Occupational Safety and Health Administration 200 N. High Street Room 620 Columbus, OH 43215



Citation and Notification of Penalty

To:

The Yenkin-Majestic Paint Corporation, dba OPC Polymers and its successors 1920 Leonard Ave Columbus, OH 43219

Inspection Site: 1920 Leonard Ave Columbus, OH 43219

7021 0350 0001 6891 7831

Inspection Number: 1524024

Inspection Date(s): 04/08/2021 - 10/05/2021

Issuance Date: 10/06/2021

The violation(s) described in this Citation and Notification of Penalty is (are) alleged to have occurred on or about the day(s) the inspection was made unless otherwise indicated within the description given below.

This Citation and Notification of Penalty (this Citation) describes violations of the Occupational Safety and Health Act of 1970. The penalty(ies) listed herein is (are) based on these violations. You must abate the violations referred to in this Citation by the dates listed and pay the penalties proposed, unless within 15 working days (excluding weekends and Federal holidays) from your receipt of this Citation and Notification of Penalty **you either call to schedule an informal conference (see paragraph below) or** you mail a notice of contest to the U.S. Department of Labor Area Office at the address shown above. Please refer to the enclosed booklet (OSHA 3000) which outlines your rights and responsibilities and which should be read in conjunction with this form. Issuance of this Citation does not constitute a finding that a violation of the Act has occurred unless there is a failure to contest as provided for in the Act or, if contested, unless this Citation is affirmed by the Review Commission or a court.

Posting - The law requires that a copy of this Citation and Notification of Penalty be posted immediately in a prominent place at or near the location of the violation(s) cited herein, or, if it is not practicable because of the nature of the employer's operations, where it will be readily observable by all affected employees. This Citation must remain posted until the violation(s) cited herein has (have) been abated, or for 3 working days (excluding weekends and Federal holidays), whichever is longer.

Informal Conference - An informal conference is not required. However, if you wish to have such a conference you may request one with the Area Director during the 15 working day contest period by calling (614) 469-5582. During such an informal conference, you may present any evidence or views which you believe would support an adjustment to the citation(s) and/or penalty(ies).

If you are considering a request for an informal conference to discuss any issues related to this Citation and Notification of Penalty, you must take care to schedule it early enough to allow time to contest after the informal conference, should you decide to do so. Please keep in mind that a written letter of intent to contest must be submitted to the Area Director within 15 working days of your receipt of this Citation. The running of this contest period is not interrupted by an informal conference.

If you decide to request an informal conference, please complete, remove and post the Notice to Employees next to this Citation and Notification of Penalty as soon as the time, date, and place of the informal conference have been determined. Be sure to bring to the conference any and all supporting documentation of existing conditions as well as any abatement steps taken thus far. If conditions warrant, we can enter into an informal settlement agreement which amicably resolves this matter without litigation or contest.

Right to Contest — You have the right to contest this Citation and Notification of Penalty. You may contest all citation items or only individual items. You may also contest proposed penalties and/or abatement dates without contesting the underlying violations. <u>Unless you inform the Area Director in writing that you intend to contest the citation(s) and/or proposed penalty(ies) within 15 working days after receipt, the citation(s) and the proposed penalty(ies) will become a final order of the Occupational Safety and Health Review Commission and may not be reviewed by any court or agency.</u>

Penalty Payment – Penalties are due within 15 working days of receipt of this notification unless contested. (See the enclosed booklet and the additional information provided related to the Debt Collection Act of 1982.) Make your check or money order payable to "DOL-OSHA". Please indicate the Inspection Number on the remittance. You can also make your payment electronically at www.pay.gov. At the top of the pay.gov homepage, type "**OSHA**" in the Search field and select Search. From **OSHA Penalty Payment Form** search result, select Continue. The direct link is:

https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334

You will be required to enter your inspection number when making the payment. Payments can be made by credit card or Automated Clearing House (ACH) using your banking information. Payments of \$25,000 or more require a Transaction ID, and also must be paid using ACH. If you require a Transaction ID, please contact the OSHA Debt Collection Team at (202) 693-2170.

OSHA does not agree to any restrictions or conditions or endorsements put on any check, money order, or electronic payment for less than the full amount due, and will process the payments as if these restrictions or conditions do not exist.

Notification of Corrective Action – For each violation which you do not contest, you must provide *abatement certification* to the Area Director of the OSHA office issuing the citation and identified above. This abatement certification is to be provided by letter within 10 calendar days after each abatement date. Abatement certification includes the date and method of abatement. If the citation indicates that the violation was corrected during the inspection, no abatement certification is required for that item. The abatement certification letter must be posted at the location where the violation appeared and the corrective action took place or employees must otherwise be effectively informed about abatement activities. A sample abatement certification letter is enclosed with this Citation. In addition, where the citation indicates that *abatement documentation* is necessary, evidence of the purchase or repair of equipment, photographs or video, receipts, training records, etc., verifying that abatement has occurred is required to be provided to the Area Director.

Employer Discrimination Unlawful – The law prohibits discrimination by an employer against an employee for filing a complaint or for exercising any rights under this Act. An employee who believes that he/she has been discriminated against may file a complaint no later than 30 days after the discrimination occurred with the U.S. Department of Labor Area Office at the address shown above.

Employer Rights and Responsibilities – The enclosed booklet (OSHA 3000) outlines additional employer rights and responsibilities and should be read in conjunction with this notification.

Notice to Employees – The law gives an employee or his/her representative the opportunity to object to any abatement date set for a violation if he/she believes the date to be unreasonable. The contest must be mailed to the U.S. Department of Labor Area Office at the address shown above and postmarked within 15 working days (excluding weekends and Federal holidays) of the receipt by the employer of this Citation and Notification of Penalty.

Inspection Activity Data – You should be aware that OSHA publishes information on its inspection and citation activity on the Internet under the provisions of the Electronic Freedom of Information Act. The information related to these alleged violations will be posted when our system indicates that you have received this citation. You are encouraged to review the information concerning your establishment at www.osha.gov. If you have any dispute with the accuracy of the information displayed, please contact this office.

U.S. Department of Labor Occupational Safety and Health Administration



NOTICE TO EMPLOYEES OF INFORMAL CONFERENCE

An informal conference has been scheduled with OSHA to discuss the citation(s) issued on		
10/06/2021. The conference will be held by telephone or at the OSHA office located at 200 N.		
High Street, Room 620, Columbus, OH 43215 on at		
. Employees and/or representatives of employees have a right to attend an		
informal conference		

CERTIFICATION OF CORRECTIVE ACTION WORKSHEET

Inspection Number: 1524024

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Issuance Date: 10/06/2021

List the specific method of correction for each item on this citation in this package that does not read "Corrected During Inspection" and return to: U.S. Department of Labor – Occupational Safety and Health Administration, 200 N. High Street, Room 620, Columbus, OH 43215.

Citation Number and Item By (Method of Abatement):		rected on	
Citation Number and Item By (Method of Abatement):		rected on	
By (Method of Abatement):	Number was cor	rected on	
Citation Number and Item By (Method of Abatement):	Number was cor	rected on	
Citation Number and Item	Number was cor	rected on	
Citation Number and Item By (Method of Abatement):	Number was cor	rected on	
I certify that the information contained in this document is accurate and that the affected employees and their representatives have been informed of the abatement.			
Signature		Date	
Typed or Printed Name		<u> </u>	

NOTE: 29 USC 666(g) whoever knowingly makes any false statements, representation or certification in any application, record, plan or other documents filed or required to be maintained pursuant to the Act shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment of not more than 6 months or both.

POSTING: A copy of completed Corrective Action Worksheet should be posted for employee review



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

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Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 1 Type of Violation: **Serious**

29 CFR 1910.119(d): Process safety information. In accordance with the schedule set forth in paragraph (e)(1) of this section, the employer did not complete a compilation of written process safety information before conducting any process hazard analysis required by the standard. The compilation of written process safety information is to enable the employer and the employees involved in operating the process to identify and understand the hazards posed by those processes involving highly hazardous chemicals. This process safety information shall include information pertaining to the hazards of the highly hazardous chemicals used or produced by the process, information pertaining to the technology of the process, and information pertaining to the equipment in the process:

a. On or about and prior to April 8, 2021, the employer did not have a completed compilation of written process safety information (PSI) (as required for hazards of the chemicals, technology of the process and equipment in the process) for managers, engineers, operators, contractors and maintenance employees involved in operating and maintaining the process to understand the hazards of the process and equipment involving or affecting highly hazardous chemicals; and for having a completed compilation for process hazard analysis. The employer had not compiled and managed PSI for covered equipment; prepared files for each piece of equipment; populated those files with process safety information (PSI) required by 1910.119(d)(1)-(3), information utilized to document RAGAGEP compliance required by 1910.119(d)(3)(ii) and other process information, such as records of equipment operating conditions and records of mechanical integrity activities used to collect process safety information; such as, but not limited to:



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- a. For the kettle 3 reactor vessel the employer failed to compile:
- -materials of construction for the manway gasket;
- -accurate safe upper and lower limits (pressure) for the technology of the process;
- -PSI that documented compliance with applicable RAGAGEP for the alteration of the vessel related to management of change procedure 2191;
- -PSI for the alteration of the vessel related to the removal of the original atmospheric jacket;
- -PSI for the alteration of the vessel related to the installation of internal cooling water coils/piping;
- -PSI for maintaining vessel integrity by following RAGAGEP during inspection and testing;
- -complete relief system design and design basis information such as, but not limited to, when it did not address all relief scenarios: and
- -accurate P&IDs for the vessel such as, but not limited to, when the manway opening was not included in the RP-KT03 P&ID.
- b. For the kettle 3 Total Condenser the employer failed to compile;
- -materials of construction for process piping associated with the installation of the new condenser;
- -relief system design and design basis,
- -design codes and standards employed for the design of relief systems;
- -PSI for the installation of related process piping and for pressure vessel installation; and
- -PSI that documented the condenser installation complied with RAGAGEP.
- c. For the kettle 4 reactor vessel the employer failed to compile:
- -the materials of construction for the manway gasket;
- -complete P&IDs for the vessel to include rupture disk set points;
- -design codes and standards employed for the design of relief systems; and
- -complete relief system design and design basis such as, but not limited to, when it did not address all relief scenarios.
- d. For the kettle 5 reactor vessel the employer failed to compile:
- -the materials of construction for the manway gasket;
- -complete P&IDs for the vessel to include rupture disk set points;
- -codes and standards employed for the design of relief systems
- -complete relief system design and design basis such as, but not limited to, when it did not address all relief scenarios.



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- e. For the kettle 8 reactor vessel the employer failed to compile:
- -the materials of construction for the manway gasket;
- -complete P&IDs for the vessel to include rupture disk set points;
- -codes and standards employed for the design of relief systems
- -complete relief system design and design basis such as, but not limited to, when it did not address all relief scenarios.
- f. For the catch tank CT-8 the employer failed to compile:
- -the materials of construction for the rupture disk;
- -and a relief system design and design basis.
- g. For the K3 Bubble Cap Column; the employer failed to compile PSI that documented the column installation complied with RAGAGEP.

ABATEMENT NOTE: One method of abatement is to establish individual equipment files, comprehensively compile them in one location, populate the files with all PSI and PSM required information, then make them available to all groups (operators, maintenance, process engineers, managers, contractors, inspectors) on site who need PSI access.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

November 12, 2021 Date By Which Violation Must be Abated: Proposed Penalty: \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 2 Type of Violation: **Serious**

29 CFR 1910.119(d)(2)(i): Information pertaining to the technology of the process did not include the following:

29 CFR 1910.119(d)(2)(i)(D):Safe upper and lower limits for such items as temperatures, pressures, flows or compositions; and,

a. On or about and prior to April 8, 2021, for the kettle 3 reactor vessel, process safety information was inaccurate; in that the document, RES-DOC-PLT-003, Operating Parameters Kettle 3, listed "Maximum Operating Pressure -Maximum" as 12 psig and "Rupture Disk - Range" as 13.5-15 psig, when the rupture disk set point for the vessel was 17 psig. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: November 12, 2021 Proposed Penalty: \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

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Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

<u>Citation 1 Item 3</u> Type of Violation: **Serious**

29 CFR 1910.119(d)(3)(i): Information pertaining to the technology of the process did not include the following:

29 CFR 1910.119(d)(3)(i)(A):Materials of construction;

- a. On or about and prior to April 8, 2021, the employer failed to document the material of construction for the kettle 3 manway cover gasket that was installed to repair a manway leak. On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.
- b. On or about and prior to April 8, 2021, the employer failed to document the material of construction for process piping installed during the pressure vessel installation of a heat exchanger, the K3 Condenser, identified as the Total Condenser (P&ID RP-KT03). Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.
- c. On or about and prior to April 8, 2021, the employer failed to document the material of construction for the kettle 4 manway gasket. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.
- d. On or about and prior to April 8, 2021, the employer failed to document the material of construction for the kettle 5 manway gasket. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.
- e. On or about and prior to April 8, 2021, the employer failed to document the material of construction for the kettle 8 manway gasket. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.



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Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: November 12, 2021 Proposed Penalty: \$13,653.00



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Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 4 Type of Violation: **Serious**

29 CFR 1910.119(d)(3)(i): Information pertaining to the technology of the process did not include the following:.

29 CFR 1910.119(d)(3)(i)(B):Piping and instrument diagrams (P&ID's);

- a. On or about and prior to April 8, 2021, the employer's piping and instrument diagrams (P&ID's) did not include the manway opening into the kettle 3 reactor vessel (drawing name RP-KT03).
- b. On or about and prior to April 8, 2021, the employer's piping and instrument diagrams (P&ID's) lacked detail regarding the internal cooling water coils for kettle 3 reactor vessel (drawing name RP-KT03). The drawing failed to include the number of "turns," thickness of pipe, diameter of pipe and approximate square footage for the internal cooling water coils.
- c. On or about and prior to April 8, 2021, the employer's piping and instrument diagrams (P&ID's) did not include the kettle 3 reactor vessel relief system rupture disk set point (drawing name RP-KT03).
- d. On or about and prior to April 8, 2021, the employer's piping and instrument diagrams (P&ID's) did not include the kettle 4 reactor vessel relief system rupture disk set point (drawing name RP-KT04).
- e. On or about and prior to April 8, 2021, the employer's piping and instrument diagrams (P&ID's) did not include the kettle 5 reactor vessel relief system rupture disk set point (drawing name RP-KT05).
- f. On or about and prior to April 8, 2021, the employer's piping and instrument diagrams (P&ID's) did not include the kettle 8 reactor vessel relief system rupture disk set point (drawing name RP-KT08).



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Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: November 12, 2021 \$13,653.00 Proposed Penalty:



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Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

<u>Citation 1 Item 5</u> Type of Violation: **Serious**

29 CFR 1910.119(d)(3)(i):Information pertaining to the equipment in the process did not include:

29 CFR 1910.119(d)(3)(i)(D):Relief system design and design basis;

- a. On or about April 8, 2021, the employer failed to document relief system design and design basis for the following Resin Plant covered process equipment:
- a. the Kettle 3 Total Condenser, did not have any relief system design or design basis for the condenser.
- b. For the Kettle 4 reactor vessel; the employer failed to document all likely relief scenarios such as the Chemical Reaction relief scenario described in API Standard 521, Table 1, Item 12 and Section 4.4.11 the possibility of a 2-phase flow relieving event due to the frothing nature (aka "foaming") of the normal reaction carried on in the kettle 4 reactor vessel, failed to document the safe discharge of the kettle 4 reactor vessel pressure relief vent piping into the Catch Tank and failed to document evaluation that vent piping could withstand the forces associated with pressure relief discharge events.
- c. For the Kettle 5 reactor vessel; the employer failed to document all likely relief scenarios such as the Chemical Reaction relief scenario described in API Standard 521, Table 1, Item 12 and Section 4.4.11 the possibility of a 2-phase flow relieving event due to the frothing nature (aka "foaming") of the normal reaction carried on in the kettle 5 reactor vessel, failed to document the safe discharge of the kettle 5 reactor vessel pressure relief vent piping into the Catch Tank and failed to document evaluation that vent piping could withstand the forces associated with pressure relief discharge events.
- d. For the Kettle 8 reactor vessel; the employer failed to document all likely relief scenarios such as the Chemical Reaction relief scenario described in API Standard 521, Table 1, Item 12 and Section 4.4.11 the possibility of a 2-phase flow relieving event due to the frothing nature (aka "foaming") of the normal reaction carried on in the kettle 8 reactor vessel, failed to document the safe discharge of the kettle 8 reactor vessel pressure relief vent piping into the Catch Tank and failed to document evaluation that vent piping could withstand the forces associated with pressure relief discharge events.



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

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Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

e. For the K3 Bubble Cap Column; the employer did not have any relief system design or design basis for the Bubble Cap Column.

f. For the Kettle 3 reactor vessel; the employer failed to document all likely relief scenarios for the pressure relief system, such as the Chemical Reaction relief scenario described in API Standard 521, Table 1, Item 12 and Section 4.4.11 the possibility of a 2-phase flow relieving event due to the frothing nature (aka "foaming") of the normal reaction carried on in the kettle 3 reactor vessel (K3); failed to document all likely relief scenarios for the pressure relief system, such as the Reactor relief scenario described in API Standard 521, Table 1, Item 16B and section 4.4.11 the consideration of for "failure of agitation, or stirring" which occurred during the events involved with the fatal incident on April 8, 2021 when the K3 agitator was not mixing as required by the normal batch operation procedures; failed to document the actual burst pressure rating of the K3 reactor vessel rupture disk; failed to document the impact of the installation of the interconnected Total Condenser on the K3 reactor vessel relief system; failed to document the impact of the installation of the interconnected Bubble Cap Column on the K3 reactor vessel relief system; and failed to document an evaluation of the reaction forces and their impact on the K3 rupture disk and discharge piping.

g. On or about and prior to April 8, 2021, the employer the employer did not have any relief system design or design basis for the Catch Tank CT-8.

Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

November 12, 2021 Date By Which Violation Must be Abated: \$13,653.00 Proposed Penalty:



Inspection Number: 1524024 **U.S.** Department of Labor

Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

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Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Type of Violation: **Serious** Citation 1 Item 6

29 CFR 1910.119(d)(3)(i):Information pertaining to the equipment in the process did not include:

29 CFR 1910.119(d)(3)(i)(F):Design codes and standards employed;

On or about and prior to April 8, 2021, the employer failed to document the codes and standards employed for the following covered process equipment:

- a. K3 Total Condenser; for the design of relief systems, for the installation of process piping, and for pressure vessel installation;
- b. Kettle 3 reactor vessel, for the design of relief systems, for pressure vessel alteration, for inspection and testing and for compliance with regularly, and generally accepted good engineering practices (RAGAGEP);
- c. Kettle 4 reactor vessel, for the design of relief systems;
- d. Kettle 5 reactor vessel, for the design of relief systems;
- e. Kettle 8 reactor vessel, for the design of relief systems;
- f. Catch Tank CT-08; for the design of relief systems; and
- g. K3 Bubble Cap Column; for the design of relief systems, for the installation of process piping, and for pressure vessel installation.

Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.



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ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

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Citation 1 Item 7 Type of Violation: **Serious**

29 CFR 1910.119(d)(3): Information pertaining to the equipment in the process.

29 CFR 1910.119(d)(3)(ii): The employer did not document that equipment complies with recognized and generally accepted good engineering practices.

On or about and prior to April 8, 2021, the employer failed to document the following covered process equipment complied with recognized and generally accepted good engineering practices (RAGAGEP):

a. The employer failed to document that the installation of an ASME BPVC section VIII code pressure vessel, the K3 Total Condenser, was performed in compliance with recognized and generally accepted good engineering practices (RAGAGEP) such as, but not limited to, American Petroleum Institute (API) 510 (2014) Pressure Vessel Code: In-service Inspection, Rating, Repair and Alteration, section 6.2.1 Inspection During Installation and Service Changes - Vessel Installations. The employer failed to document an installation inspection by a qualified and certified API 510 inspector to assure vessel integrity. Failure to perform installation inspections increases the risk for loss of pressure containing ability. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.

b. The employer failed to document that the installation of an ASME BPVC section VIII code pressure vessel, the Bubble Cap Column, was performed in compliance with recognized and generally accepted good engineering practices (RAGAGEP) such as, but not limited to, American Petroleum Institute (API) 510 (2014) Pressure Vessel Code: In-service Inspection, Rating, Repair and Alteration, section 6.2.1 Inspection During Installation and Service Changes - Vessel Installations. The employer failed to document an installation inspection by a qualified and certified API 510 inspector to assure vessel integrity. Failure to perform installation inspections increases the risk for loss of pressure containing ability. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.



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Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 8 Type of Violation: **Serious**

29 CFR 1910.119(e)(3): The process hazard analysis did not address:

29 CFR 1910.119(e)(3)(i):The hazards of the process;

On or about and prior to April 8, 2021, the employer's process hazard analysis revalidation failed to address the hazards of the Resin Plant high temperature kettle process for Kettles 3, 4, 5 and 8:

- a. The employer failed to address atmospheric venting hazards associated with rupture disk did not verify rupture disk vents to a safe discharge location, did not address hazards of material accumulation in relief system vent piping (e.g. blocking relief vent piping), and failed to address hazards associated with multi-relief scenarios (simultaneous) from more than one reactor vessel relieving to the Catch Tank for the Alcoholysis node WHAT-IF question "rupture disk is blown (no one notices)." Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed employees to fire, explosion and contact hazards.
- b. The employer failed to address the hazards for loss of agitation, listed "Kettle will not mix material" as the hazard with the stated Consequence "None." Hazards associated with loss of agitation include rapid pressurization during agitator restart and loss of cooling water for the Alcoholysis node WHAT-IF question "The agitator fails/will not start." On April 8, 2021, the kettle 3 reactor vessel manway cover to manway flange gasket failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.
- c. The employer failed to address the hazards of high reactor vessel internal pressure due to eductor/scrubber system high water level for the employer's Scrubber system and Fusion Processing nodes. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed employees to fire, explosion and contact hazards.



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Inspection Number: 1524024

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- d. The employer failed to address the hazards for loss of agitation for the Esterification node WHAT-IF question "The agitator fails/will not start" the employer failed to address the hazards for loss of agitation, listed "Kettle will not mix material" as the hazard with the stated Consequence "None." Hazards associated with loss of agitation include rapid pressurization during agitator restart and loss of cooling water. On April 8, 2021, the kettle 3 reactor vessel manway cover to manway flange gasket failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.
- e. The employer failed to address hazards associated with water returning to the reactor vessel creating "foaming" or ("frothing") of the reactor vessel and depositing resin material and obstructing pressure relief system and downstream process piping for the Esterification node WHAT-IF question "Total condenser leaks water internally." Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed employees to fire, explosion and contact hazards.
- f. The employer failed to address hazards associated with high temperature in the overhead system such as presence of vapor or liquid flow disruption, increased pressure in overhead system components for the Overhead node WHAT-IF question "A false temperature is read from vapor or liquid thermocouple to or from this system." Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed employees to fire, explosion and contact hazards.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: November 12, 2021 Proposed Penalty: \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Issuance Date: 10/06/2021

Inspection Number: 1524024

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

<u>Citation 1 Item 9</u> Type of Violation: **Serious**

29 CFR 1910.119(e)(3): The process hazard analysis did not address:

29 CFR 1910.119(e)(3)(ii): The identification of any previous incident which had a likely potential for catastrophic consequences in the workplace;

a. On or about and prior to April 8, 2021, the employer's PHA revalidation for high temperature kettle systems K3, K4, K5 and K8, PHA High Temp Review failed to identify any previous incidents which had likely potential catastrophic consequences in the workplace; there were none identified. There were several overpressure events involving covered process pieces of equipment that were not identified in the PHA revalidation, such as but not limited to an October 2014 Scale Tank 1B atmospheric venting, an August 2014 Kettle 3 reactor vessel "burst" rupture disk, a September 2012 Kettle 4 reactor vessel "burst" rupture disk, a May 2014 Kettle 8 reactor vessel "burst" rupture disk and an October 2014 Kettle 4 reactor vessel "burst" rupture disk. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

Proposed Penalty:

November 12, 2021

\$13,653.00



U.S. Department of Labor Inspection Number: 1524024

Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 10 Type of Violation: **Serious**

29 CFR 1910.119(e)(3): The process hazard analysis did not address:

29 CFR 1910.119(e)(3)(iii):Engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases. (Acceptable detection methods might include process monitoring and control instrumentation with alarms, and detection hardware such as hydrocarbon sensors.);

On or about and prior to April 8, 2021, for the PHA Revalidation, High Temp Review; the process hazard revalidation failed to address engineering and administrative controls applicable to the hazards and their interrelationships: in that;

- a. For the Esterification node, the employer inaccurately claimed the engineering control "rupture disk" (Line 18) when "potential to blow rupture disk" (Line 14) was listed as a potential catastrophic event to be prevented for the listed hazard/consequence "build pressure in the kettle" and "potential to blow rupture disk." When "potential to blow rupture disc" was listed as a potential catastrophic event to be prevented from occurring, the employer claimed the rupture disc as an engineering control/safeguard against itself.
- b. For the Esterification node, the employer failed to address administrative controls interrelated to the hazards, such as but not limited to a design specification for gaskets and gasket materials, a quality assurance plan for process vessels and a mechanical integrity procedure for gasket repair and replacement; when the employer listed the hazard of "vapor/liquid release" (Line 43) with consequences of "employee exposure, environmental release, fire and explosion" (Lines 43-45) related to a failed gasket. Additionally the employer inaccurately claimed the listed "Spill response and equipment," "Ventilation," Fire suppression system," "Containment," "All Condensers in electrically classified areas" and "PPE" as safeguards (Lines 43-49) to prevent or detect a vapor/liquid release from a failed gasket.



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Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

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c. For the Esterification node, the employer inaccurately claimed the engineering control "rupture disk" (Line 29) when "potential to blow rupture disk" (Line 25) was listed as a potential catastrophic event to be prevented for the listed hazard/consequence "build pressure in the kettle" and "potential to blow rupture disk." When "potential to blow rupture disc" was listed as a potential catastrophic event to be prevented from occurring, the employer claimed the rupture disc as an engineering control/safeguard against itself. Additionally the employer inaccurately claimed the listed "Spill response and equipment," "Containment," and "PPE" as safeguards (Lines 27-28 and 30) to prevent, detect, or otherwise effect the pressure increase to, or overpressure of a reactor vessel from condenser vent line blockage.

- d. For the Esterification node, the employer inaccurately claimed the engineering control "rupture disk" (Line 36) when "potential to blow rupture disk" (Line 32) was listed as a potential catastrophic event to be prevented for the listed hazard/consequence "build pressure in the kettle" and "potential to blow rupture disk." When "potential to blow rupture disc" was listed as a potential catastrophic event to be prevented from occurring, the employer claimed the rupture disc as an engineering control/safeguard against itself. Additionally the employer inaccurately claimed the listed "Spill response and equipment," "Containment," and "PPE" as safeguards (Lines 34-35 and 37) to prevent, detect, or otherwise effect the pressure increase to, or overpressure of a reactor vessel from condenser vent line blockage.
- e. For the Esterification node, the employer inaccurately claimed the engineering control "Kettle temperature controller (redundant system)" (Line 97) for the listed hazards "No display" and "Temperature display below actual temperature" and listed consequences "Potential to overheat kettle, possible pressure," "potential to blow rupture disk," "possible environmental release," "Potential employee exposure" and "Possible fire" (Lines 99-103) for preventing reactor vessel temperature controller failure. When the employer's PHA WHAT-IF question listed the failed high temperature controller as causing an overpressurization hazard, the employer claimed the failed controller as an engineering control/safeguard against itself.
- f. For the Esterification node, the employer inaccurately claimed the engineering control "rupture disk" (Line 181) when "potential to blow rupture disk" (Line 177) was listed as a potential catastrophic event to be prevented for the listed hazard/consequence "build pressure in the kettle" and "potential to blow rupture disk." When "potential to blow rupture disk" was listed as a potential catastrophic event to be prevented from occurring, the employer claimed the rupture disk as an engineering control/safeguard against itself.



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g. For the Esterification node, the employer failed to address administrative controls interrelated to the hazards, such as but not limited to a design specification for gaskets and gasket materials, a quality assurance plan for process vessels and a mechanical integrity procedure for gasket repair and replacement; when the employer listed the hazard/consequences (Lines 194-197) of "Possible explosion/fire," Potential employee exposure," "Potential employee injury" and "Possible environmental release" related to in process reactor vessel manway use.

h. For the Esterification node, the employer inaccurately claimed the engineering control "rupture disk" (Line 208) when "potential to blow rupture disk" (Line 207) was listed as a potential catastrophic event to be prevented for the listed hazard/consequence "build pressure in the kettle" and "potential to blow rupture disk." When "potential to blow rupture disc" was listed as a potential catastrophic event to be prevented from occurring, the employer claimed the rupture disc as an engineering control/safeguard against itself.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: November 12, 2021 Proposed Penalty: \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 11 Type of Violation: **Serious**

29 CFR 1910.119(e)(3): The process hazard analysis did not address:

29 CFR 1910.119(e)(3)(iv):Consequences of failure of engineering and administrative controls;

On or about and prior to April 8, 2021, for the PHA Revalidation, PHA High Temp Review 2015; the process hazard analysis revalidation failed to address the consequences of engineering and administrative control failure:

a. For the Alcoholysis node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Operator Training," "High pressure alarm on the kettle" and "PLC has safety interlocks. (K8 and K3 furnace off water on. K5 furnace off)" (Lines 5-7) to control rapid pressurization of high temperature kettles and potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Kettle will pressurize upon heating" (Line 5.) On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.

b. For the Alcoholysis node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Operator Training," "High pressure alarm on the kettle" and "PLC has safety interlocks. (K8 and K3 furnace off water on. K5 furnace off)" (Lines 34-36) to control rapid pressurization of high temperature kettles and potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Kettle will pressurize" (Line 34.) On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.



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c. For the Alcoholysis node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Operator Training," "High pressure alarm on the kettle" and "PLC has safety interlocks. (K8 and K3 furnace off water on. K5 furnace off)" (Lines 55-57) to control rapid pressurization of high temperature kettles and potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Kettle will pressurize" (Line 55.) On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.

- d. For the Alcoholysis node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Operator Training," "High pressure alarm on the kettle" and "PLC has safety interlocks. (K8 and K3 furnace off water on. K5 furnace off)" (Lines 73-75) to control rapid pressurization of high temperature kettles and potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Kettle will pressurize" (Line 73.) On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.
- e. For the Alcoholysis node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "cooling water fails on when N2 lost" (Line 83) and "Operator Training" (Line 86) to control rapid pressurization of high temperature kettles and potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Potential flash (if exceeding 500F)" (Line 81) and "Potential to build pressure" (Line 83). On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.



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f. For the Alcoholysis node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "cooling water fails on when N2 lost" (Line 100) and "Operator Training" (Line 104) to control rapid pressurization of high temperature kettles and potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Potential flash (if exceeding 500F)" (Line 98) and "Potential to build pressure" (Line 100). On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.

g. for the Alcoholysis node, the employer failed to address the failure of the engineering and administrative controls for the safeguards listed as "Operator Training," "High pressure alarm on the kettle" and "PLC has safety interlocks" (K8 and K3 furnace off water on. K5 furnace off)" (Lines 107-109) to control rapid pressurization of high temperature kettles and potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Kettle will pressurize" (Line 107). On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.

h. For the Alcoholysis node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Operator Training," "High pressure alarm on the kettle" and "PLC has safety interlocks. (K8 and K3 furnace off water on. K5 furnace off)" (Lines 63-65) to control rapid pressurization of high temperature kettles and potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Kettle will pressurize" (Line 63.) On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.



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i. For the Esterification node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Pressure gauges/switches" and "Operator training" (Lines 32-33) to control increased internal pressures and the rapid pressurization and potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Build pressure in the kettle" (Line 32). On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.

j. For the Esterification node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Automatic water interlocked with high temp alarm (k3, 5 and 8)" and "Operator training" (Lines 108 and 109) to control increased internal pressures and the potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Temperature higher than expected" and the listed consequence "Reactor could overheat" (Line 107). On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.

k. For the Esterification node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Operator Training," "High pressure alarm on the kettle" and "PLC has safety interlocks. (K8 and K3 furnace off water on. K5 furnace off)" (Lines 123-125) to control rapid pressurization of high temperature kettles and potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Kettle will pressurize" (Line 123). On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.



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Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

1. For the Esterification node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Pressure gauges/switches/alarms" and "Operator Training" (Lines 177-178) to control rapid pressurization of high temperature kettles and potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Build pressure in the kettle" (Line 177). On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.

m. For the Esterification node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Cooling water supply valve actuators are supplied with N2/fail open" and "Operator Training" (Lines 185 and 188) to control increased internal pressures and the potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazards/consequences "Possible explosion/fire," Possible environmental release," "Potential employee exposure" and "Potential employee injury" (Lines 185 and 187-189). On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.

n. For the Esterification node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Pressure gauges/switches/alarms" and "Operator Training" (Lines 207 and 210) to control increased internal pressures and the potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Water in kettle" and consequences "Build pressure in kettle," "Possible environmental release," "Potential employee exposure" and "Potential employee injury" (Lines 206 and 208-210). On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.



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o. For the Overhead node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Pressure gauges/switches/alarms," "Catch tank/containment" and "Operator Training" (Lines 31-33) to control increased internal pressures and the potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Water in kettle" and consequences "Build pressure in kettle," "Possible environmental release," "Potential employee exposure" and "Potential employee injury" (Lines 30 and 32-34). On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.

p. For the Overhead node, the employer did not address the consequences of engineering and administrative control failure of the listed safeguards "Catch tank/containment," "Pressure gauges/switches/alarms" and "Operator Training" (Lines 43 and 45-46) to control increased internal pressures and the potential catastrophic release of highly hazardous chemicals (HHCs) from covered process equipment. These engineering and administrative controls/safeguards failed to control the identified hazard "Potential to plug the overhead" and consequences "Build pressure in kettle," "Potential employee exposure," "Potential employee injury" and "Possible environmental release" (Lines 42 and 44-46). On April 8, 2021, the kettle 3 reactor vessel was overpressured in part due to the failure of these engineering and administrative controls to control internal pressure. The vessel overpressurization released vapor in the kettle 3/kettle 4 room resulting in the explosion that resulted in a fatality and multiple disabling injuries.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: November 12, 2021 Proposed Penalty: \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

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Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 12 Type of Violation: **Serious**

29 CFR 1910.119(e)(3): The process hazard analysis did not address:

29 CFR 1910.119(e)(3)(vi):Human factors;

a. On or about and prior to April 8, 2021, for the PHA Revalidation, PHA High Temp Review 2015; the Human Factors node WHAT-IF question "Kettle discharge valves and lines" (Line 101) failed to address the human factor of "valve misalignment." Valve misalignment during kettle transfer of resin batches to Scale Tanks in the covered process can result in employee exposure to spills, leaks and atmospheric venting of highly hazardous chemicals and can result in catastrophic release of highly hazardous chemicals from the covered process.

b. On or about and prior to April 8, 2021, for the PHA Revalidation, PHA High Temp Review 2015; for the Transfer into Scale Tanks node the WHAT-IF question "Transfer line is plugged from kettle to scale tank" (Line 10) failed to consider the human factor of "valve misalignment." Valve misalignment during kettle transfer of resin batches to Scale Tanks in the covered process can result in employee exposure to spills, leaks and atmospheric venting of highly hazardous chemicals and can result in catastrophic release of highly hazardous chemicals from the covered process.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: November 12, 2021 Proposed Penalty: \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 13 Type of Violation: **Serious**

29 CFR 1910.119(e)(6):At least every five (5) years after the completion of the initial process hazard analysis, the process hazard analysis was not updated and revalidated by a team meeting the requirements in paragraph (e)(4) of this section, to assure that the process hazard analysis is consistent with the current process:

a. On or about April 8, 2021, the employer failed to perform a process hazard revalidation to assure that the process hazard analysis was consistent with the current process. The previous PHA revalidation did not address changes to the covered process, such as but not limited to the installation of the Bubble Cap Column pressure vessel to the K3 high temperature kettle system, installation of a heat exchanger to the K3 high temperature kettle system and multiple "Automation" projects with integration of air actuated equipment to safety systems, HMI kettle system controls, valve control, operating procedure updates and multiple management of change procedures associated with "Automation" phase 1 and phase 2 projects. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed employees to fire, explosion and contact hazards.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: November 12, 2021 Proposed Penalty: \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

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Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 14 Type of Violation: **Serious**

29 CFR 1910.119(f)(1): The employer did not develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address at least the following elements:

29 CFR 1910.119(f)(1)(i): Steps for each operating phase:

29 CFR 1910.119(f)(1)(i)(D): Emergency shutdown including the conditions under which emergency shutdown is required, and the assignment of shutdown responsibility to qualified operators to ensure that emergency shutdown is executed in a safe and timely manner:

a. On or about and prior to April 8, 2021, employer failed to address emergency shutdown procedures for the unexpected loss of containment in their operating procedures so that shutdown occurred in a safe and timely manner. The procedure did not define when to evacuate. This exposed employees to fire, chemical burns, struckby/caught-between and other hazards related to explosions.

On April 8, 2021, the kettle 3 reactor vessel manway cover to manway failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

November 12, 2021 Date By Which Violation Must be Abated: \$13,653.00 Proposed Penalty:



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

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Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 15 Type of Violation: **Serious**

29 CFR 1910.119(f)(1): The employer did not develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address at least the following elements:

29 CFR 1910.119(f)(1)(i): Steps for each operating phase:

29 CFR 1910.119(f)(1)(i)(E):Emergency Operations;

- a. On or about and prior to April 8, 2021, employer failed to address loss of agitation and the unexpected loss of containment in their operating procedures for emergency operations. This exposed employees to fire, chemical burns, struck-by/caught-between and other hazards related to explosions.
- b. On or about and prior to April 8, 2021, employer failed to address loss of agitation in their operating procedures for emergency operations. This exposed employees to fire, chemical burns, struck-by/caught-between and other hazards related to explosions.

On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

November 12, 2021 Date By Which Violation Must be Abated: Proposed Penalty: \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

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Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 16 Type of Violation: **Serious**

29 CFR 1910.119(f)(1): Operating procedures. The employer did not develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address at least the following elements:

29 CFR 1910.119(f)(1)(ii): Operating limits:

29 CFR 1910.119(f)(1)(ii)(A):Consequences of deviation;

a. On or about and prior to April 8, 2021, the written operating procedure, K3, K4, K5 Agitator Operation, RES-PRO-KO-007, failed to address the loss of cooling water and the loss of agitation during agitator use in covered process operations. On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. Just prior to the vapor release, agitation loss was discovered and was restored to operation at normal speed. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

b. On or about and prior to April 8, 2021, the written operating procedure, Kettle 3 Overhead Processing Procedure, RES-PRO-022, failed to address the disruption of flow (or blockage of equipment) in the overhead system, failed to address the return of water into the reactor vessel that can result in "foaming," failed to address the loss of cooling water and failed to address the loss of agitation during agitator use in the reactor vessel. On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. Just prior to the vapor release, agitation loss was discovered and was restored to operation at normal speed. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

c. On or about and prior to April 8, 2021, the written operating procedure, Solvent Manifold Operation, RES-PRO-PLT-031, failed to address the disruption of flow (or blockage of equipment) in the overhead system, failed to address the return of water into the reactor vessel that can result in "foaming," failed to address the loss of cooling water and failed to address the loss of agitation during agitator use in high temperature reactor vessels in covered process operations. On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. Just prior to the vapor release, agitation loss was discovered and was restored to operation at normal speed. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

- d. On or about and prior to April 8, 2021, the written operating procedure, K3 and K4 Eductor Operation, RES-PRO-KO-005, failed to address the disruption of flow (or blockage of equipment) in the overhead system, failed to address the return of water into the reactor vessel that can result in "foaming," failed to address the loss of cooling water and failed to address the loss of agitation during agitator use in high temperature reactor vessels in covered process operations. On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. Just prior to the vapor release, agitation loss was discovered and was restored to operation at normal speed. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.
- e. On or about and prior to April 8, 2021, the written operating procedure, OPC Emergency Shutdown Procedure, RES-PRO-PLT-009, failed to address the loss of cooling water and the loss of agitation during agitator use in covered process operations. On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. Just prior to the vapor release, agitation loss was discovered and was restored to operation at normal speed. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: Proposed Penalty:

November 12, 2021 \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 17 Type of Violation: **Serious**

29 CFR 1910.119(f)(1): Operating procedures. The employer did not develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address at least the following elements:

29 CFR 1910.119(f)(1)(ii): Operating limits:

29 CFR 1910.119(f)(1)(ii)(B): Steps required to correct or avoid deviation:

a. On or about and prior to April 8, 2021, the written operating procedure, K3, K4, K5 Agitator Operation, RES-PRO-KO-007, failed to address the steps to correct the loss of cooling water deviation and to correct the loss of agitation deviation in covered process operations. On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. Just prior to the vapor release, agitation loss was discovered and was restored to operation at normal speed. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

b. On or about and prior to April 8, 2021, the written operating procedure, Kettle 3 Overhead Processing Procedure, RES-PRO-KO-022, failed to address the steps to correct the disruption of flow (or blockage of equipment) deviation in the overhead system, failed to address the steps to correct the return of water into the reactor vessel deviation that can result in "foaming," failed to address the steps to correct the loss of cooling water deviation and failed to address the loss of agitation deviation in the reactor vessel. On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. Just prior to the vapor release, agitation loss was discovered and was restored to operation at normal speed. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

c. On or about and prior to April 8, 2021, the written operating procedure, Solvent Manifold Operation, RES-PRO-KO-031, failed to address the steps to correct the disruption of flow (or blockage of equipment) deviation in the overhead system, failed to address the steps to correct the return of water into the reactor vessel deviation that can result in "foaming," failed to address the steps to correct the loss of cooling water deviation and failed to address the loss of agitation deviation in the reactor vessel. On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. Just prior to the vapor release, agitation loss was discovered and was restored to operation at normal speed. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

- d. On or about and prior to April 8, 2021, the written operating procedure, K3 and K4 Eductor Operation, RES-PRO-KO-005, failed to address the steps to correct the disruption of flow (or blockage of equipment) deviation in the overhead system, failed to address the steps to correct the return of water into the reactor vessel deviation that can result in "foaming," failed to address the steps to correct the loss of cooling water deviation and failed to address the loss of agitation deviation in the reactor vessel. On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. Just prior to the vapor release, agitation loss was discovered and was restored to operation at normal speed. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.
- e. On or about and prior to April 8, 2021, the written operating procedure, OPC Emergency Shutdown Procedure, RES-PRO-PLT-009, failed to address the steps to correct the loss of cooling water deviation and to correct the loss of agitation deviation in covered process operations. On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. Just prior to the vapor release, agitation loss was discovered and was restored to operation at normal speed. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: Proposed Penalty:

November 12, 2021 \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 18 Type of Violation: **Serious**

29 CFR 1910.119(f)(1): Operating procedures. The employer did not develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information and shall address at least the following elements:

29 CFR 1910.119(f)(1)(iii): Safety and health considerations:

29 CFR 1910.119(f)(1)(iii)(A):Properties of, and hazards presented by, the chemicals used in the process;

- a. On or about and prior to April 8, 2021, the written operating procedure, K3, K4, K5 Agitator Operation, RES-PRO-KO-007, failed to address the safety and health considerations for the hazards presented by the chemicals used in the process, such as xylene and VM&P (Naptha), with temperatures above solvent boiling point(s) during normal operating conditions which increase the risk for rapid pressurization and loss of containment exposing employees to the hazards of fire, explosion and struck-by hazards.
- b. On or about and prior to April 8, 2021, the written operating procedure, Scale Tanks General Operation and Pumping, RES-PRO-KO-017, failed to address the safety and health considerations for the hazards presented by the chemicals used in the process, such as xylene and VM&P (Naptha), with temperatures above solvent boiling point(s) during normal operating conditions which increase the risk for rapid pressurization and loss of containment exposing employees to the hazards of fire, explosion and struck-by hazards.
- c. On or about and prior to April 8, 2021, the written operating procedure, Kettle 3 Overhead Processing Procedure, RES-PRO-KO-022, failed to address the safety and health considerations for the hazards presented by the chemicals used in the process, such as xylene and VM&P (Naptha), with temperatures above solvent boiling point(s) during normal operating conditions which increase the risk for rapid pressurization and loss of containment exposing employees to the hazards of fire, explosion and struck-by hazards.



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

d. On or about and prior to April 8, 2021, the written operating procedure, Kettle 3 Overhead Processing Procedure, RES-PRO-KO-022, failed to address the safety and health considerations for the hazards presented by the "acids" used in the process, such as but not limited to benzoic acid; such as the increased risk for "frothing" or "foaming" during normal operating conditions which increases the risk for resin material related blockage of flow in covered process equipment, rapid pressurization and loss of containment exposing employees to the hazards of fire, explosion and struck-by hazards.

- e. On or about and prior to April 8, 2021, the written operating procedure, Solvent Manifold Operation, RES-PRO-PLT-031, failed to address the safety and health considerations for the hazards presented by the "acids" used in the process, such as but not limited to benzoic acid; such as the increased risk for "frothing" or "foaming" during normal operating conditions which increases the risk for resin material related blockage of flow in covered process equipment, rapid pressurization and loss of containment exposing employees to the hazards of fire, explosion and struck-by hazards.
- f. On or about and prior to April 8, 2021, the written operating procedure, Solvent Manifold Operation, RES-PRO-PLT-031, failed to address the safety and health considerations for the hazards presented by the chemicals used in the process, such as xylene and VM&P (Naptha), with temperatures above solvent boiling point(s) during normal operating conditions which increase the risk for rapid pressurization and loss of containment exposing employees to the hazards of fire, explosion and struck-by hazards.
- g. On or about and prior to April 8, 2021, the written operating procedure, OPC Emergency Shutdown Procedure, RES-PRO-PLT-009, failed to address the safety and health considerations for the hazards presented by the chemicals used in the process, such as xylene and VM&P (Naptha), with temperatures above solvent boiling point(s) during normal operating conditions which increase the risk for rapid pressurization and loss of containment exposing employees to the hazards of fire, explosion and struck-by hazards. The procedure failed to specifically address catastrophic hazards, such as an uncontrolled vapor cloud release, that would trigger emergency evacuation.



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 19 Type of Violation: **Serious**

29 CFR 1910.119(g)(1)(i): Each employee presently involved in operating a process, and each employee before being involved in operating a newly assigned process, shall be trained in an overview of the process and in the operating procedures as specified in paragraph (f) of this section. The training shall include emphasis on the specific safety and health hazards, emergency operations including shutdown, and safe work practices applicable to the employee's job tasks:

- a. On or about and prior to April 8, 2021, the employer failed to train employees on specific operating procedures, the consequences of deviations, and the associated safety and health impacts. Such as, but not limited to:
- -procedures for loss of agitation and emergency operations such as loss of containment;
- -deviations from normal process conditions such as water returning into kettle reactor vessels;
- -abnormal process conditions such as frothing or foaming, solvent and/or vapor flow disruption, and rapid temperature or pressure increases; and
- -safety systems and their functions.

Lack of training for employees on operating procedures prevents employees from responding appropriately to process upsets exposing employees to fire and explosion hazards. As evidenced when the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room, which resulted in an explosion that resulted in a fatality and multiple disabling injuries.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

November 12, 2021 Date By Which Violation Must be Abated: Proposed Penalty: \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 20 Type of Violation: **Serious**

29 CFR 1910.119(j)(2): Written procedures. The employer did not establish and implement written procedures to maintain the on-going integrity of process equipment:

- a. On or about and prior to April 8, 2021, the employer's written procedures for rupture disk inspection failed to address the training requirements, and failed to address qualifications and credentials of the individuals and organizations authorized by the employer to inspect, test, and repair relief devices in covered processes; including rupture disks in pressure relief systems, such as but not limited to the rupture disk for the kettle 3 reactor vessel.
- b. On or about and prior to April 8, 2021, the employer's written procedures for rupture disk inspection failed to address rupture disk burst sensors, failed to address verification of rupture disk set point with relief system design basis, did not include detailed instruction for relief vent piping visual inspection, failed to address criteria for failure/acceptance and did not include detailed instruction for rupture disk and holder component assembly, inspection and cleaning in pressure relief systems of covered processes, such as, but not limited to rupture disk inspections for the kettle 3 reactor vessel.
- c. On or about and prior to April 8, 2021, the employer's mechanical integrity program procedures for pressure relief devices failed to address inspection, replacement and repair of "OPW vents" in pressure relief systems for equipment in the covered process, such as but not limited to Scale Tank 7.
- d. On or about and prior to April 8, 2021, the employer's mechanical integrity program procedures for process vessels failed to address the repair, installation and alteration of covered process equipment; such as but not limited to gasket repair for manway leaks, the installation of new process pressure vessels and alteration of pressure vessels, such as but not limited to the kettle 3 reactor vessel alteration, the installation of the K3 Bubble Cap Column, the installation of the K3 Total Condenser and the associated manway repair for the kettle 3 reactor vessel. On April 8, 2021, the kettle 3 reactor vessel manway cover to manway flange gasket failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

e. On or about and prior to April 8, 2021, the employer's mechanical integrity program for process vessels failed to address qualifications and credentials of the individuals and organizations performing testing/inspection; and the written program failed to address the development of specific inspection plans for process vessels in the covered process; to include the kettle 3 reactor vessel testing, inspection and inspection planning.

f. On or about and prior to April 8, 2021, the employer's mechanical integrity program written procedures for process piping did not include the development of specific inspection plans for piping in Resin Plant covered processes.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM



U.S. Department of Labor Inspection Number: 1524024

Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 21 Type of Violation: **Serious**

29 CFR 1910.119(j)(3):Training for process maintenance activities. The employer did not train each employee involved in maintaining the on-going integrity of process equipment in an overview of that process and its hazards and in the procedures applicable to the employee's job tasks to assure that the employee can perform the job tasks in a safe manner:

a. The employer did not have a mechanical integrity training program for employees involved in process maintenance activities, including maintenance technicians, engineers and management responsible for equipment inspection, testing, quality assurance and maintenance. Employees performed multiple process maintenance activities, including maintenance of equipment, installation of new equipment, testing and evaluation of equipment, identification of replacement parts and equipment inspection/testing information review.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

Proposed Penalty:

November 12, 2021

\$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 22 Type of Violation: **Serious**

29 CFR 1910.119(j)(4)(ii):Inspection and testing procedures did not follow recognized and generally accepted good engineering practices:

- a. On or about and prior to April 8, 2021, inspection and testing procedures failed to follow recognized and generally accepted good engineering practices (RAGAGEP) for the kettle 3 reactor vessel internal inspections. Internal inspections were performed without equipment specific inspection plans, without previous inspection thickness measurements use for corrosion rates and without the determination inspection frequency from vessel remaining life based calculations according to RAGAGEP, such as but not limited to, American Petroleum Institute (API) 510 (2014) Pressure Vessel Code: In-service Inspection, Rating, Repair and Alteration, Section 5, Inspection, Examination, and Pressure Testing Practices.
- b. On or about and prior to April 8, 2021, inspection and testing procedures did not follow RAGAGEP for the pressure relief system for reactor vessel 3, in that the rupture disk inspection was not documented. The work order for the scheduled mechanical integrity inspection was recorded on the employer's work order number PM021601 and was closed on January 5, 2021. The employer failed to document the person who performed the inspection, failed to document the date of the inspection, failed to document any identifying information for the rupture disk and failed to document the result of the inspection. The pressure relief device inspection was not documented according to, and failed to follow RAGAGEP, such as but not limited to, American Petroleum Institute (API) 510 (2014) Pressure Vessel Code: In-service Inspection, Rating, Repair and Alteration, Section 7.8, Reports and Records.
- c. On or about and prior to April 8, 2021, inspection and testing procedures did not follow RAGAGEP when the employer failed to document the inspection and testing related to the installation of pressure vessels; such as the kettle 3 reactor vessel system Bubble Cap Column. The employer failed to document any testing or inspections for the installation of process equipment into the covered process and failed to follow RAGAGEP, such as but not limited to, American Petroleum Institute (API) 510 (2014) Pressure Vessel Code: In-service Inspection, Rating, Repair and Alteration, Section 6.2.1, Vessel Installations.



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

- d. On or about and prior to April 8, 2021, inspection and testing procedures did not follow RAGAGEP when the employer failed to document the inspection and testing related to the installation of pressure vessels; such as the kettle 3 reactor vessel system K3 Total Condenser. The employer failed to document any testing or inspections for the installation of process equipment into the covered process and failed to follow RAGAGEP, such as but not limited to, American Petroleum Institute (API) 510 (2014) Pressure Vessel Code: In-service Inspection, Rating, Repair and Alteration, Section 6.2.1, Vessel Installations.
- e. On or about and prior to April 8, 2021, inspection and testing procedures for process piping in high temperature kettle systems did not follow RAGAGEP. Process piping inspections were performed without detailed inspection plans, without providing piping records and previous inspection information to the inspector and without the performance of remaining life calculations according to RAGAGEP, such as but not limited to, API 570 (2016) Piping Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems, section 5 Inspection, Examination, and Pressure Testing Practices, section 6, Interval/Frequency and Extent of Inspection and section 4.3. Owner/User Organization - Responsibilities.
- f. On or about and prior to April 8, 2021, inspection and testing procedures did not follow RAGAGEP when the employer failed to inspect, test, maintain and repair process piping for the new Total Condenser installation according to RAGAGEP. The employer failed to document any testing or inspections for the installation of process piping related to the new Total Condenser installation and failed to follow RAGAGEP, such as but not limited to, API 570 (2016) Piping Inspection Code: In-service Inspection, Rating, Repair, and Alteration of Piping Systems, section 6.2.1, Inspection During Installation and Service Changes - Piping Installation.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: Proposed Penalty:

November 12, 2021 \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 23 Type of Violation: **Serious**

29 CFR 1910.119(j)(4)(iv): The employer did not document each inspection and test that had been performed on process equipment. The documentation shall identify the date of the inspection or test, the name of the person who performed the inspection or test, the serial number or other identifier of the equipment on which the inspection or test was performed, a description of the inspection or test performed, and the results of the inspection or test:

- a. On or about and prior to April 8, 2021, the employer failed to document the kettle 3 reactor vessel rupture disk inspection that was performed during December 2020 shutdown and completed by work order PM 21601. The inspection record did not identify the date of inspection, the person who performed the test, the results of rupture disk inspection, serial number or any identifying information for the rupture disk, such as rupture disk set point, range of operation, temperature rating, type, and lot number. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.
- b. On or about and prior to April 8, 2021, the employer failed to document an August 11, 2014 kettle 3 reactor vessel internal inspection. The inspection record did not contain the nondestructive ultrasonic testing method for the testing or the equipment used. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.
- c. On or about and prior to April 8, 2021, the employer failed to document nondestructive examination of welding for the kettle 3 reactor pressure vessel alteration. The record for the dye penetrant test performed December 30, 2020 was not documented by Yenkin for this project. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.
- d. On or about and prior to April 8, 2021, the employer failed to document nondestructive examination related to a January 9, 2018 kettle 3 reactor vessel internal inspection. The inspection record did not include details of the nondestructive testing for thickness measurements of nozzles. Nozzles tested were not identified and thickness measurements were not recorded. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: November 12, 2021 \$13,653.00 Proposed Penalty:



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 24 Type of Violation: **Serious**

29 CFR 1910.119(j)(5): Equipment deficiencies. The employer did not correct deficiencies in equipment that were outside acceptable limits (defined by the process safety information in paragraph (d) of this section) before further use or in a safe and timely manner when necessary means are taken to assure safe operation:

- a. On or about and prior to April 8, 2021, deficiencies in the Catch Tank (also known as CT-8 on the piping and instrument diagram, RP-CATCHTNK) were not corrected, in that the rupture disk had burst and was not replaced for a period of at least four (4) years. Employees working in or near the covered process are exposed to fire, explosion and contact hazards related to atmospheric venting from pressure relief systems.
- b. On or about and prior to April 8, 2021, identified deficiencies in the kettle 3 reactor vessel manway and manway cover were not corrected and the vessel was put back in service. The manway cover flexed and distorted during tightening that was documented by a January 4, 2021 work order. On April 8, 2021, the kettle 3 reactor vessel manway cover to manway flange gasket failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 25 Type of Violation: **Serious**

29 CFR 1910.119(j)(6): Quality assurance:

29 CFR 1910.119(j)(6)(ii): Appropriate checks and inspections were not performed to assure that equipment was installed properly and consistent with design specifications and the manufacturer's instructions:

a. On or about and prior to April 8, 2021, the employer failed to assure that appropriate checks and inspections were performed to assure that equipment, such as, but not limited to, the kettle 3 pressure vessel, rupture disks and gaskets, were installed properly and consistent with design specifications and manufacturer's instructions exposing employees to fire and explosion hazards from loss of containment events related to the alteration and repair of equipment. On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 26 Type of Violation: **Serious**

29 CFR 1910.119(j)(6): Quality assurance:

29 CFR 1910.119(j)(6)(iii): The employer did not assure that maintenance materials, spare parts and equipment are suitable for the process application for which they will be used:

a. On or about and prior to April 8, 2021, the employer failed to assure that maintenance materials and spare parts used for the kettle 3 reactor vessel manway cover gasket were suitable for the process application. The materials of construction used for the gasket fabrication were not documented in process safety information or a quality assurance program to assure that materials used for the gasket were appropriate for the service conditions. The manway leaked during startup following the Christmas 2020 shutdown when the manway opening was altered. The employer fabricated a replacement gasket from gasket materials they had in-stock (i.e. spare parts). This replacement gasket failed. A second gasket was fabricated and installed from spare gasket materials and the kettle 3 reactor vessel was placed back in service on January 4, 2021. On April 8, 2021, the manway for the kettle 3 reactor vessel, which included the manway flange/cover gasket, failed and the kettle released a vapor cloud of solvent that resulted in an explosion in the Resin Plant. The explosion resulted in multiple disabling injuries and an occupational fatality.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: November 12, 2021 Proposed Penalty: \$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 27 Type of Violation: **Serious**

29 CFR 1910.119(l)(2): The procedures did not assure that the following considerations were addressed prior to any change:

29 CFR 1910.119(1)(2)(ii):Impact of change on safety and health;

a. On or about and prior to April 8, 2021, for the management of change (MOC) procedure tracking number 1556, the employer failed to adequately address potential safety and health impacts of the change made by the MOC procedure. This MOC involved the Kettle 3 Automation (Phase 1), the Bubble Cap Column installation, the Eductor valve change and all kettle 3 changes during the Kettle 3 shutdown completed in December 2018. The MOC failed to address the potential impact on the relief systems of the Kettle 3 reactor vessel and the relief systems for other Kettle 3 system equipment; to include any inlet lines, relief devices, relief discharge lines, relief disposal equipment and safe venting of relief discharge lines. Additionally the MOC failed to address the safety and health impact of the Automation (Phase 1) changes to the agitator kettle 3 operator control screen related to potential "loss of agitation" and removal of the "loss of agitation" lighted alarm from the K3/K4 reactor room. Failure to adequately address the safety and health impacts can lead to improper relief systems exposing employees to loss of containment events, fire, and explosions.

b. On or about and prior to April 8, 2021, for the management of change (MOC) procedure tracking number 2178, the employer failed to adequately address potential safety and health impacts of the change made by the MOC procedure. This MOC involved the K3 Condenser installation and failed to address the impact on pressure relief systems to include atmospheric venting of solvent vapor from the condenser, the relief system of the Kettle 3 reactor vessel, the relief systems for other Kettle 3 system equipment and the relief system for K3 Condenser; to include any inlet lines, relief devices, relief discharge lines, relief disposal equipment and safe venting of relief discharge lines. Failure to adequately address the safety and health impacts can lead to improper relief systems exposing employees to loss of containment events, fire, and explosions.



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

c. On or about and prior to April 8, 2021, for the management of change (MOC) procedure tracking number 2191, the employer failed to adequately address potential safety and health impacts of the change made by the MOC procedure. This MOC involved the K3 Hopper Transition and the alteration of an ASME code pressure vessel, the kettle 3 reactor. The MOC failed to address the impact of the alteration on the loss of pressure containing ability related to the installation of a nozzle which penetrated the vessel shell, the installation of a manway opening which penetrated the vessel head and the welding alteration of the existing vessel manway opening to connect to the solid material hopper, to include the use of qualified welding personnel to perform code pressure vessel alterations, the use of qualified organizations to design the alteration, the alteration design performed according to applicable code and the design of inspection and testing plans to address the potential loss of pressure containing ability related to the alteration. On April 8, 2021, the kettle 3 reactor vessel manway cover to manway flange gasket failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in the fatality and multiple disabling injuries.

d. On or about and prior to April 8, 2021, for the management of change (MOC) procedure tracking number 2152, the employer failed to adequately address potential safety and health impacts of the change made by the MOC procedure. This MOC involved the Safety Interlock Update and failed to address the potential impact "loss of agitation" on the Kettle 3 reactor vessel pressure safety interlock and the emergency cooling water interlock, to include the agitator interlock preventing cooling water flow into the kettle and the safety and health impact upon the vessel pressure interlock and the emergency cooling water interlock. Failure to adequately address the safety and health impacts can lead to safety system interlock failure exposing employees to loss of containment events, fire, and explosions.

e. On or about and prior to April 8, 2021, for the management of change (MOC) procedure tracking number 2088, the employer failed to adequately address potential safety and health impacts of the change made by the MOC procedure. This MOC involved the K4 - Automation Phase 4 and failed to address the potential impact "loss of agitation" on the Kettle 3 reactor vessel pressure safety interlock and the emergency cooling water interlock, to include the agitator interlock preventing cooling water flow into the kettle and the safety and health impact upon the vessel pressure interlock and the emergency cooling water interlock. Failure to adequately address the safety and health impacts can lead to safety system interlock failure exposing employees to loss of containment events, fire, and explosions.



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

f. On or about and prior to April 8, 2021, for the management of change (MOC) procedure tracking number 2044, the employer failed to adequately address potential safety and health impacts of the change made by the MOC procedure. This MOC involved the K5 - Automation Phase 3 and failed to address the potential impact "loss of agitation" on the Kettle 5 reactor vessel pressure safety interlock and the emergency cooling water interlock, to include the agitator interlock preventing cooling water flow into the kettle and the safety and health impact upon the vessel pressure interlock and the emergency cooling water interlock. Failure to adequately address the safety and health impacts can lead to safety system interlock failure exposing employees to loss of containment events, fire, and explosions.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 28 Type of Violation: **Serious**

29 CFR 1910.119(1)(4): When a change covered by this paragraph resulted in a change in the process safety information required by paragraph (d) of this section, such information was not updated accordingly:

- a. On or about and prior to April 8, 2021, for the management of change procedure 2191, process safety information was not updated; the employer failed to document, update and compile process safety information material of construction, for the manway gasket; On April 8, 2021, the kettle 3 reactor vessel manway cover to manway flange gasket failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.
- b. On or about and prior to April 8, 2021, for the management of change procedure 2191, process safety information was not updated; the P&ID (Piping & Instrument Diagram), Drawing RP-KT03, Revision 5 did not reflect the Kettle 3 reactor vessel manway opening. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.
- c. On or about and prior to April 8, 2021, for the management of change procedure 2191, process safety information was not updated; when the employer failed to update the safe upper limits for maximum operating pressure, contained in Yenkin process safety information document, RES-DOC-PLT-03, Operating Parameters Kettle 3. Employees working on and in the vicinity of equipment containing highly hazardous chemicals are exposed to fire, explosion and contact hazards.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: November 12, 2021 Proposed Penalty: \$13,653.00



Inspection Number: 1524024 **U.S.** Department of Labor

Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 29 Type of Violation: **Serious**

29 CFR 1910.119(m)(1): The employer shall investigate each incident which resulted in, or could reasonably have resulted in a catastrophic release of highly hazardous chemical in the workplace:

- a. On or about and prior to April 8, 2021, the employer failed to initiate an incident investigation related to the kettle 3 reactor vessel leak from a newly installed manway opening. The leak event happened during the initial startup of production which began on January 3, 2021 and occurred after the December 2020 shutdown installation of the new manway opening into the reactor vessel. On April 8, 2021, the kettle 3 reactor vessel manway cover to manway flange gasket failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in the fatality and multiple disabling injuries.
- b. On or about and prior to April 8, 2021, the employer failed to initiate an incident investigation related to the kettle 3 reactor vessel leak from the manway cover. The leak happened on November 30, 2020 and was documented by a December 1, 2020 work order record. Manway leaks during production activities pose the risk of unconfined vapor cloud release and vapor cloud explosion.
- c. On or about and prior to April 8, 2021, the employer failed to initiate an incident investigation related to internal pressure buildup in the kettle 3 reactor vessel during fusion processing in the overhead system. The occurrence resulted in a January 29, 2021 shutdown of the equipment and was documented by a January 30, 2021 work order record. Rapid internal pressure increase poses the risk of overpressure, loss of pressure containing capability and an unconfined vapor cloud release resulting in vapor cloud explosion.
- d. On or about and prior to April 8, 2021, the employer failed to initiate an incident investigation related to a leak from the kettle 3 reactor vessel pressure relief system rupture disk flange. The leak occurred on January 8, 2021 and was documented by a January 8, 2021 work order record. Leaks during production activities pose the risk of unconfined vapor cloud release and vapor cloud explosion.



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM



U.S. Department of Labor Inspection Number: 1524024

Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 30 Type of Violation: **Serious**

29 CFR 1910.119(n): Emergency planning and response. The employer did not establish and implement an emergency action plan for the entire plant in accordance with the provisions of 29 CFR 1910.38. In addition, the emergency action plan shall include procedures for handling small releases. Employers covered under this standard may also be subject to the hazardous waste and emergency response provisions contained in 29 CFR 1910.120 (a), (p) and (q):

The employer is failing to protect employees from injury or illness when responding to an emergency related to a chemical release from a covered process. This was most recently documented on April 8, 2021, at worksite located at 1920 Leonard Avenue in Columbus, Ohio.

a. The employer's emergency action plan did not ensure employees were prepared for emergency evacuations for chemical releases from covered process equipment.

Note: 29 CFR 1910.38(c)(2) is required for PSM-covered processes by 29 CFR 1910.119(n) and can be used to abate this hazardous condition.

b. The employer's emergency action plan did not include distinct signals for chemical releases.

Note: 29 CFR 1910.165 is required by 29 CFR 1910.38(d), which is required for PSM-covered processes by 29 CFR 1910.119(n), therefore 29 CFR 1910.38(d) can be used to abate this hazardous condition.

c. The employer did not review emergency response procedures with employees; such that employees were not aware of how to respond to a chemical release.

Note: 29 CFR 1910.38(f) is required for PSM-covered processes by 29 CFR 1910.119(n) and can be used to abate this hazardous condition.

On April 8, 2021, the kettle 3 reactor vessel manway failed and released a chemical vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.



U.S. Department of Labor Inspection Number: 1524024

Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 1 Item 31 Type of Violation: **Serious**

29 CFR 1910.120(q)(6):Training. Training shall be based on the duties and function to be performed by each responder of an emergency response organization. The skill and knowledge levels required for all new responders, those hired after the effective date of this standard, shall be conveyed to them through training before they are permitted to take part in actual emergency operations on an incident. Employees who participate, or are expected to participate, in emergency response, shall be given training in accordance with the following paragraphs:

a. On or about and prior to April 8, 2021, the employer failed to provide and certify training for employees expected to participate in emergency response. There were no employees trained on the elements for First Responder Awareness Level, First Responder Operations Level, or On Scene Incident Commander for actions delineated in the employer's plan.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

Proposed Penalty:

November 12, 2021

\$13,653.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

The alleged violations below have been grouped because they involve similar or related hazards that may increase the potential for injury or illness.

Type of Violation: **Serious** Citation 1 Item 32 a

29 CFR 1910.132(a): Application. Protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.

a. On or about and prior to April 8, 2021, the employer failed to provide flame-resistant clothing, or uniforms that protected the torso, legs and arms against flash fire and other thermal hazards when working in the Resin Plant. Additionally, the employer failed to require the use of flame-resistant clothing or uniforms that protected the torso and arms against flash fire and other thermal hazards

On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Type of Violation: **Serious** Citation 1 Item 32 b

29 CFR 1910.132(d)(1):The employer shall assess the workplace to determine if hazards are present, or are likely to be present, which necessitate the use of personal protective equipment (PPE). If such hazards are present, or likely to be present, the employer shall:

29 CFR 1910.132(d)(1)(i): Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the hazard assessment;

a. On or about and prior to April 8, 2021, the employer failed to select and have each employee wear protective clothing to protect the employees from chemical and thermal burns from hot resin and fire hazards.

On April 8, 2021, the kettle 3 reactor vessel manway failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

<u>Citation 2 Item 1</u> Type of Violation: **Willful - Serious**

29 CFR 1910.119(d)(3): Information pertaining to the equipment in the process:

29 CFR 1910.119(d)(3)(ii): The employer shall document that equipment complies with recognized and generally accepted good engineering practices:

The employer does not protect employees from hazards associated with the catastrophic release of hazardous chemicals from the kettle 3 reactor vessel covered process by failing to comply with the OSHA PSM standard for complying with regularly and generally accepted good engineering practices.

a. This most recently occurred on April 8, 2021, the employer failed to document that the alteration of an ASME BPVC section VIII pressure vessel, the kettle 3 reactor vessel, was performed in compliance with recognized and generally accepted good engineering practices (RAGAGEP) such as, but not limited to, American Petroleum Institute (API) 510 (2014) Pressure Vessel Code: In-service Inspection, Rating, Repair and Alteration, Section 8.1.1 General - performed in accordance with ASME code; section 8.1.2 Authorization, Section 8.1.3. Approval, 8.1.4 Design, 8.1.7.2, Procedures, Qualifications, and Records, and 5.8 Pressure Testing. The kettle 3 reactor vessel alteration involved the installation of a new manway opening, the installation of nozzle and the alteration of the existing manway. The employer failed to require the alteration to be performed by and fabricated by a pressure vessel repair organization with a certificate of authorization, failed to verify the qualifications of welders and failed to use qualified welders for the alteration. Additionally, the employer failed to have the work authorized and hold points designated by the authorized inspector, failed to have methods of design, welding procedures, nondestructive examination and testing approved by the authorized inspector and failed to have pressure testing performed. The employer failed to document the alteration. On April 8, 2021, the kettle 3 reactor vessel manway cover to manway flange gasket failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

b. This most recently occurred on April 8, 2021, the employer failed to document that the kettle 3 reactor vessel, an ASME BPVC section VIII pressure vessel, complied with recognized and generally accepted good engineering practices (RAGAGEP) related to "de-rating" or rerating the vessel, such as, but not limited to, American Petroleum Institute (API) 510 (2014) Pressure Vessel Code: In-service Inspection, Rating, Repair and Alteration, Section 8.2. The employer did not rerate/"de-rate" the vessel according to the code of construction and stated that it had derated the vessel to a non-code vessel, but failed to take actions per the vessel's construction code, the 1959 American Society of Mechanical Engineers Boiler and Pressure Vessel Code section VIII; and the 2019 American Society of Mechanical Engineers Boiler and Pressure Vessel Code section VIII that would have actually "derated" the kettle 3 reactor vessel. In particular, the employer failed to replace the pressure vessel's rupture disk that was set to burst at a pressure greater than 15 psig with a rupture disk with a specified burst pressure rating less than 15 psig. On April 8, 2021, the kettle 3 reactor vessel manway cover to manway flange gasket failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

In accordance with 29 CFR 1903.19(d), abatement certification is required for this violation (using the CERTIFICATION OF CORRECTIVE ACTION WORKSHEET), and in addition, documentation demonstrating that abatement is complete must be included with your certification. This documentation may include, but is not limited to, evidence of the purchase or repair of the equipment, photographic or video evidence of abatement, or other written records.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated: Proposed Penalty:

November 12, 2021 \$136,532.00



Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Inspection Number: 1524024

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Citation 2 Item 2 Type of Violation: **Willful - Serious**

29 CFR 1910.119(1): Management of change:

29 CFR 1910.119(l)(1):The employer shall establish and implement written procedures to manage changes (except for "replacements in kind") to process chemicals, technology, equipment, and procedures; and, changes to facilities that affect a covered process:

The employer does not protect employees from hazards associated with the catastrophic release of hazardous chemicals from the kettle 3 reactor vessel covered process by failing to comply with the OSHA PSM standard for management of change procedures.

a. This most recently occurred on April 8, 2021, the employer failed to implement the company management of change (MOC) procedure for equipment in the covered process. An MOC procedure was not developed/implemented for a gasket change that was made on the Kettle 3 reactor vessel (K3) manway opening and manway cover. The material and style of gasket were changed and put in-service/implemented before the employer evaluated the change under its MOC procedure. This gasket material of construction change was involved in a K3 manway leak; that manway leak occurred during the initial startup of production on January 3, 2021 and followed the December 2020 shutdown installation of the new manway opening into the reactor vessel. The gasket replacement was completed on January 4, 2021 and was completed without developing/implementing an MOC. On April 8, 2021, the kettle 3 reactor vessel manway cover to manway flange gasket failed and released vapor into the kettle 3/kettle 4 room. This catastrophic failure resulted in the explosion event that resulted in a fatality and multiple disabling injuries.

In accordance with 29 CFR 1903.19(d), abatement certification is required for this violation (using the CERTIFICATION OF CORRECTIVE ACTION WORKSHEET), and in addition, documentation demonstrating that abatement is complete must be included with your certification. This documentation may include, but is not limited to, evidence of the purchase or repair of the equipment, photographic or video evidence of abatement, or other written records.



Inspection Number: 1524024

Occupational Safety and Health Administration Inspection Date(s): 04/08/2021 - 10/05/2021

Issuance Date: 10/06/2021

Citation and Notification of Penalty

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

November 12, 2021

\$136,532.00

Proposed Penalty:

Larry M. Johnson Area Director

Occupational Safety and Health Administration 200 N. High Street Room 620 Columbus, OH 43215



INVOICE / DEBT COLLECTION NOTICE

Company Name: The Yenkin-Majestic Paint Corporation, dba OPC Polymers

Inspection Site: 1920 Leonard Ave, Columbus, OH 43219

Issuance Date: 10/06/2021

Summary of Penalties for Inspection Number: 1524024

Citation 1 Item 1, Serious	\$13,653.00
Citation 1 Item 2, Serious	\$13,653.00
Citation 1 Item 3, Serious	\$13,653.00
Citation 1 Item 4, Serious	\$13,653.00
Citation 1 Item 5, Serious	\$13,653.00
Citation 1 Item 6, Serious	\$13,653.00
Citation 1 Item 7, Serious	\$13,653.00
Citation 1 Item 8, Serious	\$13,653.00
Citation 1 Item 9, Serious	\$13,653.00
Citation 1 Item 10, Serious	\$13,653.00
Citation 1 Item 11, Serious	\$13,653.00
Citation 1 Item 12, Serious	\$13,653.00
Citation 1 Item 13, Serious	\$13,653.00
Citation 1 Item 14, Serious	\$13,653.00
Citation 1 Item 15, Serious	\$13,653.00
Citation 1 Item 16, Serious	\$13,653.00
Citation 1 Item 17, Serious	\$13,653.00
Citation 1 Item 18, Serious	\$13,653.00
Citation 1 Item 19, Serious	\$13,653.00
Citation 1 Item 20, Serious	\$13,653.00
Citation 1 Item 21, Serious	\$13,653.00
Citation 1 Item 22, Serious	\$13,653.00
Citation 1 Item 23, Serious	\$13,653.00
Citation 1 Item 24, Serious	\$13,653.00
Citation 1 Item 25, Serious	\$13,653.00
Citation 1 Item 26, Serious	\$13,653.00
Citation 1 Item 27, Serious	\$13,653.00
Citation 1 Item 28, Serious	\$13,653.00

Citation 1 Item 29, Serious	\$13,653.00
Citation 1 Item 30, Serious	\$13,653.00
Citation 1 Item 31, Serious	\$13,653.00
Citation 1 Item 32a, Serious	\$13,653.00
Citation 1 Item 32b, Serious	\$0.00
Citation 2 Item 1, Willful - Serious	\$136,532.00
Citation 2 Item 2, Willful - Serious	\$136,532.00

TOTAL PROPOSED PENALTIES:

\$709,960.00

To avoid additional charges, please remit payment promptly to this Area Office for the total amount of the uncontested penalties summarized above. Make your check or money order payable to: "DOL-OSHA". Please indicate OSHA's Inspection Number (indicated above) on the remittance. You can also make your payment electronically at www.pay.gov. At the top of the pay.gov homepage, type "OSHA" in the Search field and select Search. From the OSHA Penalty Payment Form search result, select Continue. The direct link is: https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334. You will be required to enter your inspection number when making the payment. Payments can be made by credit card or Automated Clearing House (ACH) using your banking information. Payments of \$25,000 or more require a Transaction ID, and also must be paid using ACH. If you require a Transaction ID, please contact the OSHA Debt Collection Team at (202) 693-2170.

OSHA does not agree to any restrictions or conditions or endorsements put on any check, money order, or electronic payment for less than the full amount due, and will cash the check or money order as if these restrictions or conditions do not exist.

If a personal check is issued, it will be converted into an electronic fund transfer (EFT). This means that our bank will copy your check and use the account information on it to electronically debit your account for the amount of the check. The debit from your account will then usually occur within 24 hours and will be shown on your regular account statement. You will not receive your original check back. The bank will destroy your original check, but will keep a copy of it. If the EFT cannot be completed because of insufficient funds or closed account, the bank will attempt to make the transfer up to two times.

Pursuant to the Debt Collection Act of 1982 (Public Law 97-365) and regulations of the U.S. Department of Labor (29 CFR Part 20), the Occupational Safety and Health Administration is required to assess interest, delinquent charges, and administrative costs for the collection of delinquent penalty debts for violations of the Occupational Safety and Health Act.

<u>Interest</u>: Interest charges will be assessed at an annual rate determined by the Secretary of the Treasury on all penalty debt amounts not paid within one month (30 calendar days) of the date on which the debt amount becomes due and payable (penalty due date). The current interest rate is one percent (1%). Interest will accrue from the date on which the penalty amounts (as proposed or adjusted) become a final order of the Occupational Safety and Health Review Commission (that is, 15 working days from your receipt of the Citation and Notification of Penalty), unless you file a notice of contest. Interest charges will be waived if the full amount owed is paid within 30 calendar days of the final order.

<u>Delinquent Charges</u>: A debt is considered delinquent if it has not been paid within one month (30 calendar days) of the penalty due date or if a satisfactory payment arrangement has not been made. If the debt remains delinquent for more than 90 calendar days, a delinquent charge of six percent (6%) per annum will be assessed accruing from the date that the debt became delinquent.

Administrative Costs: Agencies of the Department of Labor are required to assess additional charges for the recovery of delinquent debts. These additional charges are administrative costs incurred by the Agency in its attempt to collect an unpaid debt. Administrative costs will be assessed for demand letters sent in an attempt to collect the unpaid debt.

Langer Johnson	10/06/2021
Larry M. Johnson	Date

Area Director