



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
BUREAU OF CONSTRUCTION CODES
IRVIN J. POKE
DIRECTOR

STEVE ARWOOD
DIRECTOR

BOARD OF BOILER RULES
Conference Room 3, First Floor
2501 Woodlake Circle
Okemos, Michigan 48864

AGENDA
September 10, 2013
9:30 a.m.

- | | |
|--|--|
| 1) Call to order and determination of quorum | R. Jenkins |
| 2) Announcements | W. Vallance |
| 3) Approval of Agenda – September 10, 2013 (Pages 1-2) | R. Jenkins |
| 4) Approval of Minutes – June 11, 2013 (Pages 3-7) | R. Jenkins |
| 5) Review of candidates passing examination for Boiler Installer and Repairer, September 2013 (Page 8) | (Document BLR2013-14) W. Vallance
(To be handed out at meeting) |
| 6) Review of candidates passing 3 rd class oral examination for Stationary Engineer, July 25, 2013 (Page 9) | (Document BLR2013-15) W. Vallance |
| 7) Candidate for oral examination panel member (Page 10-13) | (Document BLR2013-16) W. Vallance |
| 8) Re-qualification of Section 23 | |
| a) Verso Paper Corp (Pages 14-18) | (Document BLR2013-17) W. Vallance |
| b) Presque Isle Power Plant (Pages 19-23) | (Document BLR2013-18) W. Vallance |

Providing for Michigan's Safety in the Built Environment

- 9) Qualification of Section 23
a) Midland Cogeneration Venture (Page 24-28) (Document BLR2013-19) W. Vallance
- 10) 24 Month Internal Program
a) Verso Paper Corporation (Pages 29-43) (Document BLR2013-20) W. Vallance
- 11) Violations (Pages 44-48) (Document BLR2013-21) W. Vallance
- 12) Accidents (page 49-52) (Document BLR2013-22) W. Vallance
- 13) Chief Inspector's Report W. Vallance
- 14) Deputy Director Report K. Lambert
- 15) Unfinished Business
Qualified Education Program (QTEP) Vocational
Institute of Michigan (Document BLR2013-12) (Page 53-106) W. Vallance
- 16) New Business R. Jenkins
- 17) Public Comment
- 18) Next Meeting – Tuesday, December 10, 2013 R. Jenkins
- 19) Adjournment



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Conference Room 3, First Floor
2501 Woodlake Circle
Okemos, Michigan 48864

MINUTES
June 11, 2013
9:30 a.m.

MEMBERS PRESENT

Mr. Mark C. Babcock
Mr. Eric E. Cameron
Mr. R. James Federighe
Mr. Roger D. Jenkins
Mr. A. Chris Lanzon
Mr. James B. Lewis
Mr. Michael K. Muterspaugh
Mr. Dennis Rupert
Mr. Frank Wiechert

MEMBERS ABSENT

Mr. Robert Hutsell

DEPARTMENT PERSONNEL ATTENDING

Mr. William Vallance, Chief, Boiler Division
Mr. Mark Moore, Assistant Chief, Boiler Division
Ms. Lynn Weston, Office Supervisor, Elevator Division
Mr. Keith Lambert, Deputy Director, Bureau of Construction Codes

OTHERS IN ATTENDANCE

Keith Dennis – Verso Paper, Quinessec, MI
Matt Jordan – MSU Physical Plant
Steve Johnson – Vocational Institute of Michigan
Drew Johnson – Vocational Institute of Michigan

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1. **CALL TO ORDER AND DETERMINATION OF QUORUM**

Chairperson Jenkins called the meeting to order at approximately 9:35 a.m. A quorum was determined present at that time.

2. **ANNOUNCEMENTS**

Non Reported

3. **APPROVAL OF AGENDA**

A **MOTION** was made by board member Cameron and board member Lanzon seconded the motion to approve the June 11, 2013 agenda. **MOTION CARRIED.**

4. **APPROVAL OF MINUTES**

A **MOTION** was made by board member Lewis and board member Cameron seconded the motion to approve the minutes of the March 12, 2013 meeting. **MOTION CARRIED.**

5. **REVIEW OF CHIEF INSPECTOR'S RECOMMENDATION FOR ISSUANCE OF LICENSES FOR BOILER INSTALLERS AND REPAIRERS**

Board reviewed the June 2013 examination results, listed in Document BLR2013-9.

A **MOTION** was made by board member Muterspaugh and board member Wiechert seconded the motion to approve names on document BLR2013-9 for issuance of the license application to the examinees on June 2013 examination. (Document BLR2013-9). **MOTION CARRIED.**

6. **RE-QUALIFICATION OF SECTION 23**

Board reviewed the recommendation of re-qualification of Section 23 for Packaging Corporation of America listed in Document BLR2013-10.

A **MOTION** was made by board member Lanzon and board member Lewis seconded the motion to approve the re-qualification of Section 23 for Packaging Corporation of America. (Document BLR2013-10). **MOTION CARRIED.**

7. **CERTIFICATE EXTENSION**

Board reviewed the certificate extension for Verso Paper Corporation listed in Documents BLR2013-13.

Request insurance company to conduct an external every six months, prior to next internal. Extend to 20 months. External was done 2 – 3 of March. ESP test was satisfactory.

A **MOTION** was made by board member Wiechert and board member Rupert seconded the motion to approve the certificate extension for Verso Paper Corporation until June 26, 2014. (Document BLR2013-13). **MOTION CARRIED.**

8. **ACCIDENT REPORT**

None Reported.

9. **VIOLATION**

The board reviewed the violations issued on Document BLR2013-11.

Received and Filed

10. QUALIFIED EDUCATION PROGRAM QTEP

The board reviewed the documents provided within BLR2013-12.

Vocational Program to bring all materials, i.e. lesson plan, show what students will use in training program, how are the requirements met, how is internship documented, what does certificate look like and what it states, and an understanding of how the students progressed during the year.

Request postponement until above can be provided.

A **MOTION** was made by board member Babcock and board member Rupert seconded the motion to postpone the qualified education program (QTEP) for Vocational Institute of Michigan. (Document BLR2013-12). **MOTION CARRIED.**

11. CHIEF INSPECTOR'S REPORT – WILLIAM VALLANCE

- a) Review of June 2013 statistics.
- b) Boiler accident; we have not received a response from Bulldog Boiler on the questions, I will email questions again.
- c) Assistant Chief Mark Moore and Senior Inspector Steve Ayotte going over the oral examination issues.
- d) Public hearing for Boiler Rules July 11, 2013 at 9:00 am in conference room 3, also included in the public hearing is Plumbing and Elevator Divisions.

12. DEPUTY DIRECTOR REPORT – KEITH LAMBERT

- a) Comments can be submitted prior to the public hearing.
- b) Testing; looking for proctoring of tests in Upper Peninsula.
- c) Bill 4752

13. UNFINISHED BUSINESS

None Reported

14. NEW BUSINESS

None Reported

15. PUBLIC COMMENT

No Public Comment

16. NEXT MEETING – Tuesday – September 10, 2013.

17. ADJOURNMENT

A **MOTION** was made by board member Lewis and board member Cameron seconded the motion to adjourn the meeting at approximately 11:06 a.m. **MOTION CARRIED.**

APPROVED:

Chairman, Board of Boiler Rules

Date



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
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STEVE ARWOOD
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To Be Handed Out At The Meeting
Installers & Repairers Examination Results
(Document BLR2013-14)

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(Document BLR2013-15)

July 25, 2013

To: Members, Board of Boiler Rules
From: William Vallance
Subject: Stationary Engineers Oral Examination

On July 25, 2013 the panel members Len Werda, David Robin, and Brian Donovan conducted a Stationary Engineers 3rd Class Oral Examination for Mr. Slotwinski.

The consensus of the panel is Mr. Van Norwick passed the Stationary Engineers 3rd Class Oral Examination.

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(Document BLR2013-16)

August 2, 2013

To: Members, Board of Boiler Rules
From: William Vallance.
Subject: Candidate for the Operator Review Panel Member

I have attached a resume for a candidate to serve on the Operator Review Panel Member for the oral examinations. I recommend the board approve this candidate to become members of the Operator Review Panel.

Mr. John H. Van Oenen

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Marathon Petroleum Company LLC

1300 South Fort Street
Detroit, MI 48217
Telephone 313/843-9100

Mr. William Vallence
Chief, Boiler Division
State of Michigan
Department of Licensing and Regulatory Affairs

Mr. Vallence,

My name is John H Van Oenen. I am the Chief Engineer at the Marathon Petroleum Company Detroit Refinery. I have been employed at Marathon for 30 years and have been the area supervisor since 1998 and as the Chief here since 2006. My coworker, Hank Weimer, informed me that you may want to add members to the panel which is currently setting up and conducting tests for state issued licenses. I am writing this letter and including my resume for consideration for a place on that panel.

I have been involved with the licensing process with the City of Detroit with respect to our facility for several years. I am a strong believer in the awareness of safe and reliable operation that a license holder gains through their studies. It is a practical certification that the person is aware of the power of the process in their charge. I know this because I have lived it. I've spent my career learning, which is never ending. The importance of life long learning has driven me to teach the skills that I have learned to those who work with me. The formal study of boiler systems taught me many important facts that I use in the operation of our steam plant. These principles are also very useful in the operation of our oil processing units. True Steam Engineers can adapt the principles of safe operation of pressure bearing steam equipment to other pressure bearing process equipment.

While I have a passion to teach, I also feel it is my responsibility to teach. It is the responsibility of those with knowledge to help maintain the safe operation of the equipment. Safe operation protects the personnel who operate and maintain the equipment but also the general public. Safe, reliable, environmentally responsible operation is not optional. The licensing process is certification that the holder has the basic skill, knowledge, and awareness to allow them to work with a process safely. My belief is that the certification is a start not a finish.

Thank you for taking the time to review my letter and brief resume. Please feel free to contact me with any questions you may have.

Best Regards

John H. Van Oenen
Marathon Petroleum Company
1300 S. Fort St.
Detroit, Michigan



Marathon Petroleum Company LLC

1300 South Fort Street
Detroit, MI 48217
Telephone 313/843-9100

John H. Van Oenen

jhvanoene11@marathonpetroleum.com

Contained in this document is my educational and employment resume. It is intended for your review to determine my qualification for the position assisting the team that is currently organizing the State of Michigan boiler license testing. Thanks you in advance for taking the time to consider me for this position.

Formal Education

1974 graduate from Gabriel Richard high school, Riverview, Michigan
Attended boiler trade related classes at Henry Ford CC and local 547 operating engineers.
I completed several adult enrichment courses at UM Dearborn, WCCC, and HFCC.

Certifications

City of Detroit 1st Class Steam Engineer / State of Michigan 1st Class Steam Engineer
Hazardous incident command, Trainer, Confined space rescue, procedure writing, etc. associated with Marathon Petroleum

Employment

1976 – 1980 BASF Wyandotte

I was employed as a chemical plant operator by BASF Wyandotte Corporation. Job duties include operation of both batch and continuous processes. This was my first experience in the controlled reaction, heat transfer, and separation of volatile components. Left employment when laid off due to plant closure

1980 – 1983 Independent Steel Hauler

I operated a truck hauling steel interstate. Left employment for family reasons

1983 – Present Marathon Petroleum Company

I have worked continuously in the operations department at the Detroit refinery since my hire in date. I started my employment as a hourly operator. I earned several certifications in petroleum operations and began study for my initial boiler license. I was promoted to a foreman position in 1987. As a foreman I earned my 1st class stationary Steam Engineer license in 1988 to allow me to stand watch on shift. I have been part of many process improvement projects and training initiatives in Detroit. I represent my department in a multi plant group among Marathon refineries in Platforming, Hydrotreating, and Utilities. I have organized course materials and conducted training for the purpose preparing Marathon Petroleum personnel for the City of Detroit high pressure boiler operator and 3rd Class Steam Engineer exams. Currently on the team organizing for in plant engineer level exams through to 1st Class Steam Engineer level,

Number: 331224 Location:
 Status: RENEWAL LICENSEE: VANDENEN JOHN H
 Date: 07/17/2009 Back Stop

Registration Fees & Dates

Registration Status: RENEWAL County: 501 MACOMB
 Comments: REGISTERED W/O EXAMINATION DOB Verified: Y
 Update Exit Back

REGISTRATION FEES
 Current Fees(Y/N) Y \$80.00
 Application Fee: \$0.00
 Total Previous Fees: \$0.00
 TOTAL FEES: \$400.00
 Payments: \$320.00
 BALANCE DUE: \$80.00

REGISTRATION DATES
 Entered Date: 07/17/2009
 Written Exam Date:
 Oral Exam Date:
 Application Mailed:
 Application Received:
 Board Approval Date: 09/15/2009
 Issue Date: 09/14/2012
 Renewal Sent Date: 08/02/2013
 Expiration Date: 09/14/2013

CAED DATA
 Name: VANDENEN JOHN H
 Address 1: MARATHON OIL CO
 Address 2:
 Address 3:
 Zip Code:
 Phone Number:
 FAX Number:

Registration Class Code: 1
 1=1st Class Stationary Engineer
 2=2nd Class Stationary Engineer
 3=3rd Class Stationary Engineer
 LPD=Low Pressure Boiler Operator
 HPD=High Pressure Boiler Operator





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IRVIN J. POKE
DIRECTOR

STEVE ARWOOD
DIRECTOR

(Document BLR2013-17)

August 2, 2013

To: Members, Board of Boiler Rules
From: William Vallance
Subject: Verso Paper Corporation

A review was conducted on June 13, 2013 for the purpose of determining Verso Paper Corporation compliance with 1965 PA 290 in the conduct of boiler and non boiler external piping at its US Highway 2, Norway, Michigan facility. Chief William Vallance conducted the review in the presence of Don Nurmela, Engineer for Verso Paper Corporation. The review was conducted in accordance with the attached Qualification Review Report.

Recommendations:

Based on review of the documentation and observations made during the above review and historical documentation on file with the boiler division, I am recommending a motion by the Board of Boiler Rules that the Section 23 exemption program for boiler and non boiler external piping be granted to the Verso Paper Corporation at US Highway 2, Norway, Michigan for a period of three years to expire on June 13, 2016 or continue until the next review can be conducted.

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UTILITY/INDUSTRIAL PLANT REPAIR/INSTALLATION
QUALIFICATION REVIEW REPORT
(Re: Boiler Act Of 1965, Sec. 23)

Date Review Conducted

6/13/13

Application type:

New _____ Renewal

1. Organization's Name and Business Address.

VERSO PAPER CORP.
Name

US Highway 2 NORWAY MI 49870
Street, City, State, Zip

PAPER MILL
Principal Business

2. Identification of person responsible for compliance with state boiler law and rules.

Name DON NURMELA

Title Engineer

Mailing Address PO Box 241
Street

NORWAY
City

MI 49870
State Zip

(906) 779 3236
Phone Number

3. Authorized Inspection

Agency. FM Global

4. ASME Symbol Stamp(s) Held: (Symbol, Number, Expiration Date)

N/A, _____; _____; _____; _____;

5. National Board Symbol Stamp(s): (Symbol, Number, Exp. Date)

N/A; _____

6. Are the boilers and piping owned and operated by the applicant. Yes No _____

7. Type of code items to be repaired/installed.

Section I: Boilers Boiler external piping

Section IV: Boilers _____ Boiler non-external piping

Safety Valves: Sec. I Section. IV _____

Section. VIII _____

8. Where are repairs done?

Shop _____ Field _____ Shop and Field Field = Plant

9. Does the organization have the latest edition of the applicable Codes and Addenda and Boiler Law and Rules.

Section I Section IV _____ Section. VIII _____

Section IX B31.1 NBIC

Michigan Boiler Law and Rules

10. Does the organization have a Quality Assurance Manual or Procedures for the work anticipated? Yes No _____

11. Does the organization have and maintain a maintenance record for each exempt boiler? Yes No _____ Applicant has committed to prepare and submit a logbook for Boiler Divisions comment

12. How is Heat Treatment capability provided?

In-house _____ Procedures Available _____ Sub-contracted

13. How is Non-destructive examination capability provided?

In-house _____ Procedures Available _____ Sub-
contracted ✓

14. Does the QA Manual or Procedures provide for pressure tests?

Yes ✓ Procedures Available _____ No _____

15. What welding processes are used?

SMAW ✓ SAW _____ GMAW _____ GTAW ✓

16. Are appropriate welding procedures available and qualified to ASME Code Section IX?

Yes ✓ No _____

17. Is evidence available that welders are qualified to procedures?

YES ✓ No _____

17a. Is a Continuity Log maintained? Yes ✓ No _____

18. Are welders regular employees? Yes ✓ No _____

19. Does the organization have procedures to control the procurement and handling of code materials?

Yes ✓ No _____

20. Should this organization be granted a Section 23 exemption?

Yes ✓ No _____

Will Vall
Inspector Signature

6/13/13
Date

Will Vall
Chief Inspector

6/13/13
Date

Chair., Boiler Board

Date



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IRVIN J. POKE
DIRECTOR

STEVE ARWOOD
DIRECTOR

BOILER DIVISION ATTENDANCE SHEET

Review Audit Other

Company: VERSO PAPER CORP

Address: US Hwy 2 PO Box 241
NORWAY MI 49870

Date: 6/13/13

Print Name	Print Title	Signature	Organization
WILLIAM Jallance	CHIEF BIR Division	<i>William Jallance</i>	STATE OF MICHIGAN
DON Nurmen	ENGINEER	<i>Don Nurmen</i>	VERSO PAPER

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(Document BLR2013-18)

August 2, 2013

To: Members, Board of Boiler Rules
From: William Vallance
Subject: Presque Isle Power Plant

A review was conducted on June 12, 2013 for the purpose of determining Presque Isle Power Plant compliance with 1965 PA 290 in the conduct of non boiler external piping at its 2701 Lakeshore Blvd, Marquette, Michigan facility. Chief William Vallance conducted the review in the presence of Gerald Robinson, Manager of Maintenance Pipp and Chad Hintsela, Maintenance Supervisor for Presque Isle Power Plant. The review was conducted in accordance with the attached Qualification Review Report.

Recommendations:

Based on review of the documentation and observations made during the above review and historical documentation on file with the boiler division, I am recommending a motion by the Board of Boiler Rules that the Section 23 exemption program for non boiler external piping be granted to the Presque Isle Power Plant at 2701 Lakeshore Blvd, Marquette, Michigan for a period of three years to expire on June 12, 2016 or continue until the next review can be conducted.

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STEVE ARWOOD
DIRECTOR

BOILER DIVISION ATTENDANCE SHEET

Review Audit Other

Company: Presque Isle Power PLANT
Address: 2701 Lakeshore Blvd
MARQUETTE MI 49855
Date: 6/12/13

Print Name	Print Title	Signature	Organization
William Vallance	Chief Boiler Div.	<i>William Vallance</i>	SOM
Gerald Robinson	MANAGER OF MAINTENANCE PIPP	<i>Gerald Robinson</i>	WE-ENERGIES Presque Isle
Chad Hintsela	Maintenance supervisor.	<i>Chad Hintsela</i>	we-energies Presque Isle

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UTILITY/INDUSTRIAL PLANT REPAIR/INSTALLATION
QUALIFICATION REVIEW REPORT
(Re: Boiler Act Of 1965, Sec. 23)

Date Review Conducted

6/12/13

Application type:

New _____ Renewal

1. Organization's Name and Business Address.

PRESQUE ISLE POWER PLANT - WE ENER
Name

2701 LAKE SHORE BLVD NORTH MARQUETTE MI 49855
Street, City, State, Zip

UTILITY
Principal Business

2. Identification of person responsible for compliance with state boiler law and rules.

Name CHAD HINTSALA

Title MAINTENANCE SUPERVISOR

Mailing Address

2701 LAKE SHORE BLVD NORTH
Street
MARQUETTE, MI 49855
City

State _____ Zip _____
906 226 5721
Phone Number

3. Authorized Inspection

Agency. N/A

4. ASME Symbol Stamp(s) Held: (Symbol, Number, Expiration Date)

N/A, _____; _____; _____; _____; _____;

5. National Board Symbol Stamp(s): (Symbol, Number, Exp. Date)

NA, _____; _____,

6. Are the boilers and piping owned and operated by the applicant. Yes No _____

7. Type of code items to be repaired/installed.

Section I: Boilers _____ Boiler external piping _____

Section IV: Boilers _____ Boiler non-external piping

Safety Valves: Sec. I _____ Section. IV _____

Section. VIII _____

8. Where are repairs done?

Shop _____ Field _____ Shop and Field 5- PLANT

9. Does the organization have the latest edition of the applicable Codes and Addenda and Boiler Law and Rules.

Section I _____ Section IV _____ Section. VIII _____

Section IX B31.1 NBIC

Michigan Boiler Law and Rules

10. Does the organization have a Quality Assurance Manual or Procedures for the work anticipated? Yes No _____

11. Does the organization have and maintain a maintenance record for each exempt boiler? Yes No _____ Applicant has committed to prepare and submit a logbook for Boiler Divisions comment

12. How is Heat Treatment capability provided?

In-house _____ Procedures Available _____ Sub-contracted

13. How is Non-destructive examination capability provided?

In-house _____ Procedures Available _____ Sub-
contracted X

14. Does the QA Manual or Procedures provide for pressure tests?

Yes X Procedures Available _____ No _____

15. What welding processes are used?

SMAW X SAW _____ GMAW _____ GTAW X

16. Are appropriate welding procedures available and qualified to ASME Code Section IX?

Yes X No _____

17. Is evidence available that welders are qualified to procedures?

YES X No _____

17a. Is a Continuity Log maintained? Yes X No _____

18. Are welders regular employees? Yes X No _____

19. Does the organization have procedures to control the procurement and handling of code materials?

Yes X No _____

20. Should this organization be granted a Section 23 exemption?

Yes X No _____

Chris Vahl
Inspector Signature

6/12/13
Date

Chris Vahl
Chief Inspector

6/12/13
Date

Chair., Boiler Board

Date



RICK SNYDER
GOVERNOR

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(Document BLR2013-19)

August 2, 2013

To: Members, Board of Boiler Rules
From: William Vallance
Subject: Midland Cogeneration Venture

A review was conducted on July 24, 2013 for the purpose of determining Midland Cogeneration Venture compliance with 1965 PA 290 in the conduct of boiler and non boiler external piping at its 100 Progress Place, Midland, Michigan facility. Chief William Vallance conducted the review in the presence of William A. Swenson III, Senior Staff Engineer for Midland Cogeneration Venture. The review was conducted in accordance with the attached Qualification Review Report.

Recommendations:

Based on review of the documentation and observations made during the above review, I am recommending a motion by the Board of Boiler Rules that the Section 23 exemption program for boiler and non boiler external piping be granted to the Midland Cogeneration Venture at 100 Progress Place, Midland, Michigan for a period of three years to expire on July 24, 2016 or continue until the next review can be conducted.

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UTILITY/INDUSTRIAL PLANT REPAIR/INSTALLATION
QUALIFICATION REVIEW REPORT
(Re: Boiler Act Of 1965, Sec. 23)

Date Review Conducted

7/24/13

Application type:

New Renewal

1. Organization's Name and Business Address.

Midland Cogeneration Venture
Name

100 Progress Place Midland MI 48640
Street, City, State, Zip

Power Generation Utility
Principal Business

2. Identification of person responsible for compliance with state boiler law and rules.

Name William A. Swenson III

Title Senior Staff Engineer

Mailing Address

100 Progress Place
Street

Midland
City

MI 48640
State Zip

(989) 633 7846
Phone Number

3. Authorized Inspection

Agency. HSB

4. ASME Symbol Stamp(s) Held: (Symbol, Number, Expiration Date)

 , , ; N/A, ; , , ;

5. National Board Symbol Stamp(s): (Symbol, Number, Exp. Date)

 , , N/A; ,

6. Are the boilers and piping owned and operated by the applicant. Yes No

7. Type of code items to be repaired/installed.

Section I: Boilers Boiler external piping

Section IV: Boilers Boiler non-external piping

Safety Valves: Sec. I Section. IV
Section. VIII

8. Where are repairs done?

Shop Field Shop and Field *Field ID Plant*

9. Does the organization have the latest edition of the applicable Codes and Addenda and Boiler Law and Rules.

Section I Section IV Section. VIII

Section IX B31.1 NBIC

Michigan Boiler Law and Rules

10. Does the organization have a Quality Assurance Manual or Procedures for the work anticipated? Yes No

11. Does the organization have and maintain a maintenance record for each exempt boiler? Yes No Applicant has committed to prepare and submit a logbook for Boiler Divisions comment

12. How is Heat Treatment capability provided?

In-house Procedures Available Sub-contracted

13. How is Non-destructive examination capability provided?

In-house _____ Procedures Available _____ Sub-
contracted ✓

14. Does the QA Manual or Procedures provide for pressure tests?

Yes ✓ Procedures Available _____ No _____

15. What welding processes are used?

SMAW ✓ SAW _____ GMAW _____ GTAW ✓

16. Are appropriate welding procedures available and qualified to ASME Code Section IX?

Yes ✓ No _____

17. Is evidence available that welders are qualified to procedures?

YES ✓ No _____

17a. Is a Continuity Log maintained? Yes ✓ No _____

18. Are welders regular employees? Yes ✓ No _____

19. Does the organization have procedures to control the procurement and handling of code materials?

Yes ✓ No _____

20. Should this organization be granted a Section 23 exemption?

Yes _____ No _____

Walter Vodka
Inspector Signature

7/25/13
Date

Walter Vodka
Chief Inspector

7/25/13
Date

Chair., Boiler Board

Date



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
BUREAU OF CONSTRUCTION CODES
IRVIN J. POKE
DIRECTOR

STEVE ARWOOD
DIRECTOR

BOILER DIVISION ATTENDANCE SHEET

Review Audit Other

Company: Midland Cogeneration Venture

Address: 100 Progress Place
Midland MI 48640

Date: 7/24/13

Print Name	Print Title	Signature	Organization
WILLIAM Wallace	Chief Boiler Division	<i>William Wallace</i>	STATE OF MICHIGAN
WILLIAM SWEENSON	SENIOR STAFF ENGINEER	<i>William Swenson</i>	MIDLAND COGENERATION VENTURE

Providing for Michigan's Safety in the Built Environment



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
BUREAU OF CONSTRUCTION CODES
IRVIN J. POKE
DIRECTOR

STEVE ARWOOD
DIRECTOR

(Document BLR2013-20)

August 2, 2013

To: Members, Board of Boiler Rules

From: William Vallance

Subject: Verso Paper Corporation, Quinnesec facility request for 24 month internal inspection frequency.

Dear Members:

Verso Paper Corporation has requested a 24 month internal frequency for the boiler MIR342394. I have attached the request and Verso Paper Corporation's **Number 1 Recovery Boiler Internal Inspection Interval** program which incorporates the 24 month internal inspection requirements as established by the Boiler Board. I have also attached the inspection/insurance agency letter concurring with the request.

Based on information submitted for this request I am recommending a motion by the Board of Boiler Rules for the inspection certificate frequency for subject boiler be 24 months commencing with the next internal certificate inspection of boiler MIR342394.

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Verso Paper Corp.
Quinnesec Mill
P.O Box 241
Norway, MI 49876



May 20, 2013

Attn: Mr. William Vallance
Board of Boiler Rules
Bureau of Construction Codes - Boiler Division
P.O Box 30254
Lansing, MI 48909

RE: Request for Extension of Inspection Certificate for Boiler MIR342394

Dear Mr. Vallance,

Verso Paper's Quinnesec facility is requesting an extension to the current Inspection Certification for our No. 1 Recovery Boiler. This boiler was manufactured by B&W, began installation in 1982, and was put into service in 1985.

State # MIR342394, NB #/MFG#: 24665.

The boiler's last internal inspection date was October 3, 2012, with the current certificate expiring on October 3, 2013. At the March 12, 2013 Boiler Board of Rules meeting, Don Nurmela presented a request to extend our #1 Recovery Boiler internal inspection time interval from 12 months to 18 months. The request was to facilitate delivery of equipment to support a major capital investment in our mill. We do appreciate the Boiler Board of Rules finding that granted an exception. As the plans are developing for the April 2014 outage, equipment delivery schedule is a concern.

This request is to extend the current certificate expiration date to June 26, 2014 in order to support the Quinnesec Mill's strategic plans. The previous request granted an internal inspection extension to April 26, 2014. A request was submitted for a confirmation letter from our Insurance Company Representative and Account Manager, Cindy Elliot. As a "Premier" status rating, FM Global verbally indicated they are supportive of up to a 24-month pre-approved inspection frequency on this boiler.

Please contact me if additional technical information or documentation is required to support our request.

Respectfully,

A handwritten signature in black ink, appearing to read 'Keith Dennis', is written over a light blue horizontal line.

Keith Dennis
Manager of Recovery and Utilities
Verso - Quinnesec Mill
906-779-3350



Factory Mutual Insurance Company
5700 Granite Parkwy, Suite 700
Plano, Texas 75024 USA
T: 972 377 4808 F: 972 731 1800 www.fmglobal.com

May 21, 2013

Mr. Keith Dennis
Recovery & Utilities Manager
Verso Paper Holdings, LLC
3 Miles South of Iron Mountain
Quinnesec, MI

Reference: No. 1 Recovery Boiler Extended Operating Interval
Account No. 01-52426
Index No. 59797.00
State of Michigan Recovery Boiler MIR342394

Dear Keith:

I can confirm the details of my February 5, 2013 letter remain accurate and factual. The information is restated below. FM Global received Verso's written confirmation of agreement to the conditions set out below for the extended operating period of No.1 Recovery Boiler on 8th of February 2013.

FM Global has reviewed the "Premier" rated No.1 Recovery Boiler with respect to the mill's request to extend the normal 12 month operating interval to a maximum of 24 months. The boiler was last internally inspected in October 2012 and was returned to liquor firing on October 7, 2012. This boiler is pre-approved for operation up to 24-months, not to exceed operation past October 7, 2014.

FM Global supports the exception to our policy for the extended run based on our review and compliance with the following requirements:

- *The No. 1 Recovery Boiler must be shut down for a full internal inspection on or before October 7, 2014.*
- *We receive your written acceptance of this letter and of the terms and conditions herein contained.*
- *The boiler shall be continuously maintained and operated in accordance with the FM Global "28 provisions for pre-approved extended operation" (Attachment 'A') in accordance with the FM Global "Premier" BLRB classification program.*
- *FM Global approval for extended operation is contingent upon Jurisdictional approval for extended operation of the BLRB. It is Verso's responsibility to obtain all required Jurisdictional approvals.*
- *Any pressure part failures must be reported to FM Global. Any failure that resulted (or should have resulted) in an ESP will be closely reviewed and may be grounds for re-evaluating the extension approval.*
- *A simulated ESP test will be conducted between 9 and 14 months of operation.*



- *An assessment is conducted to determine the need for smelt spout replacement. This assessment shall be conducted jointly between FM Global and the mill. The assessment should consider past operating history, experience from post-overhaul dissection, results of any inspection conducted, as well as physical and operating changes made to the boiler.*

Keith, if there is anything further we can provide. please let me know.

Regards,

A handwritten signature in cursive script that reads "Cindy Elliott".

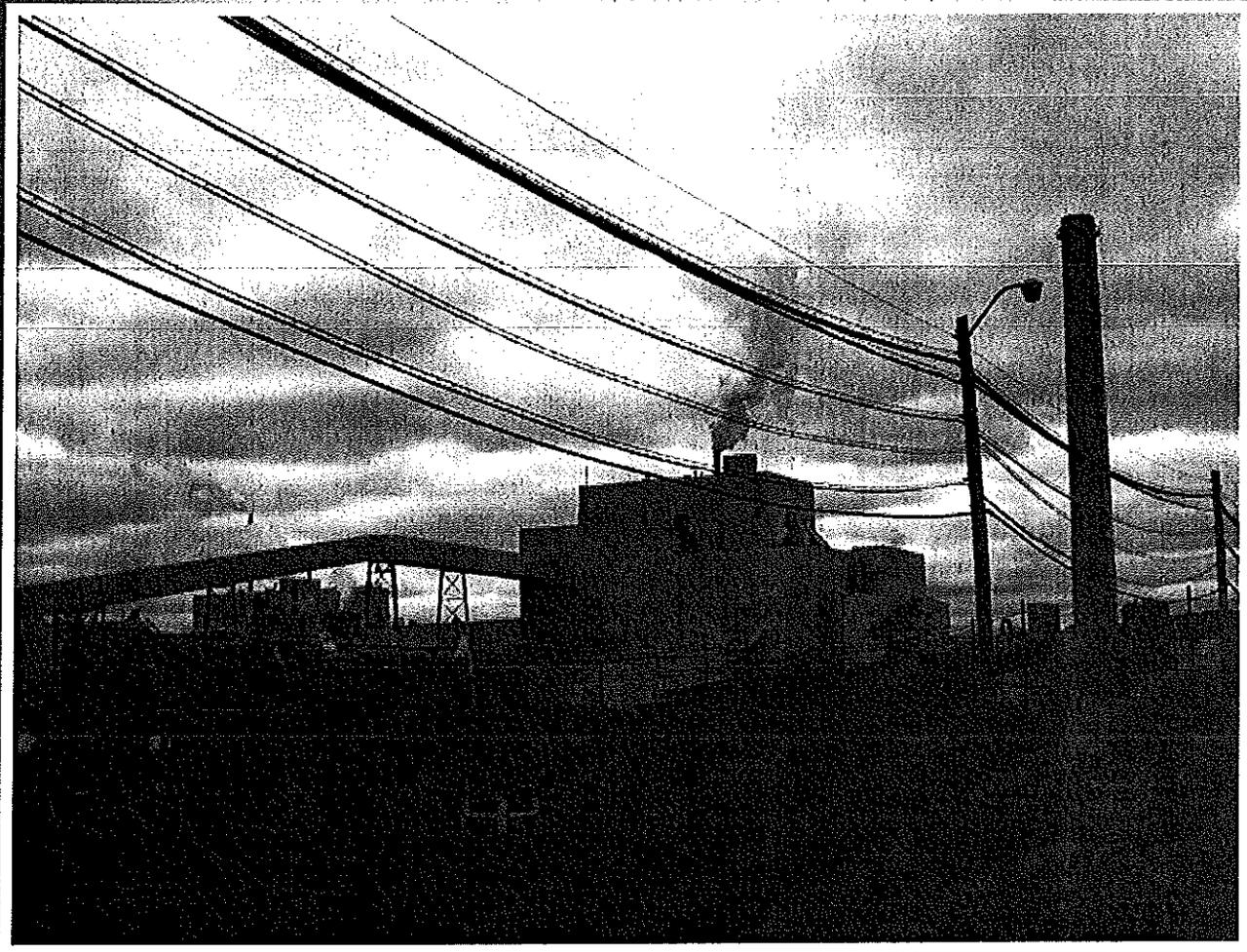
Cindy Elliott
Senior Account Manager

CC: FM Global, Plano, TX:

Mr. Kevin Bradshaw
Mr. Dave Johnson
Mr. Dave Rotchadl
Mr. Scott Crysel
Mr. Dave Lang
Mr. Clint Farrell
Mr. Mike Kern
Mr. Matt Wouters
Mr. Mark Machut

Verso Paper

Mr. Ed Chaperon
Mr. David Sams
Mr. Majed Ja'arah
Mr. Michael Naumann



Verso Paper – Quinnesec Mill

24 Month Internal Inspection Procedure

Included are the circumstances and the documents to be evaluated to determine the duration between internal boiler inspections. This procedure, upon approval of the Authorized Inspector, State Boiler Division and Verso Paper management will be used to facilitate the technical review used in determining the internal boiler inspection frequency. (24) month between inspection is the maximum duration.

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1.0 PURPOSE

The purpose of this procedure is to define the data, documentation as well as the functional requirements to be evaluated, such that, a recommended duration between the internal boiler inspection can be determined for Verso Paper, Quinnesec mill, #1 Recovery Boiler. After due diligence, a recommendation duration up to (24) months is acceptable.

2.0 SCOPE

This procedure shall apply only to the #1 Black Liquor Recovery boiler. The boiler primary fuel is Black Liquor; a renewable energy source that includes reclaimed chemical used for cooking wood fiber. Natural gas is used as an auxiliary fuel during start-up and shutdown sequences. Steam generated from the boiler is used in the wood cooking process, paper drying process and electrical generation. Attachment #1 is the operating Certificate and State Registration number.

3.0 REFERENCES

Several applicable guidelines and regulations were referenced while developing this review policy and procedure. Full documents are included in References 11A-11D.

1. Michigan Boiler Law and Rules – Public Act of 1965, Act 290 of 1965.
2. BLRBAC Safe Firing of Black Liquor (2012)
3. BLRBAC Safe Firing of Auxiliary Fuels (2012)
4. FM Global Recovery Boiler Premier Boiler Status (2009)

4.0 ABBREVIATIONS AND DEFINITIONS

BLACK LIQUOR

A byproduct of the wood cooking, pulping process. It is a solution of wood cooking chemicals and lignin that when dewatered can be used as a fuel.

BLRBAC - Black Liquor Recovery Boiler Advisory Committee

An international committee formed to develop best practices for the safe firing of black liquor.

A.S.M.E. - American Society of Mechanical Engineers

AUTHORIZED INSPECTOR

An individual who is designated as an Authorized Inspector by an authorized inspection agency, who holds a valid certificate of competency and National Board commission with an “A” or “B” endorsement, and who is employed by an authorized inspection agency that assumes responsibility of the individual’s actions.

EXTERNAL BOILER INSPECTION

An inspection which is conducted while the boiler is under pressure and does not involve examination of the internal surface of the pressure part of the boiler.

INTERNAL BOILER INSPECTION

An inspection made when a boiler is shut down and handholes or manholes are opened for inspection of the interior water parts.

MAINTENANCE PLAN

The maintenance plan is an established multiyear inspection and repair program determined by Verso corporate subject matter experts, Recovery and Utilities operation team as well as the maintenance and engineering department.

OPERATING PARAMETERS

The design temperature, pressure and steam flow that the boiler operates to convert energy.

REVIEW COMMITTEE

Group of individuals that will within 30 days, review the technical findings of a boiler internal inspection and determine an appropriate duration between internal inspections up to twenty-four (24) months. (See Section 5.2 of this procedure).

TCC -Trouble, Cause and Correction Plan

Procedure used to diagnosis and correct deviations from desired operating parameters. Often used in conjunction with "What if Scenarios".

WMS - Work Management System

A computer system used to schedule and track results of maintenance activities.

3PQP- Power Plant Personnel re-Qualification Procedure

Annual Refresher Training for Recovery and Utility Operators.

5.0 PROCEDURE

5.1 CRITERIA EVALUATION BY RECOVERY AND UTILITY

The following criteria shall be used by the Review Committee when establishing the time duration between boiler internal inspections.

5.1.1 Operator Training Program

For each job classification that supports recovery boiler operation, there shall be a formal operator training program in place that functionally assures that the plant is operated within design operating parameters. Any major changes to the training program will be reviewed. In addition, the annual refresher training program (3PQP) will be reviewed during each outage critique as it applies to the recovery boiler. A review of all personnel, their promotions and training progress will be reviewed in respect to recovery boiler support functions. Attachments 2A-2I outlines the job classifications and training that support the recovery boiler operation.

5.1.2 Boiler Maintenance

A review of the maintenance matrix and the outage maintenance will be conducted after each annual outage. It shall be evident that a plan supports the multiyear inspection frequency of boiler components as well as the annual requirements. Included in this review, the committee will discuss planned and executed results:

- E&I Maintenance
- M&M Maintenance
- OEM/3rd Party consultant inspection reports
- NTD Inspection Reports

Attachments 3A- 3D are typical documents to review.

5.1.3 Water Chemistry

The boiler feed water treatment system is common to all three boilers at Quinnesec. As part of the consideration for an internal inspection extension, the committee shall review the water chemistry procedures that have been established in conjunction with the water treatment chemical supplier and Verso R&U operating management. Adherence to plan will be reviewed with exceptions being noted.

In addition, a review of all personnel, their promotions and training progress will be discussed in respect to boiler water chemistry support functions. Please refer to attachments 2I, 4A – 4D for typical content review.

5.1.4 Operation Parameters

Current operating design and operating targets will be reviewed by the committee. Changes in operational strategy, boiler loading, fuel parameters and combustion strategy will be identified and evaluated in reference to an extended inspection. Refer to attachments 5A & 5B as typical operating and start-up parameters.

5.1.5 Chemical Cleaning Schedule

Chemical Cleaning requirements and schedule shall be reviewed. DWD analysis, elapsed time since previous acid cleaning and feedwater chemistry scorecard will be reviewed in committee. Attachment 6A-6D are typical.

5.1.6 Protective Devices

Both mechanical and electrical safety systems are important design features for proper boiler operation. Annually, these devices are checked for proper individual operation and system functional performance. The review committee shall review exceptions to scheduled testing frequency as well as exceptions to design performance. As found and as left performance deviations will be reviewed for functional impact. All safety relief device repair or testing will be confirmed completed by a company who possesses and maintains the proper National Board and ASME certifications. Attachments 7A-7G are typical of protective devices testing to include in the review.

1. Pressure Safety Relief Valves
2. Auxiliary Fuel Safety Checks
3. Drum Level Trip Checks
4. ID Fan Checks
5. Emergency Shutdown Procedure Response Checks

5.1.7 Boiler External Inspection

External inspections are critical to extended boiler operation. The review committee will evaluate external inspection documents to confirm equipment integrity. Material to review include: operational walk down procedures, hydrostatic test procedures (during cleaning shutdowns) and smelt spout inspection reports. Attachment 8A is included as a sample.

5.1.8 Boiler Internal Inspection

An FM Global Representative, Nalco Representative as well as a 3rd party or OEM representative will perform an internal inspection during the biennial internal boiler inspection. The results will be reviewed in determining the feasibility to operate on a 24 moth internal inspection frequency. Typical reports are included in Attachments 9A-9C.

5.1.9 Special Hydrostatic Test

Verso Paper recognizes boiler rule R408.4507 (e) allows the owner to request a waiver of the special hydrostatic test under this rule to the Chief Inspector if the boiler stated in the request has been granted an extension of the internal inspection frequency under rule R408.4058. If a waiver is granted, the Review Committee established under rule R408.4058 shall evaluate the condition of the boiler during each review to determine if a hydrostatic test is necessary.

5.2 REVIEW COMMITTEE

5.2.1 Membership

The Review Committee shall consist of appropriate Verso Paper representatives, Verso Paper Supplier personnel and the Authorized Inspector (FM Global representative). For this application, the review committee will be comprised of the following organizational positions with current members identified.

FM Global Boiler Inspector – Matt Wouters

R&U BU/Area Manager – Keith Dennis

Recovery Coordinator – Bill Fazer

R&U Process Control Engineer – Greg Brownson

R&U Process Engineer – Greg Kulas

Mechanical Engineer – Don Nurmela

OMC -Bob Coughlin

Verso Energy Representative – Majed Ja'arah

Water Treatment Consultant - Nalco – Karen Baij

Mechanical Maintenance Rep – Robert Artrip

Elect. and Inst. Maint. Rep - Bill Altenburg

5.2.2 Responsibilities of Members

The Review Committee will determine the acceptability of a boiler to operate safely for a 24 month period. The Review Committee will have access to and review all information pertaining to the past operation, maintenance and repair of the boiler being addressed. The Review Committee may decrease the period of time the boilers may operate, but shall not extend the period beyond 24 months. The grace period provided under boiler rule R408.4057 does not apply.

5.2.3 Meetings / Reporting

1. Primary Meeting

- a. Shall be held within 30 days after the internal inspection by the Authorized Inspector, FM Global representative, to determine the appropriate inspection interval.

2. A Secondary Meeting

- a. May be initiated if conditions change that would affect the agreed upon inspection interval (e.g. shorten / lengthen).
- b. Items which may affect the decision of the Review Committee to shorten the inspection interval may include (but are not limited to) the following:
 - Over Temperature excursions of a severe nature.
 - Boiler headers with a history of cracking and / or leaks.
 - Water chemistry upsets
 - Change in the operating mode
 - Severe boiler puffs causing structural damage to the unit.
 - Dissimilar metal weld failures or numerous weld failures.
 - Fatigue cracks in headers which result in leaks, headers with severe creep damage and broken header support systems.
 - Smelt Spout Inspection concerns
- c. Items felt to be of a routine nature will not affect the inspection interval are:
 - Black Liquor Divert
 - Boiler Water Wash cleaning
 - Boiler Chill & Blow cleaning

3. Reporting

A summary sheet of a primary and/or secondary meeting showing the Review Committee attendees and their findings will be forwarded to the boiler division after the Review Committee has met. The sheet will be signed by the Authorized Inspector and a Verso Paper Recovery and Utilities management representative, then send to the Boiler Division. Attachment 10 is a typical summary.

5.3 REVIEW / UPDATE OF THESE ADMINISTRATIVE PROCEDURES

Revisions to this procedure shall be initiated by Recovery Boiler Coordinator and shall be subject to approval by the Authorized Inspector. Revision will be supplied to Michigan Boiler Division.

ATTACHMENTS

2A Attachment - New Hire R&U Orientation list 1-19-12.doc
2B Attachment - QU-00-OJT-RU Boiler Utility Matrix.doc
2C Attachment - QU-00-OJT-RU Boiler Helper Matrix.doc
2D Attachment - QU-00-OJT-RU Recovery Boiler Operator Matrix.doc
2E Attachment - QU-00-OJT-RU Control Room Operator Matrix.doc
2F Attachment - QU-00-OJT-RU Control Room Operator Matrix-2.doc
2G Attachment - QU-00-OJT-RU Control Room Operator Matrix-3.doc
2H Attachment - QU-3PQP-Black Liquor Combustion-Fazer Revisions 042413.pptx
2I Attachment - QU-00-OJT-RU Water Treatment Operator Matrix.doc
3A Attachment - Recovery Boiler Maintenance Overview Plan.pdf
3B Attachment - 2012 Mechanical and Electrical Work List (Typical).pdf
3C Attachment - QU-44-INS-2012 RB Acuren NTD Multiple Year Trend Report.pdf
3D Attachment - QU-44-INS-2012 RB BSI Outage Inspection.pdf
4A Attachment - QU-15-REF-2003 NALCO- Program Administration Manual (PAM).pdf
4B Attachment - April 2013 Verso Utilities MES (Typical).docx
4C Attachment - QU-15-WIF-2009 Boiler Feedwater What If.pdf
4D Attachment - QU-12-OGL-025-Contamination Minimization.doc
5A Attachment - Recovery Boiler Operating Parameters, On Line PI Display.pdf
5B Attachment - QU-44-CHK-034-R.B. Startup Checklist - CRO Copy.doc
6A Attachment - Acid Cleaning Policy.pdf
6B Attachment - Acid Cleaning Extension Policy Calculation Requirements.pdf
6C Attachment - QU-44-INS-2003 RB Acid Cleaning Summary Report.pdf
6D Attachment - Recovery Boiler Acid Cleaning Extension Calculation 9-2011.docm
7A Attachment - Dalco Safety Valve Inspection Repair Report.pdf
7B Attachment - RB HI- Low gas Press Trip checks 9.doc
7C Attachment - QU-44-CHK-001-RB Drum Level Trip Check.doc
7D Attachment - RB ID Fan trip check sheet 9-2008.doc
7E Attachment - QU-44-INS-2013 FM Global RB ESP Inspection May Water Wash.pdf
8A Attachment - QU-44-OGL-023-Walkdown for Leak Check.doc
9A Attachment - FM Global Recovery Boiler Inspection Report 2012.pdf
9B Attachment - QU-44-INS-2012 RB Nalco Inspection Report.docx
9C Attachment - QU-44-INS-2012 RB BSI Outage Inspection (1).pdf
10 Attachment - 24 month internal Boiler Summary Letter - Dated 12-2012.doc

7.0

REFERENCES

11A Reference - 1006 2012-013LR AdminCode.pdf

11B Reference - Safe Firing of Black Liquor (October 2012) 0.pdf

11C Reference - BLRBAC Safe Firing of Auxillary Fuel (February 2012).pdf

11D Reference - FM GLOBAL

VERSO PAPER - TABLE OF CONTENTS.pdf

VERSO PAPER - SECTION 01 - DesignData.pdf

VERSO PAPER - SECTION 02 - Emergency Shutdown + Rapid Drain.pdf

VERSO PAPER - SECTION 03 - BlackLiquorFiringSystem.pdf

VERSO PAPER - SECTION 04 - AuxillaryFuelSystem.pdf

VERSO PAPER - SECTION 05 - Instrument + Control Systems.pdf

VERSO PAPER - SECTION 06 - BoilerBuildingGuideline.pdf

VERSO PAPER - SECTION 07 - DCE FP NotApplicable.pdf

VERSO PAPER - SECTION 08 - WasteStreamsSystems.pdf

VERSO PAPER - SECTION 09 - Training+Staffing.pdf

VERSO PAPER - SECTION 10 - Procedures-Quinnsec.pdf

VERSO PAPER - SECTION 11 - Inspection and Maintenance.pdf

Verso Paper US HWY 2, Quinnesec, MI, 49876

[-] Boiler Details

Jurisdiction Number * Status * Active Nat'l Bd. No. Owner or Batter No.

Other No. Specific Location Year Built *

Year Installed * Edit Manufacturer Construction Type * Use *

Boiler Type * Method of Firing * Fuel *

Manhole * Pressure Gauge Installed? * Low Water Cutoff Type *

Power Boiler Ht. Surface * Min SV Rel Cap Required * MRSVC Based On *

Input BTU/HR Previous Pressure Allowed Certificate Duration (MO) *

Cert Exp Date * Max Design Temp (HWH, HWS) ASME Stamp *

* Required Field

[-] Inspection Details Current Certificate Expires: 10/03/2013 Inspection Type: External Non-Cert

Condition OK to Issue Cert. * Inspection Date * Pressure Allowed * (800)

S.V. Tested (Y) Rule 27 Complied * Safety Valve Set At * (800) Total Capacity of Safety Valve * (734631)

* Required Field

[-] Object/Inspection Comments

Inspection Comments

The condition of this boiler is satisfactory for continued operation.

Object Comments [Click here to change Object Comments](#)

USE: Power Boiler;; SV SET: 669;; INSP AGENCY:FM GL; Method of Firing:Automatic; Method of Firing:Auto; LWCO Type:Float and Probe;
Construction:Welded; SV Capacity Type:LB/H-R; Boiler Type:Water Tube; Boiler Use:Power

[-] Object History

[-] Scheduled Events for this Object

[edit](#) Recurring Cert - Next:6/26/2014

[-] Inspection History

[View](#) 06/10/04 - Certificate Internal Inspection - Generic MI Cert Fee - Boiler - Certificate Issued

[View](#) 10/07/04 - Non-Certificate External Inspection

[View](#) 04/28/05 - Certificate Internal Inspection - Generic MI Cert Fee - Boiler - Certificate Issued

[View](#) 10/13/05 - Non-Certificate External Inspection

[View](#) 10/12/06 - Certificate Internal Inspection - Generic MI Cert Fee - Boiler - Certificate Issued

[View](#) 02/28/07 - Non-Certificate External Inspection

[View](#) 10/29/07 - Non-Certificate External Inspection

[View](#) 04/23/08 - Certificate Internal Inspection - Generic MI Cert Fee - Boiler - Certificate Issued

[View](#) 11/04/08 - Non-Certificate External Inspection

[View](#) 04/30/09 - Certificate Internal Inspection - Generic MI Cert Fee - Boiler - Certificate Issued

[View](#) 11/10/09 - Non-Certificate External Inspection

[View](#) 04/20/10 - Certificate Internal Inspection - Generic MI Cert Fee - Boiler - Certificate Issued

[View](#) 09/28/10 - Non-Certificate External Inspection

[View](#) 05/05/11 - Certificate Internal Inspection - Boiler Certificate - Certificate Issued

[View](#) 08/23/11 - Non-Certificate External Inspection

[View](#) 07/12/12 - Non-Certificate External Inspection

[View](#) 10/03/12 - Certificate Internal Inspection - Boiler Certificate - Certificate Issued

[View](#) 07/09/13 - Non-Certificate External Inspection

[-] Past Recommendations and Violations for this Object

No Record(s)

[-] Tests

No Record(s)

[-] Repairs

No Record(s)



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
BUREAU OF CONSTRUCTION CODES
IRVIN J. POKE
DIRECTOR

STEVE ARWOOD
DIRECTOR

(Document BLR2013-21)

August 5, 2013

To: Members, Board of Boiler Rules
From: William Vallance
Subject: Violations Issued

Attached you will find the violation reports from the National Board. The report contains violations issued for all reporting jurisdictions for the second quarter of 2013. The second quarter report for 18 jurisdictions is consisting of 94,362 total inspections with 8,264 total violations. This is a 11% violation rate.

The category showing the highest number of violations is pressure retaining items. The second highest is safety relief devices.

The second quarter report of violations issued in Michigan consists of 7,855 total inspections with 2,550 violations. This is a 30% violation rate.

The category showing the highest number of violations is pressure retaining items. The second highest is burner management.

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Violations Tracking Statistics

Jurisdiction: All Period: 4/1/2013 to 6/30/2013

Number of Jurisdictional reports: 18

Total number of inspections: 94362

Device Type (ASME Certification Designator)		High Pressure / High Temperature Boilers (S M E)	Low Pressure Steam Boilers (H)	Hot Water Heating / Supply Boilers (H)	Pressure Vessels (U UM)	Potable Water Heaters (HLW)
Total Violations / Inspections:		674 / 9555	1168 / 7316	4592 / 36783	1111 / 34305	719 / 6403
1) Safety Relief Devices	1.1 Inoperable	17	19	124	55	32
	1.2 Device Missing - Not Installed	4	10	15	116	8
	1.3 Improper Installation	38	88	321	229	67
	1.4 Leaking	18	47	242	10	25
	1.5 Incorrect Capacity	7	13	118	93	40
	1.6 Missing Nameplate		17	51	31	11
	1.7 Incorrect Set Pressure		2	32	35	18
2) Low Water Cutoffs / Flow Sensing Devices	2.1 Inoperable	19	28	40		2
	2.2 Device Missing - Not Installed	3	48	141	2	10
	2.3 Improper Installation			1		
	2.4 No Manual Reset	1	14	48	1	
	2.5 Sediment / Dirty / Leaking	4	9	15		
3) Pressure Controls	3.1 Inoperable	3	3	5		
	3.2 Device Missing - Not Installed	3	31	7	2	
	3.3 Improper Installation	7	53	23		1
	3.4 No Manual Reset	1	13	4		
4) Temperature Controls - Operator or High Limit	4.1 Inoperable			7		
	4.2 Device Missing - Not Installed		3	143		12
	4.3 Improper Installation	1	23	172		2
	4.4 No Manual Reset		2	54		2
5) Burner Management	5.1 Flame Failure – Operating, Management System	10	4	6		
	5.2 Electrical Power Disconnect – Missing / Not Functioning	17	8	166	2	28
	5.3 Improper Installation	37	31	123		87
	5.4 Fuel Leaks	3	5	1		1
	5.5 Emergency Shut Down Switch– Missing / Not Functioning	29	85	245	5	16
	5.6 Fuel Train Damaged	6	2	6		1

Violations Tracking Statistics

Jurisdiction: All Period: 4/1/2013 to 6/30/2013

Device Type (ASME Certification Designator)		High Pressure / High Temperature Boilers (S M E)	Low Pressure Steam Boilers (H)	Hot Water Heating / Supply Boilers (H)	Pressure Vessels (U UM)	Potable Water Heaters (HLW)
Total Violations / Inspections:		674 / 9555	1168 / 7316	4592 / 36783	1111 / 34305	719 / 6403
5) Burner Management	5.7 Flame Impingement	3	12	19		4
	5.8 Improper Combustion Air	7	7	35		9
6) Level Indicators - Gage Glasses, Bulls Eyes and Fiber Opticals	6.1 Inoperable	6	4	6		
	6.2 Device Missing - Not Installed	4	9	1	1	
	6.3 Improper Installation	3	4			
	6.4 Leaking	11	3			
	6.5 Internal Deposits	16	42	1		
7) Pressure / Temperature Indicators	7.1 Damaged - Inoperable	5	6	56	10	5
	7.2 Device Missing - Not Installed	1	7	103	21	71
	7.3 Improper Installation	4	4	9		20
	7.4 Leaking	2	1	6		
	7.5 Improper Size / Range	5	4	23	20	1
8) Pressure - Retaining Items (PRI) / Boiler- Piping, Pumps, Systems Valves, Expansion Tanks	8.1 Inoperable	13	3	5	2	
	8.2 Item Missing - Not Installed	51	42	161	77	21
	8.3 Improper Installation	34	63	189	211	66
	8.4 Item Leaking	85	110	172	21	35
	8.5 Improper Repair / Alteration	12	6	13	16	1
	8.6 Materials Deficiencies	55	54	104	47	29
	8.7 Required documentation, nameplate-missing or	9	62	162	48	10
	8.8 Non-ASME Code Construction	9	7	41	7	18
	8.9 Inspection Certificate-missing or expired	77	132	770	45	66
	8.10 Testing required	34	28	606	4	

Violations Tracking Statistics

Jurisdiction: Michigan Period: 4/1/2013 to 6/30/2013

Number of Jurisdictional reports: 1

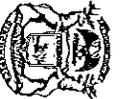
Total number of inspections: 7855

Device Type (ASME Certification Designator)		High Pressure / High Temperature Boilers (S M E)	Low Pressure Steam Boilers (H)	Hot Water Heating / Supply Boilers (H)	Pressure Vessels (U UM)	Potable Water Heaters (HLW)
Total Vioations / Inspections:		119 / 955	180 / 616	2081 / 5503	53 / 200	117 / 581
Safety Relief Devices	1.1 Inoperable	1	2	31		
	1.2 Device Missing - Not Installed		1	3	2	
	1.3 Improper Installation	5	4	59	2	4
	1.4 Leaking		5	28		2
	1.5 Incorrect Capacity			51	2	15
	1.6 Missing Nameplate			3	2	
Low Water Cutoffs Flow Sensing Devices	2.2 Device Missing - Not Installed		6	32	2	5
	2.4 No Manual Reset		1	34		
Pressure Controls	3.1 Inoperable			4		
	3.2 Device Missing - Not Installed	1	3		2	
Temperature Controls - Operator High Limit	4.2 Device Missing - Not Installed			44		8
	4.3 Improper Installation			4		
	4.4 No Manual Reset		1	32		1
Burner Management	5.2 Electrical Power Disconnect - Missing / Not Functioning	12	6	117	2	2
	5.3 Improper Installation		1	3		
	5.5 Emergency Shut Down Switch - Missing / Not Functioning	8	9	112	4	1
Level Indicators - Gage Glasses, Bulls eyes and Fiber Opticals	6.3 Improper Installation		1			
	6.5 Internal Deposits		4			
Pressure / Temperature Indicators	7.2 Device Missing - Not Installed			37	2	4
	7.5 Improper Size / Range	1		6		1
Pressure - Retaining Items (PRI) Boiler- Piping, Jumps, Systems Valves, Expansion Joints	8.3 Improper Installation	5	1	55	1	10
	8.4 Item Leaking	3	14	15		1
	8.5 Improper Repair / Alteration	1				
	8.6 Materials Deficiencies	1	3	4		
	8.7 Required documentation, nameplate-missing or	4	5	81	2	2

Violations Tracking Statistics

Jurisdiction: Michigan Period: 4/1/2013 to 6/30/2013

Device Type (ASME Certification Designator)		High Pressure / High Temperature Boilers (S M E)	Low Pressure Steam Boilers (H)	Hot Water Heating / Supply Boilers (H)	Pressure Vessels (U UM)	Potable Water Heaters (HLW)
Total Vioations / Inspections:		119 / 955	180 / 616	2081 / 5503	53 / 200	117 / 581
Pressure - retaining Items (PRI) Boiler- Piping, Jumps, Systems Valves, Expansion Tanks	8.8 Non-ASME Code Construction	1		6		3
	8.9 Inspection Certificate- missing or expired	57	105	724	30	58
	8.10 Testing required	19	8	596		



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
BUREAU OF CONSTRUCTION CODES

IRVIN J. POKE
DIRECTOR

STEVE ARWOOD
DIRECTOR

(Document BLR2013-22)

ACCIDENT REPORT SEPTEMBER 2013 BOARD MEETING

BOILER LOCATION	BOILER NUMBER	BOILER TYPE	PRESSURE AND USE	TYPE OF FAILURE	CAUSE OF FAILURE	DAMAGE TO BOILER	NUMBER INJURED	DATE OF FAILURE	DATE OF INVESTIGATION	INSURANCE OR STATE
Edsel & Eleanor Ford House - Power House	MIR408931 & MIR408929	WT	75	Natural Gas Explosion	Pilot Valve Stuck Open	Warped/Bowed Jacket, Broken Refractory, & Exhaust Venting	0	April 25, 2013	June 17, 2013	Insurance

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Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.

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Accident Report - Boiler or Pressure Vessel
 Michigan Department of Licensing and Regulatory Affairs
 Bureau of Construction Codes / Boiler Division
 P.O. Box 30254, Lansing, MI 48909
 517-241-9334

ACCIDENT DATE 4-25-13
<input type="checkbox"/> BOILER EXPLOSION <input checked="" type="checkbox"/> FURNACE EXPLOSION <input type="checkbox"/> DRY FIRED <input type="checkbox"/> OTHER (Explain) _____

Received

JUN 20 2013

Authority: 1965 PA 290 Completion: Mandatory Penalty: None	LARA is an equal opportunity employer/program. Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.
--	--

Boiler Division

Mail original copy of accident report to the address listed above.

Boiler Information

BOILER LOCATION EDSEL AND ELEANOR FORD HOUSE (INSIDE THE POWER HOUSE)				
ADDRESS 1100 LAKE SHORE	CITY GROSSE POINTE SHORES	STATE MICHIGAN	ZIP CODE 48236-4106	
OWNER NAME EDSEL AND ELEANOR FORD HOUSE				
ADDRESS 1100 LAKE SHORE	CITY GROSSE POINTE SHORES	STATE MICHIGAN	ZIP CODE 48236-4106	
BOILER CONSTRUCTION <input checked="" type="checkbox"/> WELD <input type="checkbox"/> RIVET <input type="checkbox"/> LAP <input type="checkbox"/> MECHANICAL ASSEMBLY		BOILER TYPE <input type="checkbox"/> FT <input checked="" type="checkbox"/> WT <input type="checkbox"/> CAST <input type="checkbox"/> OTHER (Specify) _____		
BOILER MANUFACTURER PATTERSON KELLEY				
STATE NUMBER M 408931	MFG. SERIAL NUMBER M CN360427029	NATIONAL BOARD NUMBER 81435	MAWP 75 PSI	YEAR BUILT 2004
SAFETY / RELIEF VALVE INSTALLED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	SET PRESSURE 75 PSI	ASME / NB STAMPED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		CAPACITY 2,728,000 BTU
BOILER USED FOR <input type="checkbox"/> POWER <input type="checkbox"/> PROCESS <input type="checkbox"/> STEAM HEATING <input checked="" type="checkbox"/> HWH <input type="checkbox"/> HWS <input type="checkbox"/> OTHER (Specify) _____				
CSD-1 TESTING <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> NA	CSD-1 TEST LAST PERFORMED 1-7-13	BY WHOM DE-CAL SERVICE GROUP	BTU / HR INPUT 1,700,000	
IS CERTIFICATE CURRENT <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		EXPIRATION DATE 1-11-14		
DOES JURISDICTION REQUIRE LICENSED OPERATOR <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		WERE OPERATORS LICENSED OR REGISTERED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		
TYPE OF BUSINESS WHERE USED HISTORICAL MUSEUM		NUMBER KILLED 0 NONE	NUMBER INJURED 0 NONE	

Personal Injury

NAME OF PERSON INJURED NOBODY INJURED	NAME OF PERSON INJURED NOBODY INJURED
ADDRESS OF PERSON INJURED	ADDRESS OF PERSON INJURED
EXTENT OF INJURY	EXTENT OF INJURY
HOSPITALIZED <input type="checkbox"/> YES <input type="checkbox"/> NO	HOSPITALIZED <input type="checkbox"/> YES <input type="checkbox"/> NO

Witnesses Interviewed

NAME MAINTENANCE JAMES STEPINS	ADDRESS 1100 LAKE SHORE	CITY GROSSE POINTE SHORES	STATE MI	ZIP CODE 48236
NAME	ADDRESS	CITY	STATE	ZIP CODE
NAME	ADDRESS	CITY	STATE	ZIP CODE

Accident

PROPERTY DAMAGE (Be Specific. Include dollar amounts. Attach a separate page if necessary) **BOTH BOILERS M408931 AND M408929**
 - **BOILER EXHAUST VENT, SOME PARTS DAMAGED SOME JUST SEPARATED.**
 - **OLD EXHAUST STACK ON POWER BOILERS SLIGHT DAMAGE**
 - **BOILER JACKET BOWED AND WARPED, COMBUSTION REFRACTORY BROKEN**
DOLLAR AMOUNTS ARE UNKNOWN AT THIS TIME

TYPE OF ACCIDENT (Explosion, Dry Fired, Rupture, etc.)
NATURAL GAS EXPLOSION

DESCRIBE THE CAUSE AND EVENTS WHICH PRECEDED THE ACCIDENT. DESCRIBE IN DETAIL THE EXTENT AND PARTS DAMAGED.
THE PILOT VALVE TO NUMBER 2 BOILER (M408931) STUCK OPEN. THIS FILLED THE COMBUSTION CHAMBER AND FLUE EXHAUST PIPING. BOILER 2 SHARES A COMMON STACK WITH BOILER 1. THE NATURAL GAS ALSO FILLED BOILER 1. BOILER 1 IGNITED AND ALL THE FUEL IGNITED. THE EXPLOSION BROKE THE REFRACTORY, BLEW APART THE FLUE PIPING, WARPED THE BOILER JACKETS, AND DAMAGED THE VENT ON THE OLDER DISCONNECTED POWER BOILERS.

DAMAGE TO BOILER
WARPED/BOWED JACKET, BROKEN REFRACTORY
SOME DAMAGED EXHAUST VENTING
THERE COULD BE MORE THAT IS NOT YET KNOWN

CAN BOILER BE REPAIRED
 YES NO

IS REPAIR PERMIT REQUIRED
 YES NO **AS OF TODAY MAY NEED PERMIT IF MORE IS FOUND**

WERE DAMAGED PARTS EXAMINED
 YES NO IF NO, WHY NOT **ALTHOUGH, THERE COULD BE DAMAGED PARTS THAT ARE NOT**

BASED ON YOUR INVESTIGATION, PROVIDE YOUR OPINION OF THE CAUSE OF ACCIDENT **(YET KNOWN)**
THE PILOT VALVE ON BOILER M408931 STUCK OPEN
NATURAL GAS FILLED THE EXHAUST AND COMBUSTION CHAMBERS
A CALL FOR HEAT CAUSED PILOT IGNITION, THIS THEN IGNITED THE FUEL

INSPECTOR'S RECOMMENDATION
THE PILOT VALVE MUST BE REPLACED, DAMAGED PARTS AND PROPERTY MUST BE REPAIRED OR, THE BOILERS SHOULD BE REPLACED

WHAT HAS BEEN DONE OR WILL BE DONE TO PREVENT RECURRENCE OF LIKE OR SIMILAR FAILURES
BIDS ON REPAIRING AND REPLACING THE BOILERS
PROPER CSD-1 SHOULD BE CONTINUED

Other Investigative Agencies

WERE OTHER INVESTIGATIVE AGENCIES INTERVIEWED		IS A REPORT AVAILABLE		WERE PHOTOGRAPHS TAKEN		ARE PHOTOGRAPHS ATTACHED TO REPORT	
<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
NAME	ADDRESS	CITY	STATE	ZIP CODE			
DE-CAL SERVICE GROUP	24659 SCHOENHERR	WARREN	MICHIGAN	48089			
NAME	ADDRESS	CITY	STATE	ZIP CODE			

Inspector

NAME OF INSPECTOR MATTHEW WOODY	LICENSE NUMBER NB19020 / 51970	DATE OF REPORT 6-17-13
---	--	----------------------------------



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
BUREAU OF CONSTRUCTION CODES
IRVIN J. POKE
DIRECTOR

STEVE ARWOOD
DIRECTOR

(Document BLR2013-12)

August 13, 2013

To: Members, Board of Boiler Rules
From: William Vallance, Chief Boiler Division
Subject: Qualified Technical Education Program
Vocational Institute of Michigan

Dear Members;

I have reviewed the attached supplementary information for Vocational Institute of Michigan, (VIM) qualified education program. This information is provided based on Board questions and comments from the June 11, 2013 Board meeting. VIM is seeking Board approval of the Qualified Technical Education Program (QTEP) for the training Low and High Pressure Boiler Operators.

I have attached a check list developed from the law and rules (references provided) to help in your evaluation of the program.

Recommendation:

I am recommending a motion by the Board of Boiler Rules that the Qualified Technical Education Program (QTEP) for the training of Low and High Pressure Boiler Operators be granted to Vocational Institute of Michigan. This motion shall be contingent on the location evaluation conducted by the boiler division acting as the Board designee as referenced in administrative Rule 408.5609(9).

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QTEP Review Check list:

From: Boiler Act-290 of 1965:

408.752 Definitions.
Sec. 2.

(q) "Qualified technical education program" means an educational program approved by the board that has a minimum of 350 contact hours in classroom hands-on training, field training, or supervised plant visits for high pressure boiler operators. The board may establish lesser standards for an educational program for low pressure operator training or other entry level training positions only.

Contact hours in program _____

408.763c Qualified technical education programs; course content; rules.

Sec. 13c. (1) Not later than 180 days after June 11, 2008, the department of energy, labor, and economic

growth shall promulgate rules designating the course content for qualified technical education programs for

the various categories and classes of registration of boiler operators and stationary engineers.

(2) The rules described in subsection

(1) shall provide that the course content of qualified technical education programs for entry level registrants include at least all of the following subject matter areas:

(a) Basic functions, construction, and operation of all types of boilers. _____

(b) The function of boiler appliances, accessories, and associated auxiliaries. _____

(c) Materials used in boilers and the effect of temperature extremes on those materials. _____

(d) The fuels used in boilers and fundamentals of combustion. _____

(e) Basic electricity. _____

(f) Plant operation and boiler maintenance. _____

(g) Instrumentation and controls. _____

(h) Fundamental mathematics and principles of the metric system. _____

(i) General safety procedures. _____

(j) Recognition of dangerous operation conditions. _____

(3) The department of energy, labor, and economic growth shall provide that the course content for categories and classes other than entry level registrants includes subject matter similar to those described in subsection (2) in the degree of depth and difficulty appropriate for the category and class.

From Rule, R408.5609:

(6) An application and supporting documentation for QTEP or QTP shall contain all of the following general information:

- (a) The name and address of the applicant and all training site addresses. _____
- (b) Name and contact information of the individual responsible for the program. _____
- (c) Policies or procedures for the selection of instructional staff. _____
- (d) A statement of purpose and objectives of the program. _____
- (e) Administrative and technical criteria for the development and delivery of the program. _____
- (f) A description of the facilities, equipment, and instructional materials consistent with the purpose, design, and intended outcome of each learning experience in the program. _____
- (g) A syllabus or course description, including contact hours and topics for each course. _____
- (h) A statement of the criteria used to determine successful completion by participants in each of the training programs offered by the applicant. _____
- (i) A list of instructional materials and other resources essential for the successful presentation of the program. _____

(7) Approval of a program by the board shall be evidenced by a program approval report prepared by the boiler division and issued to the applicant.

The report shall include all of the following:

- (a) Name and address of the applicant.
- (b) Program identification number.
- (c) The date of approval.
- (d) The conditions of approval.

(8) A program or amendment which has been approved by the board shall not be altered. If an organization wishes to amend any part of a board-approved program, the organization shall submit a draft document clearly identifying the changes for board review. The organization shall not implement changes to the program without approval by the board. All changes shall be made a part of the written record of approval. The authorization shall be in writing or be confirmed in writing within 10 days of oral authorization.

(9) The board or its designee shall have access to any location during the presentation of an approved program for the purpose of evaluation to determine compliance with an approved program.

History: 2010 AACCS.



Vocational Institute of Michigan

Supplementary and Previously Submitted Information

To April 18, 2013 Application for Qualified Technical Education Program

The supplemental information being submitted at this time is that requested by the State of Michigan Board of Boiler Rules (the Board) and the Chief Boiler Inspector during its June 11, 2013 open meeting session. It includes additional information to answer concerns raised by the Board. It also addresses VIM's years of success in training workers to safely operate low pressure and high pressure boilers through its Heating Plant Technician and Power Plant Technician I courses.

The Chief Boiler Inspector during the open Board meeting said the Vocational Institute of Michigan (VIM) meets the requirement for a Qualified Technical Education Program provider once Section 408.752 Definitions Sec. 2. (q), the Section 408.763c Qualified Technical Education programs Sec. 13c. (a -j), and Section R408.5609 of the State of Michigan Boiler Act of 1965 Act 290 of 1965 are complied with.

Items 5 through 11 of April 18, 2013

Application for Board Approval of a Qualified Technical Education Program

Submitted to the Department of Licensing and Regulatory Affairs Bureau of Construction Codes/Boiler Division in accordance to Section 408.752 Definitions Sec. 2. (q), and Section 408.763c Qualified Technical Education programs Sec. 13c. (a -j) of the State of Michigan Boiler Act Of 1965 Act 290 Of 1965 Board of Boiler Rules

5. Administrative and technical criteria for the development and delivery of the program.

Vocational Institute of Michigan (VIM) is licensed under the State of Michigan Labor Department. Its administration and qualified technical education program is overseen by highly skilled professionals who hold degrees in engineering, social sciences, and law. Its technical criteria are implemented and upheld by administrators and instructors that have held the highest licenses in stationary engineering in the cities of Detroit and Dearborn Michigan for more than 20 years and whose vice president holds the highest stationary engineering registration at the State of Michigan and a State of Michigan Mechanical contractor license. VIM's COO is a seasoned stationary steam engineer who has more than 50 years experience as a licensed high pressure boiler operator and more than 30 years as a licensed stationary engineer.

He currently is a State of Michigan Registered First Class Stationary Steam Engineer (Registration No. 330011). He has held the City of Detroit boiler and stationary steam engineering licenses since 1961. He currently holds a City of Detroit First Class Stationary Steam Engineer (License No: LIC2001-08850), and the City of Dearborn Chief Powerhouse Stationary Engineer (License No. 13-00109160). As a City of Detroit Licensing Examiner he administered boiler operator and stationary steam engineer examinations from 1975 to 1997; performed NB boiler inspector in the State of Michigan (Commission No. 8063) for more than 20 years; was a City of Detroit Mechanical Inspector for more than 20 years; and has overseen all levels of licensing examinations and actual field operations of boiler operators and stationary steam engineers. He holds a current State of Michigan Mechanical Contractor license (Lic. No. 7103974). His mentoring of boiler operators and stationery steam engineers beginning in 1975 led to his teaching of Low pressure and high pressure boiler operator courses at the Vocational Institute of Michigan in 1990. He also taught a boiler inspector course held at Wayne County Community College.

6. Provide a description of the facilities, equipment and instructional materials consistent with the purpose, design and intended outcome of each learning experience in the program.

VIM's Southfield Michigan location, equipment, and instructional materials have been approved by the State of Michigan School Proprietary division and are consistent for the purpose of fulfilling educational needs as shown in its school catalogue, including its programs for low and high pressure boiler operation. Since 1990 the City of Detroit's Building and Safety Engineering Department has allowed graduates of VIM's Heating Plant Technician (low pressure boilers)" and "Power Plant Technician I (high pressure boilers)" programs a waiver of its of experience required to sit for a City of Detroit license. Applicants for license are required to present a VIM Letter of Recommendation.

7. Provide a list of instructional material and other resources essential for the successful presentation of the program.

Text:

Low Pressure Boiler Registration: "Low Pressure Boilers", author Frederick M. Steingress

High Pressure Boiler Registration: "High Pressure Boilers", author Frederick M. Steingress

Other materials sources: ASME Standards. State of Michigan Boiler Act 1965 PA 290, MCL 408.751 et seq.

8. Provide the policies and procedures for the selection of instructional staff.

Instructional staff is interviewed to ensure they have the experience and knowledge required to provide a quality education to students enrolled at VIM in all approved educational programs. Included are entry level and advanced boiler operations and stationary steam engineer courses. VIM submits to the Michigan Proprietary Schools Department a personnel qualification form on all new instructors to ensure we have qualified individuals heading our programs.

9. Provide a statement of the purpose and objectives of the program.

All VIM programs, including its Heating Plant Technician (low pressure boilers) and Power Plant Technician I (high pressure boilers) are structured to aid students in preparing them for safe operations and maintenance of boilers, steam prime movers, auxiliaries and related equipment. The end result of training is meant to enable students to receive a certificate for successfully completing a boiler or stationary steam engineering program to apply for registration, certification, and/or a license.

10. Identify the criteria or performance measurement to determine participants who successfully complete the program.

Student enrolled in VIM qualified technical education programs must successfully pass with a 60% or higher grade. Students enrolled in the Heating Plant Technician and the Power Plant Technician I courses must have hands-on training experience.

Low Pressure

Students that have successfully completed the Heating Plant Technician course will be eligible to take the Michigan Registration exam by obtaining an additional 114 hours of internship hours working with low pressure and auxiliary equipment.

VIM's Michigan Registration - Heating Plant Technician Program Includes (total 350 hours):

- Classroom Training (96 clock hours)
- Heating Internship1 (140 clock hours)
- MI Registration - Additional Heating Internship1 hours (114 clock hours)

See Appendix C for VIM Monitoring Terms
--

(Also See flowchart in appendix A)

High Pressure

VIM students successfully graduating the Power Plant Technician I course will have 364 hours training exceeding the 350 hours requirement to sit for the state high pressure boiler operator registration examination.

VIM's Power Plant Technician I Course (High pressure boiler operator) Total hours: 364
Michigan Registration Requirements Total hours: 350

VIM's Power Plant Technician I Course Includes (total 364 hours):

- Classroom Training: 84 clock hours
- Heating Internship I: 140 work hours
- Heating Internship II: 140 work hours

(Also See flowchart in appendix B)

Pre-Application Training

VIM's Heating Plant Technician (low pressure) and Power Plant Technician I (high pressure) courses initially designed and implemented in 1990 by its current Chief Operating Officer (COO) are based upon the City of Detroit boiler ordinance and its requirements needed to sit for licensing examinations.

Historically training institutions in meeting the need of workers across the nation to operate low pressure and high pressure boiler safely have relied on books with practical subject material of basic knowledge such as the Low Pressure Boiler Operator and High Pressure Boiler Operator books by Fredrick M. Steingress.

VIM's unique low pressure and high pressure boiler operator training programs consist of internship training and selective course material equal to VIM's Heating Plant Technician and Power Plant Technician I programs. Few if any state or local jurisdictions laws or ordinances require low pressure and high pressure boiler operator training programs more stringent than that of the Vocational Institute of Michigan. Most state laws and local ordinances have little or no requirement for training low pressure and high pressure boiler operators. The State of Michigan only within the past 15 years has elected to have low pressure and high pressure boiler operators voluntarily register.

Even in the State of Michigan with the exception of a few local jurisdictions any persons of general maintenance knowledge, e.g., maintenance workers, operators of a dry cleaner, caretakers in a large residential dwelling, and others are allowed to operate low pressure and high pressure boilers without training, a license, or having first been registered under the State of Michigan Boiler Act 290 Of 1965, Section 408.752 Definitions Sec. 2. (q), and Section 408.763c Qualified Technical Education programs Sec. 13c. (a-j).

11. Description VIM QTEP Course Process

Heating Plant Technician

1. Students must meet the following requirements before being allowed to enroll in the Heating Plant Technician (Low Pressure equivalent) program:
 - a. Must have taken or currently be enrolled in the following internship class "INT-B1- Heating Internship 1
 - b. Must be 17 years of age and older
 - c. Must have a 9th grade or above reading & math skills to be eligible for admission. Students without a High School diploma or G.E.D must provide verification of a 9th grade or above reading & math skill level as approved by the State of Michigan or have successfully passed VIM's entrance exam
2. Once enrolled they must successfully complete the following before receiving their Vocational Institute of Michigan certificate of completion and be eligible to take the Michigan Registration Exam:
 - Classroom Training (96 clock hours)
 - Heating Internship 1 (140 clock hours)
 - MI Registration - Additional Internship hours (114 clock hours)

Note: Upon completion student will have 350 clock hours

Power Plant Technician I

1. Students must meet the following requirements before being allowed to enroll in the Power Plant Technician I (High Pressure equivalent) program:
 - a. Must have taken or currently be enrolled in the following internship classes "INT-B1- Heating Internship 1" and "INT-B2 - Heating Internship 2"
 - b. Must be 17 years of age and older
 - c. Must have a 9th grade or above reading & math skills to be eligible for admission. Students without a High School diploma or G.E.D must provide verification of a 9th grade or above reading & math skill level as approved by the state of Michigan or have successfully passed VIM's entrance exam

2. Once enrolled they must successfully complete the following before receiving their Vocational Institute of Michigan certificate of completion and be eligible to take the Michigan Registration Exam:
 - Classroom Training (84 clock hours)
 - Heating Internship 1 (140 clock hours)
 - Heating Internship 2 - (140 clock hours)

Note: Upon completion student will have 364 clock hours

Internship Process

Students receive on-line learning instructions during the start of their internship related to the course being taken by the student. Students are required to research and submit periodic assignments throughout the duration of their internship pertaining to their field of study (Ex: Low Pressure or High Pressure Boilers).

Student internships must be approved by VIM. Approval for internships is granted to students who agree to the following:

1. Provide required internship assignments covering the following areas
 - a. Basic functions, construction, and operation of all types of boilers
 - b. The function of boiler appliances, accessories, and associated auxiliaries
 - c. Plant operation and boiler maintenance
 - d. Instrumentation and controls
 - e. General safety procedures
 - f. Recognition of dangerous operation conditions
2. Their employer must agree to provide feedback on the interns performance
3. Student must agree to meet the designated amount of clock hours for the internship.

June 11, 2013 Board of Boiler Rules Open Meeting

Vocational Institute of Michigan (VIM) representatives Drew A. Johnson and Steve Johnson were invited to sit before the June 11, 2013 Board of Boiler Rules open meeting to support VIM's April 18, 2013 application for Qualified Technical Education Program approval. At the meeting VIM informed the Board that as a State of Michigan licensed nonprofit proprietary school its Heating Plant Technician (Low pressure boilers) and Power Plant Technician I (High pressure boilers) courses have been reviewed and approved by the State of Michigan Labor Department, and City of Detroit Buildings and Safety Engineering Department in 1990. Since that time graduates have obtained City of Detroit licenses and boiler operator jobs.

VIM in its appreciation and respect of the Board's concern over applicants seeking approval for the Qualified Technical Education Program would like to bring awareness to the City of Detroit waivers of minimum requirements to sit for low pressure and high pressure licensing. VIM is one of the few schools to be awarded this privilege. With it comes the responsibility in providing boiler education programs for the purpose of protecting the safety of life, limb, and property. A purpose that the State of Michigan perhaps holds in its boiler operator registration as has the City of Detroit has done successfully for more than 100 years in issuing and overseeing all levels of boiler operators and stationary steam engineers licensing. Licensing recognized and highly respected nationally and internationally. Nearly all cities, villages and townships in Michigan, including the Lansing has recognized the City of Detroit high pressure and low pressure licensing since they were added to its boiler ordinance in 1912 long before most other organizations entering this area.

Items Issued at the June 11, 2013

Heating Plant Technician

(Low Pressure Boiler Operator)

Requirement for a Qualified Technical Education Program provider Section 408.763c Qualified Technical Education programs Sec. 13c. (A through J) of the State of Michigan Boiler Act Of 1965 Act 290 Of 1965 are complied with.

A. Basic functions, construction, and operation of all types of boilers:

Construction, and operation of all types of boilers chapters (basic functions)

Text: **LOW PRESSURE BOILERS** —Frederick M. Steingress

Chapter 1: **The Boilers (Page 1-20)**

Chapter 2: **Boilers Fittings (Page 21-49)**

Supplementary Materials: Boiler Operator's Guide, Harry M Spring, Jr, Anthony Lawrence Kohan
Chapter 1: Boiler Systems, Classifications by Use, and Regulations
Recommended Rules for Power Boilers, ASME Section VII

- Feedwater Supply,
- Fuel and Air Supply,
- Steam-Pressure and Water-Level Gages,
- Safety Valves,
- Blowoff Line and Valves,

Handout Materials: Draws, clipping, and other as needed

B. The function of boiler appliances, accessories, and associated auxiliaries:

Text: Low Pressure Boilers by Frederick M. Steingress

Supplementary Materials: Recommended Rules for Power Boilers, ASME Section VII

- Pressure Gages
- Water Gages
- Feedwater Regulator
- Fusible Plugs
- Safety Valves
- Blowoff Equipment
- Dampers
- Soot Blowers
- Soot-Removal Equipment

Handout Materials: Draws, clipping, and other as needed

C. Materials used in boilers and the effect of temperature extremes on those materials:

Supplementary Materials: Boiler Operator's Guide, Harry M Spring, Jr, Anthony Lawrence Kohan

- Metallurgy of Steel and Material Selection, Chapter 2
- Strength of Materials and Stress Analysis, Chapter 4

Handout Materials: Draws, clipping, and other as needed

D. The fuels used in boilers and fundamentals of combustion:

Text: Low Pressure Boilers by Frederick M. Steingress
Supplementary Materials: Recommended Rules for Power Boilers, ASME Section VII

- Fuel and Air Supply

Handout Materials: Draws, clipping, and other as needed

E. Basic electricity:

Supplementary Materials: Practical Electricity

- Electric Current
- Practical Units Of Electricity
- Direct-Current Circuits And Ohm's Law
- Electromagnetism
- Alternating Current
- Batteries
- Electric Power Equipment
- Electrical Measuring Instruments
- Typical Applications

F. Plant operation and boiler maintenance:

Text: Low Pressure Boilers by Frederick M. Steingress
Supplementary Materials: Recommended Rules for Power Boilers, ASME Section VII
PREPARATION FOR INSPECTION

- Internal surfaces and parts
 - General
 - Water Side
 - Fire Side
- External surfaces and parts
- Inspection of Internal Surfaces and Parts
 - All Boilers
 - Water Tube Boilers
 - Fire Tube Boilers
- Inspection of External Surfaces and Parts
- Care and Management

G. Instrumentation and controls:

Text: Low Pressure Boilers by Frederick M. Steingress
Supplementary Materials: Recommended Rules for Power Boilers, ASME Section VII

- Instruments
- Controls and Interlocks

H. Fundamental mathematics and principles of the metric system.

- Supplementary Materials:** Primary Mathematics, Wikibooks
http://en.wikibooks.org/wiki/Primary_Mathematics/Print_version
- Numbers
 - Adding numbers
 - Subtracting numbers
 - Multiplying numbers
 - Dividing numbers
 - Negative numbers
 - Fractions
 - Working with fractions
 - Decimals
 - Metric
 - Time math
 - Unit math
 - Introduction to significant digits
 - Powers, roots, and exponents
 - Scientific and engineering notation
 - Average, media, and mode
 - Percentages
 - Probability
 - Factors and Primes
 - Method for Factoring

Handout Materials

(I) General safety procedures:

- Text:** Low Pressure Boilers by Frederick M. Steingress
Supplementary Materials: Recommended Rules for Power Boilers, ASME Section VII
- Handling fuel-burning equipment
 - Preparing steam generators for operation
 - Cutting steam generators into service
 - Starting a new steam generator
 - Handling steam generators in service
 - Handling steam generators out of service
 - Foundations, support structures, and settings
 - Piping
 - Internal cleaning of boilers
 - Laying-up of boilers
 - Deposits
 - Internal corrosion

J. Recognition of dangerous operation conditions:

- Text:** Low Pressure Boilers by Frederick M. Steingress
Supplementary Materials: Recommended Rules for Power Boilers, ASME Section VII
- Cracking and embrittlement of boiler steel
 - Steam contamination
 - Testing, and reporting of analyses of water

POWER PLANT TECHNICIAN I

(High Pressure Boiler Operator)

Requirement for a Qualified Technical Education Program provider Section 408.763c Qualified Technical Education programs Sec. 13c. (A through J) of the State of Michigan Boiler Act Of 1965 Act 290 Of 1965 are complied with.

A. Basic functions, construction, and operation of all types of boilers:

Construction, and operation of all types of boilers chapters (basic functions)

Text: HIGH PRESSURE BOILERS—Frederick M. Steingress
Chapter 1: Steams Boilers (Page 1-18)
Chapter 2: Steam Boilers Fittings and Accessories (Page 19-48)

Supplementary Materials: Boiler Operator's Guide, Harry M Spring, Jr, Anthony Lawrence Kohan
Chapter 1: Boiler Systems, Classifications by Use, and Regulations
Recommended Rules for Power Boilers, ASME Section VII

- Feedwater Supply,
- Fuel and Air Supply,
- Steam-Pressure and Water-Level Gages,
- Safety Valves,
- Blowoff Line and Valves,

Handout Materials: Draws, clipping, and other as needed

B. The function of boiler appliances, accessories, and associated auxiliaries:

Text: High Pressure Boilers by Frederick M. Steingress

Supplementary Materials: Recommended Rules for Power Boilers, ASME Section VII

- Pressure Gages
- Water Gages
- Feedwater Regulator
- Fusible Plugs
- Safety Valves
- Blowoff Equipment
- Dampers
- Soot Blowers
- Soot-Removal Equipment

Handout Materials: Draws, clipping, and other as needed

C. Materials used in boilers and the effect of temperature extremes on those materials:

Supplementary Materials: Boiler Operator's Guide, Harry M Spring, Jr, Anthony Lawrence Kohan

- Metallurgy of Steel and Material Selection, Chapter 2
- Strength of Materials and Stress Analysis, Chapter 4

Handout Materials: Draws, clipping, and other as needed

D. The fuels used in boilers and fundamentals of combustion:

- Text:** High Pressure Boilers by Frederick M. Steingress
Supplementary Materials: Recommended Rules for Power Boilers, ASME Section VII
 - Fuel and Air Supply**Handout Materials:** Draws, clipping, and other as needed

E. Basic electricity:

- Supplementary Materials:** Practical Electricity
 - Electric Current
 - Practical Units Of Electricity
 - Direct-Current Circuits And Ohm's Law
 - Electromagnetism
 - Alternating Current
 - Batteries
 - Electric Power Equipment
 - Electrical Measuring Instruments
 - Typical Applications

F. Plant operation and boiler maintenance:

- Text:** High Pressure Boilers by Frederick M. Steingress
Supplementary Materials: Recommended Rules for Power Boilers, ASME Section VII
PREPARATION FOR INSPECTION
 - Internal surfaces and parts
 - General
 - Water Side
 - Fire Side
 - External surfaces and parts
 - Inspection of Internal Surfaces and Parts
 - All Boilers
 - Water Tube Boilers
 - Fire Tube Boilers
 - Inspection of External Surfaces and Parts
 - Care and Management

G. Instrumentation and controls:

- Text:** High Pressure Boilers by Frederick M. Steingress
Supplementary Materials: Recommended Rules for Power Boilers, ASME Section VII
 - Instruments
 - Controls and Interlocks

H. Fundamental mathematics and principles of the metric system.

Supplementary Materials: Primary Mathematics, Wikibooks Numbers

- Adding numbers
- Subtracting numbers
- Multiplying numbers
- Dividing numbers
- Negative numbers
- Fractions
- Working with fractions
- Decimals
- Metric
- Time math
- Unit math
- Introduction to significant digits
- Powers, roots, and exponents
- Scientific and engineering notation
- Average, media, and mode
- Percentages
- Probability
- Factors and Primes
- Method for Factoring

(I) General safety procedures:

Text: High Pressure Boilers by Frederick M. Steingress

Supplementary Materials: Recommended Rules for Power Boilers, ASME Section VII

- Handling fuel-burning equipment
- Preparing steam generators for operation
- Cutting steam generators into service
- Starting a new steam generator
- Handling steam generators in service
- Handling steam generators out of service
- Foundations, support structures, and settings
- Piping
- Internal cleaning of boilers
- Laying-up of boilers
- Deposits
- Internal corrosion

J. Recognition of dangerous operation conditions:

Text: High pressure boilers by Frederick M. Steingress
Supplementary Materials: Recommended Rules for Power Boilers, ASME Section VII

- Cracking and embrittlement of boiler steel
- Steam contamination
- Testing, and reporting of analyses of water

(6) An application and supporting documentation for QTEP or QTP shall contain all of the following general information:

Supporting Information

Concerns raised by members of the State of Michigan Board of Boiler Rules (the Board) and the Chief Boiler Inspector during its June 11, 2013 open meeting session.

NINETH GRADE READING AND COMPREHENSION ENTRY EXAMINATION

Must be 17 years of age and older with 9th grade or above reading & math skills to be eligible for admission. Students without a High School diploma or G.E.D must provide verification of a 9th grade or above reading & math skill level as approved by the state of Michigan or have successfully passed VIM's entrance exam.

GRADING

Academic grading in the United States most commonly takes on the form of five letter grades. Traditionally, the grades are A, B, C, D, and F—A being the highest and F, denoting failure, the lowest.

Grade Percentage:

A	90%-100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	59% and below
I	Incomplete
W	Withdrawal
A or X	Audit

An "I" grade indicates the course, or the time allowed to complete it, extends beyond the temporal bounds of a single term to encompass an entire academic or calendar year, or longer. It indicates the student was satisfactorily completing a course when something happened that prevented timely completion (Example: an illness, injury or other). VIM's grade of "I" allows the student up to one year after receiving the grade to complete the course.

A grade of "W" indicates that a student has elected to withdraw from a course prior to the course's withdraw deadline. It is not calculated in the student's grade point average.

A grade of "X" will be assigned for all courses taken in audit status. Students may elect to audit a college credit course or a workforce credit course.

The most important consideration in completing VIM courses is not whether a student passes with a grade of above 60%, but that he or she is able to operate at the level of his training effectively and efficient to protect life, limb, and property as often required of boiler operators or stationary steam engineers. Vim's hands-on training administered through internship assures that the operator has sufficient training to meet such requirements.

CONTACT HOURS

Contact hours needed to gain the experience, proficiency, and ability to operate boilers at low and high pressures in accordance to rules and regulations as set forth in federal, state, and local jurisdictions is provided through a hybrid approach of classroom and on-the-job training. This assures that the operator has sufficient training to operate safely to protect life, limb, and property.

VIM's contact hours depends on the type and purpose of the course of instructions to be administered, e.g., a licensing, a registration, client needs, and others. No contact hours are less than that approved under the State of Michigan Propriety Schools Rules and Regulations.

INTERVIEWING AND HIRING QUALIFIED INSTRUCTORS

A candidate for the position of instructor must have at minimum working knowledge and must hold or have held a professional license sufficient for the course at which he or she is hired as an instructor. An interview is held to review the candidate's credentials.

INTERNS AT THE WORK SITE

Interns at work sites generally abide by the policies and procedures administered at the client's site. An exception to these policies and procedures are that interns be given assignments that fall within the Vocational Institute of Michigan's course work that the intern is pursuing. VIM interns are allowed to assist in the operations and maintenance of heating and power plants in most jurisdictions that require an operator to possess a low pressure or high pressure.

Under Section 408.763a Operation of boiler and auxiliaries without registration; use of certain terms by individual or business entity; registration requirements. Sec. 13a. (1) An individual may operate a boiler and associated auxiliaries without obtaining a registration under this act.

(2) An individual or business entity shall not use the terms "registered boiler operator", "certified boiler operator"..... low pressure registered boiler operator", "low pressure certified boiler operator", "high pressure registered boiler operator", "high pressure certified boiler operator"....or any other name, style, or description that indicates that the individual or an individual employed by the business entity is registered under this act unless the individual has been issued a registration under this act.

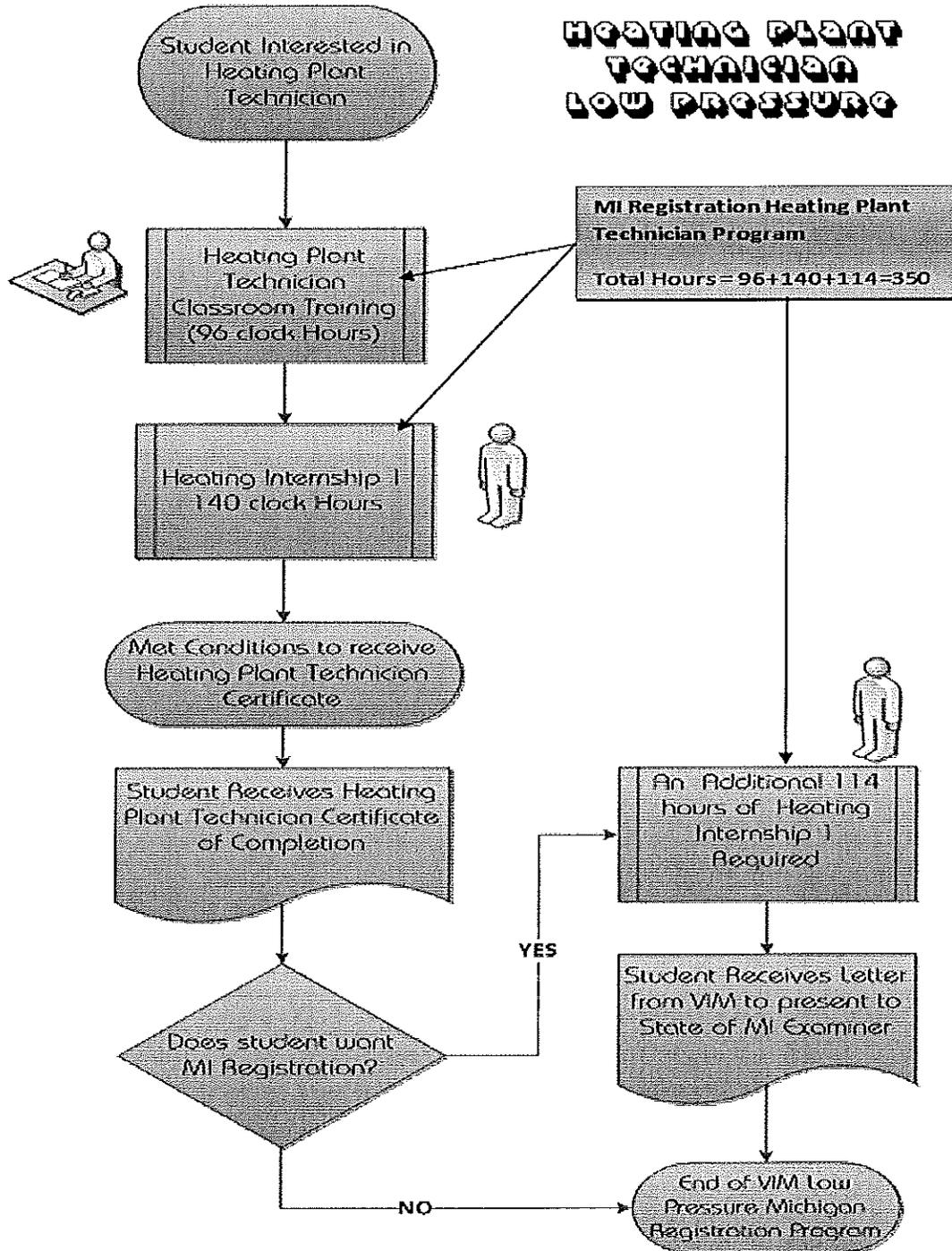
TEXT BOOKS and REFERENCE SOURCES

VIM's text books High Pressure and Low Pressure Boiler both by Steingress, and references, including Steam Plant Operation, Boiler Operator's Guide, and ASME sections

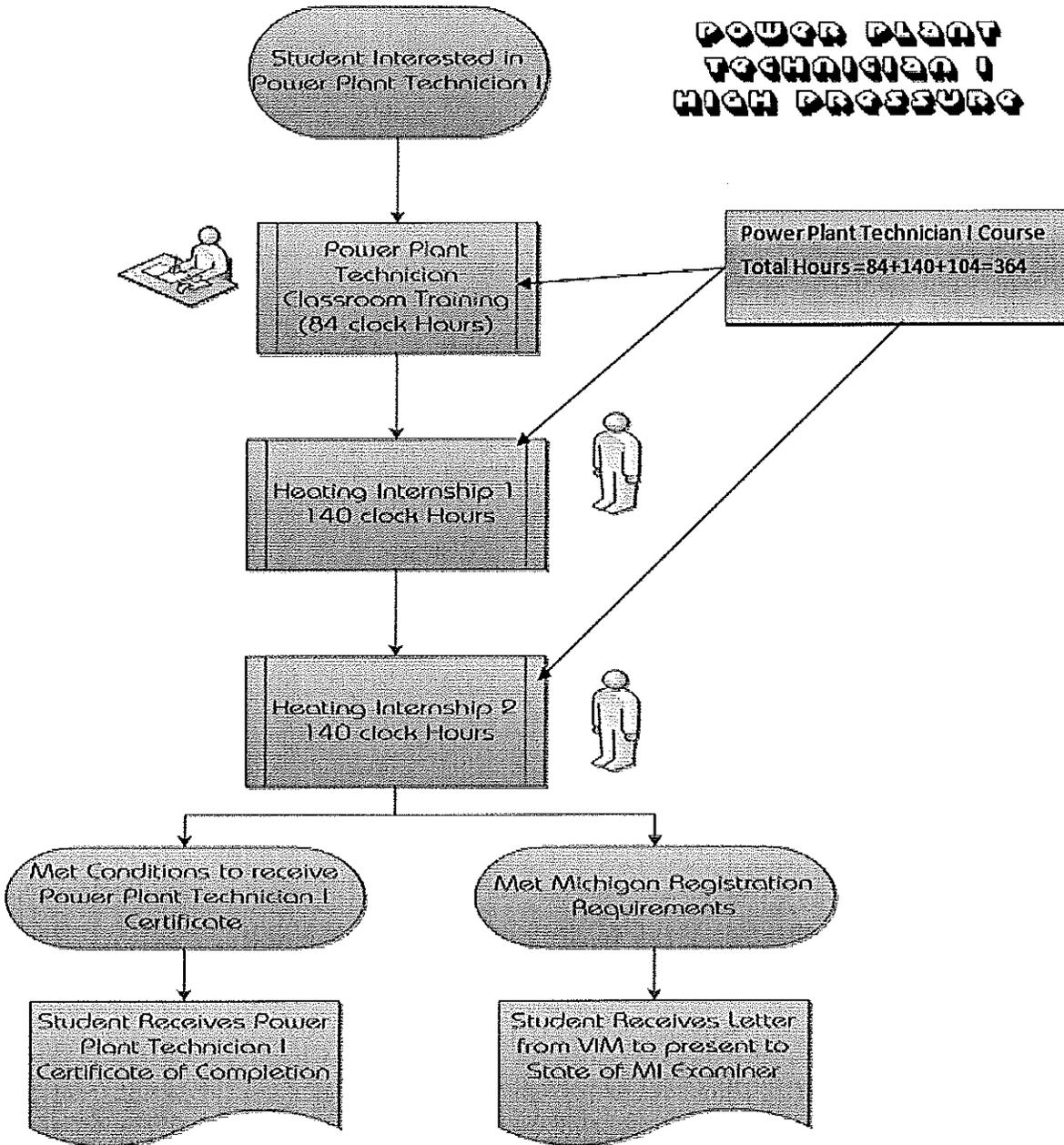
Boilers Operator Licensing Reference Books

1. High Pressure Boilers, Third Edition, 2003, American Technical Publishers (ATP), 1155 West 175th Street, •Homewood, IL 60430-4600, www.go2atp.com. •
2. Boiler Operator's Guide, Fourth Edition, 1998, McGraw-Hill Publishing, Inc., P.O. Box 182604, • Columbus, OH 43272, books.mcgraw-hill.com. •
3. Low Pressure Boilers , Second Edition, 2005, American Technical Publishers (ATP), 1155 West 175th Street, Homewood, IL 60430-4600, www.go2atp.com. •
4. Steam Plant Operation, Eighth Edition, 2005, McGraw-Hill Publishing, Inc., P.O. Box 182604, • Columbus, OH 43272, books.mcgraw-hill.com. •
5. The ASME Code Simplified, Power Boilers, Second Edition, 1997, McGraw-Hill Publishing, Inc., P.O. Box 182604, Columbus, OH 43272, books.mcgraw-hill.com

Appendix A



Appendix B



Appendix C

Additional Heating Internship 1 Hours For Michigan Registration (Low Pressure)

Students will be required to notify VIM at the time of enrollment into the Heating Internship 1 course that they want to take the additional 114 hours required to qualify for the Low Pressure Michigan Registration Examination. In the event that student want to take the additional internship training VIM will monitor the additional 114 hours of internship training as part of the Heating Internship 1 course.



Heating Internship 2

COURSE SYLLABUS

September 14 , 2013

INSTRUCTOR: TBD

OFFICE LOCATION: 17520 W. 12 Mile Ste.114 , Southfield , MI 48076

OFFICE PHONE: (248) 796-8035

E-MAIL ADDRESS: TBD@vim-inc.org

CLASS HOURS: Self-Paced

CLASS LOCATION: Internship Site & On-line

Learning Center URL: <http://vim-inc.org/LearningCenter>

Prerequisite(s): Must have a internship location approved by VIM

Internship Hours: 140 Clock Hours

A. COURSE DESCRIPTION

This course enables students to gain additional hands-on training and on-the-job work experience. Internship training facilities can either be through VIM or a student selected location. Student selected locations must be approved by the Vocational Institute of Michigan. Students will also be provided a more advanced outlook on the industry as it relates to heating and will be providing feedback on what was learned from their experience.

B. METHOD OF INSTRUCTION

Included as part of this course is hands-on training and assignments to meet objectives.

Students will be given on-line assignments via the VIM Learning Center to complete during their internship related to this course. Students will report to the internship company management for daily assignments.

To pass this course successfully students must obtain a good review from their internship employer survey and have completed all on-line assignments.

Student must complete their on-line assignments prior to the end of their internship. Students not completing all of their internships hours after a year's time will not pass the course.

VIM's 24 hours online instructions are available to students seven days a week.

C. COURSE OBJECTIVE

Students will receive education and training that will aid them in preparing for the operating and maintaining a boiler.

D. GRADING PLAN

GRADUATION REQUIREMENTS

The student must have a good review from their internship survey, completed all assignments and all internship hours. No transcripts, certificates or other documentation will be issued unless the student has met all requirements including the satisfying of all financial obligations to the school.

GRADING SYSTEM

Academic progress is reported to the student by mail or hand delivered reports at the end of each program.

If all grading requirements have been met the student will receive "A" for their final course grade. In the event students do not meet all grading requirements they will receive "F" for their final course grade.

PERFORMANCE CODES (Grading Scale)

A-Excellent	= 90% -100%
B-Superior	= 80% - 89%
C-Satisfactory	= 70% - 79%
D-Passing	= 60% - 69%
F-Failure	= Below 60%
I-Incomplete	= See "1" Below
W-Withdrawn	= See "2" Below
O-Audit	= See "3" Below

1. All course requirements were not met at the time of grading. Incomplete grades may be given at the discretion of the Instructor. Incomplete grades must be removed within one year or it will be replaced with an "F" grade.

2. The "W" grade will be received by any student who withdraws before the mid point of the course. A grade of "W" is not used to compute grade point averages.

3. A student may elect to attend a course without receiving a grade that will affect his or her Grade Point Averages. The grade "O" or audit grade will be received. This is a non-credited grade.

E. CLASSROOM COMMUNICATIONS

You can e-mail me whenever you have challenges or questions.

Please specify the following in your e-mail: Your full name and the course # you are enrolled in, so that I can check your record before responding to your need or question.

My goal is to guide each of you in every possible way to succeed in the learning process in this course. I will be objective, professional, and nurturing in my approaches as your teacher.

Although we will not meet as a class, I will be available to interact with each of you and guide you to do your best in the course.



Heating Internship 1

COURSE SYLLABUS

September 14 , 2013

INSTRUCTOR: TBD

OFFICE LOCATION: 17520 W. 12 Mile Ste.114 , Southfield , MI 48076

OFFICE PHONE: (248) 796-8035

E-MAIL ADDRESS: TBD@vim-inc.org

CLASS HOURS: Self-Paced

CLASS LOCATION: Internship Site & On-line

Learning Center URL: <http://vim-inc.org/LearningCenter>

Prerequisite(s): Must have a internship location approved by VIM

Internship Hours: 140 Clock Hours

A. COURSE DESCRIPTION

This course enables students to gain hands-on training and on-the-job work experience. Internship training facilities can either be through VIM or a student selected location. Student selected locations must be approved by the Vocational Institute of Michigan. Students will also be provided an outlook on the industry as it relates to heating and will provide feedback on what was learned from their experience.

B. METHOD OF INSTRUCTION

Included as part of this course is hands-on training and assignments to meet objectives.

Students will be given on-line assignments via the VIM Learning Center to complete during their internship related to this course. Students will report to the internship company management for daily assignments.

To pass this course successfully students must obtain a good review from their internship employer survey and have completed all on-line assignments.

Student must complete their on-line assignments prior to the end of their internship. Students not completing all of their internships hours after a year's time will not pass the course.

VIM's 24 hours online instructions are available to students seven days a week.

C. COURSE OBJECTIVE

Students will receive education and training that will aid them in preparing for the operating and maintaining a boiler.

D. GRADING PLAN

GRADUATION REQUIREMENTS

The student must have a good review from their internship survey, completed all assignments and all internship hours. No transcripts, certificates or other documentation will be issued unless the student has met all requirements including the satisfying of all financial obligations to the school.

GRADING SYSTEM

Academic progress is reported to the student by mail or hand delivered reports at the end of each program.

If all grading requirements have been met the student will receive "A" for their final course grade. In the event students do not meet all grading requirements they will receive "F" for their final course grade.

PERFORMANCE CODES (Grading Scale)

A-Excellent	= 90% -100%
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C-Satisfactory	= 70% - 79%
D-Passing	= 60% - 69%
F-Failure	= Below 60%
I-Incomplete	= See "1" Below
W-Withdrawn	= See "2" Below
O-Audit	= See "3" Below

1. All course requirements were not met at the time of grading. Incomplete grades may be given at the discretion of the Instructor. Incomplete grades must be removed within one year or it will be replaced with an "F" grade.
2. The "W" grade will be received by any student who withdraws before the mid point of the course. A grade of "W" is not used to compute grade point averages.
3. A student may elect to attend a course without receiving a grade that will affect his or her Grade Point Averages. The grade "O" or audit grade will be received. This is a non-credited grade.

E. CLASSROOM COMMUNICATIONS

You can e-mail me whenever you have challenges or questions.

Please specify the following in your e-mail: Your full name and the course # you are enrolled in, so that I can check your record before responding to your need or question.

My goal is to guide each of you in every possible way to succeed in the learning process in this course. I will be objective, professional, and nurturing in my approaches as your teacher.

Although we will not meet as a class, I will be available to interact with each of you and guide you to do your best in the course.



Intern Boiler Operations & Auxiliary Evaluation Form

Intern Name: _____

Site of hands-on training: _____

Site Representative (Evaluator): _____

Evaluation form key: 1=unsatisfactory 2=needs improvement 3=satisfactory

4=above average 5=outstanding

Please rate the interns performance from 1 to 5 for each item below:

_____ Quality of work (accurate and thorough) (Points=50)

_____ Punctuality (Points=5)

_____ Use of time (efficient/effective use of time to complete tasks) (Points=10)

_____ Initiative (ability to work independently) (Points=5)

_____ Job judgment (ability to make appropriate work related decisions) (Points=10)

_____ Interpersonal relations/teamwork (effectiveness in working with peers and supervisors) (Points=5)

_____ Dependability (Points=5)

_____ Attendance (Points=10)

(Student must receive a minimum of 70 points to pass)

Areas for improvement:

Evaluator: _____ Title: _____ Date: _____



Vocational Institute of Michigan

This certifies that

Sample Person

has successfully completed the Heating Plant Technician program approved by the Board of Vocational Institute of Michigan, and is therefore awarded this

Certificate

Given this 19 day of August, 2011

President

Vice President

Seal



Vocational Institute of Michigan

This certifies that

Sample Person

has successfully completed the Power Plant Technician I program approved by the Board of Vocational Institute of Michigan, and is therefore awarded this

Certificate

Given this 19 day of August, 2011

President

Vice President

Seal



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
BUREAU OF CONSTRUCTION CODES
IRVIN J. POKE
DIRECTOR

STEVE ARWOOD
DIRECTOR

(Document BLR2013-12)

May 21, 2013

To: Members, Board of Boiler Rules
From: William Vallance
Subject: Qualified Technical Education Program (QTEP)

Attached is an application for a qualified education program (QTEP) for Vocational Institute of Michigan, (VIM). VIM is seeking approval for a educational program for low and high pressure operators.

I have developed a check list (the next two pages) from the law and rules (references provided) to help in your evaluation of the program. There is also information pulled from VIM's website.

Providing for Michigan's Safety in the Built Environment

LARA is an equal opportunity employer
Auxillary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.
P.O. BOX 30254 • LANSING, MICHIGAN 48909
www.michigan.gov/bcc • Telephone (517) 241-9302 • Fax (517) 241-9570

QTEP Review Check list:

From: Boiler Act-290 of 1965:

408.752 Definitions.

Sec. 2.

(q) "Qualified technical education program" means an educational program approved by the board that has a minimum of 350 contact hours in classroom hands-on training, field training, or supervised plant visits for high pressure boiler operators. The board may establish lesser standards for an educational program for low pressure operator training or other entry level training positions only.

Contact hours in program _____

408.763c Qualified technical education programs; course content; rules.

Sec. 13c. (1) Not later than 180 days after June 11, 2008, the department of energy, labor, and economic

growth shall promulgate rules designating the course content for qualified technical education programs for

the various categories and classes of registration of boiler operators and stationary engineers.

(2) The rules described in subsection

(1) shall provide that the course content of qualified technical education programs for entry level registrants include at least all of the following subject matter areas:

(a) Basic functions, construction, and operation of all types of boilers. _____

(b) The function of boiler appliances, accessories, and associated auxiliaries. _____

(c) Materials used in boilers and the effect of temperature extremes on those materials. _____

(d) The fuels used in boilers and fundamentals of combustion. _____

(e) Basic electricity. _____

(f) Plant operation and boiler maintenance. _____

(g) Instrumentation and controls. _____

(h) Fundamental mathematics and principles of the metric system. _____

(i) General safety procedures. _____

(j) Recognition of dangerous operation conditions. _____

(3) The department of energy, labor, and economic growth shall provide that the course content for categories and classes other than entry level registrants includes subject matter similar to those described in subsection (2) in the degree of depth and difficulty appropriate for the category and class.

From Rule, R408.5609:

(6) An application and supporting documentation for QTEP or QTP shall contain all of the following general information:

- (a) The name and address of the applicant and all training site addresses. _____
- (b) Name and contact information of the individual responsible for the program. _____
- (c) Policies or procedures for the selection of instructional staff. _____
- (d) A statement of purpose and objectives of the program. _____
- (e) Administrative and technical criteria for the development and delivery of the program. _____
- (f) A description of the facilities, equipment, and instructional materials consistent with the purpose, design, and intended outcome of each learning experience in the program. _____
- (g) A syllabus or course description, including contact hours and topics for each course. _____
- (h) A statement of the criteria used to determine successful completion by participants in each of the training programs offered by the applicant. _____
- (i) A list of instructional materials and other resources essential for the successful presentation of the program. _____

(7) Approval of a program by the board shall be evidenced by a program approval report prepared by the boiler division and issued to the applicant.

The report shall include all of the following:

- (a) Name and address of the applicant.
- (b) Program identification number.
- (c) The date of approval.
- (d) The conditions of approval.

(8) A program or amendment which has been approved by the board shall not be altered. If an organization wishes to amend any part of a board-approved program, the organization shall submit a draft document clearly identifying the changes for board review. The organization shall not implement changes to the program without approval by the board. All changes shall be made a part of the written record of approval. The authorization shall be in writing or be confirmed in writing within 10 days of oral authorization.

(9) The board or its designee shall have access to any location during the presentation of an approved program for the purpose of evaluation to determine compliance with an approved program.

History: 2010 AACCS.

Application for Board Approval of a
 Qualified Technical Education Program or Qualified Training Program
 Michigan Department of Licensing and Regulatory Affairs
 Bureau of Construction Codes / Boiler Division
 P.O. Box 30255, Lansing, MI 48909
 517-241-9334
 www.michigan.gov/bcc

Fee: \$100.00 (nonrefundable)

Authority: 1965 PA 290 Completion: Voluntary Penalty: Registration will not be issued	LARA is an equal opportunity employer/program. Auxiliary aids, services and other reasonable accommodations are available upon request to individuals with disabilities.
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Tran Info: 158 18613427-1 04/19/11
 Chk#: 1018 Amt: \$100.00
 ID: VOCATIONAL INSTITUTE OF MICHIGAN

Instructions:

- Complete and sign application. Type or print in ink.
- Application must be received not less than 45 days prior to the requested Boiler Board meeting date.
- Enclose a check or money order for \$100.00 made payable to the State of Michigan.
- Mail completed ORIGINAL application, required documents, and payment to the address listed above.
- Please provide any additional documentation for the program applying for that may not have been covered on this form.

1. Type of Program Applying For (check only one)

INDICATE THE PROGRAM YOU ARE APPLYING FOR

Qualified Technical Education Program (QTEP)
 Qualified Training Program (QTP)

2. Category

INDICATE THE TRAINING CATEGORY YOU ARE APPLYING FOR

Low Pressure Boiler Operator
 High Pressure Boiler Operator
 1st Class Stationary Engineer
 3rd Class Stationary Engineer
 2nd Class Stationary Engineer

3. Applicant Information

ORGANIZATION Vocational Institute of Michigan	CONTACT PERSON Steve Johnson	TITLE Vice President
STREET ADDRESS 17520 W. 12 Mile Rd. Ste. 114	TELEPHONE NUMBER (Include Area Code) (248) 796-8035	ALT. TELEPHONE NUMBER (Include Area Code) (248) 520-5292
CITY Southfield	STATE MI	ZIP CODE 48076
		COUNTY Oakland

4. Training Site Address(es) - Please indicate all address that will be used for training. Attach additional sheets if necessary.

STREET ADDRESS 17520 W. 12 Mile Rd.	CITY Southfield	STATE MI	ZIP 48076	COUNTY Oakland
STREET ADDRESS	CITY	STATE	ZIP	COUNTY
STREET ADDRESS	CITY	STATE	ZIP	COUNTY

5. Attach a copy of the course syllabus or course description, including contact hours and topics for each course. (Required)

6. Administrative and technical criteria for the development and delivery of the program.

Vocational Institute of Michigan (VIM) is licensed under the State of Michigan Labor Department. Its administration and qualified technical education program is overseen by highly skilled professionals who hold degrees in engineering, social sciences, and law. Its technical criteria are implemented and upheld by administrators and instructors that have held the highest licenses in stationary engineering in the cities of Detroit and Dearborn Michigan for more than 20 years, and whose vice president hold the highest stationary engineering registration at the State of Michigan and a State of Michigan Mechanical contractor license. He is a retired National Board of Boiler and Pressure Vessel Inspector, State of Michigan Mechanical Inspector, City of Detroit License examiner for boiler operators, (low and high) stationary steam engineer and refrigeration operators ((all classes), and Refrigeration journeyman (limited and unlimited).

APR 25 2013

Boiler Division

7. Provide a description of the facilities, equipment and instructional materials consistent with the purpose, design and intended outcome of each learning experience in the program.

VIM's Southfield Michigan location, equipment, and instructional materials approved by the State of Michigan Education Department is consistent for the purpose of fulfilling educational needs as shown in its school catalogue, included are programs for low and high pressure boiler operation. Since 1990 the city of Detroit's Building and Safety Engineering Department has allowed graduates of VIM's Heating Plant Technician I (low pressure boilers)" and "Power Plant Technician I (high pressure boilers)" a waiver of its two years of experience required to sit for a City of Detroit license. Applicants for license are required to present a VIM Letter of Recommendation.

8. Provide a list of instructional material and other resources essential for the successful presentation of the program.

Text:

Low Pressure Boiler Registration: "Low Pressure Boilers", author Frederick M. Steingress

High Pressure Boiler Registration: "High Pressure Boilers", author Frederick M. Steingress

Others materials sources: ASME Standards, State of Michigan Boiler Act 1965 PA 290, MCL 408.751 et seq.

9. Provide the policies and procedures for the selection of instructional staff.

Instructional staff is interviewed to ensure they have the experience and knowledge required to provide a quality education to students enrolled at VIM in all approved education programs, included are entry level and advanced boiler operations and stationary steam engineer courses. VIM submits to the Michigan Proprietary Schools Department a personnel qualification form on all new instructors to ensure we have qualified individuals heading our programs.

10. Provide a statement of the purpose and objectives of the program.

All VIM programs, including its Heating Plant I (low pressure boilers) and Power Plant Technician I (high pressure boilers) are structured to aid students in preparing them for safe operations and maintenance of boilers, steam prime movers, auxiliaries and related equipment. The end result of training is meant to enable students to receive a certificate for successfully completing a boiler or stationary steam engineering program to apply for registration, certification, and/or a license.

11. Identify the criteria or performance measurement to determine participants who successfully complete the program.

Student enrolled in VIM qualified technical education programs must successfully pass with a 60% or higher grade. Students enrolled in the Heating Plant Technician I and the Power Plant Technician I programs must have hands-on training experience.

Heating Plant Technician I: 228 hours – Low Pressure Boiler Operator

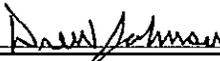
Power Plant Technician I: 364 hours – High Pressure Boiler Operator

12. Signature

I, Drew Johnson hereby certify that the matters set forth by me in this application are true and correct and that I
(Printed Name)

satisfy the requirements of 1965 PA 290, the Boiler Act, Section 13c.

Signature



Date

04/18/13

13. Official Use Only

<input type="checkbox"/> Information verified		<input type="checkbox"/> Additional information requested		<input type="checkbox"/> Approved		<input type="checkbox"/> Denied	
OFFICIAL SIGNATURE			PROGRAM IDENTIFICATION NUMBER		DATE		
LOCATION OF EVALUATION			DATE		NAME OF INDIVIDUAL PERFORMING EVALUATION		
NOTES							

MICHIGAN DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS

LICENSE

This certifies that
Certificate No. 20100005

Vocational Institute of Michigan
17520 W. 12 Mile Road, Suite 112, Southfield, MI 48076

under the ownership of:
Vocational Institute of Michigan, Inc.

has complied with the Proprietary Schools Act,
Act 148 of 1943, as amended,
to offer the following programs of instruction:

<i>Facility Engineer Technician</i>	1356.00	Clock Hours
<i>Information Technology Programs</i>	257.00	Clock Hours

This school is licensed to only offer the above referenced programs of instruction.
This license must be posted in a public area.

Original Issue Date
January 20, 2010

Expiration Date
June 30, 2013

Issue Date
July 1, 2012



Steven H. Hilfinger, Director



*Buildings and Safety Engineering Department
Fourth Floor City-County Building
Detroit, Michigan 48226*

*Coleman A. Young, Mayor
City of Detroit*

June 19, 1990

Vocational Institute of Michigan
17421 Telegraph Rd., Suite 201 North
Detroit, MI 48219

Attention: Mr. Stephen Johnson, Director

Subject: Approval of Heating Plant Technician Program

Dear Sir:

We have reviewed the additional information you provided on your Heating Plant Technician program which now indicates that all graduates will have received 228 hours of classroom instruction and 10 plant visits. We find that your program now meets the Department's requirements for acceptance in lieu of the experience required by Ordinance 706-G to take the Detroit Low Pressure Boiler Operator Exam.

Each applicant for the Low Pressure Boiler Operator Exam shall present with his/her application, a certificate of completion from V.I.M. and a photocopy to be retained by the Department, and a notarized letter from V.I.M. listing the plant visits.

This approval is not to be used for advertising purposes.

Very truly yours,

Thomas Riddering, Head Engineer
Mechanical/Electrical Inspection Division

TR:gb



*Buildings and Safety Engineering Department
Fourth Floor City-County Building
Detroit, Michigan 48226*

*Coleman A. Young, Mayor
City of Detroit*

June 19, 1990

Vocational Institute of Michigan
17421 Telegraph Rd., Suite 201 North
Detroit, MI 48219

Attention: Mr. Stephen Johnson, Director

Subject: Approval of Power Plant Technician I Program

Dear Sir:

We have reviewed the additional material you provided on your Power Plant Technician I program which now indicates that all graduates shall have received 364 hours of classroom instruction and 6 field visits. We find that your program now meets the Department's requirements for acceptance in lieu of the experience required by Ordinance 706-G to take the Detroit High Pressure Boiler Operator Exam.

Each applicant for the High Pressure Boiler Operator Exam shall present with his/her application, a certificate of completion from V.I.M. and a photocopy to be retained by the Department, and a notarized letter from V.I.M. listing the plant visits.

This approval is not to be used for advertising purposes.

Very truly yours,

Thomas Riddering, Head Engineer
Mechanical/Electrical Inspection Division

TR:gb



Heating Plant Technician

COURSE SYLLABUS

January 14, 2013

INSTRUCTOR: Steve Johnson

OFFICE LOCATION: 17520 W. 12 Mile Ste.114 , Southfield , MI 48076

OFFICE PHONE: (248) 796-8035

E-MAIL ADDRESS: sj1@vim-inc.org

COURSE WEB PAGE: <http://www.vim-inc.org>

CLASS HOURS: 09:00 A.M.- 1:00 P.M , Mon & Wed

Clock Hours: 228

A. COURSE DESCRIPTION

The Heating Plant Technician program is designed to train students to operate heating plants of boiler gauge pressure (steam or other vapors in which the maximum allowable working pressure is limited to fifteen (15-*psig*. or where vapor is not generated a boiler in which the liquid temperature does not exceed two hundred and fifty (250 degrees F and the liquid pressure does not exceed one hundred and sixty (160-*psig* or a low pressure boiler plant having an aggregate of not more than 5,000 square feet of boiler heating surface.

B. METHOD OF INSTRUCTION

This course will be taught through in class lectures in which students will also participate in group discussions. Students will be responsible for presenting a final project during the last week of the course. It is recommended that students study two hours per day to effectively grasp the course material.

C. COURSE OBJECTIVE

Students will receive education and training that will aid them in preparing for the operating and maintaining a low pressure boilers.

D. COURSE TOPICS/UNITS AND DATES

1. Low Pressure Heating Boiler
2. Low pressure Boiler Fittings
3. Feedwater Accessories
4. Steam Accessories
5. Combustion Accessories
6. Draft Control
7. Boiler Water Treatment
8. Boiler Operation
9. Hot Water Heating Systems
10. Boiler Room Safety

E. TEXTBOOK(S) AND REQUIRED TOOLS OR SUPPLIES

Learning materials will be supplied to students

F. GRADING PLAN

GRADUATION REQUIREMENTS

The student must maintain a 2.0 cumulative G.P.A. and complete all curriculums. Upon completion of the program, a certificate of achievement will be awarded. No transcripts, certificates or other documentation will be issued unless the student has met all requirements including the satisfying of all financial obligations to the school.

GRADING SYSTEM

Academic progress is reported to the student by mail or hand delivered reports at the end of each program. Any student maintaining a below 2.0 GPA average will be individually counseled.

PERFORMANCE CODES (grading scale)

A-Excellent	= 90% -100%	(4 Grade Points)
B-Superior	= 80% - 89%	(3 Grade Points)
C-Satisfactory	= 70% - 79%	(2 Grade Points)
D-Passing	= 60% - 69%	(1 Grade Point)
F-Failure	= Below 60%	(0 Grade Points)
I-Incomplete	= See "1" Below	
W-Withdrawn	= See "2" Below	
O-Audit	= See "3" Below	

1. All course requirements were not met at the time of grading. Incomplete grades may be given at the discretion of the Instructor. Incomplete grades must be removed within one year or it will be replaced with an "F" grade.

2. The "W" grade will be received by any student who withdraws before the mid point of the course. A grade of "W" is not used to compute grade point averages.

3. A student may elect to attend a course without receiving a grade that will affect his or her Grade Point Averages. The grade "O" or audit grade will be received. This is a non-credited grade.

Attendance and RE-ADMITTANCE

Attendance is crucial to successful completion of the programs; therefore no more than three absences will be accepted. Students may be re-admitted at the approval of the Director

G. COURSE COMPONENT SPECIFICS

Students will be responsible for presenting a final project during the last week of the course. It is recommended that students study 2 hours per day to effectively grasp the course material.

H. CLASSROOM RULES OF CONDUCT

Any student may be immediately dismissed for any of the following acts:

1. Unauthorized weapons
2. Disruptive conduct
3. Stealing
4. Vandalism
5. Falsification of documents (application registration etc.)
6. Being under the influence of alcohol beverages or any non-prescribed controlled substances.



Power Plant Technician I

COURSE SYLLABUS

January 15, 2013

INSTRUCTOR: Steve Johnson

Office Location:	17520 W. 12 Mile Ste. 114, Southfield, MI 48076
Office Phone:	(248) 796-8035
E-Mail Address:	sj1@vim-inc.org
Course Web Page:	http://www.vim-inc.org
Class Hours:	9:00 A.M. - 1:00 P.M, Tues & Thur
Clock Hours:	364

A. COURSE DESCRIPTION

The Power Plant Technician I program is designed to teach students to operate power plants of boiler gauge pressure (steam or other vapors in which the maximum allowable working pressure for steam or other vapors exceeds fifteen (15-psig or where vapor is not generated in a boiler in which the liquid temperature exceeds two hundred and fifty (250 degrees F or the liquid pressure exceeds one hundred and sixty (160-psig or, the aggregated boiler heating surface of the plant does not exceed 4,000 square feet and the plant does not have an aggregate of more than 10 steam engine turbine horsepower in addition to the necessary auxiliaries required for boiler operation.

B. METHOD OF INSTRUCTION

This course will be taught through in class lectures in which students will also participate in group discussions. Students will be responsible for presenting a final project during the last week of the course. It is recommended that students study two hours per day to effectively grasp the course material. In addition to in-class learning Internship is expected.

C. COURSE OBJECTIVE

Students will receive education and training that will aid them in preparing for the operating and maintaining a high pressure boilers.

D. COURSE TOPICS/UNITS AND DATES

1. High Pressure Boilers
2. High Pressure Boiler Fittings and Accessories
3. High Pressure Basic Boiler Room Systems
4. Steam and Water Accessories
5. Fuel Burning Equipment
6. Draft
7. Combustion
8. Combustion Controls
9. Instruments
10. Boiler Water Treatment
11. High Pressure Boiler Operation
12. Routine Boiler Plant Maintenance

E. TEXTBOOK(S) AND REQUIRED TOOLS OR SUPPLIES

Learning materials will be supplied to students

F. GRADING PLAN

GRADUATION REQUIREMENTS

The student must maintain a 2.0 cumulative G.P.A. and complete all curriculums. Upon completion of the program, a certificate of achievement will be awarded. No transcripts, certificates or other documentation will be issued unless the student has met all requirements including the satisfying of all financial obligations to the school.

GRADING SYSTEM

Academic progress is reported to the student by mail or hand delivered reports at the end of each program. Any student maintaining a below 2.0 GPA average will be individually counseled.

PERFORMANCE CODES (grading scale)

A-Excellent	=	90%	-	100%	(4 Grade Points)
B-Superior	=	80%	-	89%	(3 Grade Points)
C-Satisfactory	=	70%	-	79%	(2 Grade Points)
D-Passing	=	60%	-	69%	(1 Grade Point)
F-Failure	=	Below		60%	(0 Grade Points)
I-Incomplete	=	See		"1"	Below
W-Withdrawn	=	See		"2"	Below
O-Audit	=	See		"3"	Below

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3. A student may elect to attend a course without receiving a grade that will affect his or her Grade Point Averages. The grade "O" or audit grade will be received. This is a non-credited grade.

Attendance and RE-ADMITTANCE

Attendance is crucial to successful completion of the programs; therefore no more than three absences will be accepted. Students may be re-admitted at the approval of the Director

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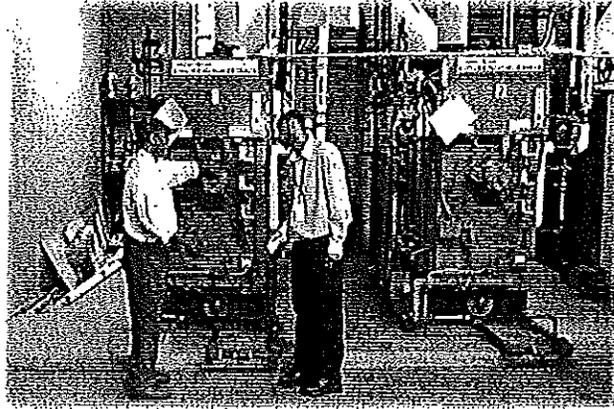
1. Unauthorized weapons
2. Disruptive conduct
3. Stealing
4. Vandalism
5. Falsification of documents (application registration etc.)
6. Being under the influence of alcohol beverages or any non-prescribed controlled substances.

From Vocational Institute of Michigan;
<http://vim-inc.org/facilityeng/heating/>

Heating Plant Technician I

Students receive education and training leading to a skilled trade certificate that aid in operating and maintaining facilities with low pressure heating systems.

They are also prepared to earn an online trade certification or to sit for the low pressure boiler operator examination at the city of Detroit. Prerequisites for this course required ninth grade reading and math.



What To Expect

The Heating Plant Technician I worker is a facility engineering entry level position. Workers at this level perform general facility maintenance and may be required to operate and maintain low pressure heating boilers, refrigeration equipment, and furnaces. They may also work on plumbing, electrical, and air-conditioning and heating systems.

Work Environment

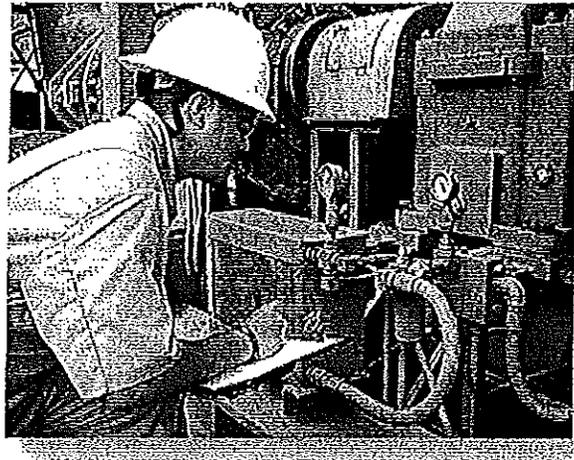
General maintenance technicians often carry out many different tasks in a single day and work at any number of locations, both indoor and outdoor. They work inside a single building, such as a public and private schools, municipal facilities, hotels or hospitals, or are responsible for the maintenance of many buildings, such as those in an apartment complex or college campus.

From Vocational Institute of Michigan;
<http://vim-inc.org/facilityeng/powerplanttechi/>

Power Plant Technician I

Students taking this course will receive education and training leading to a skilled trade certificate and knowledge that aid them in operating and maintaining facilities with high pressure heating systems.

They will also be prepared to sit for the low pressure boiler operator examination at the city of Detroit or to earn an online trade certification. Prerequisites for this course required ninth grade reading and math.



What To Expect

The Power Plant Technician I worker, (facility maintenance technician) is an entry level position. Workers at this level perform general facility maintenance and may be required to operate and maintain low and high pressure heating boilers, refrigeration equipment, and furnaces. They also perform heating and power plant technician duties and general maintenance. These workers maintain and repair machines, mechanical equipment, and buildings. They work on plumbing, electrical, and air-conditioning and heating systems.

Work Environment

General maintenance technicians often carry out many different tasks in a single day. They work at any number of locations, both indoor and outdoor. They work inside a single building, such as a public and private schools, municipal facilities, hotels or hospitals, or are responsible for the maintenance of many buildings, such as those in an apartment complex or college campus.

Pay

The median annual wage of these technicians is \$44,950.

Job Outlook

Employment of these facility maintenance technicians is expected to grow 11 percent from by 2020, about as fast as the average for all occupations.

Low Pressure Boilers

- by
- Frederick M. Steingress,
- Daryl R. Walker

Overview

This edition describes components and operation of boiler systems used in hotels, apartment buildings, schools, and other large institutions.

Low Pressure Boilers, the industry leader among boiler operation textbooks, includes new coverage of personal protective equipment, burner control systems, steam principles, and emission analysis and control. An updated "Cooling Systems" chapter covers refrigeration principles and equipment, chilled water systems, and refrigerant recovery procedures. Boiler systems and related equipment are depicted in full-color illustrations complemented by concise text. This textbook is recommended by many licensing agencies for use as a study aid in preparing for licensing examinations. *Low Pressure Boilers* is a must for operators of boiler systems used in hotels, apartment buildings, schools, and other large institutions.

Each text contains a CD-ROM, which includes the following activities:

- Quick Quizzes®
- Illustrated Glossary
- Media Clips
- Flash Cards
- Sample Licensing Exams
- Master Math® Applications
- Link to ATPeResources.com

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Take for Barnes and Noble web site:
<http://www.barnesandnoble.com/w/high-pressure-boilers-with-cd-frederick-m-steinpress/1100490844?ean=9780826943095>

High Pressure Boilers -

- by
- Frederick M. Steingress

Overview

High Pressure Boilers, Fourth Edition, is a comprehensive resource that can be used for licensing examination preparation, for upgrading skills, or as an invaluable reference. Nearly 1000 review questions are presented to assist in exam preparation. New and updated content in this edition includes the following:

- EPA requirements
- Combination control technology
- Energy efficiency
- Building automation and LEED standards

The comprehensive Interactive CD-ROM included in the book features the following:

- Quick Quizzes that reinforce fundamental concepts, with 10 interactive questions for each chapter
- An Illustrated Glossary of industry terms, with links to selected illustrations and media clips
- Flash Cards that offer an interactive review of common boiler terms
- Sample Licensing Exams that help prepare for a computer-based boiler operation licensing examination
- Media Clips that depict boiler principles and procedures through video clips and animated graphics
- ATPeResources.com, which provides links to on-line resources related to boiler operation and training

Table of Contents--None on the web site

Vallance, Bill (LARA)

From: Vallance, Bill (LARA)
Sent: Friday, May 10, 2013 1:03 PM
To: 'corporate@vim-inc.org'
Subject: QTEP Information for application

Mr. Johnson,

On your application for the QTEP it is stated you have provided personnel qualification information to the Bureau of Licensing with the State of Michigan. Could you please provide me with a copy of these for the Boiler Board review.

It is mentioned in the application, ASME standards, will be used as instructional material. What ASME standards will be used for our reference?

Thank You

William Vallance
Chief, Boiler Division
Department of Licensing and Regulatory Affairs
PH: 517 241 9334
Fax: 517 241 6301

05/10/2013

Vallance, Bill (LARA)

From: corporate@vlm-inc.org
Sent: Monday, May 13, 2013 3:25 PM
To: Vallance, Bill (LARA)
Subject: Re: QTEP Information for application

Mr. Valliance,

The requested information is provided below:

Personnel qualifications on file in the state of Michigan Department of Licensing and Regulatory Affairs are those of Mr. Stephen Johnson and Mr. Drew A. Johnson. Stephen, Vocational Institute of Michigan COO and Dean stationary steam engineer license person of record, Retired city of Detroit Mechanical Inspector and license examiner holds:

- A current city of Detroit First Class Stationary Steam Engineer License with unlimited refrigeration (License No: LIC2001-08850) Issue Date: 12/19/202 - Expires: 12/11/2013;
- A current city of Dearborn Chief Powerhouse Stationary Engineer (License No. 13-00109160), Issue Date: 4/04/21013 - Expires: 4/30/2014
- A current state of Michigan registered First Class Stationary Steam Engineer (Reg. No. 330011); Issue Expires: 03/16/2014
- A current state of Michigan Mechanical Contractor License Classifications 1, 2, 3, 4, 6, 8, 9 (License No. 7103974) Expires: 08/31/2013
- A former NB commission NO. 8063

Drew A. Johnson, CEO holds an Electrical Engineering Degree and Computer Science Degree from University of Detroit Mercy and has years of facility operations and maintenance experience. He has been a part of VIM since 1990. VIM in its boiler training program may elect to use when and where appropriate Section VI: Recommended Rules for the Care and Operation of Heating Boilers and Section VII: Recommended Guidelines for the Care of Power Boilers of the ASME Boiler and Pressure Vessel Code.

Sincerely,

Steve Johnson
Vocational Institute of Michigan
(248) 796-8035

> Mr. Johnson,
>
> On your application for the QTEP it is stated you have provided
> personnel qualification information to the Bureau of Licensing with
> the State of Michigan. Could you please provide me with a copy of
> these for the Boiler Board review.
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> It is mentioned in the application, ASME standards, will be used as
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>
> Thank You
>
> William Vallance
> Chief, Boiler Division