

Este documento es muy importante. Si ud. No habla inglés,
busque un traductor o llame al (316) 269-6644.

U.S. Department of Labor Occupational Safety and Health Administration
100 N. Broadway Suite 470
Wichita, KS 67202
Phone: (316) 269-6644 Fax: (316) 269-6185



April 19, 2016

Dear Joe Waldeier,

On 10/22/2015, an OSHA compliance officer met with you or your representative as part of an inspection at 5200 Speaker Road, Kansas City, KS 66106. This letter includes the citations for the violations that were found (see summary below). Please choose one of the three options from the box to the right and complete the associated steps found on the following page **within 15 working days**. Please call us if you have any questions about the enclosed citation and/or penalties; we are here to help you choose the best option to resolve your citation as quickly as possible.

Sincerely,



Judy Freeman, Area Director

Your Citation Summary
Harcros Chemicals Inc.
Inspection Number: 1100492

Total Amount Due: \$80000.00
Payment Due Date: 15 working days
after receipt of
this letter

You must correct each violation by the date listed in the Citation and Notification of Penalty. Please see the violations and the correction deadline for each violation starting on page 6.

Total Number of Violations : 14
Your First Correction Deadline is: 6/2/16

Step 1 – Choose a Response Option and *Act within 15 working days*

Respond now before you lose the ability to discuss potential adjustments to penalty amounts and/or due dates. Please choose one option below and complete the steps on the next page.

Option #1 – Discuss with OSHA

I would like to discuss the citation with an OSHA representative. This may lead to changes in the penalty amount, due date or correction deadlines (if appropriate).

Option #2 – Correct and Pay

I agree with the citation, penalties, and correction deadlines, and do not contest.

Option #3 – Contest the Citation

I do not agree with the citation, penalties, and/or correction deadlines, and would like to contest.

Questions or Concerns?

If you have any questions or concerns regarding the citation, penalties, and/or correction deadlines, please call us at (316) 269-6644.

Step 2 – Complete One Option Checklist

Please post a copy of the citation at or near the place where each violation occurred, even if you plan to contest. You can use the checklist to the right to help plan your next steps. Please do not send in your checklist.

Option #1 – Discuss with OSHA

I will complete by:



1. Call: Lisa Gilpin, Assistant Area Director, at (316) 269-6644 as soon as possible to schedule a meeting with an OSHA representative that must occur **within 15 working days** of receiving this citation. Bring supporting documentation of existing conditions and corrections done thus far. If necessary, you can still contest the citation after this meeting. ****This meeting does NOT extend your 15 working day deadline to contest the citation.****

 __ / __

2. Fill in and post the attached "Notice to Employees OSHA Informal Conference" after scheduling meeting.

 __ / __

Option #2 – Correct Violations and Pay Penalty

I will complete by:



1. Correct violations, then complete and mail the attached "Certification of Corrective Action Worksheet" along with the appropriate evidence of repair (e.g. photos, purchase orders, etc.) to the OSHA office listed on the first page, **postmarked within 10 calendar days after each violation's correction deadline and include any required evidence. If these documents are transmitted by means other than mailing, the date the Agency received the documents is the date of submission.**

 __ / __

2. Pay the **Total Penalty** by using one of the following methods:
****Include your Inspection Number (see first page) on the payment.****

 __ / __

Pay Online: Search "OSHA" on www.pay.gov and complete the "OSHA Penalty Payment Form." Pay by debit, credit or Automated Clearing House (ACH) **within 15 working days**. Penalties over \$25,000 must be paid by ACH and require a Transaction ID (Call 202-693-2170 to obtain one).

Pay by Check: Mail check or money order payable to "DOL-OSHA" for the Total Penalty to the OSHA office listed on the first page **within 15 working days**.

Option #3 – Contest the Citation

I will complete by:



Mail a letter of intent to legally contest to the OSHA office listed on the first page, postmarked **within 15 working days**.

 __ / __

U.S. Department of Labor
Occupational Safety and Health Administration
100 N. Broadway
Suite 470
Wichita, KS 67202
Phone: 316-269-6644 Fax: 316-269-6185



Citation and Notification of Penalty

To:
Harcros Chemicals Inc.
and its successors
5200 Speaker Road
Kansas City, KS 66106

Inspection Number: 1100492
Inspection Date(s): 10/22/2015 - 04/14/2016
Issuance Date: 04/19/2016

Inspection Site:
5200 Speaker Road
Kansas City, KS 66106

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. 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. **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.**

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 on www.pay.gov. On the left side of the pay.gov homepage, you will see an option to Search Public Forms. Type "OSHA" and click Go. From the results, click on **OSHA Penalty Payment Form**. 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.



NOTICE TO EMPLOYEES OF INFORMAL CONFERENCE

An informal conference has been scheduled with OSHA to discuss the citation(s) issued on 04/19/2016. The conference will be held by telephone or at the OSHA office located at 100 N. Broadway, Suite 470, Wichita, KS 67202 on _____ at _____.

Employees and/or representatives of employees have a right to attend an informal conference.

CERTIFICATION OF CORRECTIVE ACTION WORKSHEET

Inspection Number: 1100492

Company Name: **Harcros Chemicals Inc.**
Inspection Site: **5200 Speaker Road, Kansas City, KS 66106**
Issuance Date: **04/19/2016**

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, 100 N. Broadway, Suite 470, Wichita, KS 67202**

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

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

Title

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



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

29 CFR 1910.119(c)(2): Employers did not consult with employees and their representatives on the conduct and development of process hazard analyses and on the development of the elements of process safety management in this standard:

At the facility employee(s) had not been consulted on the conduct and development of the following elements of the corporate's process safety management procedure:

- (a) process safety information
- (b) process hazard analysis
- (c) process safety management training
- (d) mechanical integrity
- (e) management of change
- (f) pre-start up safety review
- (g) contractors
- (h) incident investigations
- (i) emergency planning and response
- (j) compliance audits
- (k) trade secrets

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

Date By Which Violation Must be Abated: 06/02/2016
Proposed Penalty: \$4000.00

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

Inspection Number: 1100492
Inspection Date(s): 10/22/2015 - 04/14/2016
Issuance Date: 04/19/2016



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

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

29 CFR 1910.119(d)(2)(i)(D): Safe upper and lower limits for such items as temperatures, pressures, flows or compositions pertaining to the technology of the process were not compiled before conducting any process safety analysis required by this standard:

At the Ethylene Oxide plant, the employer had not established safe upper and lower limits for temperatures, pressures, and flows for the equipment / piping in the covered process.

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

Date By Which Violation Must be Abated:	06/02/2016
Proposed Penalty:	\$5000.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

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

Inspection Number: 1100492
Inspection Date(s): 10/22/2015 - 04/14/2016
Issuance Date: 04/19/2016



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

29 CFR 1910.119(d)(3)(i)(G): Information pertaining to the equipment in the process did not include material and energy balances for processes built after May 26, 1982:

At the Ethylene Oxide plant, the employer had not created a material and energy balance for the Ethylene Oxide plant.

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(c)(2) Abatement for the above violation was verified at time of inspection. No certification required.

Date By Which Violation Must be Abated: Corrected During Inspection

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

29 CFR 1910.119(d)(3)(i)(A): The employer did not complete a compilation of process safety information pertaining to the material of construction of equipment in the process:

The employer had not compiled the materials of construction process safety information for the equipment and piping in the Ethylene Oxide plant such as, but not limited to the following:

- (a) ethylene oxide scrubber (T-302)
- (b) 2 inch CS schedule 40
- (c) 2 inch 316 SS schedule 40
- (d) flexible hose used to transfer ethylene oxide from the rail car
- (e) flexible hose used to transfer propylene oxide from the rail car
- (f) two R-202 catalyst feed pots
- (g) blast walls surrounding the reactors

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

Date By Which Violation Must be Abated:

06/02/2016



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

29 CFR 1910.119(d)(3)(i)(F): Design codes and standards pertaining to the equipment in the process were not compiled before conducting any process safety analysis required by this standard:

At the Ethylene Oxide plant, the employer did not include design codes and standards employed in the process safety information pertaining to equipment, including, but not limited to the following:

- (a) piping
- (b) pressure vessels
- (c) valves
- (d) fittings
- (e) piping / equipment insulation

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

Date By Which Violation Must be Abated:

06/02/2016



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

Citation 1 Item 3 Type of Violation: **Serious**

29 CFR 1910.119(d)(3)(i)(B): The employer's piping and instrument diagrams were not accurate and did not represent equipment that was existing and was part of the process:

At the Ethylene Oxide plant, the employer had not verified that all P&IDs were up to date and accurate for use by Harcros Chemical employee(s) and contractors for the process hazard analysis, line breaks, equipment/piping replacement/repairs, and etc., the following was noted:

- (a) triple check valves were observed after FE 301-06 on the ethylene oxide line during the walk around, but not drawn on the p&ids
- (b) during the walk around the ethylene oxide line split into 2 directions at PRV 301; one direction the 2 inch pipe had a reducer that reduced pipe to 1 inch that led to the PRV 301, the other direction the 2 inch line had a reducer that reduced the pipe to 1 inch that led toward the ethylene oxide intermediate tank T-301; neither line was drawn on the p&id.
- (c) pump selector switch HS 313 was drawn on the p&id, but not observed during the walk around.
- (d) two pressure gages were observed on opposite sides of a normally open gate valve that was located on the ethylene oxide line between the feed pump P-301A and the cooler E-301 was not drawn on the p&id.
- (e) pressure gage 314 and two other gate valves drawn on the p&id was not observed during the walk around.
- (f) a pressure gage was observed on the ethylene oxide line after a gate valve prior to pipe slope to the reactors
- (g) triple check valves were observed during the walk around prior to on/off flow control valve (XV 201-20) leading to reactor R-202
- (h) no gate valve was observed during the walk around on the ethylene oxide line leading to reactor R-

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

205, reactor R-204, and the scrubber tank T-302

(i) a two inch to one inch reducer was observed on the ethylene oxide pipe line before the on/off flow control valve (XV 301-21) leading to reactor R-204 was not drawn on the p&id

(j) a nitrogen line was observed connected to the ethylene oxide pipe line that was exiting from the ethylene oxide cooler (E-301), but not drawn on the p&id

(k) on/off control valve (XV 303-4) was drawn on the p&id, but was not observed on the propylene oxide pipe line during the walk around

(l) after the blue lever ball valve on the propylene oxide line, a propylene oxide pipe line leading to a truck tanker intersected the propylene oxide pipe line to the intermediate tank (T-303), was not drawn on the p&id

(m) a ball valve was observed on the propylene oxide pipe line after the piping intersection to the truck tanker; this ball valve was not drawn on the p&id

(n) a pressure gage and two gate valves were not observed during the walk around after propylene oxide feed pump (P-303A), but drawn on the p&id

(o) a pipe reducer labeled two inch to one inch was observed during the walk around to be 1 inch to 2 inches after propylene oxide feed pump (P-303A), but not drawn on the p&id

(p) two pressure gages and a needle valve were observed between the propylene oxide feed pump (P-303A) and the propylene oxide cooler (E-303), but not drawn on the p&id

(q) a two inch to 1 inch reducer was observed during the walk around between the propylene oxide feed pump (P-303A) and on/off control valve (XV 303-21) leading to reactor R-204, but not drawn on the p&id

(r) two flanges were observed during the walk around after the unlabeled on/off control valve leading to reactor R-205, but not drawn on the p&id

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

(s) a 3/4 inch gate valve on the 3" 316SS pipe line was not observed during the walk around, but drawn on the p&id

(t) a gate valve between FE 204-7 and TW204-6 on 3" 316SS pipe line was observed during the walk around, but not drawn on the p&id

(u) a 3/4" pipe line with a 3/4" gate valve were observed connecting two hose connection pipe lines prior to their 3/4" gate valves during the walk around of the reactor exchanger (E-204A), bottom section

(v) a 3/4" gate valve and pipe line were observed during the walk around attached to the reactor exchanger (E-204A), but not drawn on the p&id

(w) pressure indicator/transmitter number 204 had moved to a new location on ethylene oxide transfer system pipe line 2"316SS, the pressure indicator/transmitter #204 was observed before the triple check valves prior to the propylene oxide transfer section piping intersection

(x) after flow valve 204-1 on pipe line 2"316SS leading to the ethylene oxide reactor (R-204) the following was observed during the walk around, but not drawn on the p&id: triple check valves, pipe and flange, gate valve, pipe and flange

(y) pressure indicators 210 and 215 were not observed during the walk around, but were drawn on the p&id

(z) on drawing D156PD04A the majority of the pipe lines were not labeled to identify their size and material of construction

(aa) a 6 inch to 4 inch reducer was observed during the walk around before pump P-204A, but not drawn on the p&id

(bb) a 3 inch to 2 inch reducer was observed during the walk around after pump P-204A, but not drawn on the p&id

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

(cc) ethylene / propylene oxide vent transfer line 2"316SS SCH 40 Process to the ethylene oxide water jet scrubber tank (T-302) had a flange, check valve, and gate valve observed during the walk around, but not drawn on the p&id

(dd) propylene oxide vent line 2"316SS SCH 40 Process to the ethylene oxide water jet scrubber tank (T-302) had a flange, check valve, and gate valve observed during the walk around, but not drawn on the p&id

(ee) no triple check valves or a gate valve were observed during the walk around of the ethylene oxide feed line 2"316 SS Process to the ethylene oxide reactor (R-202), but were drawn on the p&id (D156PD03)

(ff) no pressure indicator or transmitter were observed after the flow transmitter (202-1) during the walk around of the ethylene oxide feed line 2"316 SS Process to the ethylene oxide reactor (R-202), but were drawn on the p&id (D156PD03)

(gg) during the walk around an approximate 8 inch braided hose and flange were connected to the ethylene oxide feed line 2"316 SS Process to the ethylene oxide reactor (R-202) after the flow valve (FV 202-1), this was not drawn on the p&id

(hh) a pressure transmitter was observed during the walk around on the propylene oxide feed line 2"316 SS Process to the ethylene oxide reactor (R-202), but not drawn on the p&id

(ii) a pressure gage was observed between the propylene oxide feed pump (P-303A) and reactor (R-204), reactor (R-205), and scrubber tank (T-302), but not drawn on the p&id

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

Inspection Number: 1100492
Inspection Date(s): 10/22/2015 - 04/14/2016
Issuance Date: 04/19/2016



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

Date By Which Violation Must be Abated:	06/02/2016
Proposed Penalty:	\$5000.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

29 CFR 1910.119(e)(1): The process hazard analysis was not appropriate to the complexity of the process and did not identify, evaluate, and control the hazards involved in the process:

- (a) the employer did not address or evaluate the safe upper and lower pressures, temperatures, and flows of the equipment compared to the safe upper and lower pressures, temperatures, and flows of the operating procedures
- (b) the process hazard analysis did not address or evaluate the possibility of flooding or levee failure
- (c) the process hazard analysis did not address or evaluate the consequences of not providing temperature probes for all ethylene oxide rail cars
- (d) the process hazard analysis did not address or evaluate the consequences of an ethylene oxide or propylene oxide rail car derailment within the boundary of the Ethylene Oxide plant
- (e) the process hazard analysis did not control the hazards of pressure relief devices not being provided for R-202 and R-204 catalyst feed pots in the Ethylene Oxide plant

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

Date By Which Violation Must be Abated: 06/02/2016
Proposed Penalty: \$5000.00

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

Inspection Number: 1100492
Inspection Date(s): 10/22/2015 - 04/14/2016
Issuance Date: 04/19/2016



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

Citation 1 Item 5 Type of Violation: **Serious**

29 CFR 1910.119(e)(3)(v): The process hazard analysis did not address the hazards related to facility siting:

The employer failed to adequately address fire / explosion hazards related to the facility siting of occupied structures including, but not limited to the control room inside the Ethylene Oxide plant. There was no process safety information for the design or construction of the walls surrounding the reactors.

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/02/2016
Proposed Penalty:	\$7000.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

29 CFR 1910.119(f)(1): The employer did not develop and implement written operating procedures that provided clear instructions for safely conducting activities involved in each covered process consistent the safety information and which address the elements listed in 29 CFR 1910.119(f)(1)(i) through (f)(1)(v):

(a) The operating procedures for the Ethylene Oxide plant were missing the following sections:

- (1) emergency shutdown including conditions under which emergency shutdown is required
- (2) startup following an emergency shutdown
- (3) emergency operations
- (4) temporary operations
- (5) steps required to correct a deviation
- (6) measures to be taken if physical contact or airborne exposure were to occur
- (7) quality control for raw materials

(b) At the Ethylene Oxide plant, the employer did not develop and implement a written operating procedure for shift change.

(c) At the Ethylene Oxide plant, the employer did not develop and implement a written operating procedure for the management of valves such as identifying all critical valves, identifying all car sealed valves, and etc.

(d) At the Ethylene Oxide plant, the employer did not develop and implement a written operating procedure for inserting / removing temperature probes inside of railcars containing either ethylene or propylene oxide.

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

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

Inspection Number: 1100492
Inspection Date(s): 10/22/2015 - 04/14/2016
Issuance Date: 04/19/2016



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

(e) At the Ethylene Oxide plant, the employer did not develop and implement a written operating procedure for providing clear instructions on accepting railcars containing Ethylene or Propylene Oxide. The operating procedure shall include, but not limited to the following:

- (1) that the maintenance and pressure relief valves labels on the outside of the railcars are not overdue
- (2) that the railcars are not significantly damaged or corroded
- (3) that the railcars are the correct railcars for transporting Ethylene and Propylene Oxide

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

Date By Which Violation Must be Abated:
Proposed Penalty:

06/02/2016
\$6000.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

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

29 CFR 1910.119(g)(1)(i): The employer did train each employee in an overview of the process:

- (a) Maintenance employee(s) performing preventive maintenance and maintenance on process equipment and piping in the Ethylene Oxide plant were not provided training on the company's process safety management policy.
- (b) Tug operators moving Ethylene and Propylene Oxide rail cars in or out of the Ethylene Oxide plant were not provided training on the company's process safety management policy.
- (c) Management representative(s) responsible for elements of the company's corporate process safety management policy have not been provided training on the company's process safety management policy.

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

Date By Which Violation Must be Abated:	06/02/2016
Proposed Penalty:	\$5000.00

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

Inspection Number: 1100492
Inspection Date(s): 10/22/2015 - 04/14/2016
Issuance Date: 04/19/2016



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

1910.119(g)(3): The employer shall ascertain that each employee involved in operating a process has received and understood the training required by this paragraph. The employer shall prepare a record which contains the identity of the employee, the date of training, and the means used to verify that the employee understood the training:

At the establishment the employer had not developed nor implemented a verification process to determine if employees understood the training over the operating procedures. The workers working in the ethylene / propylene oxide process conducted their own training over the written operating procedures.

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:

06/02/2016

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

29 CFR 1910.119(h)(2)(i): 29 CFR 1910.119(h)(2)(i): The employer, when selecting a contractor , did not obtain and evaluate information regarding the contract employer's safety performance and program:

(a) At the establishment the employer had not obtained and evaluated all of the contractor's safety / health performance and programs for the Ethylene Oxide plant. The following contractor performs technical support, remote system diagnosis, emergency response access, and software updates for the DeltaV software program that operates the Ethylene Oxide Plant:

Experitec

(b) At the establishment the employer had not obtained and evaluated all of the contractor's safety / health performance and programs for the Ethylene Oxide plant. The following contractor performs non-destructive testing at the facility:

Acuren

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

Date By Which Violation Must be Abated:
Proposed Penalty:

06/02/2016
\$4000.00



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

Citation 1 Item 9 Type of Violation: **Serious**

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

- a) The employer did not develop and implement a written mechanical integrity procedure that addressed maintaining the on-going integrity of the following process equipment: pressure vessels, valves, piping, and etc.
- b) The employer did not develop and implement a written mechanical integrity procedure for corrosion under the insulation inspections for pressure vessels and piping.
- c) The employer did not develop and implement a written mechanical integrity procedure to monitor and recommend follow-up inspections on equipment such as pressure vessels or piping that are operating with a deficiency.
- d) The employer did not develop and implement a written mechanical integrity procedure to address anomalous reading pertaining to metal thickness in pressure vessels and piping.
- e) The employer did not develop and implement a written mechanical integrity procedures for addressing foundation supports, pipe racks, and metal to metal corrosion.

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/02/2016
Proposed Penalty:	\$7000.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

29 CFR 1910.119(j)(4)(i): The employer did not perform inspection and tests on the following process equipment and piping:

- (a) Ethylene Oxide Cooler (E-301)
- (b) Propylene Oxide Cooler (E-303)
- (c) Ethylene Oxide Jet Scrubber Tank (T-302)
- (d) Catalyst Charge Pot (V-203A)
- (e) Neutralizing Charge Pot (V-203B)
- (f) Ethylene Oxide Pump Seal Pot (V-302)
- (g) Propylene Oxide Pump Seal Pot (V-304)
- (h) R204 Glycol Heating (E-214B)
- (i) R202 Glycol Expansion Tank (ET-202)
- (j) R202 Glycol Cooling (E-213A)
- (k) R202 Glycol Heating (E-213B)
- (l) Glycol piping
- (m) Nitrogen piping
- (n) PSV - 1x1 150x150 located at T301 Top, West had not receive annual inspection

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

- (o) PSV - 1x1 150x150 located at T303 Top, West had not receive annual inspection
- (p) PSV - 1x1 MxF located at T301, T303, N2 Line West of R201 had not receive annual inspection
- (q) PSV - 1x1 MxF located at R202, N2 line above ECV's had not receive annual inspection
- (r) PSV - 14 valves attached to the Glycol pipe line had not received their annual inspection

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/02/2016
Proposed Penalty:	\$7000.00



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

29 CFR 1910.119(l)(1): The employer did not implement procedures to manage changes to process chemicals, technology, equipment, and procedures, and changes to facilities that affect a covered process:

At the facility the employer had not implemented the management of change program to address changes to the ethylene and propylene processes; there has been several changes to the processes such as but not limited to the following:

- (a) the installation of a manual gate valve and regulator on R-204B recirculating head
- (b) replacing the pressure relief valve on T-301 (ethylene oxide intermediate tank) with a new size pressure relief valve
- (c) replacing the pressure relief valve on T-303 (propylene oxide intermediate tank) with a new size pressure relief valve
- (d) for the removal of pressure gage (PG 338) and 2 gate valves from the propylene oxide pipe line exiting from feed pump P-303A
- (e) for the removal of a 3/4 inch flanged gate valve on the product line after a 3 inch gate valve headed toward the bottom of E204A (reactor exchanger)
- (f) for the removal of on/off flow control valve (XV 303-4) for the propylene oxide pipeline exiting the rail car and entering the propylene oxide intermediate tank (T-303)
- (g) for the removal of a backflow preventer valve on the ethylene oxide feed line to the reactor (R-202), prior to the flow transmitter (202-1)
- (h) for the removal of a pressure transmitter / indicator on the ethylene oxide feed line to the reactor (R-202), prior to the on / off flow control valve (XV 202-1)

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

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

Inspection Number: 1100492
Inspection Date(s): 10/22/2015 - 04/14/2016
Issuance Date: 04/19/2016



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

Date By Which Violation Must be Abated:	06/02/2016
Proposed Penalty:	\$6000.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

29 CFR 1910.119(n): The employer did not implement an emergency plan for the entire plant in accordance with the provisions of 29 CFR 1910.38:

The employer's emergency action plan requires all ethylene oxide railcars to be monitored upon arrival at the ethylene / propylene oxide process with a wireless temperature probe for any type of reaction inside the railcars. The following ethylene oxide rail cars were observed without temperature probes:

- (a) UTLX 930296
- (b) UTLX 902053
- (c) UTLX 902299

Employee(s) were exposed to release of extremely flammable vapors to atmosphere that historically result in fire / explosion hazards leading to injury and death to persons in the workplace.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

Date By Which Violation Must be Abated:	06/02/2016
Proposed Penalty:	\$5000.00

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

Inspection Number: 1100492
Inspection Date(s): 10/22/2015 - 04/14/2016
Issuance Date: 04/19/2016



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

29 CFR 1910.120(q)(1): The employer did not develop and implement an emergency response plan to handle anticipated emergencies prior to commencement of emergency response operations:

At the Ethylene Oxide plant, the employer had not developed and implemented an emergency response plan to address leaks or drips of Ethylene Oxide or Propylene Oxide in the covered process, thus exposing employee(s) to health hazards.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/02/2016
Proposed Penalty:	\$7000.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

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

Inspection Number: 1100492
Inspection Date(s): 10/22/2015 - 04/14/2016
Issuance Date: 04/19/2016



Citation and Notification of Penalty

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106

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

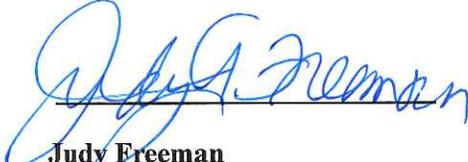
29 CFR 1910.120(q)(6): The employer did not provide training in accordance with 29 CFR 1910.120(q)(6)(i) through (q)(6)(v) for employees who participated in or were expected to participate in emergency response:

Employee(s) working in the Ethylene Oxide plant were exposed to health hazards in that the employees were not trained in the procedures required for stopping ethylene or propylene oxide leaks or drips.

29 CFR 1903.19(d)(1) requires certification and documentation that the abatement of the above violation is complete.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	06/02/2016
Proposed Penalty:	\$7000.00


Judy Freeman
Area Director

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration
100 N. Broadway
Suite 470
Wichita, KS 67202
Phone: 316-269-6644 Fax: 316-269-6185



INVOICE / DEBT COLLECTION NOTICE

Company Name: Harcros Chemicals Inc.
Inspection Site: 5200 Speaker Road, Kansas City, KS 66106
Issuance Date: 04/19/2016

Summary of Penalties for Inspection Number	1100492
Citation 1, Serious	\$80000.00
TOTAL PROPOSED PENALTIES	\$80000.00

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 on www.pay.gov. On the left side of the pay.gov homepage, you will see an option to Search Public Forms. Type "OSHA" and click Go. From the results, click on **OSHA Penalty Payment Form**. 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 2 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.

Interest: 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.

Delinquent Charges: 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.



Judy Freeman
Area Director

04.19.2016

Date