of being performed on those other parcels.

- 28. Have any hazardous wastes been taken off the Electro Motive site? How have they been disposed?**

Hazardous wastes have been removed from parcels 4 & 5. They were light bulbs, mercury switches, PCB contaminants, metal dust and/or residue (21 drums worth of waste), and asbestos. Private contractors were brought in to individually remove each of the listed hazardous wastes. The wastes were properly removed from the building, put in correct storage, and disposed of at licensed facilities.

- 29. I ask that you reject MSC's application and make them continue their efforts to improve their operations and establish better relations with their neighbors. Since MSC has already stated that their current operations would close in a year or so without the expansion, I would ask that you consider placing a hold on their application and their expansion plans for a reasonable amount of time while the newly-formed Lyons Township Quarry Advisory Council tries to address and possibly mitigate, the existing quarry problems.**

While the Illinois EPA endorses companies and citizens working together to resolve complaints, the Illinois EPA cannot require this. Further, the Bureau of Air is required by the Illinois Environmental Protection Act to make a decision on a permit of the type submitted by MSC within 180 days of receipt of the application.

FOR ADDITIONAL INFORMATION

Questions about the public comment period and permit decision should be directed as follows:

Public Hearing Procedures and Exhibits, Responsiveness Summary (Questions on or Extra Copies)

Bradley Frost, Community Relations Coordinator
Illinois Environmental Protection Agency
Office of Community Relations
1021 North Grand Avenue, East
P.O. Box 19276
Springfield, Illinois 62794-9276
217/782-7027
1-888-372-1996 Toll-Free

Signed: _____ Date: _____
Deborah Williams, Hearing Officer