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AIR POLLUTION CONTROL PGM

IN THE

CIRCUIT COURT OF JEFFERSON COUNTY

STATE OF MISSOURI

STATE OF MISSOURI ex rel. Jeremiah W. (Jay) Nixon, the Missouri Department of Natural Resources, and the Missouri Air Conservation Commission,	)	
Plaintiff	)	
v.	)	Case No. 07JE-CC00552
The Doe Run Resources Company	)	
Defendant.	)	

CONSENT JUDGMENT

Come now the State of Missouri ex rel. Jeremiah W. (Jay) Nixon, the Missouri Department of Natural Resources (hereafter MDNR), and the Missouri Air Conservation Commission (hereafter Commission), plaintiffs, and the Doe Run Resources Company (hereafter Doe Run), defendant, and state as follows:

1. The state of Missouri, through MDNR, in consideration of Doe Run's agreement to complete the implementation of control strategies upon the time schedules as more fully set forth in the Consent Judgment below, and Doe Run, in consideration of the state of Missouri's agreement to accept the implementation of said control strategies as sufficient, under current information and belief, to attain the federal and Missouri ambient air quality standard for lead and to accept the time schedules for completion of such control strategies as being as expeditious as practicable, agree to entry of this Consent Judgment.

2. MDNR and the Commission are preparing a State Implementation Plan (SIP) revision to demonstrate attainment and maintenance of the national ambient air quality standard for lead in Herculaneum, Jefferson County, Missouri. As part of the SIP revision, a lead emissions reduction program at Doe Run's Herculaneum, Missouri facility is required. MDNR, the Commission, and Doe Run hereby agree that the Court may enter the Judgment set forth below, to be binding on the parties, providing for a lead emission reduction program, which Doe Run hereby agrees to undertake and complete on the schedule set forth in this Judgment. The parties, by their signatures hereto, acknowledge that they have read and understand the terms of this Judgment and agree to be bound thereby.

This matter coming before the Court on the petition filed by the State of Missouri, the Court having jurisdiction over the subject matter and the parties pursuant to §643.151, RSMo, and the Court being fully advised in the premises:

IT IS THEREFORE ORDERED, ADJUDGED, AND DECREED that Doe Run undertake and complete, at its Herculaneum, Missouri facility, the following lead emission reduction program, on the schedule set forth below. These control measures and the associated schedules are the reasonably available control measures to be implemented to attain the national ambient air quality standard for lead (as required by Section 172(c) of the Clean Air Act).

A. Projects Required. The following emission control measures shall be installed at the Herculaneum facility. Doe Run may install and operate additional emission control projects and may improve the emission controls listed below as is necessary to further reduce ambient lead concentrations in Herculaneum, Missouri.

1. Concentrate Delivery & South End Material Storage. Beginning on or before April 7, 2007, Doe Run shall utilize a new concentrate delivery system.

All delivery concentrate shall contain an average of six (6) percent moisture by weight on a daily average as demonstrated by physical analysis, as set forth in Doe Run's Work Practices Manual (attached as Exhibit A hereto). Records of these analyses shall be provided as required in paragraph B(8). The concentrate delivery procedure shall be outlined in the Work Practices Manual. Concentrate delivery trucks shall enter the plant, back to the unloading location, and dump their load over a barrier so as to minimize contact of concentrate with the truck tires. All trucks shall subsequently proceed to a water wash system for removal of visible materials from the tires and chassis of each truck. All concentrate delivery trucks shall be properly tarped to prevent concentrate from blowing out of the bed of the trucks during transport. Trucks must remain tarped except during the unloading and washing process, and all tarps must be maintained in working order with no tears or openings. On or before April 7, 2008, Doe Run shall install and permanently operate a concentrate handling system in the plant comprised of a partially enclosed hopper and conveyor that can convey truck delivered concentrate directly from a hopper into a railcar. On or before April 7, 2008, Doe Run shall install and utilize a drop sleeve that reaches down to the top of the railcar on the concentrate conveyor drop points to minimize the effective drop height of the conveyed concentrate. On or before April 7, 2007, Doe Run shall install, utilize, and properly maintain a walled concentrate storage area to minimize fugitive lead emissions from handling and wind erosion and to prevent migration of the materials onto plant roads or other areas. The walled storage shall be constructed of locking concrete blocks assembled to preclude passage of

materials with a minimum wall height of at least three blocks, back wall length of **46** blocks on three sides, and side wall length of 7 blocks. To minimize concentrate handling and fugitive lead emissions, beginning on or before April 7, 2008, Doe Run shall convey a minimum of eleven truckloads of concentrate each day concentrate is received directly to railcars. Doe Run shall limit the movement of concentrate from the walled concentrate storage area to railcars to the amount listed in paragraph B(6)(d). Records of the amount of concentrate loaded directly to railcars and from the walled concentrate storage area shall be maintained as required in the Work Practices Manual. The concentrate delivery system may be altered if Doe Run identifies an improved system upon written approval of the Director of the Department of Natural Resources Air Pollution Control Program.

2. On or before April 7, 2008, Doe Run shall enclose the sinter loading area on the northeast corner of the sinter area. The enclosure shall be engineered as a permanent total enclosure, to minimize the escape of lead-bearing particles from the enclosure. Doe Run's Work Practices Manual shall outline the procedure for keeping building doors closed, except to allow for building access.

3. Railcar Tipping Building. On or before April 7, 2008, Doe Run shall install a door on the south end of the railcar tipping building. The door shall be engineered to minimize the escape of lead-bearing particles from the tipping building. The design of the door is subject to MDNR approval. Doe Run's Work Practices Manual shall outline the procedure for unloading the railcar, including steps to open the door, move the railcar into the building, close the door, tip the car, convey material out of the hopper, and to reopen the door to move the railcar

out of the building, and to keep the doors closed when the unloader is not in use.

4. Sinter Machine Wheel Tunnel Ventilation. Beginning on or before April 7, 2007 Doe Run shall enclose and ventilate the hot gas section of the Wheel Tunnel of the Sinter Machine. The Wheel Tunnel ventilation shall be designed with a rate of fifteen thousand (15,000) actual cubic feet per minute. These gases shall be routed to Number 3 Baghouse which shall meet a total suspended particulate specification of 0.022 grains per dry standard cubic foot of air. Beginning on or before April 7, 2008, the rate of Wheel Tunnel ventilation shall be continuously measured. Wheel Tunnel ventilation shall be continuously operated and maintained at fifteen thousand actual cubic feet per minute, including during times when the Sinter Machine is not operational, unless it interferes with maintenance work being performed on the equipment. Doe Run's Work Practices Manual shall outline the conditions and procedures by which ventilation rates can be altered for the previously mentioned situations. As an alternative to continuously measuring flowrates, Doe Run may develop a calculation for the relationship of fan amperage and duct damper settings to ventilation rates and continuously record fan amperage. Doe Run shall submit the calculation to MDNR for its review and approval. Doe Run may redesign the Sinter Machine process gas ventilation measurement system or baghouse system to allow different bag, fan, or cleaning mechanism designs provided MDNR approves the redesign based on Doe Run's demonstration that the performance is equivalent or better. A file recording fan amperages, fan outages, and ventilation rate monitoring shall be maintained as required by Section B(8)(f).

5. Number 3 Baghouse Bag Replacement and New Cleaning Systems. On or before April 7, 2007, Doe Run shall upgrade the bags and bag cleaning system in Number 3 Baghouse. The new bags will be cleaned using reverse flow technology. This new system shall be designed with a ventilation rate of two-hundred and twenty-five thousand (225,000) actual cubic feet per minute. Number 3 Baghouse shall be designed to meet a total suspended particulate specification of 0.022 grains per dry standard cubic foot of air. Beginnin on or before April 7, 2008, the rate of ventilation shall be continuously measured at a point immediately after the gases exit the baghouse, and the ventilation system shall be continuously operated and maintained at two-hundred and twenty-five thousand (225,000) actual cubic feet per minute . Alternatively, Doe Run shall develop a calculation for the relationship of fan amperage and duct damper settings to ventilation rates and continuously record fan amperage. Doe Run shall submit the calculation to MDNR for its review and approval. Doe Run may redesign the baghouse system to allow different bag, fan, or cleaning mechanism designs provided MDNR approves the redesign based on Doe Run's demonstration that the performance is equivalent or better. A file recording fan amperages, fan outages, and ventilation rate monitoring shall be maintained as required by Section B(8)(f).

6. Carrier Cooler Baghouse Enclosure. On or before April 7, 2008, Doe Run shall enclose the dust handling sections of the Carrier Cooler Baghouse.

7. Fume unloading (pugger). On or before April 7, 2008, Doe Run shall install and permanently operate a fume handling system. Fume from Baghouse

Number 5 shall be routed to the Mix Room and fed to the Sinter Machine when the Sinter Machine is in operation. During times that the Sinter Machine is not in operation, fume from the Number 5 Baghouse shall be wetted and augered into a railcar for storage at the south end of the plant. On or before April 7, 2008, Doe Run shall install, utilize, and properly maintain a drop sleeve that reaches down to the top of the railcar on the fume to the railcar drop point to minimize the effective drop height of the conveyed concentrate. The augered fume shall contain a daily average of eight (8) percent moisture by weight as demonstrated by physical analysis as set forth in the Work Practices Manual. The fume storage pile at the south end of the plant shall be wet as needed as set forth in the Work Practices Manual. Records of these analyses shall be provided as required in paragraph B(8)(e). In addition, the fume storage pile shall be treated with a proprietary compound according to manufacturer's specifications to minimize fugitive emissions from wind erosion.

8. Number 5 Baghouse Fans and Blast Furnace Blowers Interlock. On or before April 7, 2007, Doe Run shall install and permanently operate an interlock control system that restricts air feed to tuyeres at the bottom of the furnace when the Number 5 Baghouse fans are not operational, such as during an electrical malfunction or mechanical failure.

9. Number 5 Baghouse Fans Malfunction Alarms at Blast Furnace. On or before April 7, 2007, Doe Run shall install and permanently operate a process alarm system that notifies blast furnace operators when there is a malfunction at the Number 5 Baghouse Fans. When an alarm is triggered by a Number 5

Baghouse malfunction, operators at the blast furnace shall take immediate action as set forth in the Work Practices Manual to control the operation of the blast furnace to minimize emissions.

10. Tuyere Controller Upgrade. On or before April 7, 2007, Doe Run shall install and permanently operate automated flow controllers on the tuyeres that inject air into the bottom of the furnace. Sensors shall be installed and permanently operated that continuously monitor flow at each tuyere. An algorithm shall be developed that continuously compares the flow at different tuyeres, and automatically restricts flow to individual tuyeres if the flow rates from those tuyeres indicate that there is a possibility that a void has formed in the furnace that may lead to a furnace "blow hole." The tuyere control algorithm and system shall be inspected, maintained, and reported on as prescribed in the Work Practices Manual.

11. Blast Furnace Relocation. On or before April 7, 2008, Doe Run shall permanently relocate the Number 1 blast furnace to the former location of blast furnace Number 3. The relocation shall reduce ductwork length and potentially increase ventilation flowrates. Beginning on or before April 7, 2008, the rate of ventilation shall be continuously measured at a point immediately after the gases exit Number 5 Baghouse, and the ventilation system shall be operated at all times except during baghouse maintenance, when the furnace is not operating, or during other periods non-representative of normal operations. Number 5 Baghouse ventilation shall be continuously operated and maintained at 300,000 actual cubic feet per minute, including during times when the Blast Furnace is not operational,

unless it interferes with maintenance work being performed on the equipment. As an alternative to continuous measurement of the ventilation rate, Doe Run may develop a calculation for the relationship of fan amperage and duct damper settings to ventilation rates and continuously record fan amperage. Doe Run shall submit the calculation to MDNR for its review and approval. The relocation shall also reduce the length of the charge belt that conveys sinter as feed to the furnace shuttle feeder by seventy (70) feet. Once the furnace has been relocated, Doe Run shall not construct or rebuild another furnace in the old location.

12. Blast Furnace Doghouse Ventilation Improvement and Redesign of Hoods Servicing the Front of the Furnace. On or before April 7, 2008, Doe Run shall install ductwork that provides continuous ventilation to the Blast Furnace Doghouse area for the purpose of removing dust from the interior air near the top of the Blast Furnace Building. Number 6 Baghouse ventilation shall be continuously operated and maintained at 50,000 actual cubic feet per minute, including during times when the Blast Furnace is not operational, unless it interferes with maintenance work being performed on the equipment. A file recording fan amperages, fan outages, and ventilation rate monitoring shall be maintained as required by Section B(8)(f). On or before April 7, 2008, Doe Run shall install an improved ventilation hood system on the front of the Blast Furnace. The hoods shall be designed to improve the capture of fugitive emissions into the Blast Furnace Building and shall include the addition of a ventilation duct and hood over the slag launder to directly ventilate the flow of slag into the granulation tank

13. Kettle Heat Stacks. On or before April 7, 2008, Doe Run shall install and permanently operate cameras that continuously monitor the opacity of the exits of the Kettle Heat Stacks as set forth in the Work Practices Manual. The cameras shall be used to quickly identify kettle failures so that operators can take immediate action to mitigate lead emissions from these stacks. When operators suspect a kettle failure, the burners will be shut off immediately. Before returning the suspect kettle to service, the kettle and the kettle setting shall be inspected and completely cleaned of any product. After cleaning the product from the kettle setting, the department foreman shall inspect the setting to assure that all of the lead-bearing materials have been removed. Reporting requirements are outlined in B(8)(h).

14. Number 8 and Number 7&9 Baghouse Improvements. On or before April 7, 2008, Doe Run shall install pleated filters in the Number 7&9 Baghouse to increase the air to cloth ratio and to improve the operation of the baghouse. On or before April 7, 2008, Doe Run shall modify the height of the Number 8 and Number 7&9 stacks to a minimum of one-hundred fifty (150) feet.

15. Specific Control of "North End of Blast Furnace Building to Refinery Dock" Haul Road. Beginning on or before April 7, 2007, Doe Run shall control dust from the plant road from the "North End of the Blast Furnace Building to Refinery Dock" when hauling slag by truck to slag storage by using water to prevent visible fugitive emissions. The water application rate shall be 350 gallons applied over the span of the defined haul road at least once every four (4) hours during any day or portion of day the road is used for hauling slag to storage. A

quarter inch or more rainfall during the preceeding 24-hours shall substitute for this watering condition. Application of water shall not apply when the ground is frozen. Within 72 hours of completion of a batch hauling of slag to storage Doe Run shall apply an appropriate road surfactant according to manufacturer's specifications to prevent fugitive emissions resulting from wind erosion or other incidental road traffic. The Work Practices Manual shall outline these procedures and shall contain a map identifying the referenced in-plant haul road.

16. Street Sweeping. We need to be clear that the regernerative sweeper covers the wet sweeping area when temps fall below 39 (if that is when the wet sweeper ceases operation). On or before April 7, 2008, Doe Run shall purchase and operate a regenerative air sweeper to service paved truck haul routes external to the plant as shown in the Work Practices Manual. Doe Run shall purchase and operate a wet sweeper to service paved areas in the plant. Weather permitting, the sweepers shall be operated a minimum of 6 hours per day, Monday through Friday, on all accessible paved surfaces in the plant that are not controlled by the In-plant Sprinkler system. The wet sweeper shall be operated to include those surfaces controlled by the In-Plant Sprinkler system when the In-Plant Sprinkler system is not operating for any reason. Reporting requirements and a map showing the sweeper coverage areas shall be provided in the Work Practices Manual. The sweeper technology may be altered, upon written approval of the Director of the Department of Natural Resources Air Pollution Control Program, if equivalent or better emissions control is achieved. The coverage area may be altered, upon written approval of the Director of the Department of Natural

Resources Air Pollution Control Program, if Doe Run proposes a new haul route which would result in no additional adverse impact on air quality.

17. In-plant Sprinklers. On or before April 7, 2008, Doe Run shall install a permanent water sprinkler system to wet paved surfaces in the plant. This system shall be maintained and operated, except when ambient temperatures fall below 39°F, or when the application of water results in the formation of ice that could result in injury to personnel. A map showing the coverage area of the sprinkler system is provided in the Work Practices Manual, which also contains operating specifications. The coverage may be altered, upon written approval of the Director of the Department of Natural Resources Air Pollution Control Program, if those areas prove to be better controlled for emissions by new sweeper technology or other equivalent or better techniques.

18. Building Enclosure Improvements. On or before April 7, 2008, Doe Run shall equip all man doors in the Sinter Building, Blast Furnace Building, and Refinery Building with cords, pullies, and weights so that the doors are pulled closed automatically. Beginning on or before April 7, 2007, Doe Run shall institute lockout procedures for the large equipment doors in the Sinter Building, Blast Furnace Building, and Refinery Building. The lockout procedures shall be outlined in the Work Practices Manual. Alternatively, Doe Run shall equip all large equipment doors with automatic closing mechanisms. All doors shall be closed at all times except to allow building access.

19. On or before April 7, 2007 (except in the case of the Carrier Cooler Baghouse enclosure, which shall be subject to this provision when construction is

completed), and every two weeks thereafter, Doe Run shall conduct a comprehensive inspection of the siding of the Sinter Building, Blast Furnace Building, Carrier Cooler Baghouse enclosure, and Refinery Building. The inspectors shall identify and schedule building repairs necessary to minimize the escape of lead-bearing particles from the building. Records of the inspection and siding repairs shall be provided to MDNR as required in paragraph B(8)(d).

20. On or before July 1, 2007, Doe Run shall submit a work plan to MDNR for a building ventilation study for the Sinter Building, Blast Furnace Buiilding, and Refinery Building. The work plan is subject to approval by MDNR. The work plan shall identify building openings, ventilation sources that are typically operated at continuous rates, ventilation sources where rates can be varied, and a procedure for measuring inflow into the buildings. The goal of this effort shall be to develop a mathematical relationship between inflow rates and process and hygiene fan amperages, and to establish minimum fan amperages that assure that particles emitted within the building are being appropriately captured by the ventilation systems. Within 90 days of approval of the work plan by MDNR, Doe Run shall complete the ventilation study. Within 60 days of completion of the study, Doe Run shall summarize the findings and report these to MDNR. Upon approval of the study and its findings, the minimum fan amperages identified in the study shall become enforceable conditions of this Consent Judgment. If the parties are unable to agree regarding the findings of the study, the matter shall be submitted for dispute resolution pursuant to paragraph E below.

B. Required Practices and Procedures.

1. Fence line to Preclude Public Access. A map showing the existing fenceline and a proposed new fenceline is provided in the Work Practices Manual. Doe Run shall maintain the existing fence around its facility so that it is sufficient to preclude general public access, until such time as a new fenceline outside the existing fenceline is fully installed. If Doe Run moves the fence to the proposed fenceline or another location outside the existing fenceline, it must install and maintain the new fence so that it is sufficient to preclude general public access. Doe Run shall notify MDNR of its intent to move the fenceline to the proposed fenceline or another location outside the existing fenceline at least 90 days prior to commencement of construction. Doe Run shall not relocate any existing processes, or construct new lead emission sources, in the area between the existing fence line and the new fenceline.

2. Technology Study for Fugitive Dust Control. By April 1, 2008, Doe Run shall submit a work plan to MDNR for a study of best practices and best available technology in place in at least three other smelting facilities and other facilities with fugitive emissions control challenges. The work plan is subject to approval by MDNR. The work plan shall provide that the study shall be completed and delivered to MDNR within 180 days of Doe Run being notified by MDNR that the air quality data for the second calendar quarter of 2008, or any quarter thereafter, exceeds 90% of the 1.5 μg Pb/m3 quarterly average lead standard. The study must list all best practices and best available technologies identified and, for each technology or practice, must identify those technologies and/or practices that Doe Run deems technically feasible and cost-effective for inclusion as contingency measures, quantify associated emissions reductions, and provide a time frame for implementation of each. Within 60 days of its receipt of

the study, MDNR will advise Doe Run whether the projects and timelines proposed by Doe Run are acceptable and if MDNR agrees that any of the identified technologies or practices are not technically feasible and cost-effective. Those items that are determined to be technically feasible and cost-effective shall become a part of this Consent Judgment and fully enforceable hereunder as contingency measures in paragraph C(1), and shall be implemented on a schedule agreed upon between Doe Run and MDNR. If the parties are unable to agree regarding any items, the matter shall be submitted for dispute resolution pursuant to paragraph E below.

3. Stack Testing. Lead emissions to the atmosphere shall be limited to the amounts in the table below:

Stack Name	Emission Limitiation (lbs per 24-hours)
Main stack	794
7 & 9 baghouse Stack	56.6
8 baghouse Stack	8.2

Compliance with the emission limits shall be demonstrated to MDNR by Doe Run through tests conducted at Doe Run's expense in accordance with approved EPA test methods. Doe Run shall notify MDNR of the proposed test dates and provide a copy of the test protocol to MDNR at least 30 days before testing. Test reports, including raw data, shall be submitted to MDNR within 60 working days of the completion of the test report.

a. Main Stack. On or before June 30, 2008 Doe Run shall conduct an initial stack test for the main stack. Doe Run shall conduct a second test on or before June 30, 2009. If these tests demonstrate compliance with the limit provided in the table above, Doe Run shall conduct future tests every twenty-four (24) months beginning June 30, 2009 to coincide with the testing requirements of

the Primary Lead Smelter Maximum Achievable Control Technology Standard (40 CFR, Part 63, Subpart TTT). If any test does not show compliance, Doe Run shall install and maintain a monitor on the stack to continuously or near-continuously monitor lead emissions as set forth below. If no monitor for continuous or near-continuous monitoring of metals emissions has been approved by EPA, Doe Run shall conduct stack tests every calendar quarter beginning the calendar quarter after the test demonstrating noncompliance. Stack tests shall continue on a quarterly schedule until four consecutive tests have demonstrated compliance, at which time stack tests shall be conducted on an annual basis.

b. Baghouse Stacks. Stack tests on the 7 & 9 Baghouse stack and the 8 Baghouse stack shall be conducted every calendar quarter beginning in the second quarter of 2008 and continuing through the first quarter of 2009 (4 testing events). If the average of the four baseline tests is greater than eighty (80) percent of the respective limits provided in the table above, but less than the limits, the testing frequency may be reduced to two tests annually to occur in the fourth and second quarters of each year. If the average of the four baseline tests is less than eighty (80) percent of the respective limits provided in the table above, the testing frequency may be reduced to one test per stack annually. If any subsequent test on any baghouse stack being tested annually is greater than eighty (80) percent of the respective limits provided in the table above, but less than the limits, the testing frequency for that stack must be increased to two tests annually to occur in the fourth and second quarters of each year. If any test exceeds the applicable limit, Doe Run shall install and maintain a monitor on the stack where the exceedance was monitored to continuously or near-continuously monitor lead emissions as set forth below. If no monitor for continuous or near-continuous monitoring of metals emissions has been approved by EPA, Doe Run shall conduct stack tests every calendar quarter beginning the calendar quarter after the

test demonstrating noncompliance. Stack tests shall continue on a quarterly schedule until four consecutive tests have demonstrated compliance, at which time stack tests shall be conducted on an annual basis, if the average of the four previous quarterly tests is less than eighty (80) percent of the respective limits provided in the table above, or semiannual, if the average of the four previous quarterly tests is greater than eighty (80) percent of the respective limits provided in the table above, but less than the limits.

c. Continuous Monitoring. The continuous or near-continuous monitors shall be operated and properly maintained such that they are individually out of service for no more than one-hundred twenty (120) hours per each calendar quarter. Doe Run shall maintain all necessary spare parts to assure that an extended monitoring outage does not occur. Doe Run shall provide MDNR with a quarterly report of the monitoring results within 30 days of the end of each quarter, including explanations for monitoring downtime and the corrective actions taken. The report shall also include a summary of plant operations, including sinter plant and blast furnace production, and shall note occurrences of values greater than eighty (80) percent of the respective limit and explain why the monitor recorded said values.

4. Notification of Completion Dates. Doe Run shall provide MDNR with written notification of completion of each project specified in Section A within 30 days of completion.

5. Limitation of Hours of Operation. Concentrate unloading, concentrate loading to railcar, and concentrate railcar tipping shall be conducted between the hours of 6 AM and 10 PM. Fume Unloading shall be conducted only 13 days per calendar quarter between the hours of noon and 6 PM.

6. Process Weight Limits.

a. Sinter plant production shall be limited to 169,190 tons of finished sinter per each calendar quarter.

b. Blast furnace sinter throughput shall be limited to 169,190 tons of sinter charged per each calendar quarter.

c. Refinery production shall be limited to 50,000 tons of lead metal cast per each calendar quarter. After April 7, 2008, as long as the air quality data does not exceed the 1.5 μg Pb/m3 quarterly average, refinery production may be increased by up to 5,000 additional tons per quarter, up to a maximum of 62,500 tons. Once the quarterly standard has been exceeded in any quarter, refinery production shall be determined as provided in paragraph C(2).

d. Daily process weight limits. Daily production from various operations in the plant shall be limited to the amounts in the table below:

Activity	Process Throughput Limitiation (tons per 24-hour period as per the Work Practices Manual)
Concentrate Delivery	1,800
Concentrate Loaded into Railcars from Ground	1,187
Sinter Produced	2,160
Blast Furnace Charge (of Sinter)	2,160
Rough Lead Produced	1,260
Refined Lead Produced	888

e. Quarterly process limits. Quarterly production from various operations in the plant shall be limited to the amounts in the table below:

Activity	Process Throughput Limitiation (tons per calendar quarter)
Sinter to South End Storage	45,000
Fume handling to storage on South End	1,170

7. Work Practices Manual:

a. Doe Run shall, to the extent consistent with this Consent Judgment and 10 CSR 10-6.120, adhere to the Work Practices Manual. The Work Practices Manual and the exhibits attached thereto may be modified only with the prior written approval of MDNR.

b. Doe Run shall appoint an individual, who shall report directly to the General Manager, and who shall be responsible for overseeing compliance with the Work Practices Manual and all other housekeeping measures instituted to control fugitive emissions. Doe Run shall report to MDNR at least quarterly on all measures taken to improve work practice compliance, any identified failures to achieve compliance, and additional recommendations for improving compliance. Within 60 days of its receipt of the report, MDNR will advise Doe Run whether additional corrective measures are required. All agreed items shall become a part of this Consent Judgment and fully enforceable hereunder. If the parties are unable to agree regarding any items, the matter shall be submitted for dispute resolution pursuant to paragraph (E) below.

8. Record-Keeping. Doe Run shall maintain the following records for MDNR review until termination of this Consent Judgment pursuant to paragraph H or as otherwise specifically provided in this agreement or the Work Practices Manual.

a. Doe Run shall maintain a file that states for each quarter, (i) Sinter machine throughput, (ii) Blast furnace throughput, and (iii) Refined lead produced.

b. Doe Run shall maintain a file of the date, time, findings, and corrective actions taken for all baghouse inspections scheduled in the Work Practices Manual.

c. Doe Run shall maintain a file that records any upset operating conditions or material spills that affect lead emissions.

d. Doe Run shall maintain a file recording building siding inspections as required under paragraph A(19) and any corresponding corrective actions.

e. Doe Run shall maintain a file recording the average daily moisture content of delivered concentrate as required under paragraph A(1) and of the average moisture content of railcar and storage pile fume as required in paragraph A(7).

f. Doe Run shall maintain a file recording fan amperages, fan outages, and ventilation rate monitoring data as necessary to demonstrate appropriate ventilation rates from processes and buildings.

g. Doe Run shall integrate the recordkeeping of the prior consent judgment (referred to in paragraph I.)

h. Doe Run shall maintain a file noting kettle failures and corrective actions in reference to paragraph A(13).

i. Doe Run shall maintain a file of all TEOM reports, including detailed process logs and findings as provided in paragraph B(10).

j. Doe Run shall maintain a file and report ambient concentrations recorded at Doe Run operated monitors as required in paragraph B(9).

k. Doe Run shall maintain a file on the meteorological data referred to in paragraph B(10) for submission upon request of MDNR.

l. Doe Run shall maintain a file and submit a quarterly report related to the environmental management system requirements of paragraph B(11).

9. MDNR and Doe Run shall continue monitoring the air for lead at Dunklin High School, Main Street (otherwise known as City Hall monitoring site), and Broad Street in accordance with the every sixth day national monitoring schedule, or on a more frequent periodic schedule. The data from any monitor that is no longer located within ambient air shall be used solely for informational purposes and not for determining compliance with the 1.5 μg Pb/m3 quarterly average lead standard. Doe Run shall continue data collection from these monitors until EPA has formally redesignated the Herculaneum Lead Nonattainment Area as an attainment area for lead.

10. Continuous Monitoring and Ongoing Evaluations. On or before April 7, 2007, Doe Run shall install and permanently operate two continuous particulate samplers utilizing tapered element oscillating microbalance (TEOM) technology. One shall be located at the Broad Street monitoring site and the other shall be located at the Main Street monitoring site. These samplers shall be operated according to manufacture's specifications and maintained to achieve a minimum

of ninety (90) percent data capture. On or before April 7, 2008, Doe Run shall submit to MDNR proposed locations for sampling to update the chemical analyses (fingerprints) of sources within the plant that are representative of independent activities and locations to reflect process and operational changes that have or will occur since the previous study. Upon approval of the locations by MDNR, Doe Run shall collect samples and have them analyzed. Starting April 7, 2008, Doe Run shall collect and analyze all filters from the Doe Run operated Broad Street and Main Street monitors that meet either of the following conditions: (1) Any day that exceeds a reported concentration of 5.0 micrograms of lead per cubic meter; or (2) Any day that exceeds a reported concentration of 1.5 micrograms of lead per cubic meter and that falls on the every sixth day national monitoring schedule. The analysis shall include a review of the continuous particulate monitoring, the daily ambient concentrations, wind speed and direction data, precipitation data, a summary of process throughputs, an identification of malfunctions, process upsets, or other conditions that may be expected to contribute to ambient impact, and a summary of the receptor analyses as required above. Doe Run shall provide these analyses in a quarterly report to MDNR.

11. Meteorological Monitoring: On or before April 7, 2007, Doe Run shall install and operate a set of instruments to record the following parameters: At the River Meteorological Station, 10 meter wind speed, 10 meter wind direction, 10 meter temperature, 2 meter temperature, delta T (2-10 meters), sigma-theta 10 meters, barometric pressure, relative humidity, incoming solar radiation, net

radiation, and precipitation; and at the Broad Street Station, 2 meter wind speed, 2 meter wind direction, 2 meter temperature,10 meter wind speed, 10 meter wind direction, 10 meter temperature, 40 meter wind speed, 40 meter wind direction, 40 meter temperature, delta T (2-10 meters), delta T (10-40 meters), delta T (2-40 meters), sigma-theta 10 meters, sigma-theta 40 meters, barometric pressure, relative humidity, incoming solar radiation, net radiation, and precipitation. The instruments shall record and process data as fifteen (15) minute and one (1) hour averages. The raw and processed fifteen (15) minute and one (1) hour average data shall be electronically archived and reported to MDNR upon request. Doe Run shall install, maintain, and respond to an automated alert system which will issue an alert when any data are not being recorded. Doe Run shall also conduct and log weekly visual inspections of the equipment to assure that the equipment appears to be operating appropriately. On a monthly basis Doe Run shall complete and log an inspection of the instruments by a qualified technician assuring that the equipment is recording appropriate values. If data capture falls below 90%, inspections that were conducted on a monthly basis will be conducted every other week. Once every three months, Doe Run shall audit, calibrate, and produce a report on the inspection of the instruments using calibration devices certified annually to NIST standards. Doe Run will have a complete unit backup system ready to be installed at all times. Doe Run will ensure that all sensor and data collection problems are rectified no later than 24 hours following detection. If Doe Run expects a problem will take longer than 24 hours to rectify, Doe Run will communicate this to MDNR no later than 24 hours following initial

detection, and will report the cause for the delay and what they are doing to address the situation, and will institute measures to prevent such a delay in the future. All logs and reports will be archived by Doe Run and provided to MDNR upon request. Doe Run shall continue to operate these instruments until EPA has formally redesignated the Herculaneum Lead Nonattainment Area as an attainment area for lead.

12. By July 1, 2008, Doe Run shall implement an environmental management system, subject to MDNR approval, that at a minimum:

a. Provides that any quarterly exceedance of the 1.5 μg Pb/m3 quarterly average lead standard does not conform to Doe Run's policy;

b. Establishes that (i) any event reasonably likely to increase, or which actually increases, lead emissions from the Herculaneum facility above emissions related to normal operating processes; or (ii) any daily average detected at any ambient lead monitor in Herculaneum which exceeds 12 micrograms per cubic meter, does not conform to Doe Run's policy;

c. Establishes, and requires implementation and maintenance of, procedures for dealing with actual and potential nonconformities and for taking corrective action, including:

1) Identifying and correcting nonconformities and taking actions to mitigate their environmental impacts;

2) Investigating nonconformities, determining their causes and taking actions to avoid their recurrence;

3) Evaluating the need for actions to prevent nonconformities and implementing appropriate actions to avoid their occurrence;

4) Recording the results of corrective and preventive actions taken;

5) Reviewing the effectiveness of corrective and preventive actions taken;

6) Requiring continuous repetition of these EMS procedures and improvement of the Doe Run's processes and technology until all nonconformities are prevented or effectively mitigated; and

7) Maintaining all records necessary to demonstrate conformity with these requirements and the results achieved.

Upon implementation, Doe Run shall provide a quarterly report to MDNR on any nonconformity that relates to Doe Run's policy in paragraph B(12)(a) and (b) and any preventive or corrective action taken or proposed. Within 60 days of its receipt of the report, MDNR will advise Doe Run whether additional preventive or corrective action is required. All agreed items shall become a part of this Consent Judgment and fully enforceable hereunder. If the parties are unable to agree regarding any items, the matter shall be submitted for dispute resolution pursuant to paragraph E.

C. Projects required as Contingency Control Measures.

1. If the air quality data for the second calendar quarter of 2008, or any quarter thereafter, exceeds the 1.5 μg Pb/m3 quarterly average lead standard, Doe Run shall begin implementation of these contingency measures upon written notification from MDNR, according to the following schedule. Additionally, if Doe Run fails to make Reasonable Further Progress (defined as the completion of

the Projects Required in Section A of this Consent Judgment or required pursuant to this Section C(1) within the time frames set forth), Doe Run shall begin implementation of the contingency measures upon written notification from MDNR, according to the following schedule:

Projects a and b will be implemeted within 6 months of receipt of the notice. If in any quarter after implementing projects a and b the 1.5 µg Pb/m3 quarterly average lead standard is exceeded or Doe Run fails to make Reasonable Further Progress, MDNR shall notify Doe Run of such exceedence or failure and project c will be implemented within 18 months of receipt of the notice and project(s) to be identified in paragraph d shall be completed within a time frame to be determined by Doe Run and MDNR.. If in any quarter after implementing projects c and d the 1.5 µg Pb/m3 quarterly average lead standard is exceeded or Doe Run fails to make Reasonable Further Progress, MDNR shall notify Doe Run of such exceedence or failure and project e will be implemented within 24 months of receipt of the notice.

a. Enclose pugger

b. Pave haul road

c. Route Kettle heat stacks to main stack

d. Implement contingency measures identified as a result of the Technological Study for Fugitive Dust Control

e. Install dedicated ventilation to the sinter plant If Doe Run demonstrates to MDNR that Doe Run will implement Flubor©

technology at the Herculaneum facility within thirty-six months of the date of notification of the violation that would otherwise require Doe Run to implement this paragraph e, Doe Run shall not be required to implement this paragraph e. If Doe Run does not implement Flubor© technology at the Herculaneum facility within thirty-six months as demonstrated, Doe Run must install dedicated ventilation to the sinter plant within 18 months of the earlier of: (1) the deadline for implementing Flubor© technology; or (2) when Doe Run determines it will not implement Flubor© technology. MDNR may extend the period in which the Flubor© technology is to be implemented if Doe Run is making reasonable progress toward implementation.

2. In addition, when there is an exceedance of the quarterly average lead standard, the quarterly production limit for refined lead shall be reduced to 95% of the actual production during the exceedance quarter, and shall be reduced by an additional 5% below actual production for each subsequent quarter in which there is an exceedance, to a minimum production of 35,000 tons of refined lead per calendar quarter. For any quarter immediately following receipt of quality assured data demonstrating attainment, Doe Run may increase the production level for refined lead by 5% of the attainment quarter's actual production, to a maximum of 62,500 tons per each calendar quarter, provided that Doe Run implements control measures prior to increasing the production level. Prior to increasing production, Doe Run must demonstrate to MDNR that these control measures will reduce impacts on air quality to an equal or greater extent than the increased production limit will increase impacts on air quality.

3. If any daily average detected at any ambient lead monitor in Herculaneum exceeds 12 micrograms per cubic meter, Doe Run shall notify MDNR of such exceedance within two business days. Within five business days of the exceedance, Doe Run shall report to MDNR on the likely causes of the exceedance and the control measures Doe Run has implemented and will implement to avoid any additional exceedances in the same calendar quarter. The second exceedance of the daily average of 12 micrograms per cubic meter under this provision in any calendar quarter will be a violation of this agreement subject to penalties pursuant to paragraph D(3). Exceedances at two or more monitors on any day shall be considered one exceedance and each exceedance on different days shall be considered a separate exceedance, regardless of the monitor recording the exceedance. Any such penalty shall be waived if the quarterly average does not exceed the 1.5 μg Pb/m3 quarterly average lead standard at any monitor.

4. Doe Run shall notify MDNR within 10 days of Doe Run's completion of any contingency measure. Within 60 days of such completion, Doe Run shall propose an additional quantified contingency measure to be added to this consent judgment. Upon approval by MDNR, the additional contingency measure shall become a part of this Consent Judgment and be fully enforceable hereunder.

5. If Doe Run identifies and demonstrates to MDNR's satisfaction alternative control measure(s) that would achieve equal or greater air quality improvements than the Contingency Measure(s) identified above, Doe Run may substitute the new control(s) for the contingency measure(s) identified above upon MDNR's approval. Any substitute contingency measure shall be implemented under the same time frame as the original measure, unless both parties agree to a modified contingency schedule. If the parties are unable to agree regarding any substitute contingency measure, the matter shall be submitted for dispute resolution pursuant to paragraph E.

6. Nothing in this agreement shall prevent Doe Run from implementing the contingencies or additional emission controls not listed in this agreement prior to receiving notification from MDNR.

D. Stipulated Penalties

1. If Doe Run fails to complete construction of the control measures set out in this Consent Judgment by the dates specified, Doe Run may be subject to stipulated penalties according to the following schedule. The penalties are per day, per violation, and may be assessed by MDNR beginning with the first day of violation after the scheduled deadline date.

Period of Noncompliance	Penalty per Day of Violation
First through 30th day of noncompliance	$1,000.00
31st through 60th day of noncompliance	$2,000.00
61st through 90th day of noncompliance	$3,000.00
91st day of noncompliance and beyond	$5,000.00

2. If Doe Run fails to comply with any other requirement of this Judgment, Doe Run may be subject to stipulated penalties according to the following schedule. The penalties are per day, per violation, and may be assessed by MDNR beginning with the first day of violation after the scheduled deadline date.

Period of Noncompliance	Penalty per Day of Violation
First through 30th day of noncompliance	$500.00
31st through 60th day of noncompliance	$1,000.00
61st through 90th day of noncompliance	$1,500.00
91st day of noncompliance and beyond	$2,500.00

3. If any daily average detected at any ambient lead monitor in Herculaneum exceeds 12 micrograms per cubic meter and constitutes a violation of this

agreement pursuant to paragraph C(3), Doe Run shall pay stipulated penalties according to the following schedule.

a. First violation - $1,000.00

b. Second violation - $2,000.00

c. Third violation - $3,000.00

d. Fourth violation - $5,000.00.

Any such penalty shall be waived if the quarterly average does not exceed the 1.5 μg Pb/m3 quarterly average lead standard at any monitor.

4. All penalties shall be paid within 45 days of the date of notification of noncompliance unless Doe Run challenges the penalty pursuant to the Dispute Resolution procedure outlined in paragraph E. If the penalty is challenged, it shall not be paid until 30 days after the Commission's determination that Doe Run owes the stipulated penalty, and Doe Run has failed to use, or has exhausted, its rights to review the Commission's Decision.

5. Stipulated penalties shall continue to accrue during the formal Dispute Resolution process or any appeal. In the event Doe Run prevails, stipulated penalties shall not be due or owed.

6. All penalties shall be paid by certified check made payable to the State of Missouri (Jefferson County Treasurer), and delivered to the Attorney General of Missouri, P.O. Box 899, Jefferson City, Missouri 65102-0899, Attention: JoAnn Horvath, Assistant Attorney General, or Designee.

7. The penalties set forth herein shall not apply in the event of a force majeure, as defined in this section. For the purposes of this Consent Judgment, force majeure shall be defined as any event arising from causes beyond the control of Doe Run and of any entity controlled by Doe Run that delays or interferes with the performance of any obligation under this Consent Judgment notwithstanding Doe Run's best efforts to avoid such an event. The requirement that Doe Run

exercise "best efforts to avoid such an event" includes using best efforts to anticipate any potential force majeure event and best efforts to address the effects of any force majeure event (1) as it is occurring, and (2) following the force majeure event such that the adverse effect or delay is minimized to the greatest extent practicable. Examples of events that are not force majeure events include, but are not limited to, increased costs or expenses of any work to be performed under this Consent Judgment.

8. If any event occurs that is likely to delay or interfere with the performance of an obligation under this Consent Judgment, whether or not caused by a force majeure event, Doe Run shall notify MDNR by telephone within 5 working days of Doe Run becoming knowledgeable of such event. Within 10 business days thereafter, Doe Run shall provide in writing the reasons for the event; the anticipated duration; all actions taken or to be taken to minimize its effects; a schedule for implementation of any measures to be taken to mitigate the event; and a statement as to whether, in the opinion of Doe Run, such an event may cause or contribute to the endangerment of public health, public welfare, or the environment. Failure to comply with these requirements shall preclude Doe Run from asserting any claim of force majeure.

9. If MDNR agrees that the delay or anticipated delay is attributable to a force majeure event, then the time for performance of any obligation under this Consent Judgment that is directly affected by the force majeure event shall be extended for a period of time not to exceed the actual duration of the delay caused by the force majeure event.

10. If MDNR does not agree that the delay or noncompliance has been or will be caused by a force majeure event, or does not agree with Doe Run on the length of any time extension, the issue shall be subject to the Dispute Resolution procedures set forth in paragraph E of this Consent Judgment. In any such

proceeding, to qualify for force majeure defense Doe Run shall have the burden of demonstrating by a preponderance of the evidence that the delay or noncompliance has been or will be caused by a force majeure event, that its duration was or will be warranted under the circumstances, that Doe Run exercised or is exercising due diligence by using its best efforts to avoid and mitigate its effects, and that Doe Run complied with the requirements of paragraph (D)(8) above. Should Doe Run carry the burden set forth in this paragraph (D)(10), the delay or noncompliance at issue shall be deemed not to be a violation of the affected obligation of this Consent Judgment.

11. Upon the request of Doe Run, MDNR may in its unreviewable discretion impose a lesser penalty or no penalty at all for violations subject to stipulated penalties.

E. Dispute Resolution

Any dispute, which arises with respect to the meaning, application or implementation of this Consent Judgment, shall in the first instance be the subject of informal negotiations between Doe Run and MDNR. Notice of a dispute shall be given by the party alleging the dispute, shall be addressed in writing to the MDNR Director, and copied to the opposing party. Such notice shall state the specific grounds for the dispute, including any supporting documentation, and the relief requested.

The MDNR and Doe Run shall have thirty (30) days from the receipt of the notice of the dispute to resolve the dispute. If agreement is reached, the resolution shall be reduced to writing and this Consent Judgment modified, if appropriate. If the MDNR and Doe Run are unable to reach agreement within the thirty-day period and this period is not extended in writing by mutual agreement of the parties, the matter will be submitted to the Commission. The opposing party may file suggestions in opposition and include any documentation relevant to deciding the dispute. Said suggestions and documentation shall be submitted within fourteen days of submission of the matter to the Commission.

The Commission will issue a written decision following its review of the record submitted by the parties.

The parties will then be entitled to judicial review pursuant to Section 536.140, RSMo. The filing of a notice of dispute shall not automatically suspend or postpone any parties' obligations under this Consent Judgment with respect to the disputed issue. This provision shall not be construed to prevent either party from requesting a stay of the party's obligations under this Consent Judgment, which request shall be filed at the same time as the notice of dispute.

F. Nothing in this agreement shall be construed as a waiver of any obligation of Doe Run or as a permit to Doe Run under any other environmental laws applicable to Doe Run.

G. Modifications

This Consent Judgment may be modified or amended only by written agreement between the parties, which shall be filed with this Court.

H. Termination

This Consent Judgment and the obligations herein shall terminate upon the payment of any penalties due and redesignation of the Herculaneum Lead Nonattainment Area as an attainment area for lead. If the SIP revision is not approved by the EPA, the parties may terminate this Consent Judgment by written agreement.

I. Prior Consent Judgment.

The provisions of paragraphs (B) and (C) of the prior Consent Judgment entered January 5, 2001, shall remain in full force and effect except to the extent they are inconsistent with the provisions of this judgment. To the extent the provisions of the judgments are inconsistent, the provisions of this judgment shall control.

J. The provisions of this Consent Judgment, shall apply to and be binding on the successors, assigns, and other transferees of Doe Run or of all or substantially all of the assets at the Herculaneum facility.

K. Compliance Certification.

Doe Run shall certify compliance with the provisions of this Consent Judgment as part of Doe Run's compliance certification obligations pursuant to its Title V Air Operating Permit for the Herculaneum Lead Smelter.

DOE RUN, INCORPORATED

BY: _____

DATE: 4/30/07

~~Gary Hughes, General Manager~~
Jerry L. Pyatt, Chief Operating Officer

MISSOURI DEPARTMENT OF NATURAL RESOURCES

BY: _____

DATE: 5/4/07

Daniel R. Schuette, Director

Division of Environmental Quality

MISSOURI AIR CONSERVATION COMMISSION

BY: _____

DATE: 4/26/07

Michael Forseman, Chairperson
ES

ATTORNEY GENERAL OF MISSOURI

Jeremiah W. (Jay) Nixon, Attorney General

BY: _____

DATE: 5/1/07

H. Todd Iveson, Assistant Attorney General

SO ORDERED:

_____

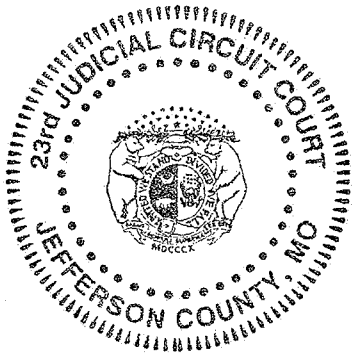
JUDGE TROY CARDONA, DIV. 6

DATE: 5-21-07

I certify and attest that the above is a true copy of the original record of the Court in case number 07DE-CC00552 as it appears on file in my office.

Issued 5-21-07

Howard Wagner, Circuit Clerk
Jefferson County Circuit Court



By Sylvia Dennis
Deputy Clerk

EPA Rulemakings

CFR: 40 C.F.R. 52.1320(d) (e)

FRM: 77 FR 9529 (02/17/2012)

PRM: 73 FR 58913 (10/8/2008)
PRM: 75 FR 52701 (8/27/2010)

State Submission: 04/26/2007

State Final: 5/21/2007; 7/29/2009

File: MO-259; EPA-R07-OAR-2008-0538

Description: EPA approved the Missouri SIP containing control measures to bring the Herculaneum area into attainment with the 1978 lead NAAQS. Consent Judgment Modification 07JE-CC00552; Doe Run Herculaneum, MO. The state remains obligated to submit a SIP to attain the 2008 lead NAAQS.

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Difference Between the State and EPA-Approved Regulation

This approval does not include any subsequent modifications after 2009.