

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

N652028863

FACILITY: ELECTRO CHEMICAL FINISHING		SRN / ID: N6520
LOCATION: 379 44TH ST SW, WYOMING		DISTRICT: Grand Rapids
CITY: WYOMING		COUNTY: KENT
CONTACT: Steve Hulst , Quality Manager/EHS Manager		ACTIVITY DATE: 03/13/2015
STAFF: April Lazzaro	COMPLIANCE STATUS: Non Compliance	SOURCE CLASS: MINOR
SUBJECT: Unannounced, scheduled inspection.		
RESOLVED COMPLAINTS:		

Staff, April Lazzaro arrived at the facility to conduct an unannounced, scheduled inspection. At approximately 11:00 AM, staff called Steve Hulst who works out of the Remico Street location and left a message asking him to meet me there.

Mr. Hulst was waiting when I arrived along with Larry Keeney. I offered a copy of the DEQ Environmental Inspections: Rights and Responsibilities brochure. Mr. Hulst recently received a copy of the brochure at a prior inspection.

This facility is a miscellaneous parts plating facility that operates under Permit to Install (PTI) No. 288-98 and PTI No. 82-05. The equipment described in the 288-98 application that are permitted are as follows: nine plating lines which include, one decorative hexavalent chrome plating tank subject to the Chrome Plating NESHAP, 40 CFR 63, Subpart N, nitric acid stripping tanks and other metals plating, a sludge dryer and a buffing operation. The permit covers emissions from three wet scrubbers that are externally located that are referred to as the north, middle and south scrubber as well as the small venturi scrubber on the sludge dryer. The facility also operates a trichloroethylene vapor degreaser subject to the Halogenated Solvent Degreaser NESHAP, 40 CFR 63 Subpart T. PTI No. 82-05 was issued for one new decorative chrome plating tank.

During the pre-inspection discussion, we talked about the plans for the Remico Street facility. Mr. Hulst indicated that they are likely changing the copper pre-plating line to nickel. This would change any emissions from methanol and formaldehyde to ammonia. He is working with Dan Kakkuri of FTC&H consultants on the change and possible permitting. This type of change is recommended to get a permit modification. They also want to delay the required stack testing until the new process is up and running. I indicated this was acceptable. A note will be made to the Remico Street facility file.

Mr. Hulst and Mr. Keeney indicated that following the Remico Street facility inspection, they did an internal audit on the control equipment here at 44<sup>th</sup> Street, during which they identified operational problems. The Operation and Maintenance (O&M) Plan was not being utilized, and would be updated. The updated plan was provided, and is attached. They stated that they planned to shut the plant down the following day (March 14, 2015) and conduct all the necessary repairs.

Mr. Hulst and Mr. Keeney escorted me outside to conduct a visual inspection of the control devices. The north scrubber was operating, and I noted that there was green corrosion on the duct work, and evidence that it was dripping onto the cement below. (see attached photo) Mr. Hulst stated that during their self-inspection, a hole in the scrubber ductwork, pre-control was found. He provided me with a ladder to see it because it was at the top of the duct, over my line of sight. An airflow check via a piece of paper identified that the air was blowing out of the corroded duct- and therefore was not being controlled by the scrubber. These two deficiencies are violations of Rule 910 as identified in PTI No. 288-98. Additionally the facility was not implementing the required O&M Plan for the chrome tank that is required by the permit. The facility has utilized the surface tension monitoring to demonstrate compliance with the Chrome NESHAP, and the scrubbers were required to comply with Michigan's air toxics rules. Mr. Hulst was able to provide copies of the Ongoing Compliance Reports for 2013 and 2014 which are attached. These are required to be maintained onsite and provided upon request. They were provided timely.

The middle scrubber is used to control the tin plating process which is used very infrequently. Mr. Hulst indicated that he had his staff turn the scrubber on for the inspection. As we watched the unit, it was evident that the silicone that was being used to plug old screw holes on the sides had failed and a small amount of scrubber water was leaking out. The blower fan was also making a noise that indicates that it is in obvious need of repair. We talked about the last time the unit was in operation, and the fact that the operating condition at that time was unknown. Mr. Hulst and I asked Tad in the plant and he thought it had been a couple months since it was used. I asked Mr. Hulst to look into it and to provide me with the date the last time the tin line and scrubber was used. He provided information stating that the unit was last used in September 2014. Due to the length of time it has been since it was in use, and there is no way to tell what it was like in September a

violation will not be cited at this time.

We moved on to the south scrubber which had some cracks in the sight glass up near the top of the unit. Mr. Hulst indicated that they are going to replace it tomorrow. Staff could not identify any operational issues from a visual external inspection of the unit. We went inside, because I wanted to see the liquid indication devices that demonstrates compliance with the permit. We observed the recirculation tank for the south scrubber. The low liquid level light was engaged. I asked Mr. Hulst to open the lid to the tank and when he did so, we saw that the liquid level was approximately 12" below the level of the float. No fresh water was being reintroduced into the tank. Visual observation of the recirculating water was that it was very dark brown. Mr. Hulst picked up the low level control box and gave it a couple light taps to the top of the tank. It then started working and immediately triggered the flow of fresh water from a tube into the recirculation tank. This is unacceptable, and indicates improper operation of the control device; a violation of Rule 910. Additionally, it is a violation of the permit 288-98 for failure to maintain the liquid indication device.

We walked through the center isle of plating tanks, and I pointed out that many of the air intake hoods were obscured with solids. I mentioned it to Tad, who stated that they are working to clear the hoods. I informed him that it really is a personal safety and MIOSHA issue, (not an AQD issue) but it is important. We stood for a few minutes at the chromium plating tank which is across from the seldom used tin plating tank. This is when we discussed with Tad the last time the tin tank (middle scrubber) was used. He said it seemed like a couple months ago, but didn't remember exactly. I asked Mr. Hulst about the bubbles on the chrome tank and asked if it was a normal amount with the use of the surface tension ingredient. He said it looked good, what you really don't want is a foamy look.

We continued past the sludge dryer. It is a cake press, with venturi control. I noticed an area of corrosion at the venturi inlet nozzle gasket and pointed it out. The exhaust portion of the venturi looked acceptable. It was not in operation at the time of the inspection. Mr. Hulst indicated he would have the unit evaluated and the gasket replaced.

Next we observed the room that contains the trichloroethylene, vapor degreaser. This unit is in use every day. Parts travel into a room via a conveyor where an employee will load the unit. The facility had not submitted the semi-annual or annual compliance reports required by the halogenated solvent NESHAP since 2009. However after the inspection of the Remico Street facility, they were submitted. This will not be cited as a violation at this time.

After the inspection, discussions continued regarding the two active permits and what they cover. Specifically, PTI No. 82-05 was issued for a new chrome tank. Around that same time, the facility had submitted an initial notification under the NESHAP for a new trivalent chrome tank. Mr. Hulst indicated that they did not install a tank after receiving the PTI that was vented to the north scrubber. However, they did install two 100 gallon trivalent chrome tanks used exclusively for R&D for the Remico Street facility. Mr. Hulst stated that the initial notification submitted were for that, but then it was determined that tanks used exclusively for R&D are not subject to the NESHAP. A review of the regulation confirmed this per 40 CFR 63.340(d). Mr. Hulst also stated that the tanks are not even hooded, and are exempt. It seems to fit per Rule 285(r)(vii).

Since the tank proposed in PTI No. 82-05 was never installed, the permit will be voided. As a follow up to the conversation of changing the copper tank to nickel at the Remico Street facility, it was recommended that they apply for a permit modification.

A violation notice will be issued to this facility, for the issues noted above. It is also recommended that the facility conduct an air quality inventory and review the permit/exempt status of the equipment present as well as what equipment is vented to what control device.

The facility was in non-compliance at the time of the inspection.

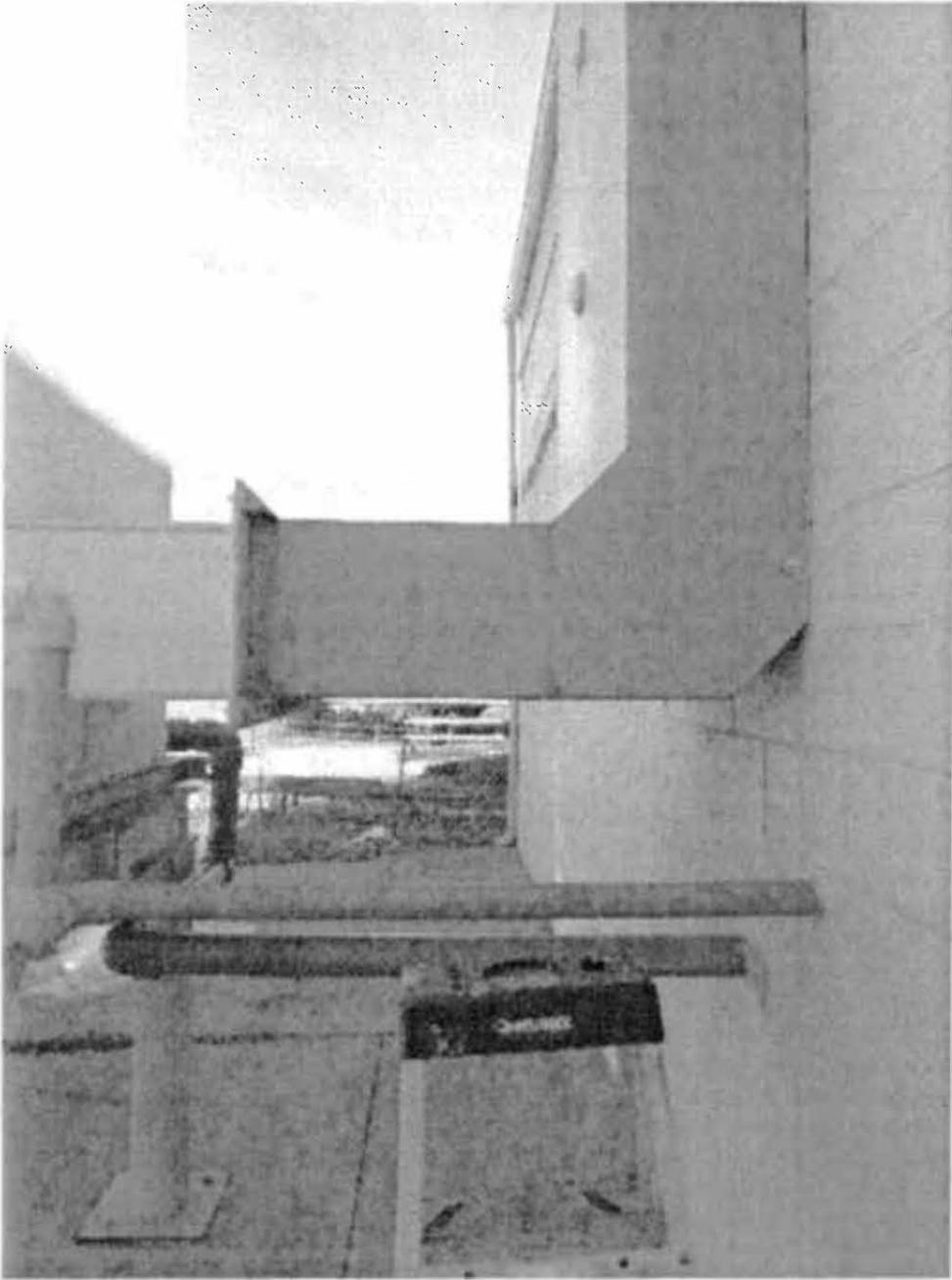


Image 1(ECF NS) : ECF North Scrubber ductwork

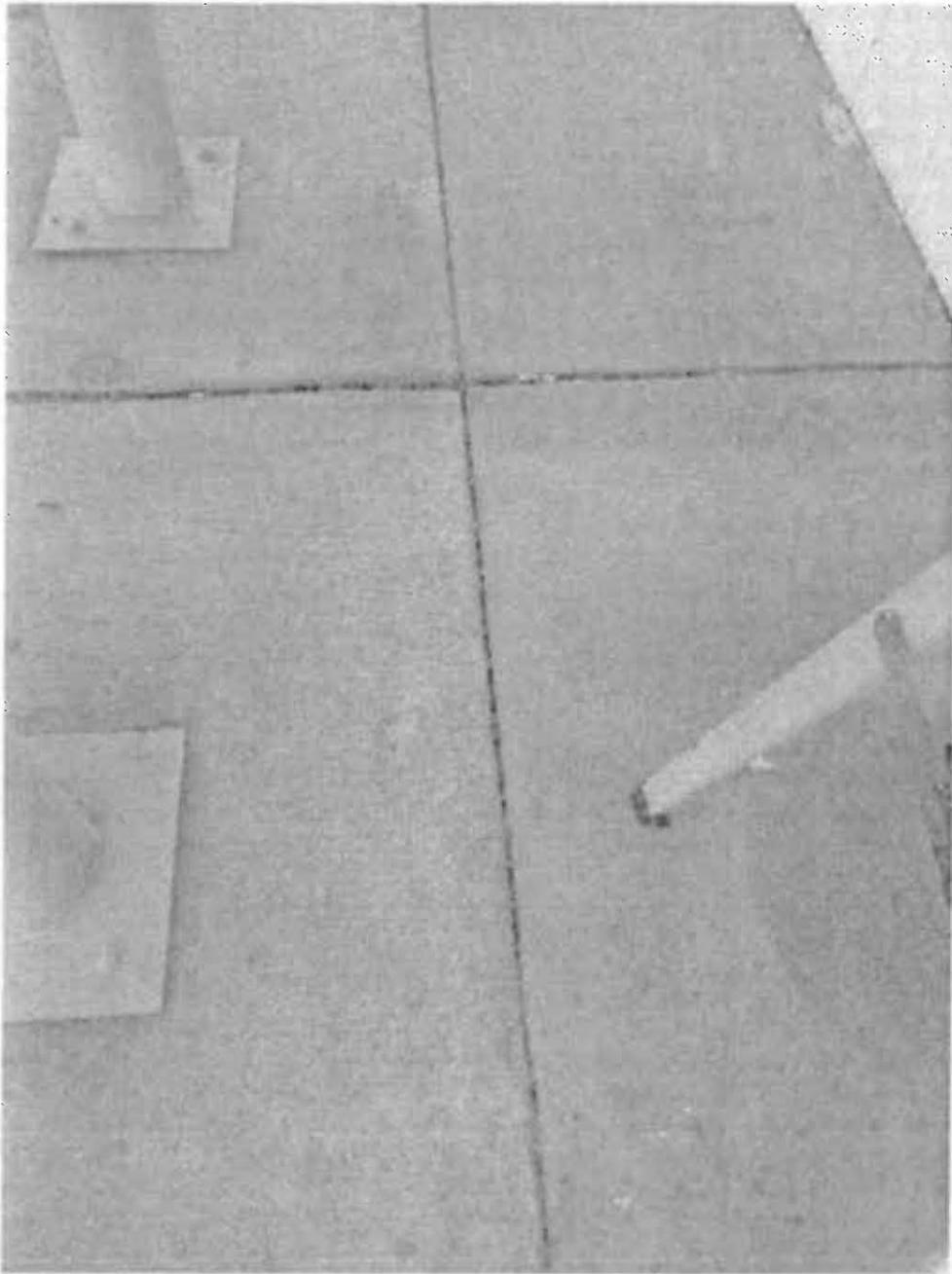
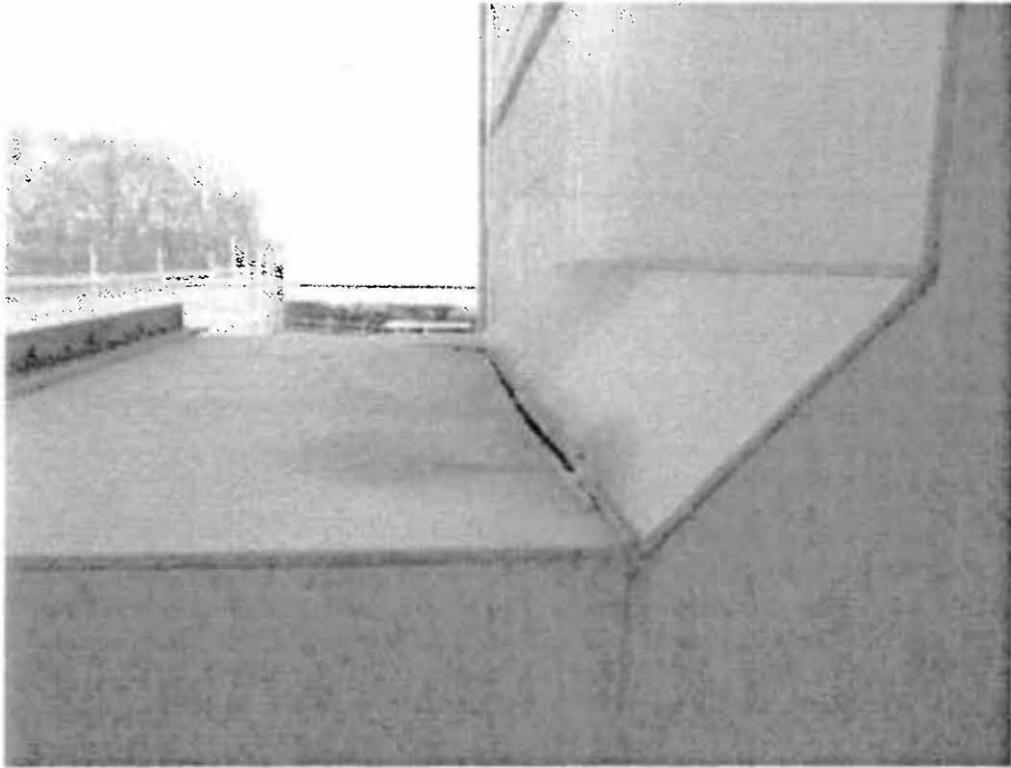
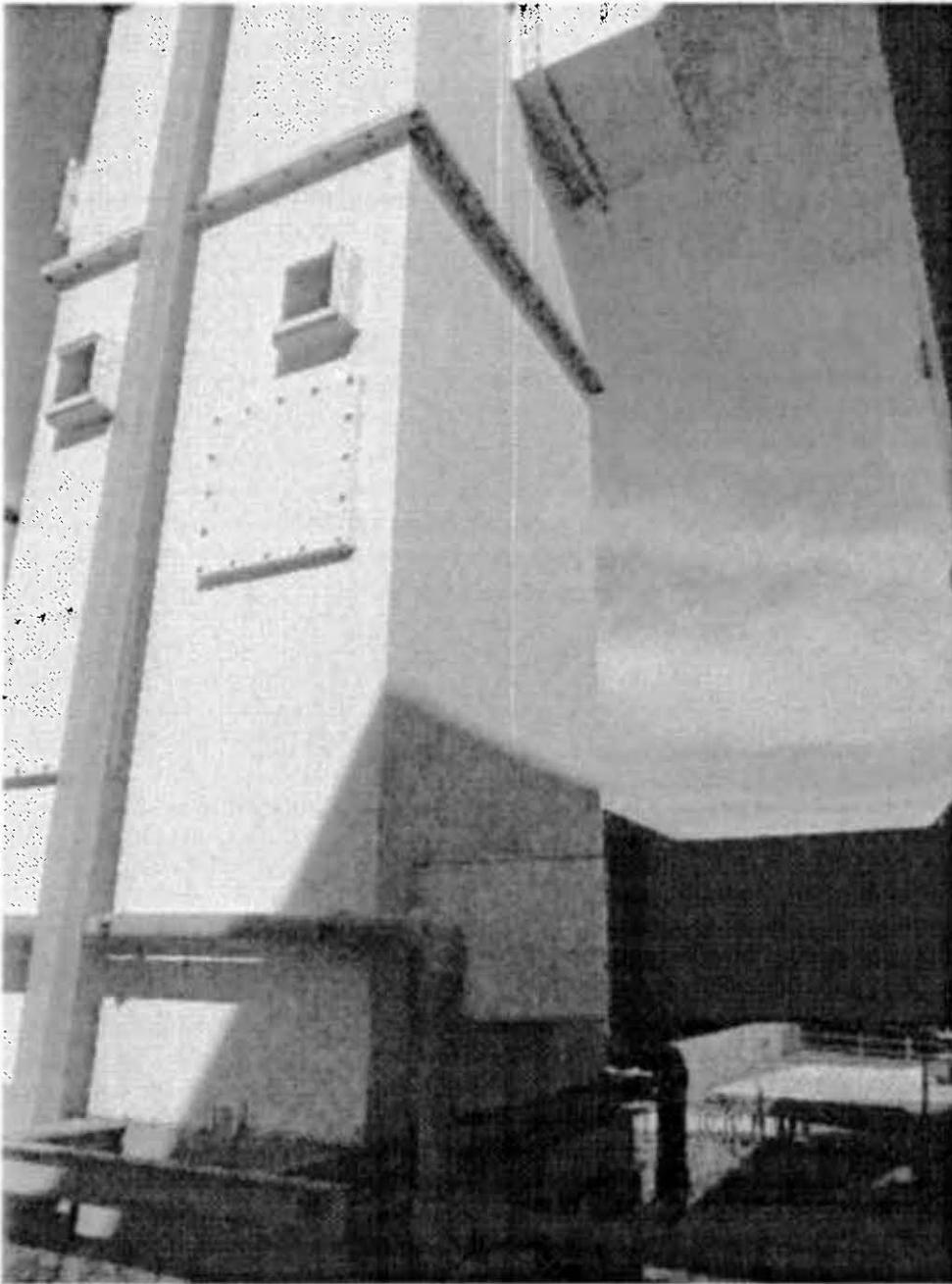


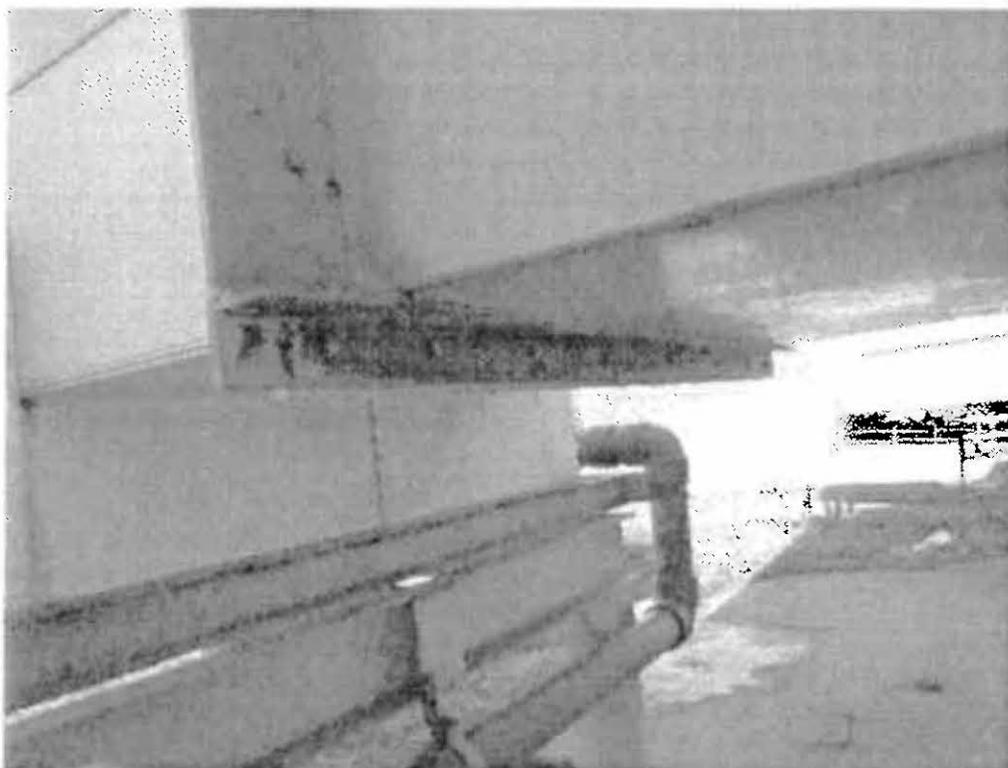
Image 2(ECF NS) : North Scrubber drips from ductwork.



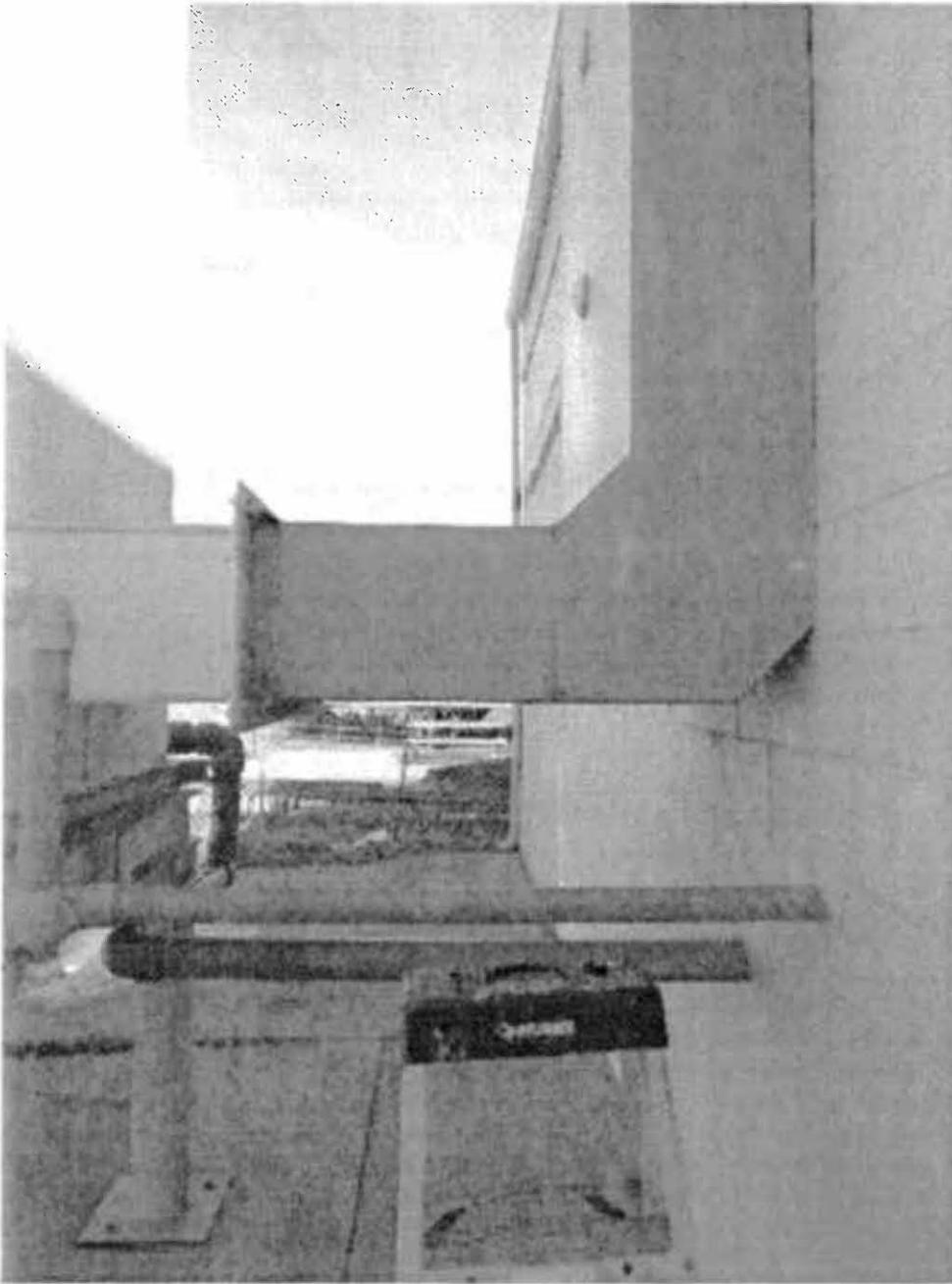
**Image 3(ECF NS)** : North scrubber breach in ductwork- pre-control emissions.



**Image 4(ECF NS)** : Overview of North Scrubber unit.



**Image 5(ECF NS)** : Underside view of North Scrubber ductwork



**Image 6(ECF NS) :** Overview of North Scrubber ductwork. Corrosion not seen unless accessed by a ladder.

NAME Ken Laggan

DATE 4-1-15

SUPERVISOR PAB