

DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: Scheduled Inspection

B233739623

FACILITY: VCF Films, Inc.		SRN / ID: B2337
LOCATION: 1100 Sutton Avenue, HOWELL		DISTRICT: Lansing
CITY: HOWELL		COUNTY: LIVINGSTON
CONTACT: Sabine Lucks, General Manager		ACTIVITY DATE: 05/03/2017
STAFF: Daniel McGeen	COMPLIANCE STATUS: Compliance	SOURCE CLASS: MAJOR
SUBJECT: Scheduled inspection, and discussion of voiding ROP, done as Partial Compliance Evaluation (PCE) activity, part of a Full Compliance Evaluation (FCE).		
RESOLVED COMPLAINTS:		

On 5/3/2017, the Michigan Department of Environmental Quality (DEQ), Air Quality Division (AQD) conducted a scheduled inspection of VCF Films, Inc., and discussed with facility representatives a proposal to void the ROP.

Environmental contacts:

Sabine M. Lucks, General Manager; 517-546-7402; slucks@zenithglobal.net; and slucks@vcffilms.com

Facility description:

VCF Films, Inc. (VCF Films) was in the industry of producing a variety of polyvinyl chloride (PVC) films for research and development and for production. It has not produced any products since 2013.

Emission units:

Emission Unit ID	Description	Operating Status/Condition
EUBANDCASTER	3 bandcasters used to produced 600 lb/hr of film product; plastic resin and tetrahydrofuran (THF) blended to create film sheets, product dried in Tenter Frame oven, controlled by carbon adsorption system	Was operated last in August 2012. The THF reclamation/distillation unit tank farm has since been decommissioned: All of the reclamation/distillation units have been emptied. Numerous pipes have been disconnected. The Tenter Frame oven has been permanently electrically dismantled, and half the parts of the oven have been scrapped or sold. The dyes for the bandcaster units are also sold.
EURESINHANDLING	Pneumatic plastic resin handling	Still present onsite. There are no raw materials to be run through the silo.
EU-PCoatLine	Slot die pilot coating line, controlled by Regenerative Thermal Oxidizer (RTO)	RTO removed from site in January 2017. The ROP requires that this line not be operated unless the RTO is installed, maintained, and operated properly. Last operated in August 2013. VCF considers it inoperable. Some of the small blending vessels that support this unit, as well as the hood used to control emissions from the small blending vessels are still present.
EU-BLEND	Blending from EURESINHANDLING using EUBANDCASTER blender vessels	The blending vessels are still present; have not been used since August 2012
3 Boilers	(not included in ROP; exempt from boiler MACT) gas-fired boilers used to heat building and a must-have for EUBANDCASTER operation	All 3 decommissioned. The gas lines are permanently disconnected from the boilers, and fuses have been removed. EUBANDCASTER relied on heat from these boilers to operate. Without the boilers, EUBANDCASTER is rendered permanently inoperable.

Regulatory overview:

The facility is ROP-subject, with ROP No. MI-ROP-B2337-2014, which expires in 2019.

VCF requested termination of consent order AQD No. 12-2003 on 12/11/2013. AQD approved this request on 5/2/2014. VCF currently has another consent order, which is still active, SIP No. 3-1993, which was incorporated into the EUBANDCASTER conditions within the ROP itself.

Fee status:

At the time of the 5/3/2017 inspection, the facility was still considered to be a category I fee-subject facility, because it is classified as a major source and has a ROP.

Location:

The facility is located in a small industrial area, within the City of Howell. There are industries to the immediate north and east, followed by residential areas. To the immediate west is a wooded area, followed by residences. The closest residences are a few hundred feet to the north, to the east, and to the west of VCF Films. To the south are railroad tracks, a recycling facility, and then commercial businesses. VCF Films is about 1/4 mile south of Thompson Lake.

Most recent stack testing:

Destruction efficiency testing of the Regenerative Thermal Oxidizer (RTO) was conducted on 4/9/2013. This control device was associated with the Pilot Coating Line (EUPcoatLine). The RTO averaged a destructive efficiency of 98.9%, complying with the regulatory limit.

Recent history:

The company received a renewed ROP in 2014, which expires in 2019. However, from information in AQD's files, and today's discussions with the company, VCF Films has not produced any product, whether production, or pilot testing/research and development (R&D), since 2013.

In April 2017, Ms. Sabine Lucks, General Manager contacted AQD to inquire about canceling a fee invoice for a category I facility fee invoice which they received in January 2017, because the plant has not operated in recent years. However, a fee challenge must be received within 45 days of the assessed fee, so the cut off date would have been 2/27/2017. We discussed the process of removing the facility from the fee program, if certain criteria are met, and agreed to meet at the site on 5/3/2017, so I could be shown that the site is no longer capable of operating.

Arrival:

This inspection was pre-arranged to make certain the necessary staff were present.

I arrived at 9:08 AM. There were no odors and no visible emissions detectable from VCF. Weather conditions were sunny, clear, and 50 degrees F, with winds 5 miles per hour out of the northwest. I met with Ms. Sabine Lucks, General Manager. I provided my identification/credentials, per AQD procedure. She described to me the history of the plant and how it once operated, as this was my first inspection of this facility.

I was advised that a sister company, Zenith Global LLC, rents space in the main VCF building, and manufactures plastic bottles via extrusion. I was told this is done with virgin PET resin, with no additives or colors. The extrusion done here is vertical extrusion, for safety reasons, I was informed.

Discussion of voiding ROP:

The company has expressed interest in elimination of yearly fee invoices. Their facility is currently classified as Category I fee-subject, because it is classified as a major source, and has a ROP. However, there has been no operation for production or R&D since 2013, and it is my understanding that they would like to discuss possibly voiding their ROP.

It may be appropriate for AQD to void a ROP under certain circumstances, including the following:

- A source has been issued an opt-out permit;
- A source is permanently shut down;
- A source has moved to a new location; or
- A source becomes a true minor.

In order to void the ROP, AQD must receive a written request to do so from the company. If the ROP is voided, VCF can be removed from AQD's fee program, if the source is not subject to any NSPS or MACT standard. To the best of my knowledge, the facility does not appear to be subject to any NSPS or MACT standards.

Ms. Lucks asked if it would be possible to receive a copy of AQD's ROP void procedures. Because this is internal AQD guidance, I wrote a summary to paraphrase the guidance, and e-mailed it to her on 5/11/2017 (please see attached). On 9/19/2017, AQD received an e-mailed copy of a 9/18/2017 ROP void request letter from Ms. Lucks. The letter explains that all equipment for manufacturing at this location has been permanently shut down, sold, or disconnected to make it inoperable. It appears that the circumstances are appropriate for voiding the VCF ROP, so AQD will proceed to do so. This will result in VCF no longer being fee-subject.

Inspection:

We were joined for the inspection by Rich, a former VCF employee who is now in charge of maintenance. It is my understanding that Ms. Lucks is the only current VCF employee.

I was shown that their lab is now used for archives, and that there are no mixers or equipment which could be used for inventing new products. Their "wet lab", "dry lab", and lab office contained filing, office equipment, and/or office supplies. I was informed that without the labs, their facility cannot run.

VCF produced, when it was operating, a variety of plastic films, including films made from polyvinyl chloride (PVC) resins. The main film process was bandcasting, which used as a raw material tetrahydrofuran (THF), which is a volatile organic compound (VOC). The THF evaporating from the bandcasting process was collected under negative pressure and vented through a 4-bed carbon control system. The carbon beds cycled between adsorption and desorption, and the steam used in desorption was distilled, so the THF could be reclaimed and stored for reuse. THF and storage units were also vented to the carbon beds.

VCF also has a pilot coating line that was used for research and development projects as well as production. VOCs emitted from the process were controlled by a natural gas-fired Regenerative Thermal Oxidizer (RTO), which was rated at a 98% destruction efficiency.

I was informed that EUBANDCASTER, including the tenter frame oven, is currently inoperable, without the possibility of ever receiving any heat from the boilers, because they themselves have been rendered inoperable. I was also informed that EUBLEND vessels are no longer needed, since no product is being produced, and that EURESINHANDLING is no longer needed, as raw materials are no longer being used. I was also informed that the RTO for the pilot line was sold and was removed from the site in January 2017.

Below is a list of equipment at VCF Films on 5/3/2017, and an explanation of how it has been rendered incapable of operation

Process equipment	Emission unit ID from ROP	How it has been rendered incapable of operating
Tetrahydrofuran (THF) reclamation/distillation unit tank farm	EUBANDCASTER	Piping physically disconnected in numerous locations.
4 carbon beds in carbon adsorption system	EUBANDCASTER	Carbon removed from carbon beds.
Tenter Frame oven	EUBANDCASTER	Permanently electrically dismantled, and portions of oven scrapped or sold.
Bandcaster line 1	EUBANDCASTER	Removed years ago.
Bandcaster line 2	EUBANDCASTER	Incapable of operating without heat from the boilers, which are themselves inoperable. Oven incapable of operating.
Bandcaster line 3	EUBANDCASTER	Incapable of operating without heat from the boilers, which are themselves inoperable. Oven incapable of operating.
Pneumatic resin handling system	EURESINHANDLING	Present onsite and functional in 2013, but with no raw materials to run through silo. <i>Current status?????</i>
Blending vessels from EURESINHANDLING using EUBANDCASTER blender vessels	EU-BLEND	Still onsite. No raw materials to run.
Pilot line	EU-PCoatLine	RTO removed. No raw materials. Institutional knowledge of how to operate pilot line gone from the company. Replacement parts no longer available.
RTO serving pilot line	EU-PCoatLine	Removed from site in January 2017.
Boiler 1	Exempt from ROP and boiler MACT	Natural gas 4" line permanently disconnected, and fuses removed.
Boiler 2	Exempt from ROP and boiler MACT	Natural gas 4" line permanently disconnected, and fuses removed.
Boiler 3	Exempt from ROP and boiler MACT	Natural gas 4" line permanently disconnected, and fuses removed.

Tetrahydrofuran (THF) reclamation/distillation unit tank farm; EUBANDCASTER; ROP:

I was informed that THF was removed from the tank farm in 2013. In the tank farm, piping had visibly been disconnected in numerous locations, where it connected to tanks and distillation columns, so that the equipment cannot be operated. Please see the photos 001 through 004, attached to this inspection report, for reference. I was advised that chillers and cooling towers are also non-operational. I was informed that it would be too costly at this time to remove the equipment from the site as scrap metal, with the cost of scrap metal being low, at present. Also, it is my understanding that there is some asbestos containing material onsite, and that it is encapsulated. .

In the solvent recovery office, I was shown that all of the electrical equipment had been removed, and was informed that the manufacturer who once made the electrical components is out of business. Therefore, this equipment is not likely to ever operate again.

4 carbon beds in carbon adsorption; EUBANDCASTER; ROP:

I was told that the carbon had been removed as hazardous waste from the four horizontal carbon beds in 2014. The carbon beds, when they were in use, had been in horizontal, cylindrical metal tanks which could hold 22,000 lbs of carbon each. Rich led me atop each tank, and opened a hatch on each one showed me that there was nothing inside. Please see attached photos 005 through 008.

Tenter frame oven; EUBANDCASTER; ROP:

I was shown that this is permanently electrically dismantled.

Bandcaster line 1; EUBANDCASTER; ROP:

I was shown where this had been, and was advised that it was removed years ago.

Bandcaster line 2; EUBANDCASTER; ROP

I was advised that this is incapable of operating without heat from the boilers, which have themselves been rendered incapable of operating. Additionally, it is my understanding that the institutional knowledge is gone from the company on how to run the bandcaster lines.

Bandcaster line 3; EUBANDCASTER; ROP:

I was advised that this is incapable of operating without heat from the boilers, which have themselves been rendered incapable of operating.

Pneumatic resin handling system; EURESIN HANDLING; ROP:

This was present onsite. it was functional in 2013, but I was advised that there are presently no raw materials at the site to be run through the silo.

Blending vessels from EURESINHANDLING using EUBANDCASTER blender vessels; EU-BLEND; ROP:

These are still onsite, but I was advised that there are no raw materials to run onsite. Additionally, I was advised that this is 1974 technology, and not only are replacement parts not available for the vintage machines. Mixers for the band casters could not be run because a meter was disconnected from the wall, it was explained.

Pilot line; EU-PCoatLine; ROP:

I was shown the pilot line, which was the newest line at the plant. I was told that it cannot run, because the RTO control device has been removed from the site, and the ROP requires the RTO. The pilot line ran with solvent-based materials. The line cannot work with any water-based materials, I was informed, because the company has no knowledge of how to do so. It is my understanding that it would not be economical to start this line up again.

RTO serving pilot line; EU-PCoatLine; ROP:

The purpose of the RTO had been to combust residual THF, I was informed. I was advised that the control device was removed from the site in January 2017. Please see the attached photo 009, taken today of where the RTO was once located. Please also see the attached prints of photos which were e-mailed to AQD, following the inspection, showing the removal of the RTO.

Boiler 1; exempt from ROP and boiler MACT:

Boiler 1 has been decommissioned. I was shown the location where the 4 inch natural gas line was permanently disconnected. Please see attached photo 010. I was informed that fuses were removed for this boiler.

Natural gas tube heaters have been installed throughout the site. It is my understanding that they provide heat to keep water pipes from freezing in the winter, for the benefit of the fire protection system. They use far less natural gas than the boilers did, I was informed.

Boiler 2; exempt from ROP and boiler MACT:

Boiler 2 has been decommissioned. I was shown the location where the 4 inch natural gas line was permanently disconnected. Please see attached photo 011. I was informed that the fuses were removed for this boiler. Please see attached photo 012. The fuse boxes for the other two boilers were similarly tagged.

Boiler 3; exempt from ROP and boiler MACT:

Boiler 3 has been decommissioned. I was shown the location where the 4 inch natural gas line was permanently disconnected. Please see attached photo 013. I was informed that the fuses were removed for this boiler.

Miscellaneous:

Machines for resizing, or slitting, plastic film were removed and sold as scrap, I was informed, along with machines for packaging film. The room where these processes once stood is now being used as a warehouse, I was shown.

There were a few metal working machines onsite, which would exhaust into the general, in-plant environment. These would be exempt under Rule 285(2)(l)(vi)(B), for exhausting into the in-plant environment. They could also be considered exempt under Rule 285(2)(l)(vi)(A), for being operated on a non-production basis.

Recordkeeping:

I was provided with copies of recordkeeping (attached for reference).

The records included the *Pilot Line Production Log*, for the CEB-500 for 2013. The records showed initial trials on 8/19/2013, and operations on 8/20 through 8/23/2013.

Also included was a spreadsheet titled *Bandcasting Line 1 Production Log*. This covered both 2012 and 2013. It indicated that there was no production at all in 2013.

Additionally, a spreadsheet was provided titled *BC Log*, for the Bandcaster's Line 2. It showed production from 2006 through 2008. There was no production in 2008. Line 2 appears to have last operated in 2007.

Conclusion:

No instances of noncompliance were observed. On 9/19/2017, AQD received an e-mail with a digital copy of a 9/18/2017 ROP void request letter from Ms. Lucks. Because the process equipment appears to be incapable of operating, and the source appears to be permanently shut down, as indicated in the letter, AQD will proceed to void the ROP. Once this has been done, the facility will no longer be considered fee-subject, since it does not appear to be subject to any NSPS or MACT standards. Removal from the AQD fee program will prevent the company from being sent any air quality fee invoices in the future.

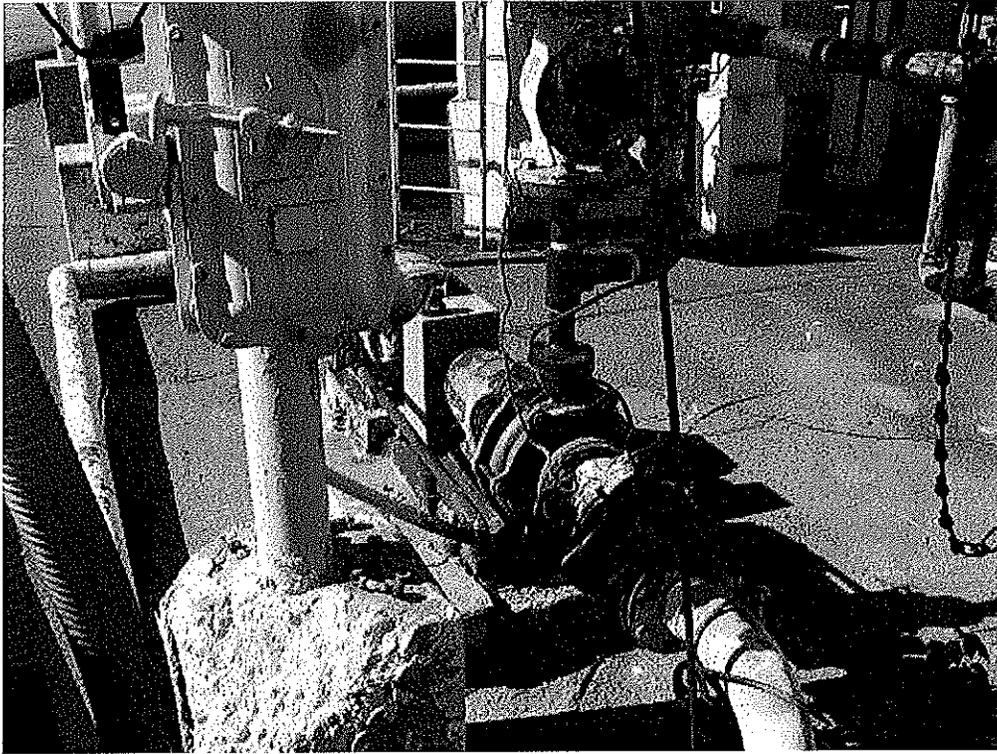


Image 1(001) : THF tank farm, disconnected piping.

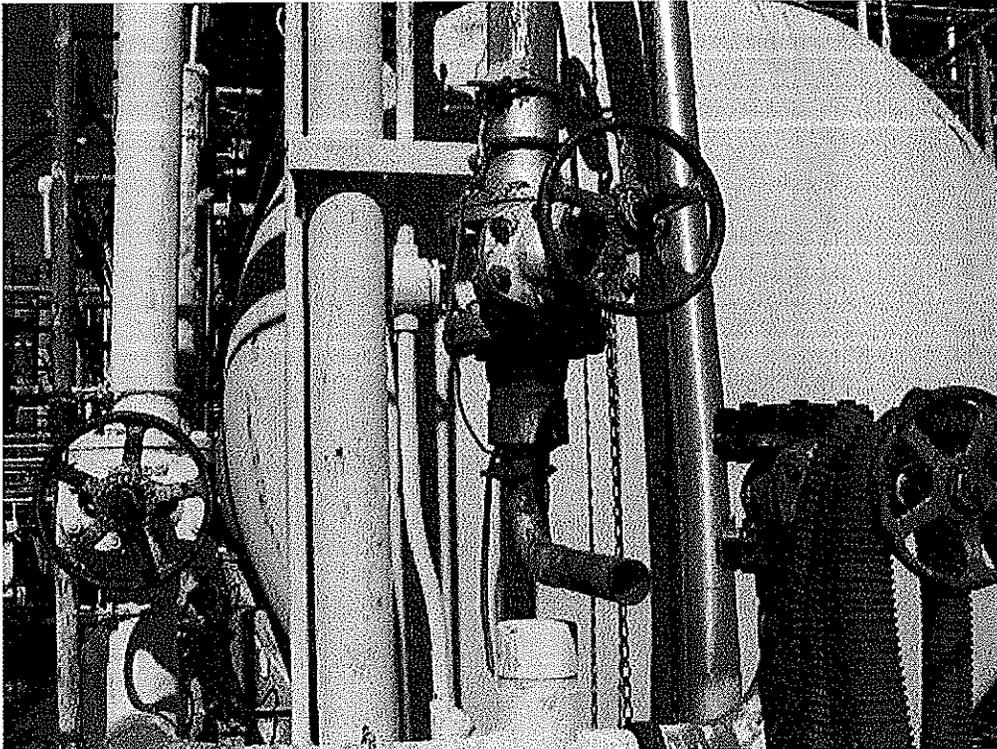


Image 2(002) : THF tank farm, disconnected piping.

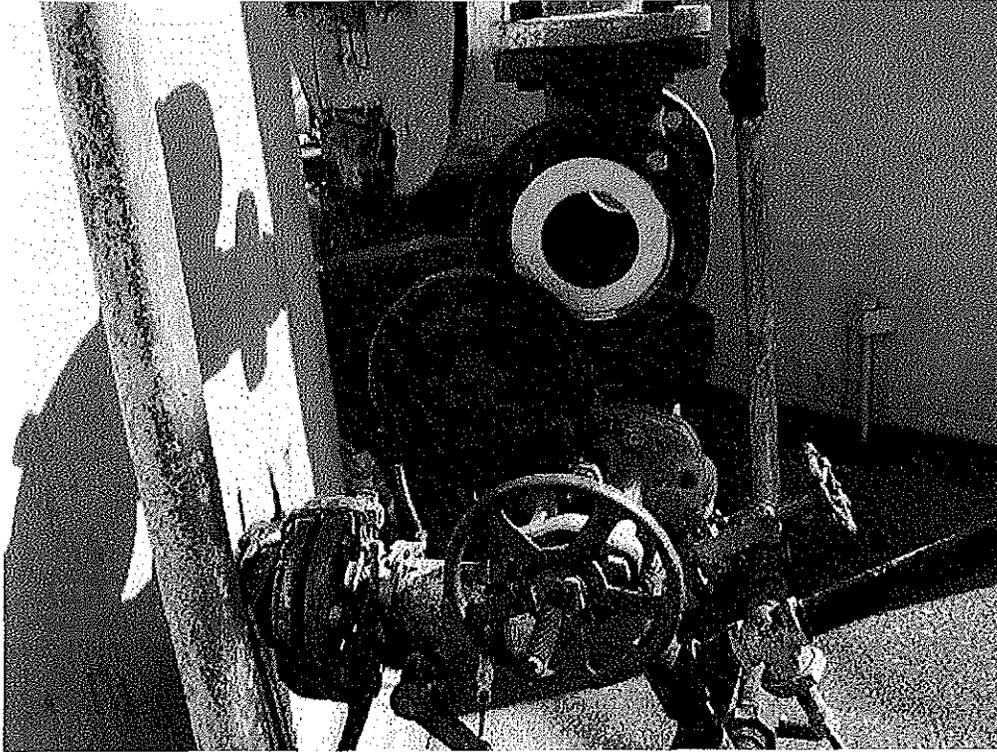


Image 3(003) : THF tank farm, disconnected equipment.

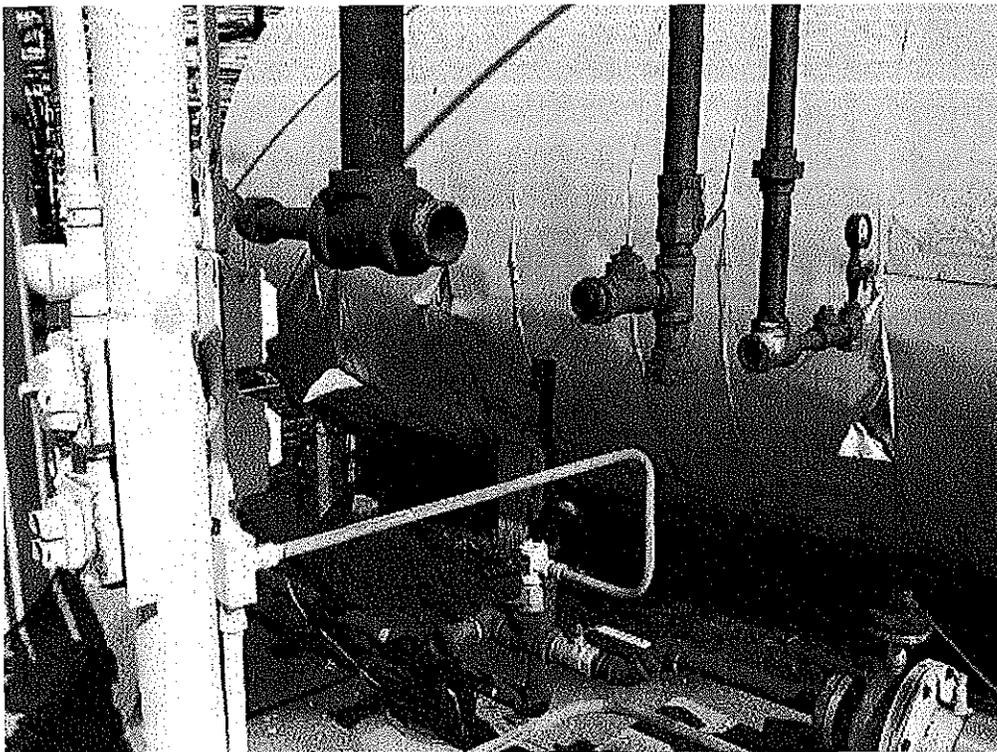


Image 4(004) : THF tank farm, disconnected piping.

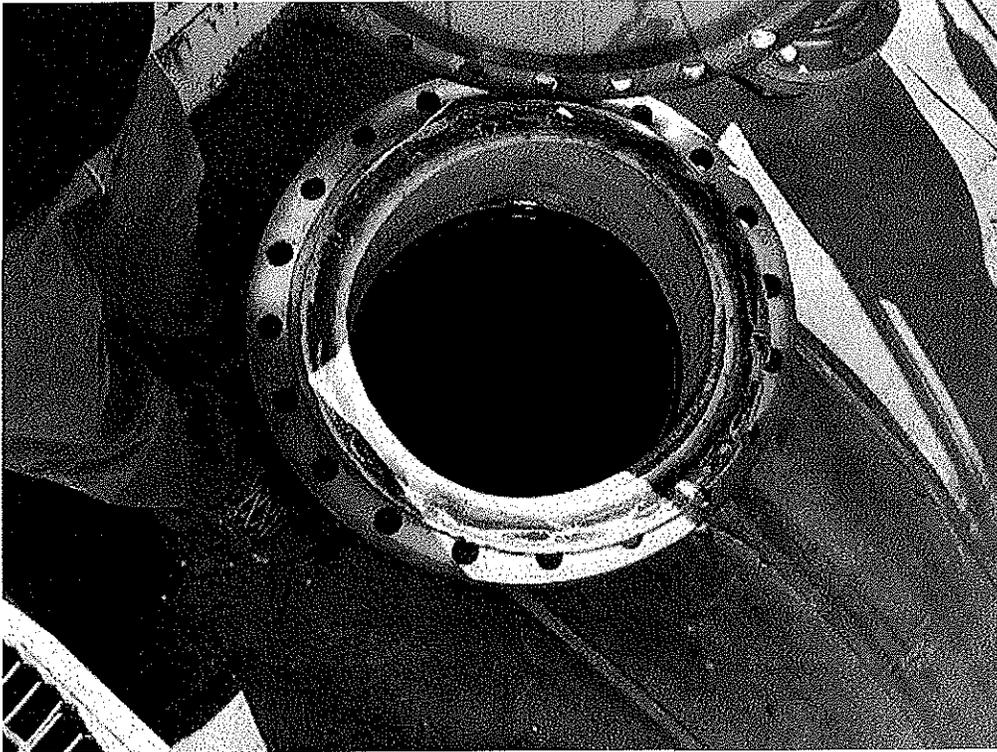


Image 5(005) : First carbon bed, with carbon removed.

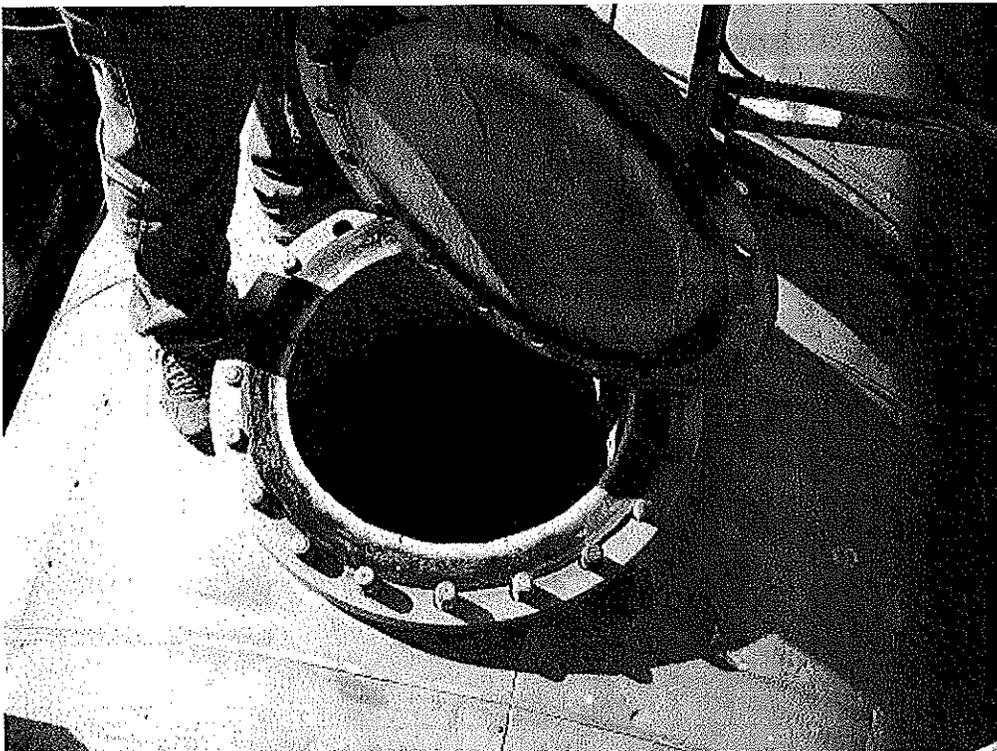


Image 6(006) : Second carbon bed, with carbon removed.

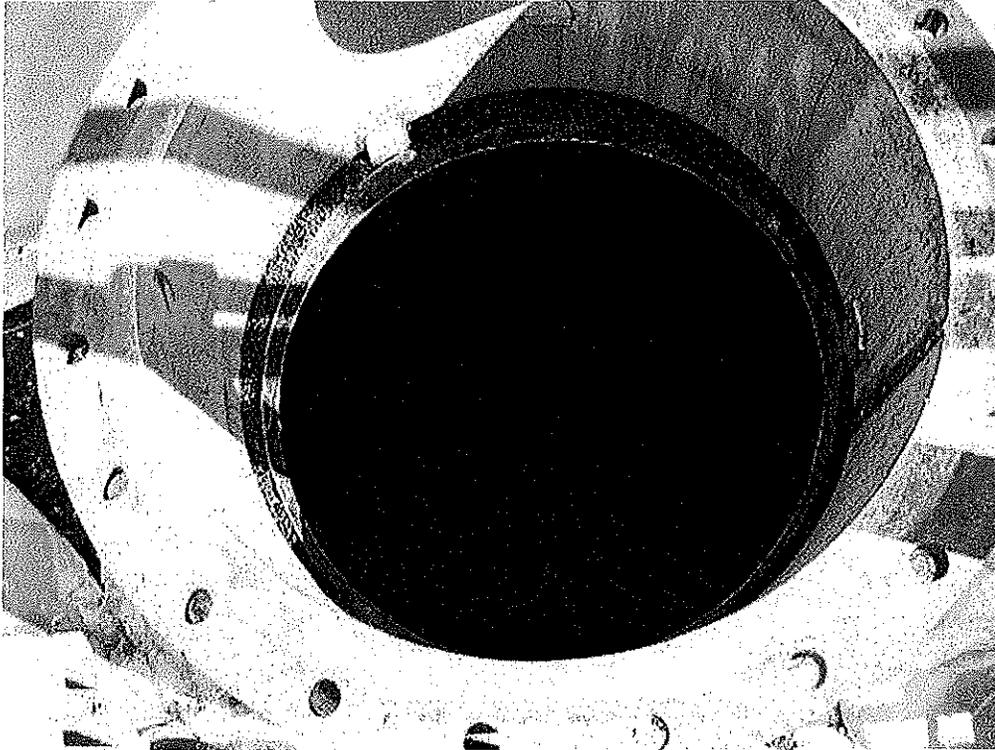


Image 7(007) : Third carbon bed, with carbon removed.

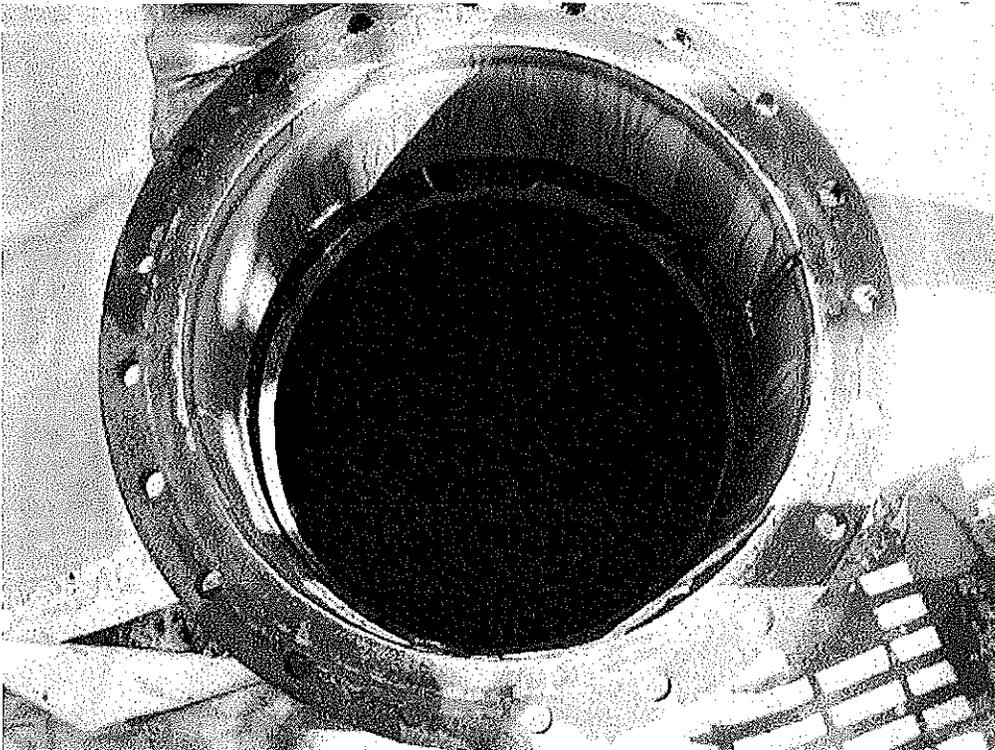


Image 8(008) : Fourth carbon bed, with carbon removed.

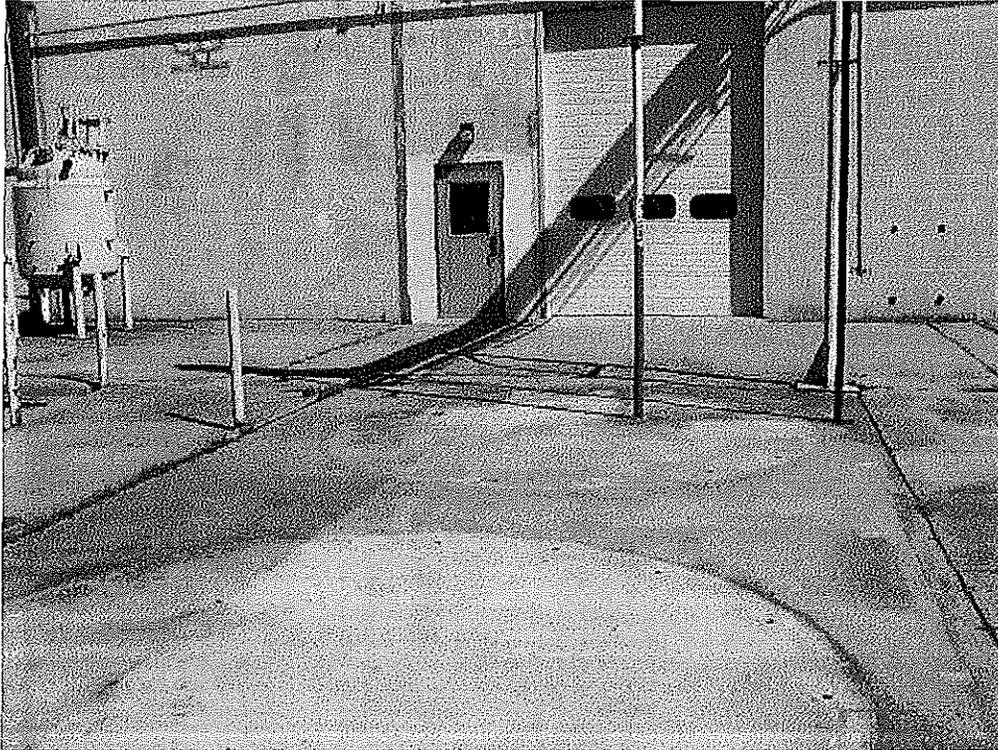


Image 9(009) : Former location of RTO.

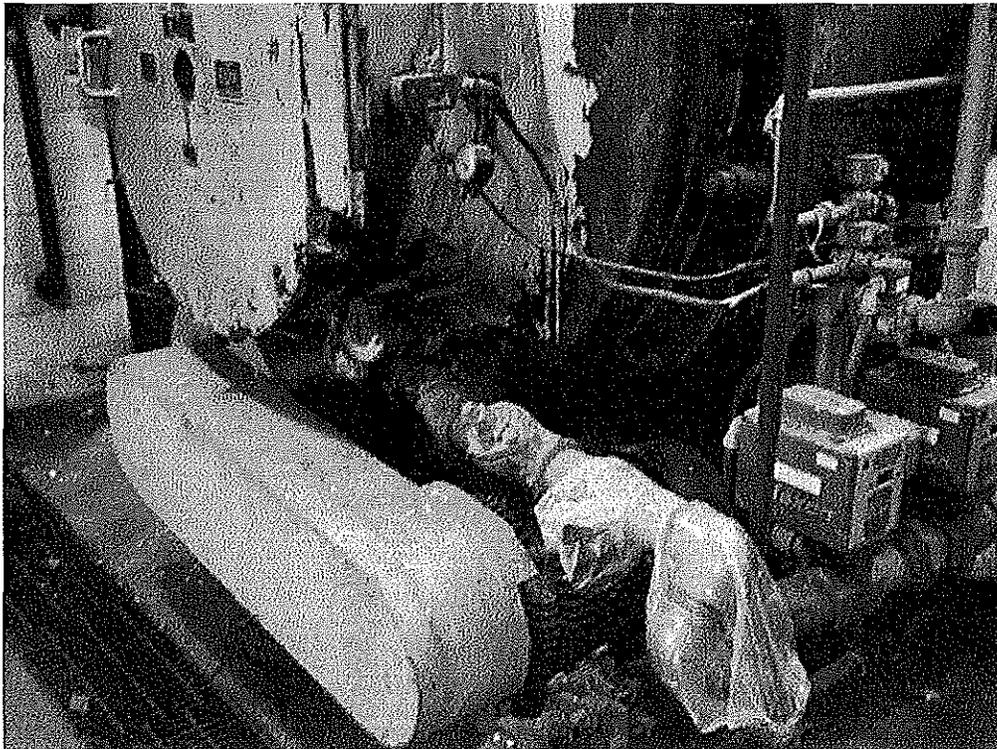


Image 10(010) : Boiler 1 disconnected natural gas line.

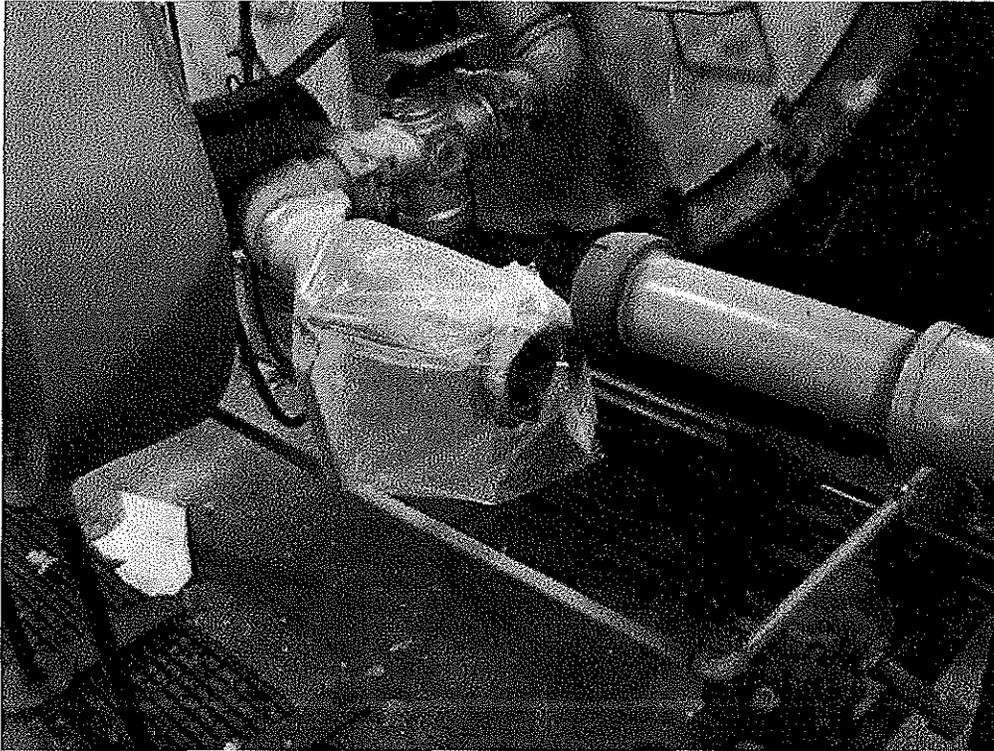


Image 11(011) : Boiler 2 disconnected natural gas line.



Image 12(012) : Boiler 2 fuse box.

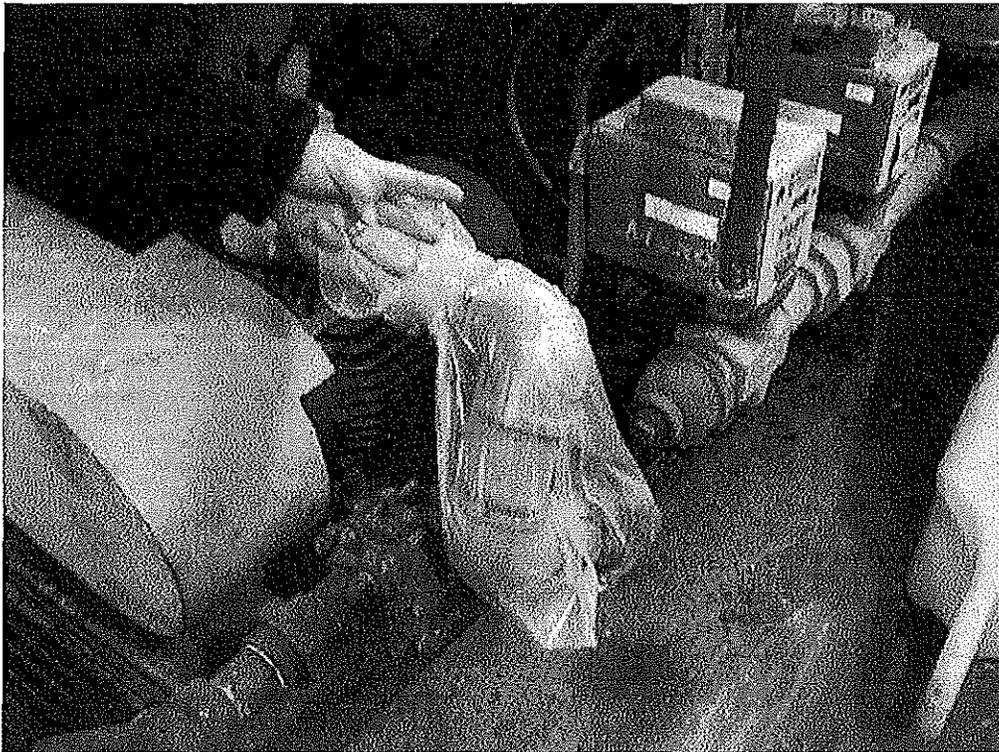


Image 13(013) : Boiler 3 disconnected natural gas line.

NAME [Signature]

DATE 9/19/2017 SUPERVISOR [Signature]