



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street
San Francisco, CA 94105-3901

MAR 11 2011

Via Certified Mail:
70033110000619974078
Return Receipt Requested

David Rossiter, President
Electrochem Solutions, LLC
32500 Central Avenue
Union City, CA 94587

Subject: Findings of Violations and Order for Compliance
EPA Docket No. CWA-309(a)-11-006

Dear Mr. Rossiter:

On December 3, 2010, the U.S. Environmental Protection Agency (EPA) conducted a Clean Water Act compliance inspection at Electrochem Solutions' facility located at 32500 Central Avenue in Union City, CA. A copy of the inspection report is enclosed.

Based on the inspection, EPA issues the enclosed Findings of Violation and Order for Compliance requiring Electrochem Solutions to take specific actions to bring the facility into compliance with the Clean Water Act. The enclosed Order directs Electrochem Solutions to complete a series of tasks, including the following:

1. Submit an inventory of materials and provide adequate secondary containment for all the material located in the bulk waste treatment area;
2. Submit a schedule for repair or replacement of the roof over the bulk waste treatment area, or a plan to close this area permanently;
3. Submit a certification that the sump around the 90-day Hazardous Waste Treatment Area has been cleaned and functions as designed; and
4. Complete several additional tasks identified in the Order, within the time specified.

If you have any questions concerning this matter, please contact Ellen Blake of my staff at (415) 972-3640.

Sincerely,

Alexis Strauss 10 March 2011
Alexis Strauss
Director, Water Division

Enclosures:

1. Findings of Violation and Order for Compliance
2. Report of Clean Water Act Inspection

cc (w/enclosures):

Shin-Roei Lee, San Francisco Bay RWQCB
Amy Miller, EPA Region 9, RCRA Enforcement Office
Chris Boykin, City of Union City

75 Hawthorne Street
San Francisco, California 94105

Proceedings under Sections 308(a) and 309(a)
of the Clean Water Act, as amended, 33
U.S.C. Sections 1318(a), and 1319(a)

1. Under section 301(a) of the Act, 33 U.S.C. §§ 1311(a), it is unlawful for a person to discharge any pollutant from a point source into a water of the United States except in compliance with the Act, including Section 402, 33 U.S.C. § 1342.
2. “Waters of the United States” include, inter alia: (i) all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, and (ii) tributaries to such waters. 40 CFR §§ 122.2 and 230.3(s).
3. Section 402 of the Act, 33 U.S.C. § 1342, establishes the National Pollutant Discharge Elimination System (NPDES) program. Under Section 402, 33 U.S.C. § 1342, states with EPA-approved NPDES programs are authorized to issue permits governing the discharge of pollutants from regulated sources.
4. Section 402(p) of the Act, 33 U.S.C. § 1342(p), and EPA’s implementing regulations at 40 CFR § 122.26, require NPDES permit authorization for discharges of storm water

associated with industrial activity. Facilities engaged in industrial activity, as defined by 40 CFR § 122.26(b)(14), must obtain NPDES permit authorization if they discharge or propose to discharge storm water into waters of the United States.

5. Electroplating, Plating, Polishing, Anodizing, and Coloring, Standard Industrial Classification (SIC) 3471, falls under SIC Major Group 34 and pursuant to 40 CFR § 122.26(b)(14)(xi), is an industrial activity subject to the storm water discharge and permitting requirements under Section 402(p) of the Act, 33 U.S.C. § 1342.
6. The State of California has an EPA-approved NPDES program, and issues permits, including storm water permits, through its State Water Resources Control Board (State Board) and nine Regional Water Quality Control Boards (Regional Boards). On April 17, 1997, the State Board adopted the currently effective statewide NPDES general permits for discharges of storm water associated with industrial activity, General Permit No. CAS000001/Water Quality Order No. 97-03-DWQ (General Permit).
7. The General Permit requires facility operators to develop and implement a storm water pollution prevention plan (SWPPP) prior to commencing industrial operations. (General Permit, Section A(1)(a), pg. 11.) The purpose of the SWPPP is to identify sources of industrial storm water pollution and to identify and implement site-specific best management practices (BMPs) to control discharges.
8. Electrochem Solutions, LLC (Electrochem Solutions or Respondent) is a California corporation and is thus a "person" under CWA Section 502(5), 33 U.S.C. § 1362(5).
9. Respondent operates a facility located at 32500 Central Avenue, Union City, California (Facility). Respondent is engaged in metal plating and anodizing at the Facility, an industrial activity classified under SIC 3471. Therefore, stormwater discharges associated with Respondent's industrial activity are subject to NPDES permit requirements.
10. Respondent has had coverage under the General Permit (WDID Number 2 01I020833) since April 23, 2007.
11. Rainfall events that exceed 0.1 inches are generally sufficient to generate storm water runoff from industrial facilities. Data from the Hayward Air Terminal, approximately seven miles from the Facility, indicate that there were approximately 113 days with at least 0.1 inches of rainfall at the Facility from April 23, 2007 through October 31, 2010.
12. Storm water runoff at the Facility discharges through storm drains located at the Facility to Dry Creek, which flows approximately 0.75 miles to Alameda Creek. Alameda Creek flows approximately 6.5 miles to the San Francisco Bay. The storm drains are owned by Union City and are part of its municipal separate storm sewer system (MS4). The

Facility's storm drains and the City's MS4 are "point sources" as defined by Section 502(14) of the Act, 33 U.S.C. § 1362(14).

13. The storm water discharged from the Facility contains "pollutants," including industrial waste, as defined by Section 502(6) of the Act, 33 U.S.C. § 1362(6), and is storm water discharge associated with industrial activity as defined by EPA regulations in 40 CFR § 122.26(b)(14).
14. The San Francisco Bay and its tributaries are "waters of the United States" as defined by EPA regulations in 40 CFR § 122.2.
15. On December 3, 2010, representatives of EPA inspected the Facility to evaluate Respondent's compliance with the Act. The inspection report is attached and incorporated by reference. Based on the inspection:
 - a. Respondent has failed to implement and maintain adequate BMPs at the Facility as required by General Permit Section A.8, including:
 1. Failing to maintain adequate BMPs, including a roof, at the bulk waste treatment room to prevent rain from coming into contact with process waste materials;
 2. Failing to implement adequate BMPs, including adequate secondary containment, at the waste treatment area to prevent the discharge of spills and stormwater containing pollutants;
 3. Failing to maintain BMPs at the 90-day hazardous waste storage area by allowing the sump to become full of sludge and unknown liquids; and
 4. Failing to implement adequate good housekeeping BMPs to ensure that process wastewater and obsolete materials are not contributing pollutants to storm water discharges.
 - b. Respondent has failed to develop and maintain an adequate Storm Water Pollution Prevention Plan (SWPPP) as required by the General Permit by:
 1. Failing to include drainage patterns on the site map included with the SWPPP (General Permit, Section A.4);
 2. Failing to identify the locations of all industrial activities and significant materials handled and stored on site (General Permit, Sections A.5 and A.6); and
 3. Failing to update the SWPPP to reflect that employees with SWPPP responsibilities were no longer involved with the company (General Permit, Section A.10.d).
20. Based on the foregoing, EPA has determined that Respondent has violated the CWA as follows:
 - a. Respondent's failure to develop and implement an adequate SWPPP while engaged in industrial activity at the Facility violated the General Permit (General Permit, Provision E(2) and Section A), which was issued pursuant to Section 402 of the Act, 33 U.S.C. § 1342, and thus violated Section 301(a) of the Act, 33 U.S.C. § 1311(a); and

- b. Respondent's failure to develop and implement adequate BMPs at the Facility violated the General Permit (General Permit, Effluent Limitation B(3)), which was issued pursuant to Section 402 of the Act, 33 U.S.C. § 1342, and thus violated Section 301(a) of the Act, 33 U.S.C. § 1311(a).
- c. By discharging storm water associated with its industrial activities at the Facility to a water of the United States in violation of the General Permit requirements, as described above, Respondent has violated Section 301(a) of the Act, 33 U.S.C. § 1311(a).

ORDER FOR COMPLIANCE

Considering the foregoing Findings of Violations and the potential environmental and human health effects of the violations, EPA has determined that compliance in accordance with the following requirements is reasonable. Pursuant to the authority of Section 308 and 309 of the Act, 33 U.S.C. §§ 1318 and 1319, it is hereby ordered that Respondent comply with the following requirements:

- 21. Immediately upon receipt of this Order, Respondent shall take all necessary measures to fully and properly comply with all terms and conditions of the General Permit, including providing adequate cover and containment for all containers in the bulk waste treatment room that are exposed to precipitation.
- 22. Within 10 days of receipt of this Order, Respondent shall submit an inventory of all material located in the bulk waste treatment area. The inventory shall include the type and amount (in gallons) of all material undergoing and waiting processing that is placed in the bulk waste treatment area.
- 23. Within 10 days of receipt of this Order, Respondent shall provide adequate secondary containment for all the material in the bulk waste treatment area. Adequate secondary containment could include a combination of over-pack containers as well as the proper disposal of material awaiting treatment.
- 24. Within 21 days of receipt of this Order, Respondent shall submit a report demonstrating that they have provided adequate secondary containment at the bulk waste treatment area. The report shall include photographs of the bulk waste treatment area, the containment area showing corrected conditions and all drawings, calculations, and manifests in order to show that secondary containment is adequate to contain the volume of material located in the bulk waste treatment area.
- 25. Within 21 days of receipt of this order, Respondent shall submit a schedule for repair or replacement of the roof over the bulk waste treatment area, or a plan to ensure that the bulk waste treatment area is appropriately covered and contained within 120 days of the receipt of this order. Respondent shall file reports to EPA describing Respondent's process to repair or replace the roof or close the bulk waste treatment area. These reports

are due on the 1st and 15th of each month until the bulk waste treatment area has been appropriately covered, contained, closed, or EPA informs Respondent that such reports are no longer necessary.

26. With 21 days of receipt of this order, Respondent shall ensure that the sump surrounding the 90-day Hazardous Waste Storage Area is cleaned and properly functioning. Respondent shall also submit photos and a report to EPA within 21 days certifying that this has been completed.
27. In performing the measures to comply with this Order, care shall be taken to ensure Respondent does not cause or contribute any runoff to waters of the United States, the municipal storm drains, or the municipal sewer system. Care shall be taken to ensure compliance with all applicable federal, state, and local waste storage and disposal requirements.
28. Within 21 days of receipt of this Order, Respondent shall submit all inspection reports, monitoring records, sample results and annual reports required by the General Permit. If no such reports or records exist, Respondent shall state that no such records exist.
29. Within 21 day of receipt of this Order, Respondent shall submit a certification that the pH monitor is fully functioning. Respondent shall also submit records demonstrating when the pH meter was serviced and calibrated, and became fully functioning.
30. Within 30 days of the receipt of this Order, Respondent shall submit a revised SWPPP to EPA that fully complies with the General Permit and reflects current sampling data. The SWPPP revisions shall include, among all other required elements:
 - a. A facility site map that show drainage patterns;
 - b. A listing of all potential pollutant sources and associated BMPs; and
 - c. A signature and certification for the SWPPP by Respondent's appropriate representative.
31. Within 45 days of the receipt of this Order, Respondent shall submit a report to EPA on the costs associated with: development of the revised SWPPP, projected incremental annual costs associated with implementation of the revised SWPPP, and any other costs associated with complying with this Order, including costs to repair and calibrate the pH meter.
32. All reports submitted pursuant to this Order must be signed by a principal executive officer, ranking elected official, or duly authorized representative of Respondent (as specified by 40 CFR § 122.22 (b)(2)) and shall include the following statement:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather

and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

33. All submissions requested by this Order shall be mailed to the following address:

U. S. Environmental Protection Agency - Region 9
Clean Water Act Compliance Office WTR-7
75 Hawthorne Street
San Francisco, CA 94105
Attention: Ellen Blake

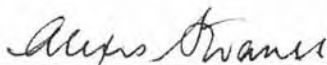
All telephone inquiries should be made to Ellen Blake, Senior Environmental Scientist, at (415) 972-3496.

34. Respondents shall send a copy of all submissions required under this Order to:

California Regional Water Quality Control Board –San Francisco Bay Region
1515 Clay Street
Oakland, CA 94612
Attention: Shin-Roei Lee

35. This Order shall be binding upon Respondent and its officers, directors, agents, employees, heirs, successors, and assigns.
36. This Order is not a permit under the CWA, and does not waive or modify Respondent's obligation and responsibility to ascertain and comply with all applicable federal, state, or local laws, regulations, ordinances, permits, or licenses.
37. This Order is not to be deemed an election by EPA to forgo any remedies available to it under the law, including without limitation, any administrative, civil, or criminal action to seek penalties, fines, or other appropriate relief under the Act. EPA reserves all rights and remedies, legal and equitable, available to enforce any violations cited in this Order and to enforce this Order.
38. Requests for information contained within this Order are not subject to review by the Office of Management and Budget under the Paperwork Reduction Act because it is not a "collection of information" within the meaning of 44 U.S.C. § 3502(3). It is directed to fewer than ten persons and is an exempt investigation under 44 U.S.C. § 3518(c)(1) and 5 CFR § 1320.4(a)(2).

39. Respondent may not withhold from EPA any information on the grounds that it is confidential business information. However, EPA has promulgated, under 40 CFR Part 2, Subpart B, regulations to protect confidential business information it receives. A claim of business confidentiality may be asserted in the manner specified by 40 CFR § 2.203(b) for all or part of the information requested by EPA. EPA will disclose business information covered by such claim only as authorized under 40 CFR Part 2, Subpart B. If no claim of confidentiality accompanies the information at the time EPA receives it, EPA may make it available to the public without further notice.
40. Section 309(a), (b), (d) and (g) of the Act, 33 U.S.C. § 1319(a), (b), (d) and (g), provides administrative and/or judicial relief for failure to comply with the CWA. In addition, Section 309(c) of the Act, 33 U.S.C. § 1319(c), provides criminal sanctions for negligent or knowing violations of the CWA and for knowingly making false statements.
41. This Order shall become effective upon the date of receipt by Respondent.



Alexis Strauss, Director
Water Division



Date

**U.S. Environmental Protection Agency, Region IX
CWA Compliance Office
Report of Clean Water Act Inspection**

Site Location: Electrochem Solutions, LLC
32500 Central Avenue
Union City, CA 94587

Date and Time of Visit: December 3, 2010
Approximately 10:00 a.m.

Site Operator: Electrochem Solutions, LLC
32500 Central Avenue
Union City, CA 94587
Contact: David Rossiter (President/CEO)

Conducted by: Ellen Blake, CWA Enforcement Officer
U.S. Environmental Protection Agency, Region IX
CWA Compliance Office (EPA)

Accompanied by: John Schofield, RCRA Enforcement Officer
U.S. Environmental Protection Agency, Region IX
RCRA Enforcement Office (EPA)
Amy Miller, Manager
U.S. Environmental Protection Agency, Region IX
RCRA Enforcement Office (EPA)
Chris Boykin, Acting Program Manager
City of Union City

Report Prepared by: Ellen Blake, EPA

Completed on: January 31, 2011

On December 3, 2010, EPA inspectors Ellen Blake, John Schofield, and Amy Miller met with Chris Boykin from the City of Union City and representatives from Electrochem Solutions, LLC (Electrochem) at Electrochem's 32500 Central Avenue, Union City location. Representatives from Electrochem included Dean Novy, Juan Zevala, Frank Ruano, and David Rossiter. EPA conducted a multi-media inspection which included an evaluation of the facility's compliance with the Clean Water Act (CWA) and the Resource Conservation and Recovery Act (RCRA). This inspection report is only intended to cover observations related to CWA compliance. The inspection began at approximately 10 a.m. and ended at approximately 3:00 p.m.

Water Permitting History: Electrochem was authorized to discharge stormwater associated with industrial activity under California's Multi-Sector General Permit on April 23, 2007. California assigned WDID 2 01I020833 to Electrochem at that time. In the letter notifying Electrochem that it was authorized to begin discharging stormwater, the California State Water Quality Control Board indicated that Electrochem falls under Standard Industrial Classification (SIC) 3471. SIC 3471 covers facilities which are engaged in Electroplating, Plating, Polishing, Anodizing, and Coloring and falls under SIC Major Group 34 Fabricated Metal Products. As described below, activities observed during the inspection support this SIC code classification.

Electrochem sends industrial wastewater (rinsewater and reverse osmosis (RO) reject) to the Union Sanitary District's (USD) sewer system under Industrial Wastewater Discharge Permit No. 201 issued by USD. The permit has an effective date of July 1, 2009 and expires on June 30, 2011. Electrochem is a categorical industrial user (metal finishing). The permit requires Electrochem to conduct semiannual self-monitoring for the metal finishing categorical limits (40 CFR 433 – NSPS) and daily monitoring for nickel and copper. It also requires continuous pH monitoring.

Facility Description: Electrochem is an approximately 30,000 square foot facility located in an industrial park in Union City. The facility consists of a production building containing a bulk waste treatment room and a maintenance shop, outdoor hazardous storage area, two parking lots and an outdoor staging and storage area. According to facility representatives, outdoor activities include shipping and receiving, staging, and storage.

The facility discharges stormwater to three storm drains. Two storm drains are located in the visitor parking lot on the north side of the facility and the other storm drain is located on the east side of the production building, about 30 feet from the 90-day hazardous waste storage area. The northern storm drains discharge through the City of Union City's MS4 (approximately 1 mile, see Attachment 1) to Dry Creek which flows 0.75 miles to Alameda Creek. Alameda Creek flows 6.5 miles before discharging into San Francisco Bay. The eastern storm drain pipe was severed sometime after 1999 during installation of a new building exit located near the anodizing/plating line. Discharges from this storm drain will initially pond in the railroad rail spur right of way located south of the facility. (See Attachment 2: photos 1-3 taken by Union City Inspector Chris Boyken on December 9, 2010.) During heavy storms, this storm water

flows to Central Avenue and enters the storm drain system, according to Union City staff. The storm drain on Central Avenue flows south to Pacific Street and then discharges into Dry Creek.

Observations: We inspected Electrochem's processing area located within the main building. Details about that portion of the inspection are found in the RCRA inspection report.

Bulk Waste Treatment Room: Electrochem treats the majority of the waste it produces on-site through a combination of precipitation and evaporation. It discharges RO reject and rinsewater to the Union Sanitation District.

During the inspection we observed 89 open 55-gallon containers of RCRA hazardous wastes and 10-15 smaller open containers (5-15 gallons) of RCRA hazardous wastes (see Attachment 3: PC030034, 036-039, 040-041, 043-044). According to the facility operator, this material was both undergoing treatment and waiting for treatment. The containers were full, uncovered and not placed on containment pallets. Additionally, the outsides of many of the barrels were covered with spilled or splashed material. The floor of the bulk waste treatment room was lined with rubber; however, the rubber mat was torn in several locations, allowing liquid to pool underneath the mat (see Attachment 3: PC030119). Additionally, the floor was wet and in some areas, the unknown liquid was 2-3 inches deep (see Attachment 3: PC030034, 042, 044-045).

Due to the corrosive nature of the material Electrochem was evaporating, the roof over the bulk waste treatment area had disintegrated (see Attachment 3: PC030035, 050) and had not been replaced or repaired. During rain events, rain will come into contact with the containers, the evaporators, and the material spilled on the floor. There is a sump located on the eastern edge of the bulk waste treatment area. When it rains, contaminated rain water and spilled materials are pumped from the sump and placed in open barrels to be treated by precipitation or evaporation.

The bulk waste treatment room is located approximately 75 feet from the eastern storm drain. While the room is generally surrounded by masonry walls, there is a fenced opening, approximately 8 feet long, for loading and unloading material. Electrochem has stored open barrels of sludge against the fence (see Attachment 3: PC030039). As discussed above, because this area is not covered, material can flow from this waste treatment area, under the fence to the eastern storm drain. While the sump functions as a BMP, it is not designed to capture and contain rain water. According to a 2007 tank inspection report supplied by facility personnel (see Attachment 4), the sump and attached secondary containment tanks have a capacity of 1,240 gallons. During the inspection, inspectors observed over 5,000 gallons of material in the uncovered bulk waste treatment room. Furthermore, Electrochem has located open barrels in areas where they will bypass the sump if they were overturned (see Attachment 3: PC030029). Electrochem was directed to immediately cover and contain the barrels in and around the waste treatment area.

90-day Hazardous Waste Storage Area: Electrochem maintains a separate, fenced, and covered less than 90-day hazardous waste accumulation area located outside the waste-treatment area, about 30 feet from the eastern storm drain (see Attachment 3: PC030080). Additionally, this accumulation area is separated into two parts with cyanide wastes located in small area segregated from all other wastes. The larger area is used to accumulate containerized D006, D007, and non-RCRA hazardous wastes (see Attachment 3: PC030072 through PC030074).

The less than 90-day hazardous waste accumulation area is surrounded by a wall, approximately three feet high, on three sides and a sump along the front. The wall appeared to be intact, but it was difficult to see due to the fact that the storage area was full of hazardous waste containers and empty containers (see Attachment 3: PC030073-74, 083). The sump along the front was full of liquid and sludge-like materials (see Attachment 3: PC030077, 079, 097). Additionally, containers of waste were placed outside the sump area (see Attachment 3: PC030076). The roof drains are connected to a plastic pipe and directed toward the storm drain. The discharge from these roof drains has discolored the pavement (see Attachment 3: PC030076).

The storm drain, located about 30 feet down-slope from the hazardous material storage area, was not protected from discharges. A rubber mat to cover the storm drain is located inside the locked hazardous waste storage area (see Attachment 3: PC030072 top right corner). According to the SWPPP, the mat is deployed when hazardous waste is removed from the site, but no BMPs are deployed when material is brought to or moved within the hazardous waste storage area. The inspectors saw no evidence that this mat had ever been used or moved from its current location.

Maintenance Shop: Electrochem has a maintenance shop to maintain forklifts and other machinery. The shop is covered and fenced and partially bermed with a six-inch berm. During the inspection, the inspectors noted a large amount of obsolete equipment and open, unlabelled five-gallon buckets of oily waste (see Attachment 3: PC030098-103).

General Yard: The pavement throughout the yard was generally deteriorating, especially the area around the eastern storm drain (see Attachment 3: PC030056-060). Additionally, obsolete equipment was stored throughout the yard, with a heavy concentration along the southeastern end of the property (see Attachment 3: PC030061-069). Old process tanks were located in this area. Attachment 3: PC030069 shows an old processing tank approximately ¼ full of unknown material.

Rusting metal parts and process tanks were stored approximately 15 feet from the eastern storm drain (see Attachment 3: PC030056). The facility operator indicated that this material was being sold for scrap and had only been staged there for a short period of time. During the inspection, the inspectors observed workers start to load the material into trucks.

Paperwork: The SWPPP was reviewed in the office. The SWPPP was last

updated on 6/29/2007 and appeared to be out of date. For example, the Storm Water Pollution Prevention Team identified M. Yunas Kahn and Tak Poon as employees with SWPPP responsibilities but both of these employees are no longer with Electrochem.

Additionally, the SWPPP did not adequately discuss the drainage patterns on site as it only discussed roof drains and said there was no sheet flow occurring on site. Given that a large portion of the site is a paved loading, unloading, and staging area, this drainage characterization is not accurate. In addition, the SWPPP did not list the locations for all significant materials stored on site, but only listed the Hazardous Material Inventory Statement (HMIS) by reference. By not describing the storm water flow or the location of significant materials, it is difficult for Electrochem to implement site-specific BMPs to ensure that storm water is not coming in to contact with these materials.

The SWPPP lists storm drain cleaning as a preventative maintenance BMP. It requires the storm drains to be cleaned by October 1 if the basin is 30% full of sediment. However, it is unclear how this is measured or observed. Additionally, given the materials stored on site and the manner in which the materials are stored, this is an inadequate trigger as the sediment in the storm drain is likely full of materials that will discharge with each rain event.

Training was also listed as a BMP. However, Electrochem did not maintain any records of training. The inspectors also reviewed all Annual Reports since 2007. Sample results are consistently above benchmarks for metals but there is no evidence that Electrochem changed any practices, implemented new BMPs or adjusted existing BMPs to reduce the discharge of metals.

Pretreatment: As discussed previously, Electrochem pre-treats its non-metal bearing wastewater (rinsewater and RO reject) before discharge to the USD. The pretreatment system consists of pH adjustment. Electrochem Solution has a sampling point at its discharge location (see Attachment 3: PC030070-071). According to Electrochem Solution's permit application, the pH adjust system consists of a 250 gallon tank where concentrated HCl or NaOH is added and mixed with the wastewater. There is a continuous pH monitor and data recorder. If the monitor signals an out-of-compliance status, the pump is turned off until the system returns to compliance. During the inspection, the pH recorder was not operational. According to Electrochem staff, the recorder had not been operational for several months. It was serviced the previous month but had since stopped working. During the inspection, the pH monitor registered a pH of 9.5, but a concurrent reading on a hand-held meter taken by John Schofield registered 11.29 (see Attachment 3: PC030116).

Attachments (2)

1. City of Union City GIS Storm Drain Map.
2. Photos 1-3 taken by Chris Boykin, City of Union City on December 9, 2010.

3. Photograph log of the December 3, 2010 inspection, labeled Photograph Log for EPA's December 3, 2010 Electrochem Solutions, LLC RCRA and CWA Inspection.
4. Excerpt from 2007 Tank Certification Report supplied by Electrochem Solutions, LLC on January 18, 2011.

Attachment 1

City of Union City GIS Storm Drain Map



509 ft

CityGIS

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Attachment 2

Photos 1-3 taken by Chris Boykin, City of Union City on December 9, 2010



Electrochem cut storm drain 12-9-10



Storm water ponding rail spur 12-9-10



Storm water ponding due to drain cut at exit 12-9-10

Attachment 3 Photograph Log

Photograph Log for EPA's December 3, 2010 Electrochem Solutions RCRA and CWA Inspection

All photographs on this log were taken with a digital camera by Amy C. Miller, RCRA Enforcement Office, EPA Region IX, except as noted. Please note that each photograph number begins with "PC030" and that the photograph log starts with photograph number 001.

- 001. Outdoor sign for Electrochem Solutions.
- 002. Production Room: All of the contents in the flammable cabinet are solvents used in the production process.
- 003. Production Room: Solid waste trash container. Contaminated gloves and wipes observed within the trash container. Note: staining on glove.
- 004. Main Wet Processing Area: Two unlabeled 55-gallon containers of used gold strip (cyanide).
- 005. Main Wet Processing Area: Six 55-gallon containers of gold strip (cyanide) including the two containers in the previous photograph. Four containers are labeled with the waste name and accumulation start dates.
- 006. Main Wet Processing Area: Unknown liquid in an open container under a table adjacent to the six 55-gallon containers in previous photograph.
- 007. Main Wet Processing Area: An open and un-secured container of gold strip (cyanide) product.
- 008. Main Wet Processing Area: Open and unlabeled container of silver tarnish solution waste.
- 009. Main Wet Processing Area: A 55-gallon container of tin waste. Note: the label is smudged and difficult to read.
- 010. Main Wet Processing Area: Unused 10-foot deep lined containment area. Note: liquid can be seen on surface of the liner.
- 011. Main Wet Processing Area: Unused 10-foot deep lined containment area. Note: tear in the liner.

012. Anodizing Area: Open 55-gallon container of nickel waste. The label has no accumulation start date.
013. Anodizing Area: Close up of label from previous photograph.
014. Anodizing Area: Overview shot of eleven 55-gallon containers of nickel, sulfamate, and hydrochloric acid waste.
015. Anodizing Area: Close up of the label for the hydrochloric acid 55-gallon container. Note: no accumulation start date or other required labeling information.
016. Anodizing Area: Open, cut top 55-gallon container labeled "water waste." The label has no accumulation start date or other required labeling information.
017. Anodizing Area: Close up of the label on the 55-gallon container in the previous photograph.
018. Anodizing Area: Inside of trash can containing contaminated gloves.
019. Anodizing Area: Open and unlabeled cut 55-gallon container. Facility representative stated that it contained dichromate waste water.
020. Anodizing Area: Open cut top 55-gallon container labeled "rinse water." Facility representative stated that it contained nitric acid and 40% nickel strip wastewater.
021. Anodizing Area: Seven 55-gallon containers. There is one product container, one nitric acid waste container, and five nickel waste containers. None of the waste containers had accumulation start dates or other required labeling information.
022. Anodizing Area: An open 5-gallon container of unknown substance.
023. Anodizing Area: Open cut top 55-gallon container labeled "waste water." Facility representative stated it was placed in the location to collect rain water from a leak in the roof.
024. Utility Room: Nine 55-gallon containers of glycol product. Note: the bungs on two of the containers were open.
025. Utility Room: Leaking pipes.
026. Utility Room: Concrete under leaking pipes in previous photograph is corroded.
027. Water Treatment and Equipment Area: Three 55-gallon containers of cyanide solution waste with hazardous waste labels.

- 028. Water Treatment and Equipment Area: Close up of the hazardous waste label on one of three 55-gallon containers of cyanide solution in previous photograph. Note: 9/18/10 was the earliest accumulation start date on these three containers.
- 029. Water Treatment and Equipment Area: Overview of the area facing towards outdoor area. Note: three open and cut top 55-gallon containers in close proximity to the door, bypassing the sump.
- 030. Water Treatment and Equipment Area: Overview of the area with approximately eleven 55-gallon containers of waste.
- 031. Water Treatment and Equipment Area: Overview of the area facing towards the outdoor area. Note: four 55-gallon containers adjacent to wastewater treatment equipment. Two are open top.
- 032. Water Treatment and Equipment Area: An open top cut 55-gallon container with waste material.
- 033. Water Treatment and Equipment Area: Close up view of the three open and cut top 55 gallon containers in photograph 029.
- 034. Bulk Waste Processing Area: View of the area from the entryway from the Water Treatment and Equipment Area. Note: numerous containers are open and unlabeled.
- 035. Bulk Waste Processing Area: The roof corroded off this portion of the building.
- 036. Bulk Waste Processing Area: Six open top 55-gallon containers and one long rectangular container. One of the containers is labeled "sludge."
- 037. Bulk Waste Processing Area: Two open top 55-gallon containers. One of the containers is labeled "water etch."
- 038. Bulk Waste Processing Area: One open top 55-gallon container labeled "sludge."
- 039. Bulk Waste Processing Area: Three open top 55-gallon containers placed near the fence, bypassing the sump and perimeter wall.
- 040. Bulk Waste Processing Area: Ten open top 55-gallon containers and one 5-gallon open container and one 5-gallon closed container.
- 041. Bulk Waste Processing Area: Approximately fourteen open top 55-gallon containers.
- 042. Bulk Waste Processing Area: Liquid observed on the floor in the area. The floor is lined, although torn in some locations.

- 043. Bulk Waste Processing Area: Approximately seventeen open top 55-gallon containers.
- 044. Bulk Waste Processing Area: Approximately seventeen open top 55-gallon containers. Note: liquid on the ground.
- 045. Bulk Waste Processing Area: An open top 5-gallon container. Note: liquid on the ground.
- 046. Bulk Waste Processing Area: Filter press. Open tray with liquid underneath press.
- 047. Bulk Waste Processing Area: Three open top 55-gallon containers, three open top 5-gallon containers and two closed 5-gallon containers.
- 048. Bulk Waste Processing Area: Open top bin with liquid inside.
- 049. Bulk Waste Processing Area: Open top containers of various sizes with liquid inside.
- 050. Bulk Waste Processing Area: View of evaporator and corroded walls and roof.
- 051. Bulk Waste Processing Area: Hazardous waste label on bin of F007 waste. The accumulation start date is 12/1/10.
- 052. Bulk Waste Processing Area: An open 55-gallon container with various unlabeled containers inside.
- 053. Bulk Waste Processing Area: Tank labeled "Nitric Waste Acid."
- 054. Bulk Waste Processing Area: Three open 5-gallon containers. One container has an unknown liquid.
- 055. Outdoor Area: View from backside of the building.
- 056. Outdoor Area: Obsolete plating fixtures adjacent to trash bins.
- 057. Outdoor Area: Area immediately adjacent to the Water Treatment and Equipment Area. Note area slopes towards outdoor area. The area is wet from inside the building down to the Di water tanks.
- 058. Outdoor Area: storm drain approximately 30 feet from the back of the building.
- 059. Outdoor Area: View of storm drain in relationship to the building. Closest part of the building is the Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage).

- 060. Outdoor Area: View from the outdoor area the Water Treatment and Equipment Area, Bulk Waste Processing Area, and Maintenance Shop. Note puddle of liquid near forklift and Water Treatment and Equipment Area.
- 061. Outdoor Area: Empty container and debris behind storage trailer.
- 062. Outdoor Area: Open garbage bin with debris and open containers inside.
- 063. Outdoor Area: Open garbage bin behind storage trailers as seen in previous photograph.
- 064. Outdoor Area: Obsolete equipment and fixtures stored behind the storage trailers.
- 065. Outdoor Area: Shredded containers and other debris stored behind the storage trailers.
- 066. Outdoor Area: Metal parts and a 55-gallon container of scrap metal next to storage trailers.
- 067. Outdoor Area: Obsolete equipment and fixtures stored behind the storage trailers.
- 068. Outdoor Area: Obsolete process tank containing unknown liquid .
- 069. Outdoor Area: Discarded plating bath with unknown liquid inside.
- 070. Water Treatment and Equipment Area: Sample box and pH meter for sewer discharge.
- 071. Water Treatment and Equipment Area: Close up of pH meter. Note: the pH meter is not functioning.
- 072. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Area is lined. There are approximately thirty 55-gallon containers and approximately two 5-gallon containers in the photograph. Containers along the short wall are open and labeled as "filters" and "liners." The floor in this area is stained, but lined. Many labels on the containers could not be read. One container label in view reads "nickel strip" and another states "gold alodine."
- 073. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Approximately forty 55-gallon containers and in some places triple stacked. A bin with a sheet of wood on top is located in the foreground.
- 074. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Approximately twenty-five 55-gallon containers. Many labels on the

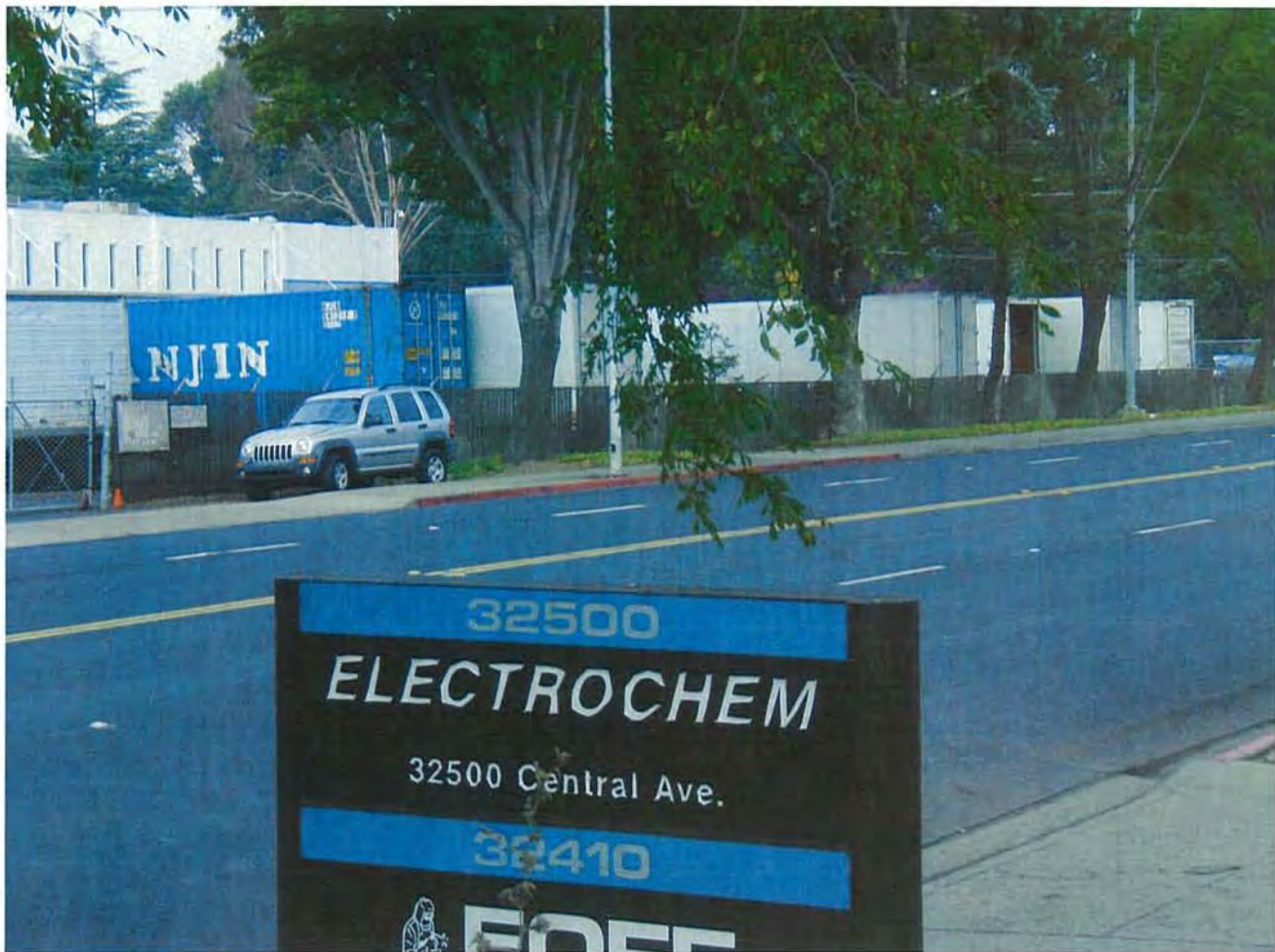
containers could not be read. One container label in view states "nickel strip" and the other states "gold alodine."

- 075. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): One hazardous waste label partially in view on one of the containers states "resin waste."
- 076. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Slot drain located along entry to the storage area. Note that containers are stored on top of drain. Piping from rain gutter drains at the entry of the storage area. Note white-colored pavement from roof drain.
- 077. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Slot drain is full of liquid.
- 078. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): One of three 55-gallon container of cyanide waste filter label has an accumulation start date of 8/4/10.
- 079. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Another view of slot drain seen in photograph 077 full of liquid.
- 080. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): View of storm drain from the slot drain at the hazardous waste storage area.
- 081. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): One of three 55-gallon container of cyanide waste filter label has an accumulation start date of 8/4/10.
- 082. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): One of three 55-gallon container of cyanide waste filter label has an accumulation start date of 8/4/10. Note: the bung on the container is open.
- 083. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Another view of the triple stacked 55-gallon containers seen in photograph 073.
- 084. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): A label seen on one of the 55-gallon containers is faded and appears to have an accumulation start date of 1/19/09. Note: container is corroded (*photograph taken by John Schofield*).
- 085. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): No label in view on the 55-gallon container. Note: the bird waste on container (*photograph taken by John Schofield*).

086. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): No label in view on the 55-gallon container. Note: the bird waste on container (*photograph taken by John Schofield*).
087. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Label in view on the 55-gallon container, but picture is blurred. Note: the bird waste on container (*photograph taken by John Schofield*).
088. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Label in view on the 55-gallon container, but picture is blurred. Note: the bird waste on container (*photograph taken by John Schofield*).
089. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Same 55-gallon container in photograph 084. Note that the container has liquid on top and is corroded (*photograph taken by John Schofield*).
090. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): 55-gallon container is covered with bird waste. Label is smudged (*photograph taken by John Schofield*).
091. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Label on a 55-gallon container covered with bird waste. The label is blurred but the accumulation start date starts with 12/20 and states the material is "waste resin" (*photograph taken by John Schofield*).
092. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Same as photograph 075, a label on a 55-gallon container of hazardous waste is partially in view and states the material is "resin" (*photograph taken by John Schofield*).
093. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Same container as previous photograph (*photograph taken by John Schofield*).
094. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Label on 55 gallon container states material is "Bright Dip" (*photograph taken by John Schofield*).
095. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): The label on the 55-gallon container in photographs 075, 092, 093. The accumulation state date is 12/20/07 (*photograph taken by John Schofield*).
096. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Same as previous photograph (*photograph taken by John Schofield*).

097. Less than 90-day Hazardous Waste Accumulation Area (Waste Chemical Storage): Slot drain in middle of storage area is full of bird waste (*photograph taken by John Schofield*).
098. Maintenance Shop: Open 5-gallon container of unknown substance.
099. Maintenance Shop: Two 2-gallon containers labeled as "oil."
100. Maintenance Shop: A 5-gallon container captures liquid from a machine.
101. Maintenance Shop: An open 55-gallon container with debris inside.
102. Maintenance Shop: An open 5-gallon container of unknown material.
103. Maintenance Shop: Four 5-gallon open containers of product sand.
104. Maintenance Shop: Product in the flammable cabinet. Picture is blurred.
105. Maintenance Shop: Same as previous photograph.
106. Maintenance Shop: Unlabeled product containers in the flammable cabinet.
107. Maintenance Shop: Unlabeled product containers in the flammable cabinet.
108. Maintenance Shop: 2-gallon container labeled as "oil." Same container in photograph 099.
109. Maintenance Shop: 2-gallon container labeled as "oil." Same container in photograph 099.
110. Chemical Storage: Three 2-gallon old product containers. One label is faded. Another is written over with the words "Acid" and "Polish."
111. Chemical Storage: Close up of one of the 2-gallon containers in the previous photograph.
112. Chemical Lab: Trash can containing contaminated gloves.
113. Chemical Lab: A 2-gallon unlabeled container of cyanide waste.
114. Chemical Lab: Various containers under the sink including two 2-gallon unlabeled containers of cyanide waste.
115. John Schofield monitoring pH levels in sewer sample box located in the Water Treatment and Equipment Area (*photograph taken by Chris Boykin*).

116. John Schofield monitoring pH levels in sample box located in the Water Treatment and Equipment Area (*photograph taken by Chris Boykin*).
117. John Schofield monitoring pH levels of evaporator liquid/solids from Evaporator Tank located in the Bulk Waste Processing Area. The pH monitoring was performed in the Water Treatment and Equipment Area (*photograph taken by Chris Boykin*).
118. John Schofield monitoring pH levels in hazardous waste treatment container located in the Bulk Waste Processing Area (*photograph taken by Chris Boykin*).
119. Photograph of tear in liner Bulk Waste Processing Area (*photograph taken by Chris Boykin*).
120. John Schofield monitoring pH levels in hazardous waste treatment container located in the Bulk Waste Processing Area (*photograph taken by Chris Boykin*).
121. John Schofield monitoring pH levels in hazardous waste treatment container located in the Bulk Waste Processing Area (*photograph taken by Chris Boykin*).
122. John Schofield monitoring pH levels in hazardous waste treatment container located in the Bulk Waste Processing Area (*photograph taken by Chris Boykin*).
123. John Schofield monitoring pH levels in hazardous waste treatment container located in the Bulk Waste Processing Area (*photograph taken by Chris Boykin*).
124. John Schofield monitoring pH levels in hazardous waste treatment container located in the Bulk Waste Processing Area (*photograph taken by Chris Boykin*).
125. John Schofield monitoring pH levels in hazardous waste treatment container located in the Bulk Waste Processing Area (*photograph taken by Chris Boykin*).
126. John Schofield monitoring pH levels in hazardous waste treatment container located in the Bulk Waste Processing Area (*photograph taken by Chris Boykin*).



PC030001



PC030002



PC030003



PC030004



PC030005



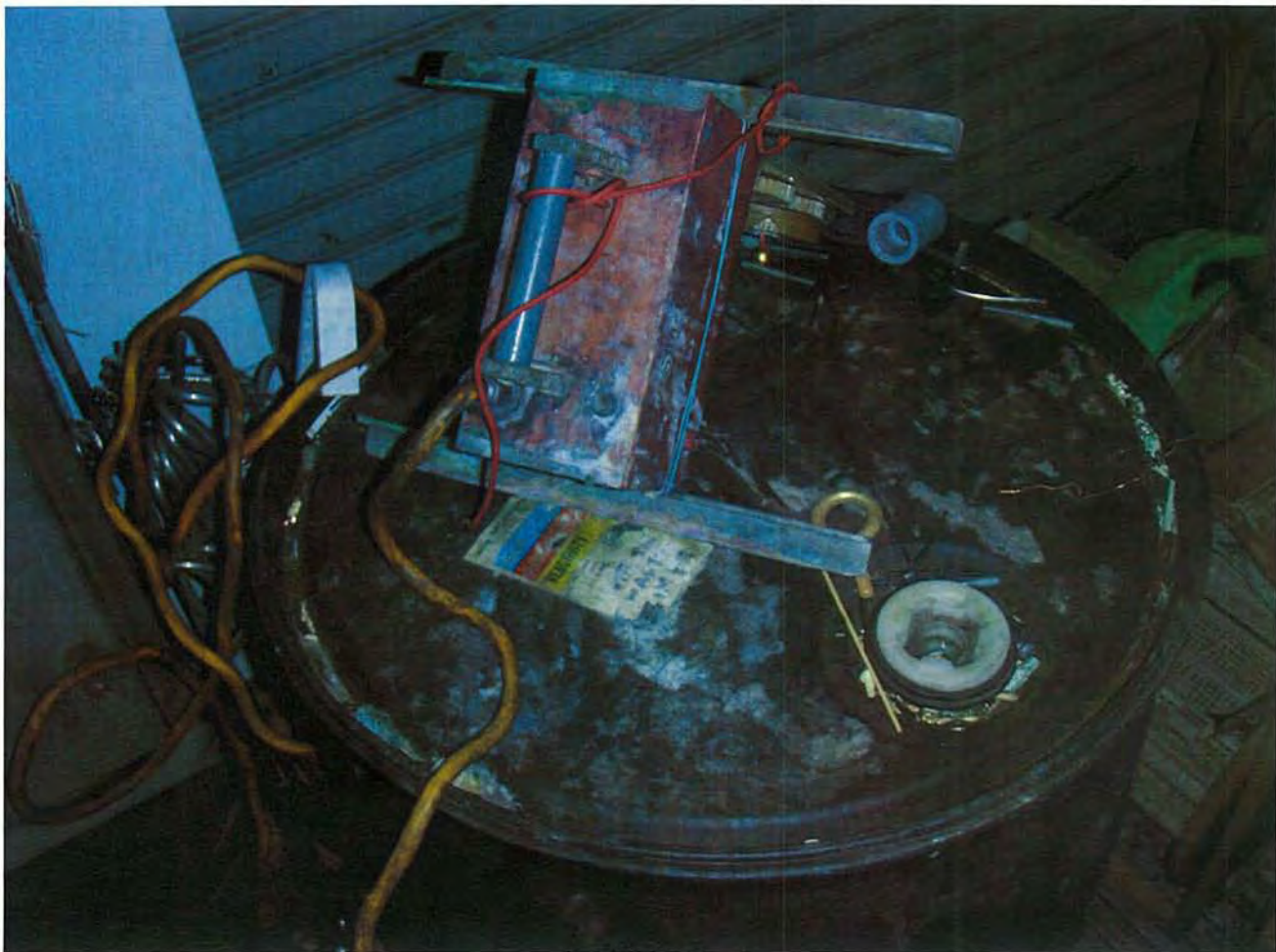
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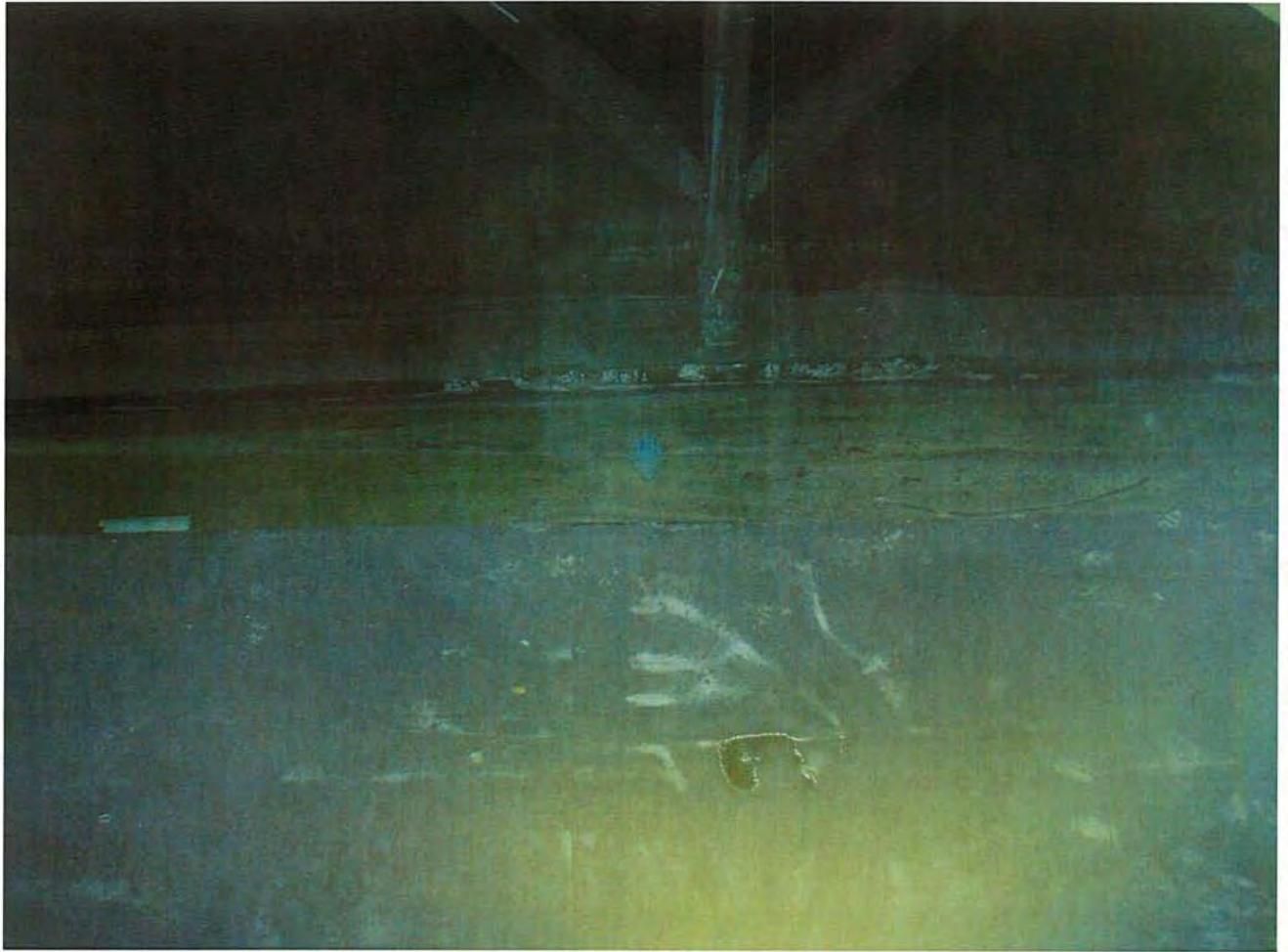
PC030007



PC030008



PC030009



PC030010



PC030011



PC030012

SUBSTANCE IDENTITY (Same as shown on MSDS)

HEALTH



FLAMMABILITY



REACTIVITY



4 — Severe
3 — Serious
2 — Moderate

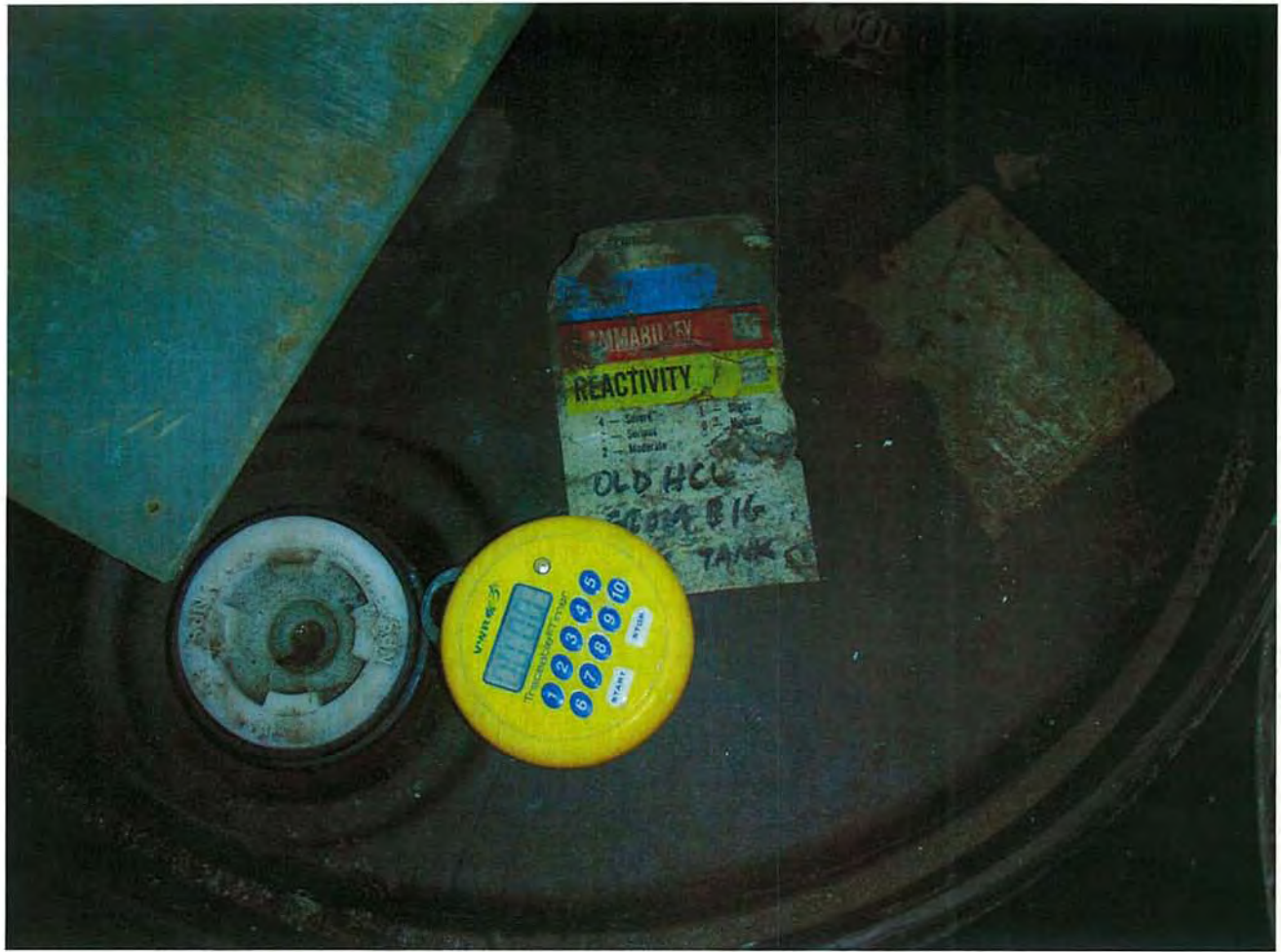
1 — Slight
0 — Minimal

Nickel WASTE

PC030013



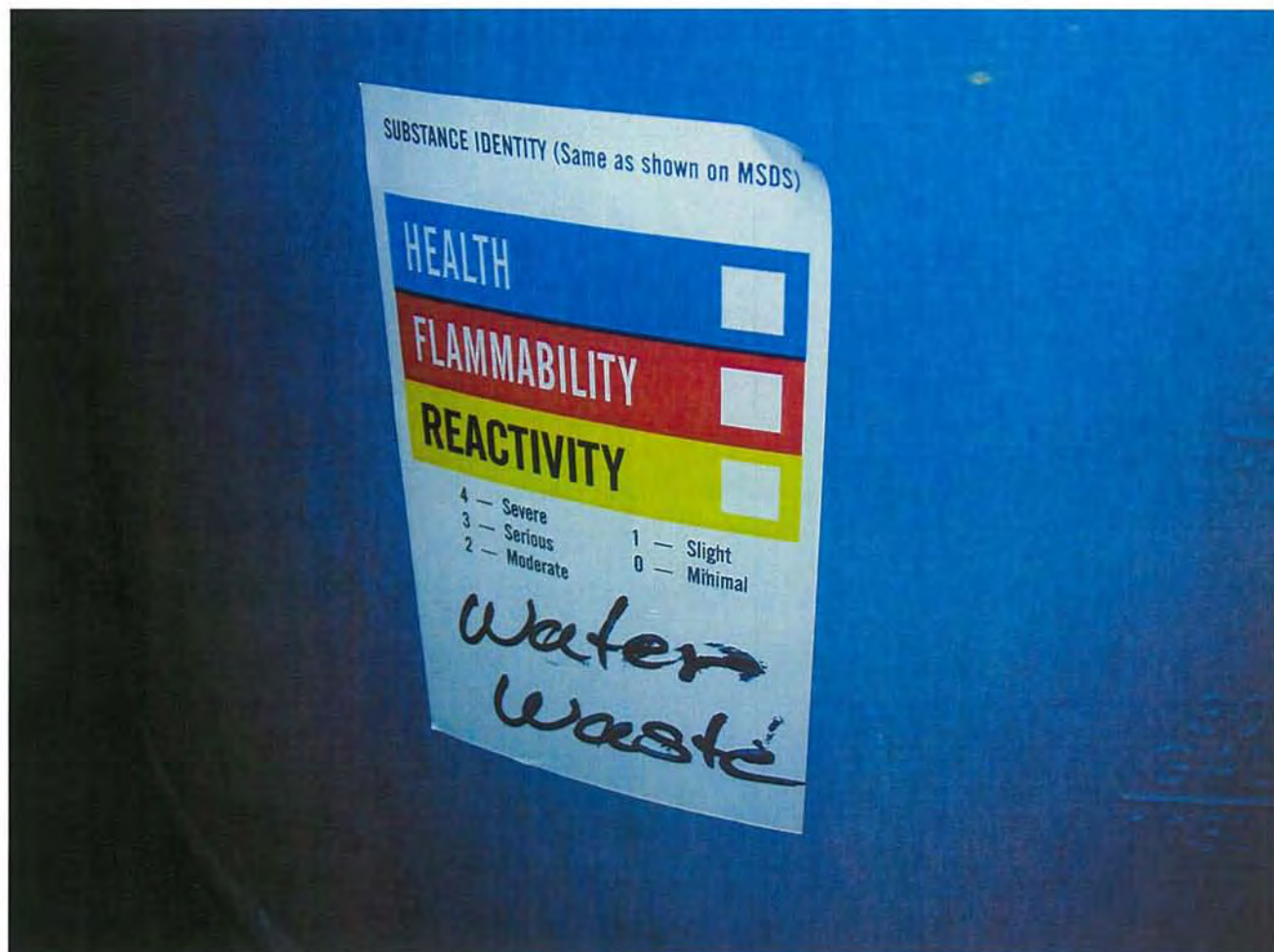
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PC030015



PC030016



PC030017



PC030018



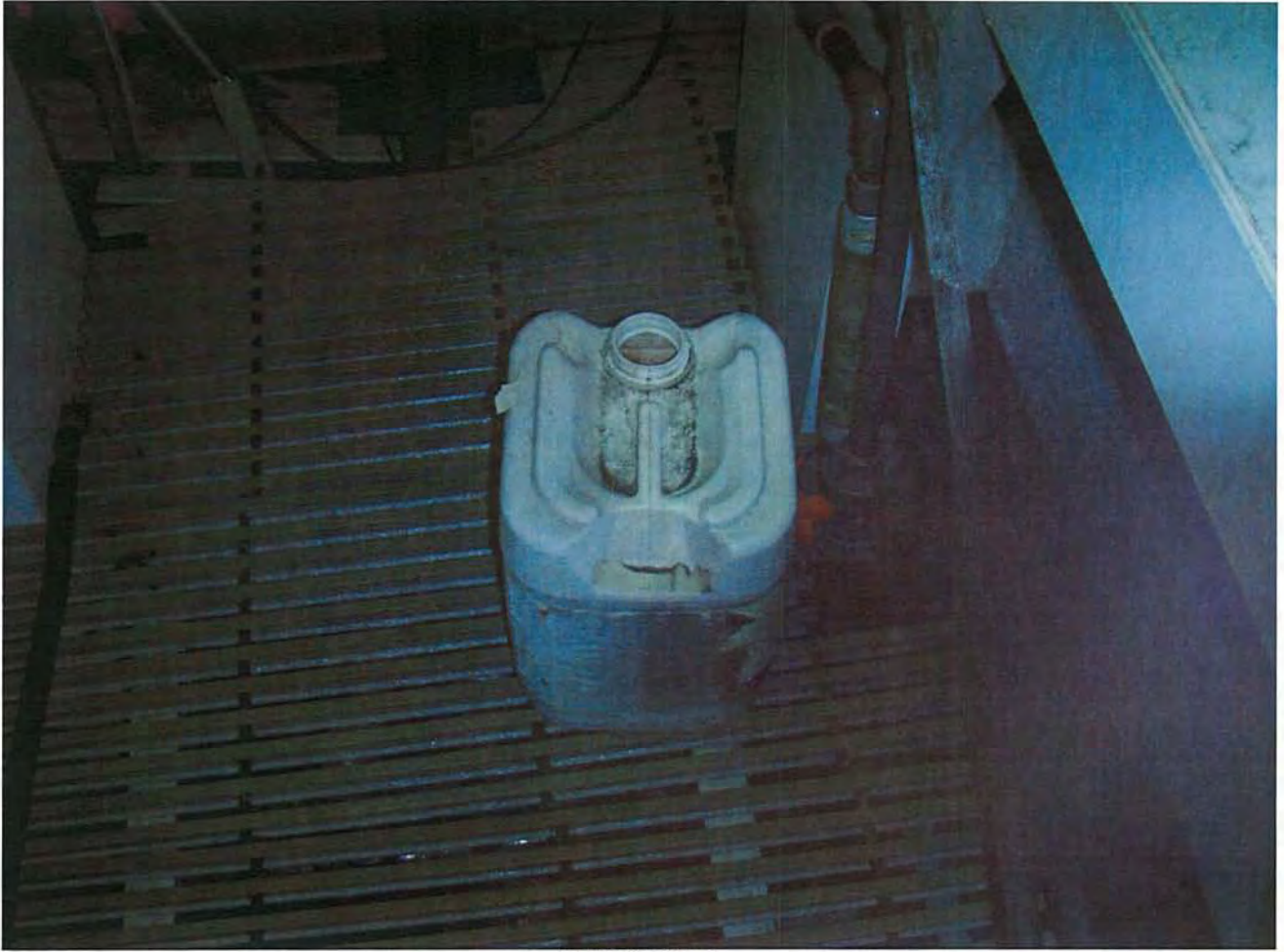
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PC030020



PC030021



PC030022



PC030023



PC030024



PC030025



PC030026



PC030027

HAZARDOUS WASTE

STATE AND FEDERAL LAW PROHIBITS IMPROPER DISPOSAL
IF FOUND CONTACT THE NEAREST POLICE OR PUBLIC SAFETY
AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY

AND THE CALIFORNIA DEPT OF TOXIC SUBSTANCES CONTROL

GENERATOR

ELECTROCHEM SOLUTIONS, INC. 32500 WASTE CODES
CENTRAL AVENUE UNION CITY CA F007 131
94587

EPA ID CAR000020875

PROPER D.O.T. SHIPPING NAME

UN1935 WASTE CYANIDE SOLUTIONS, N.O.S.
(CYANIDE PLATING RINSE WATER SOLUTION) 6.1
PGIII "TOXIC" ERG(157)

Profile 403089-00
CYANIDE DRAGOUT

Wst Code WAT20

ACCUMULATION Label 19 of 47
START DATE 09/18/10

PC030028



PC030029



PC030030



PC030031



PC030032



PC030033



PC030034



PC030035



PC030036



PC030037



PC030038



PC030039



PC030040



PC030041



PC030042



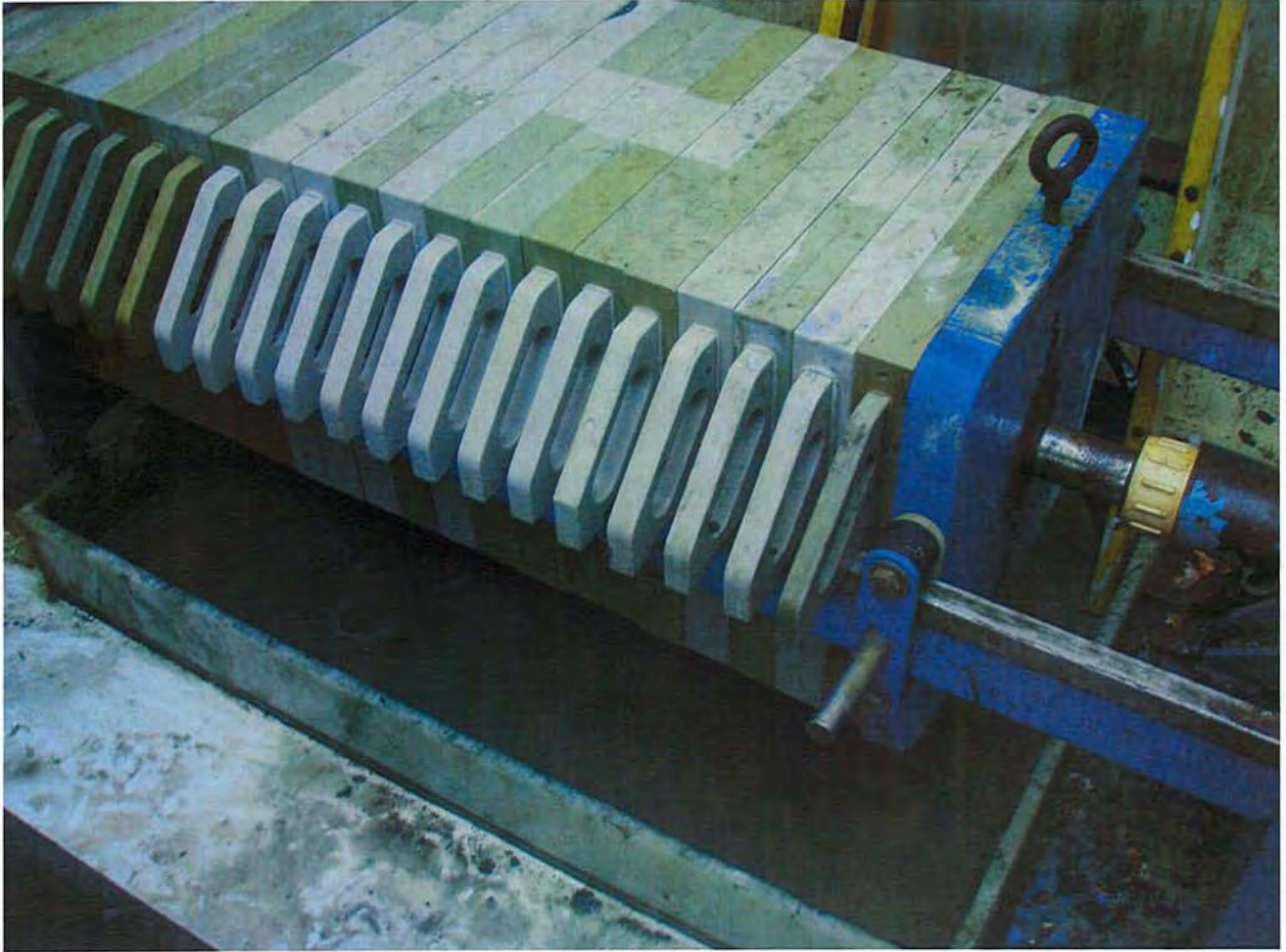
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PC030044



PC030045



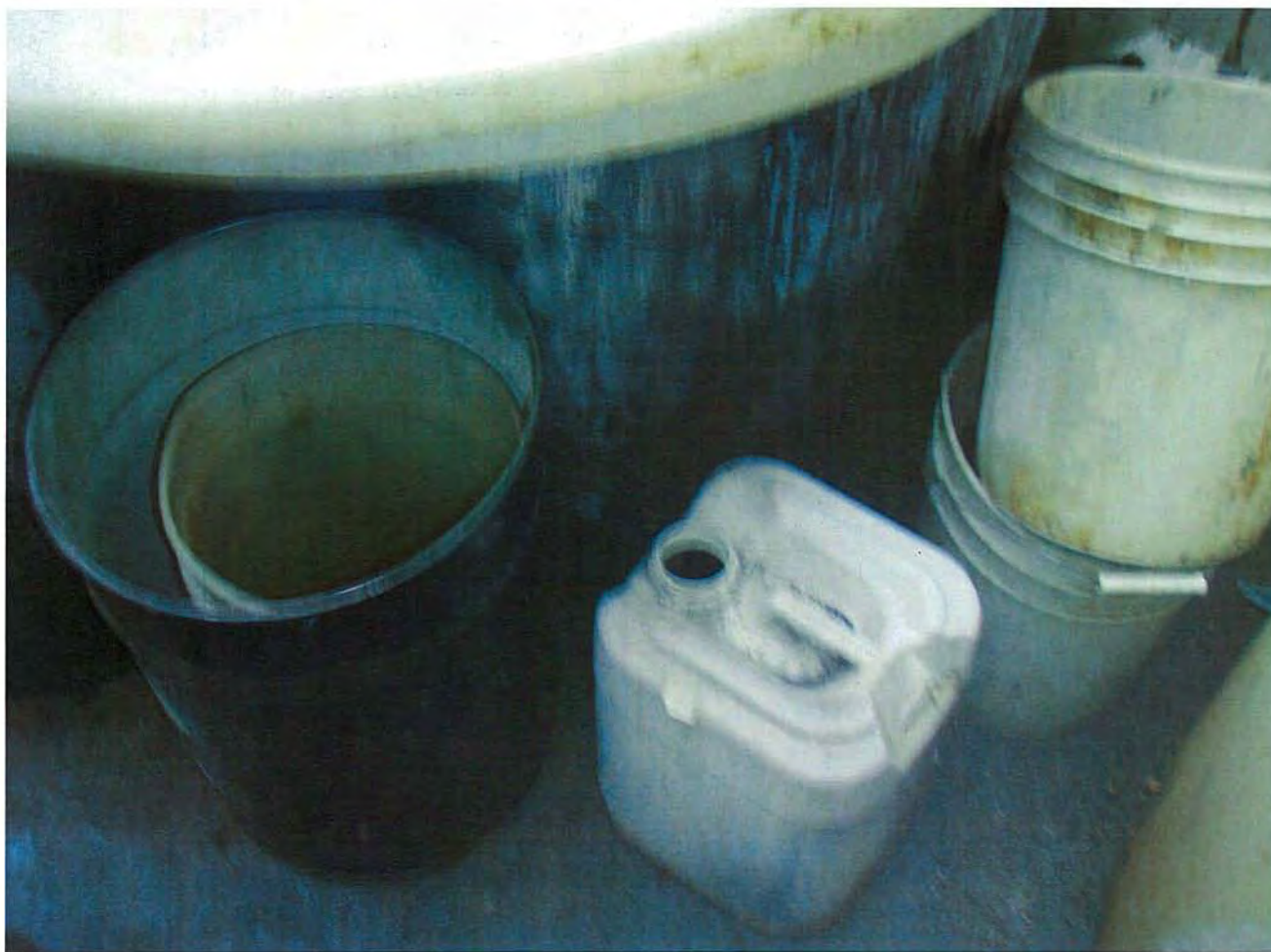
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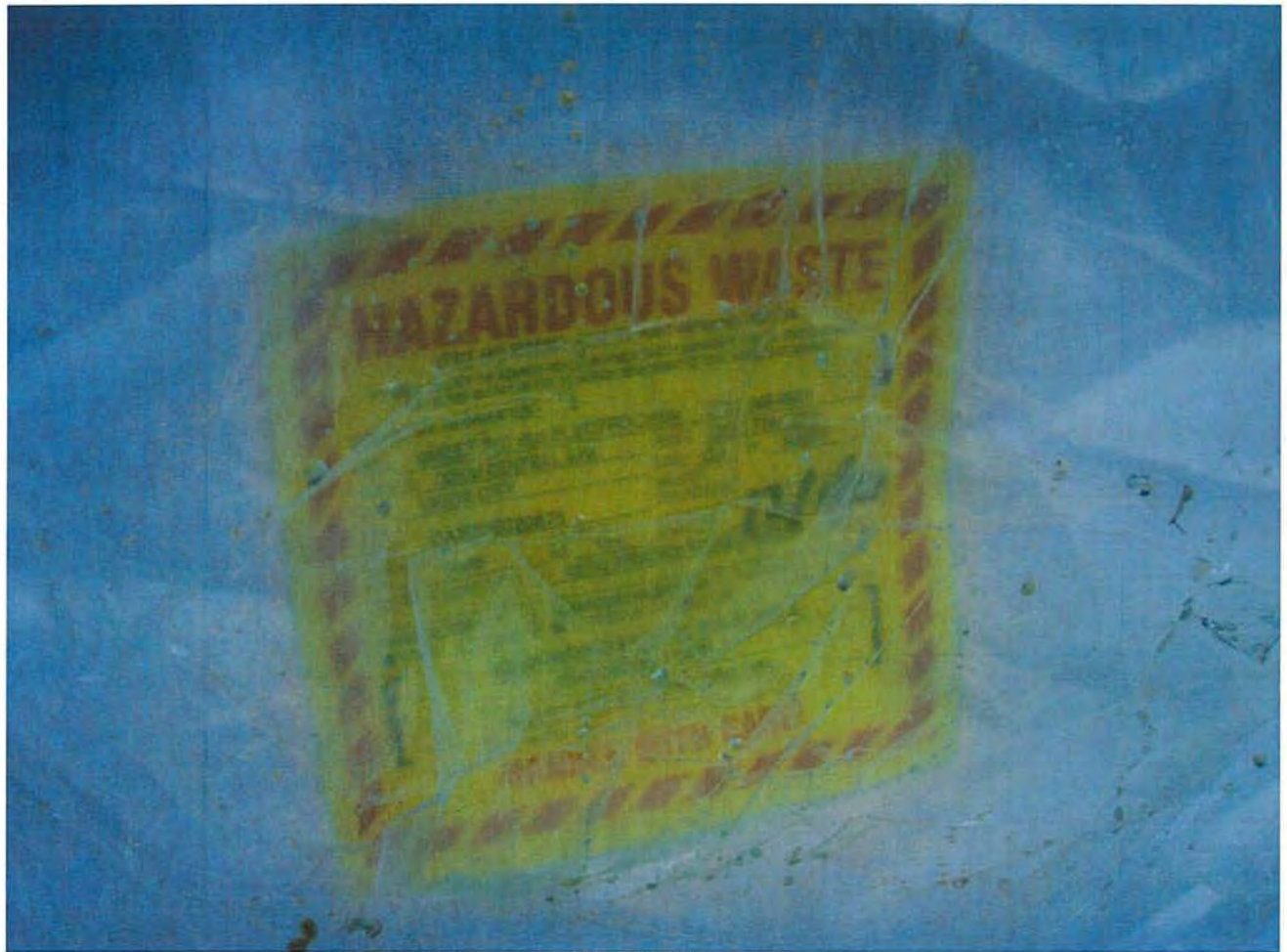
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PC030049



PC030050



PC030051



PC030052



PC030053



PC030054



PC030055



PC030056



PC030057



PC030058



PC030059



PC030060



PC030061



PC030062



PC030063



PC030064



PC030065



PC030066



PC030067



PC030068



PC030069



PC030070



PC030071



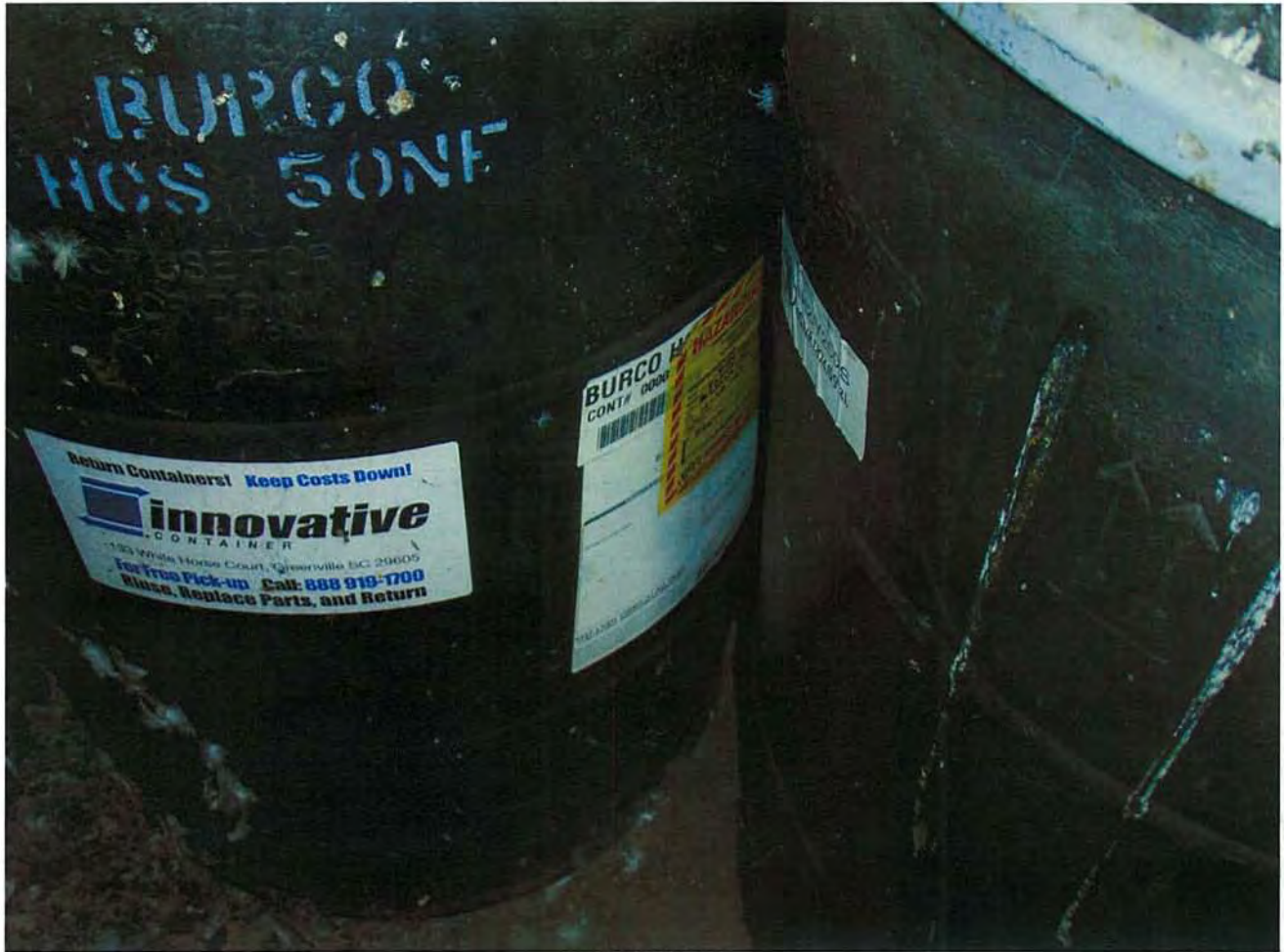
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PC030073



PC030074



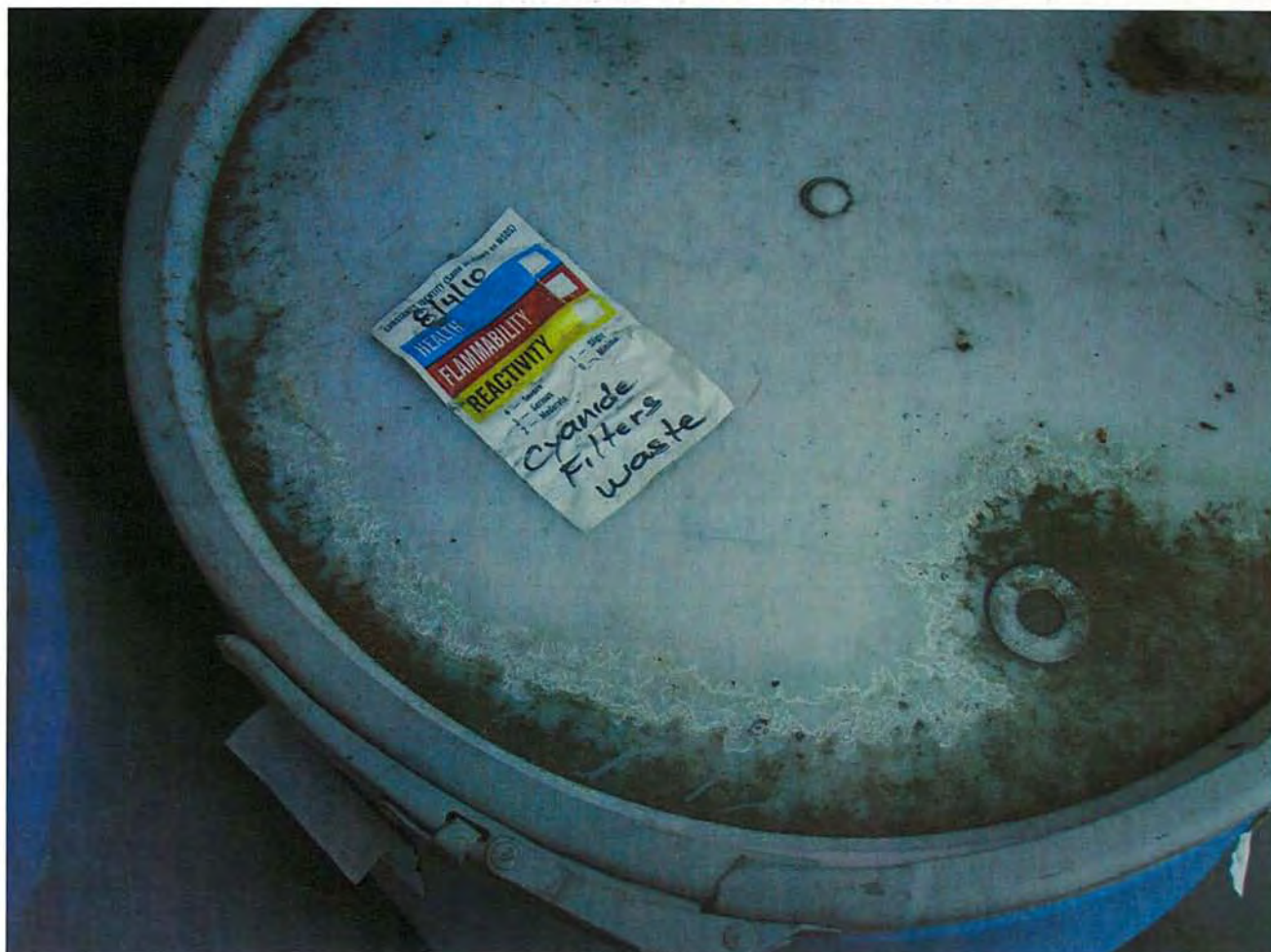
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PC030076



PC030077



PC030078



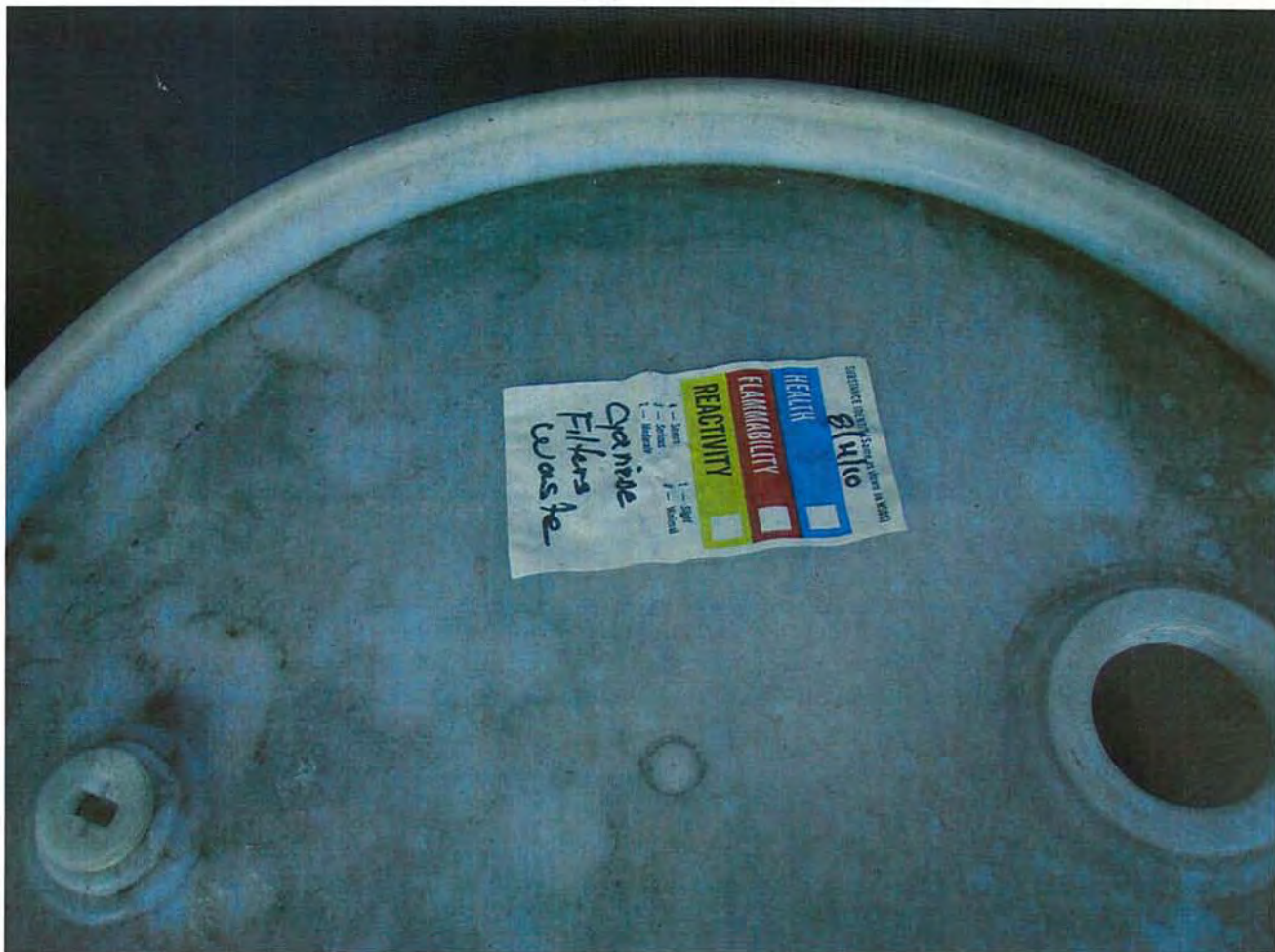
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PC030080



PC030081



PC030082



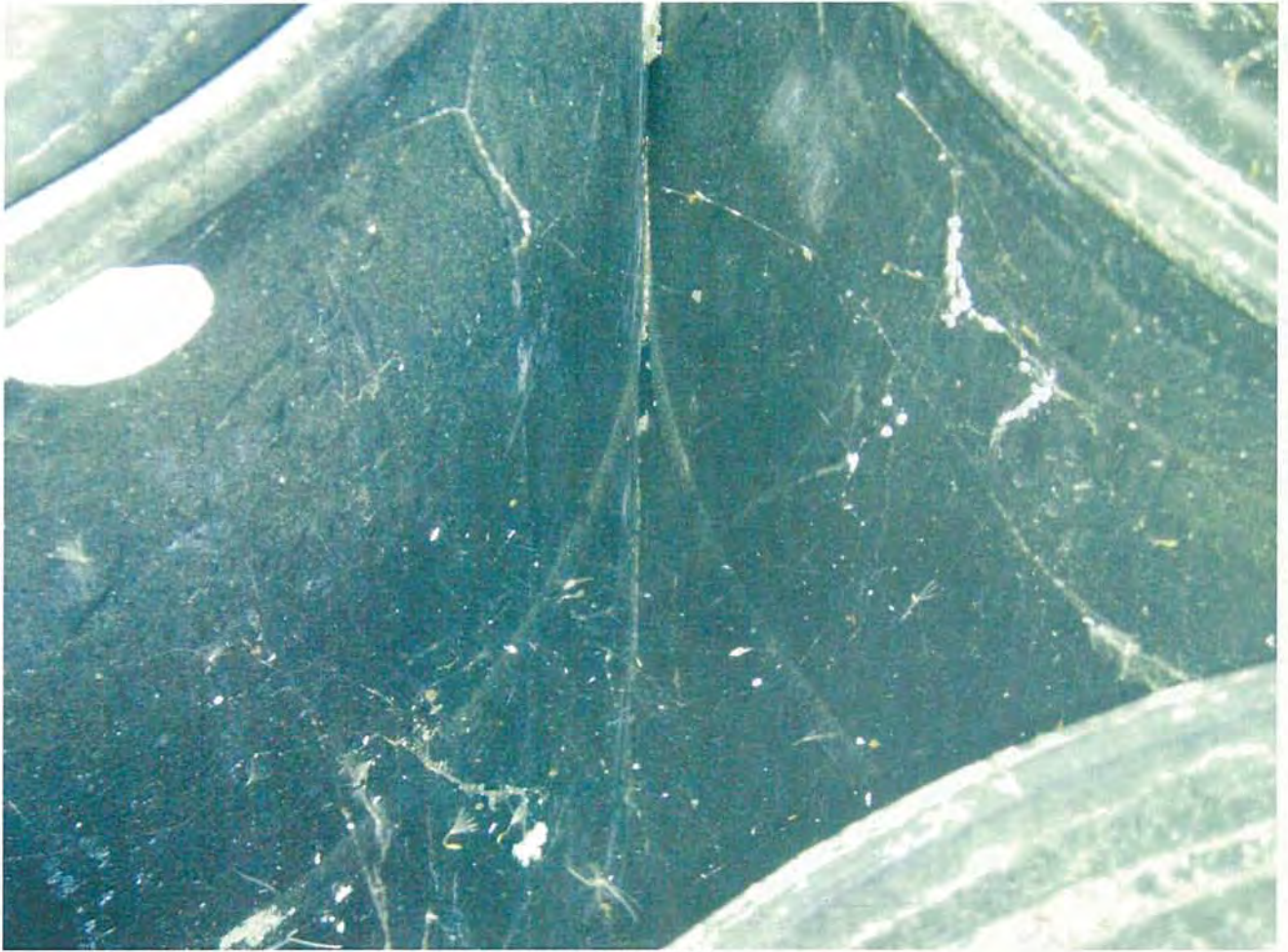
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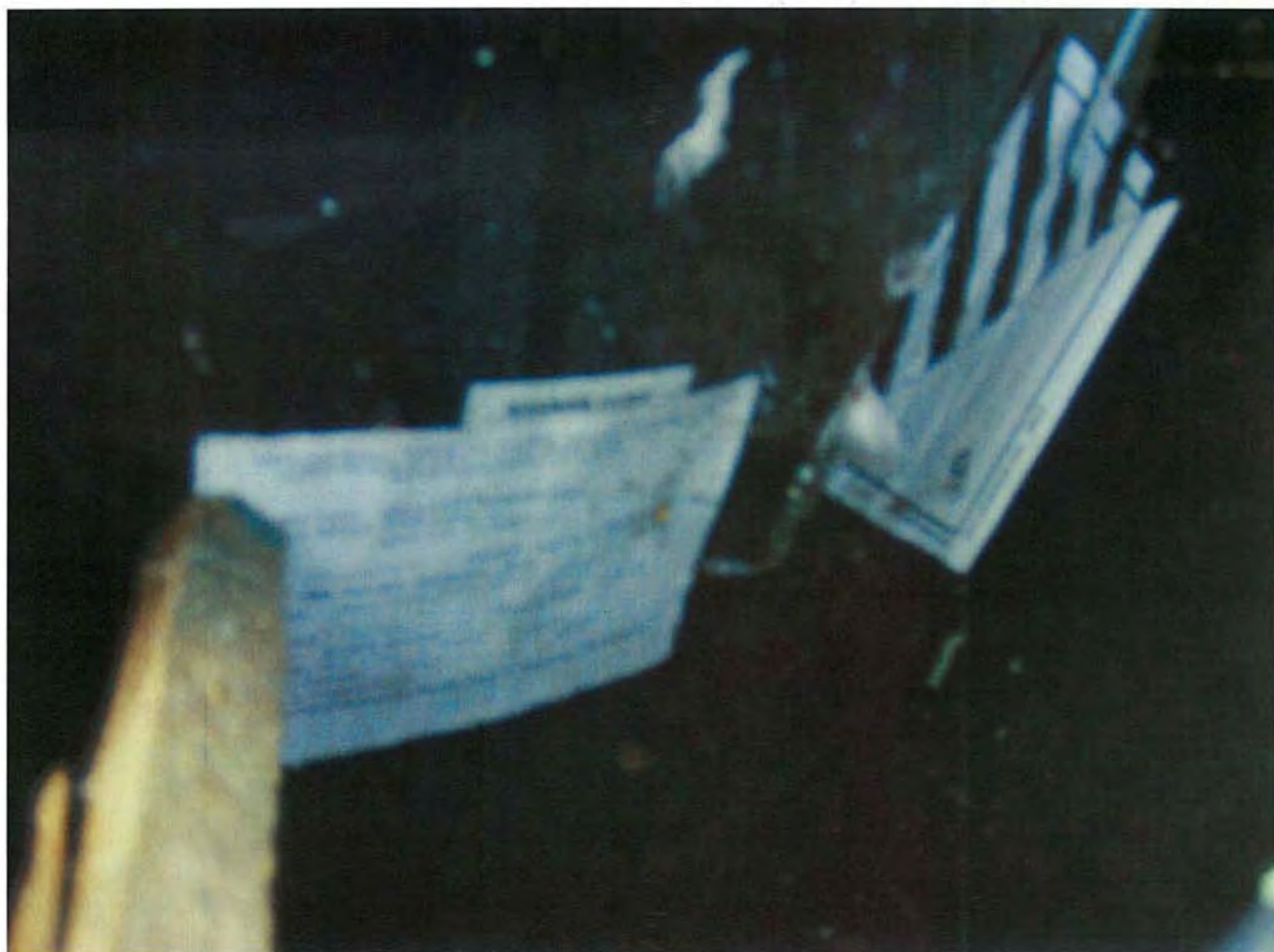
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PC030086



PC030087



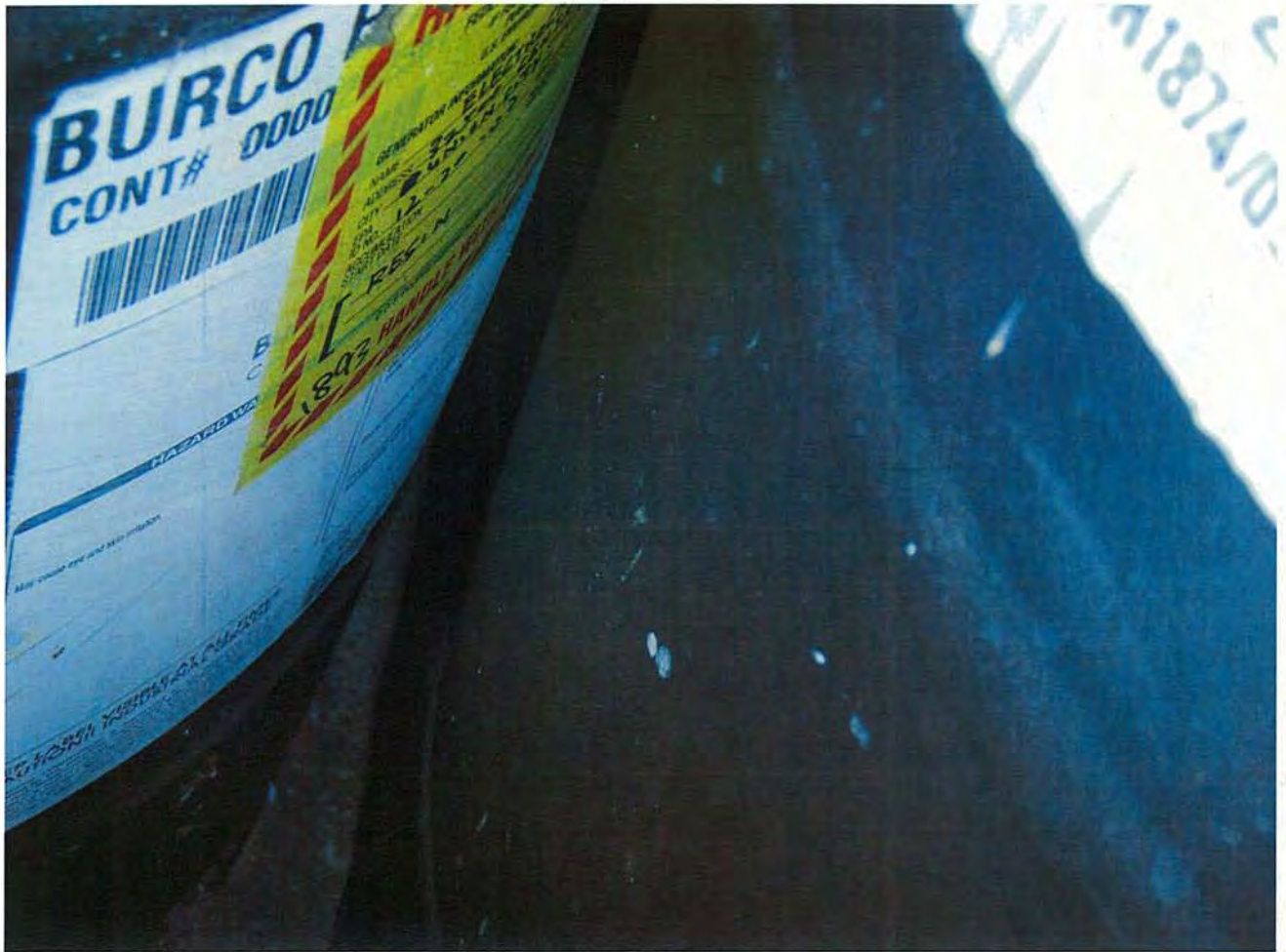
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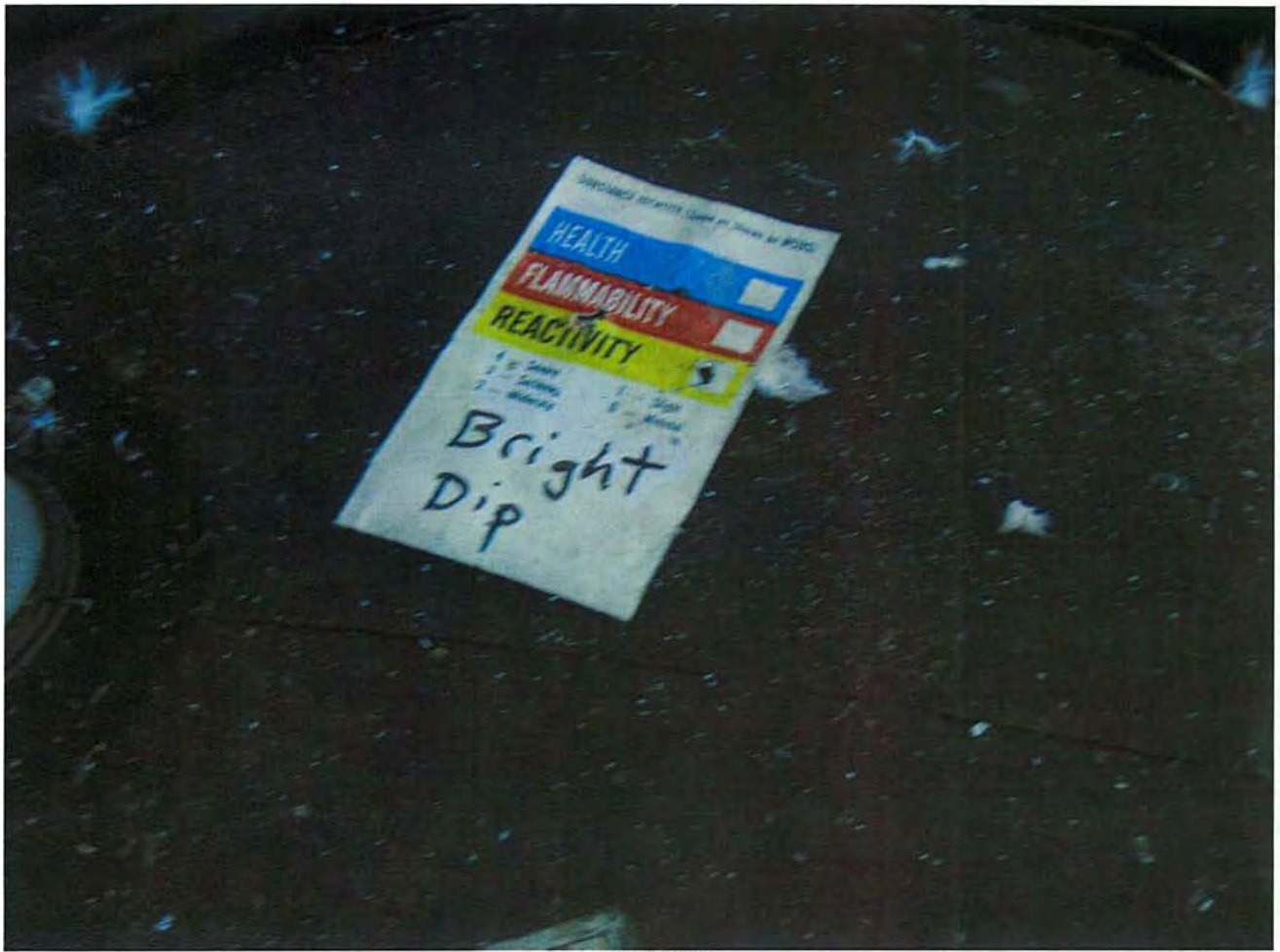
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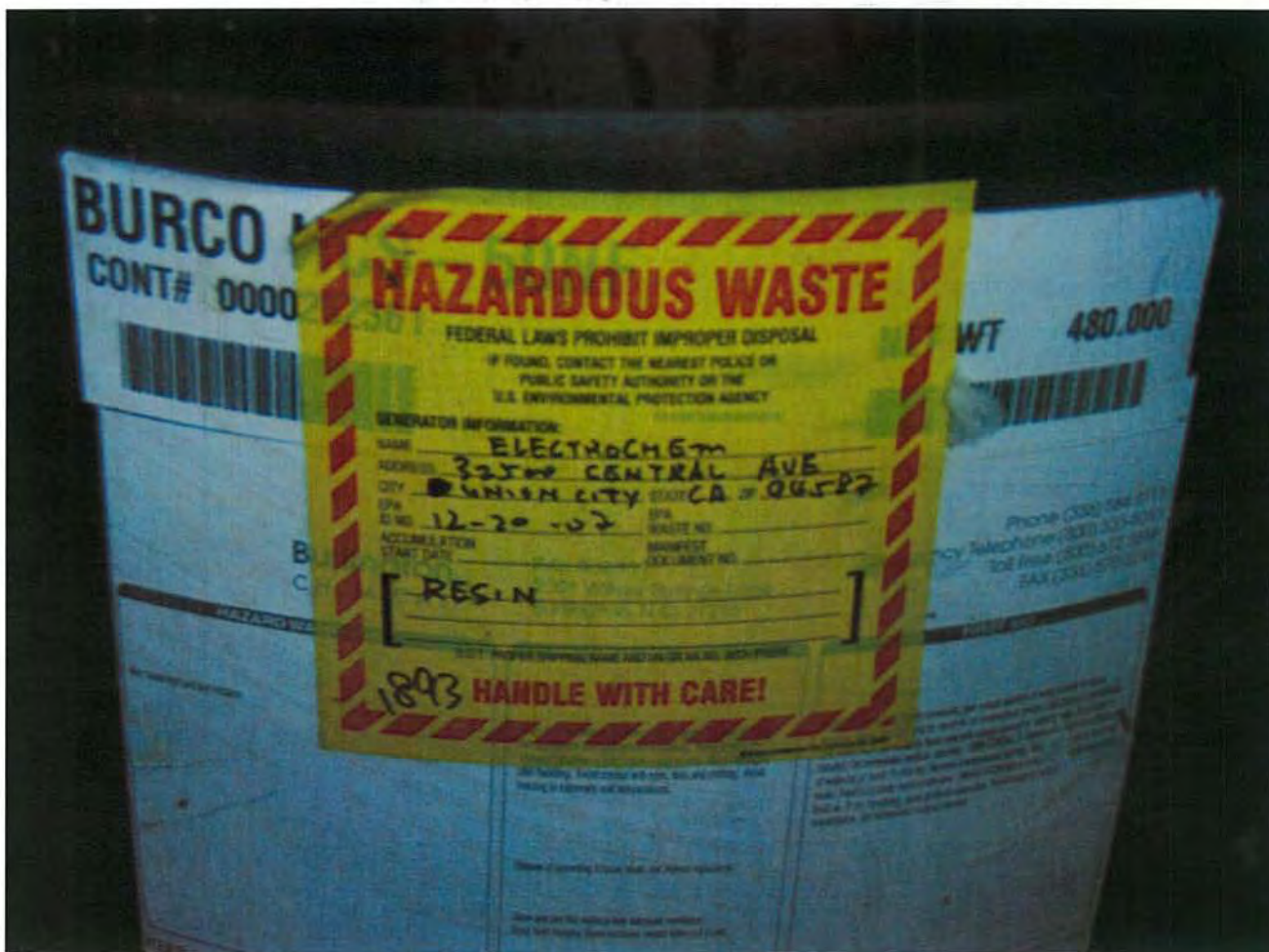
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PC030095



PC030096



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PC030100



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PC030102



PC030103



PC030104



PC030105



PC030106



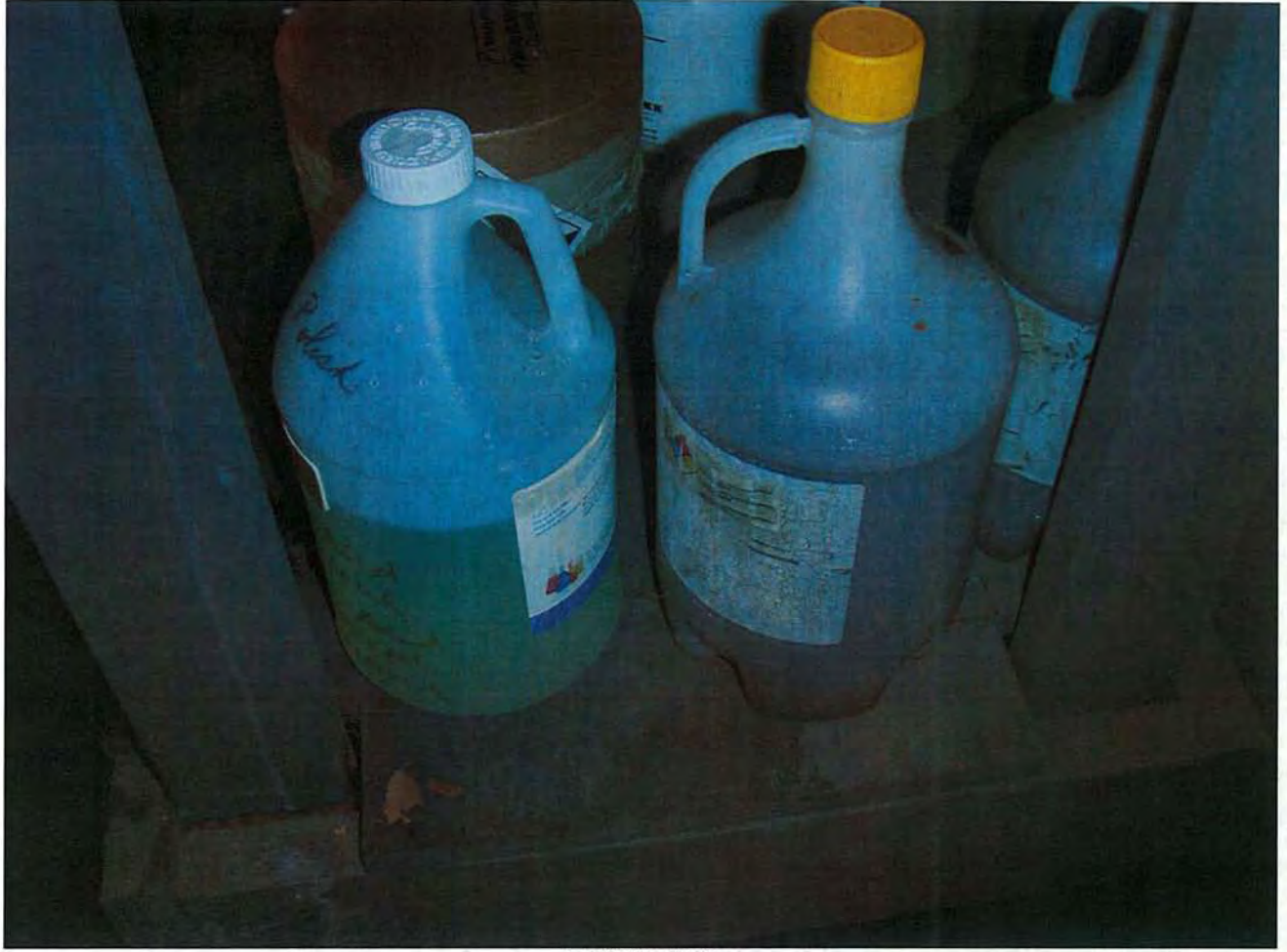
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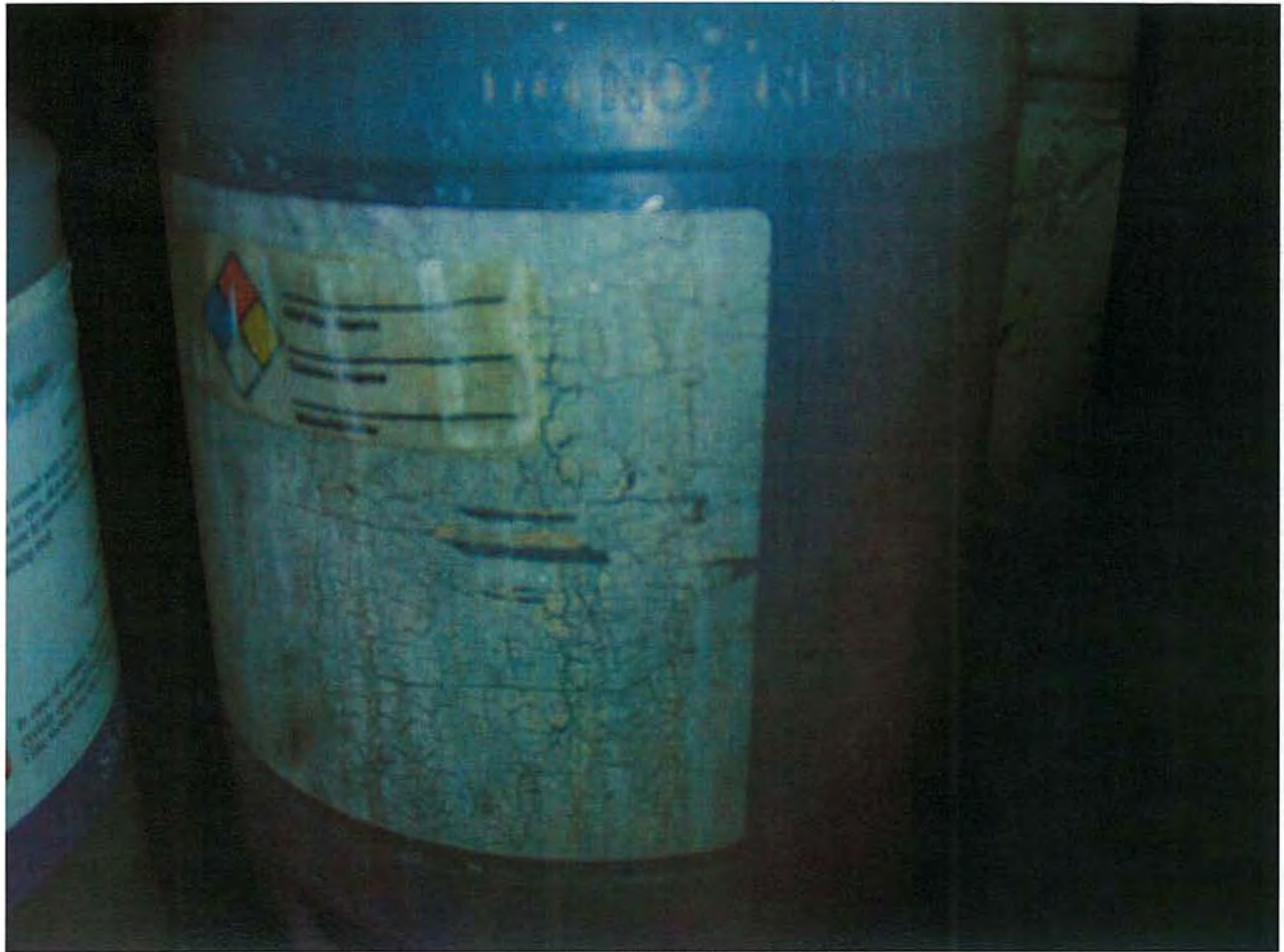
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PC030109



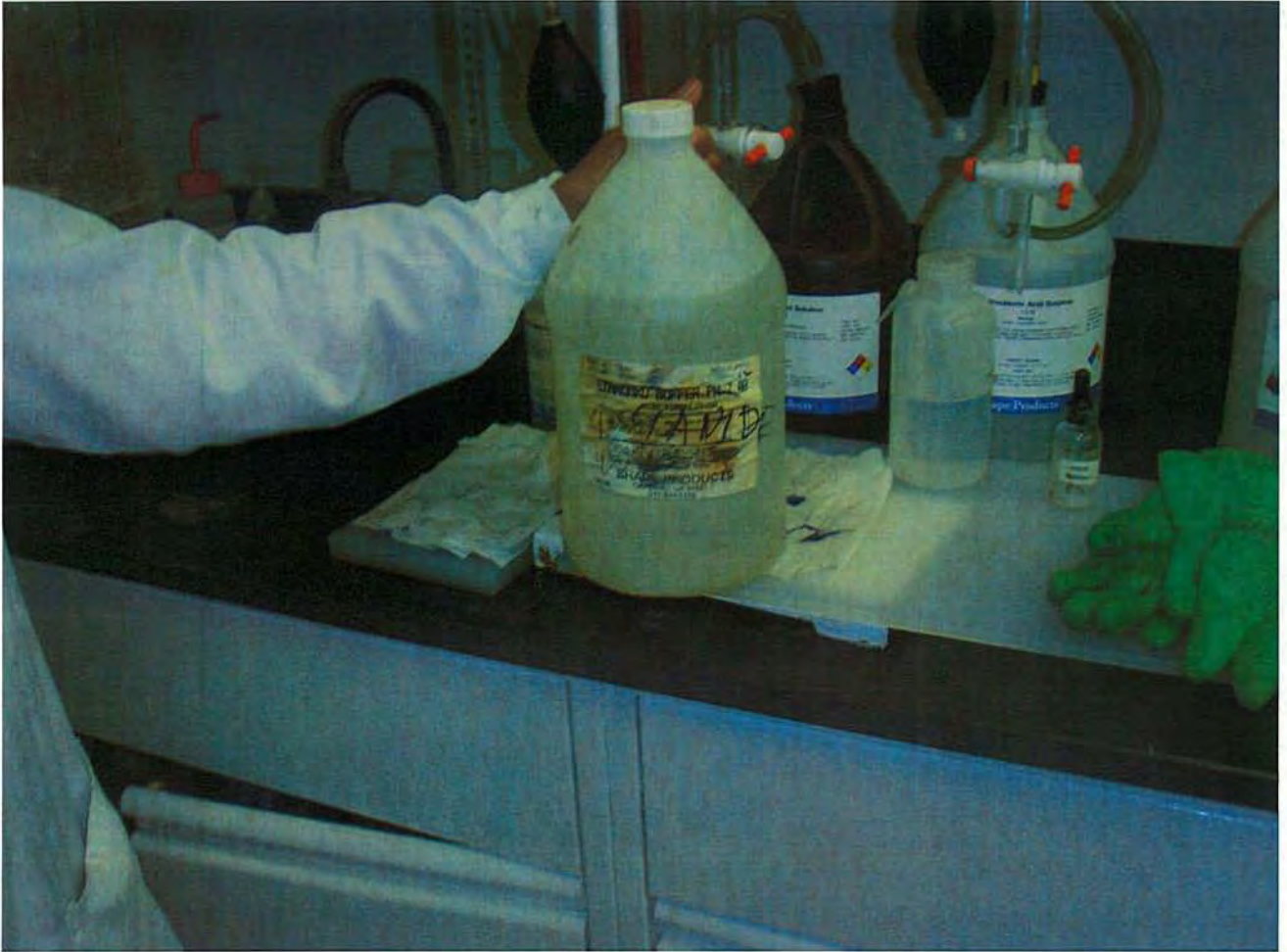
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PC030111



PC030112



PC030113



PC030114



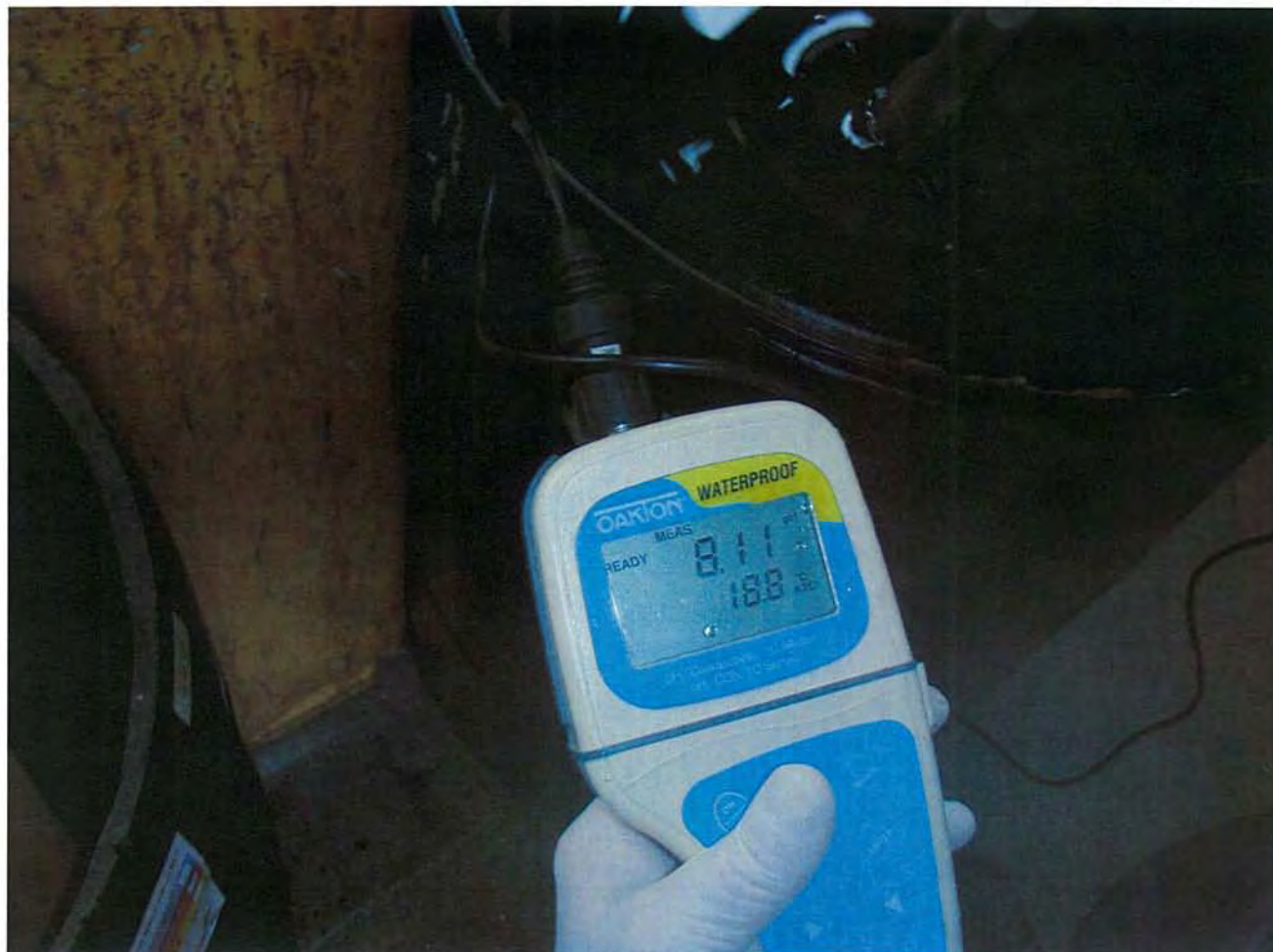
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PC030117



PC030118



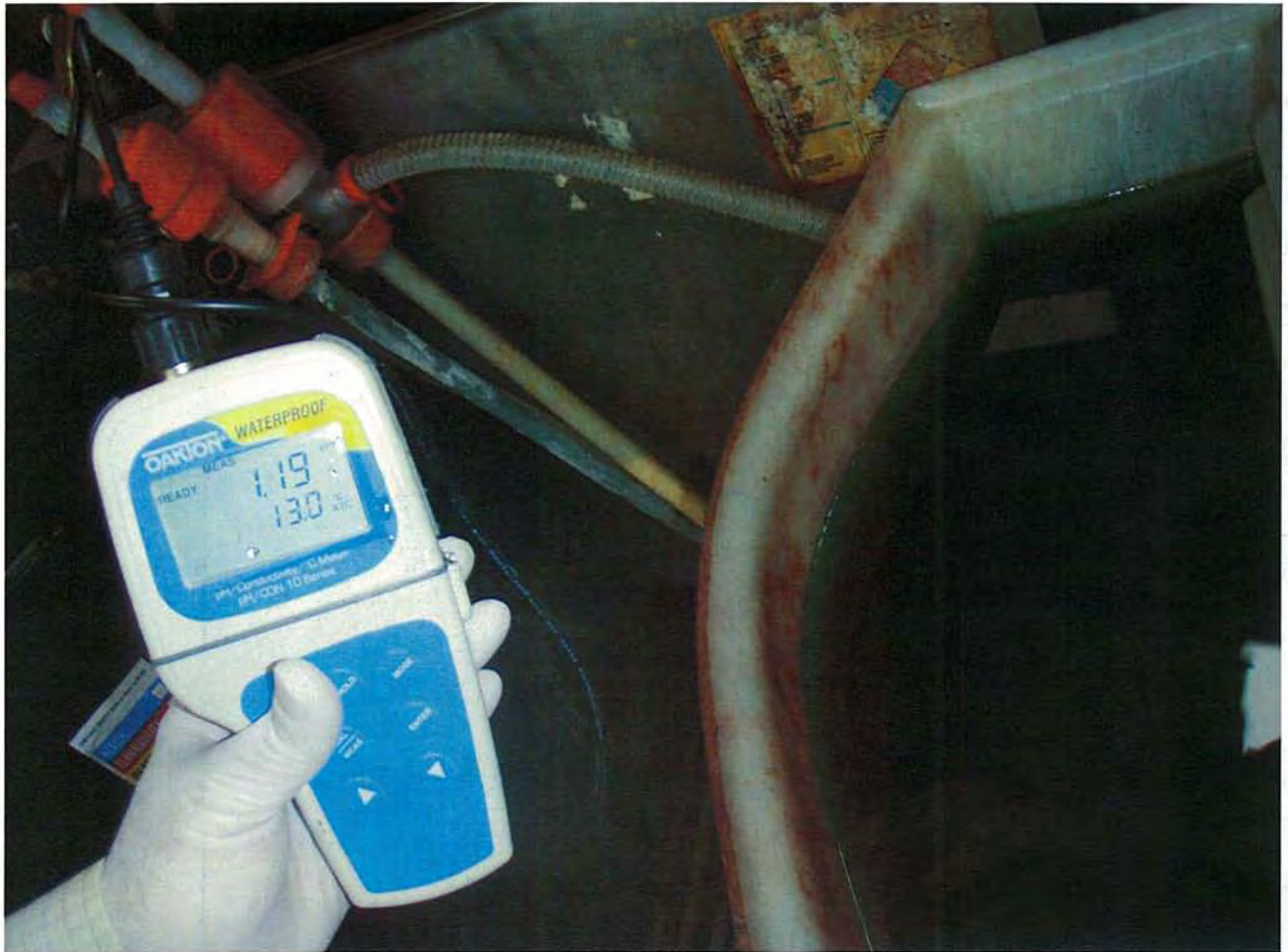
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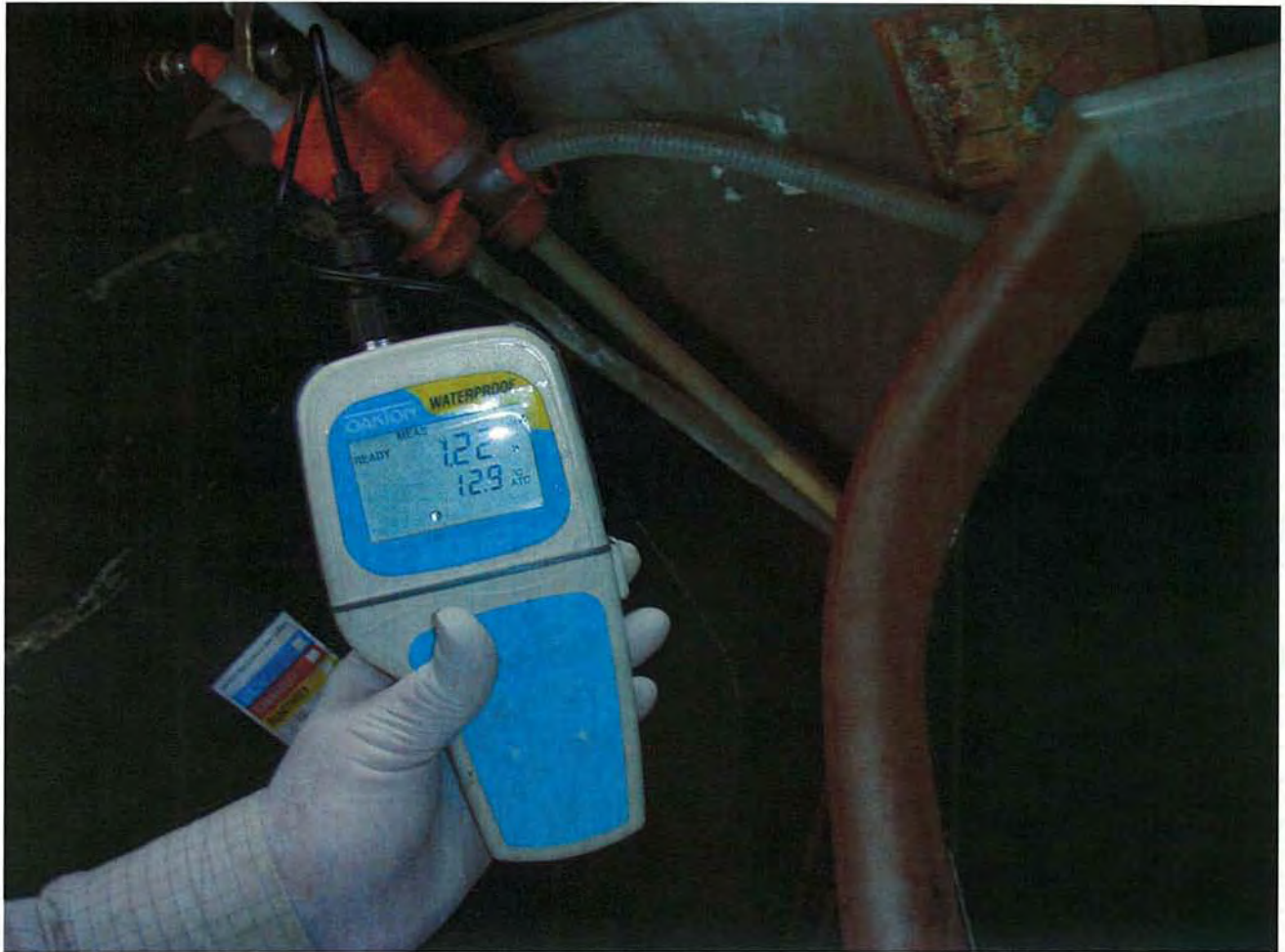
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PC030121



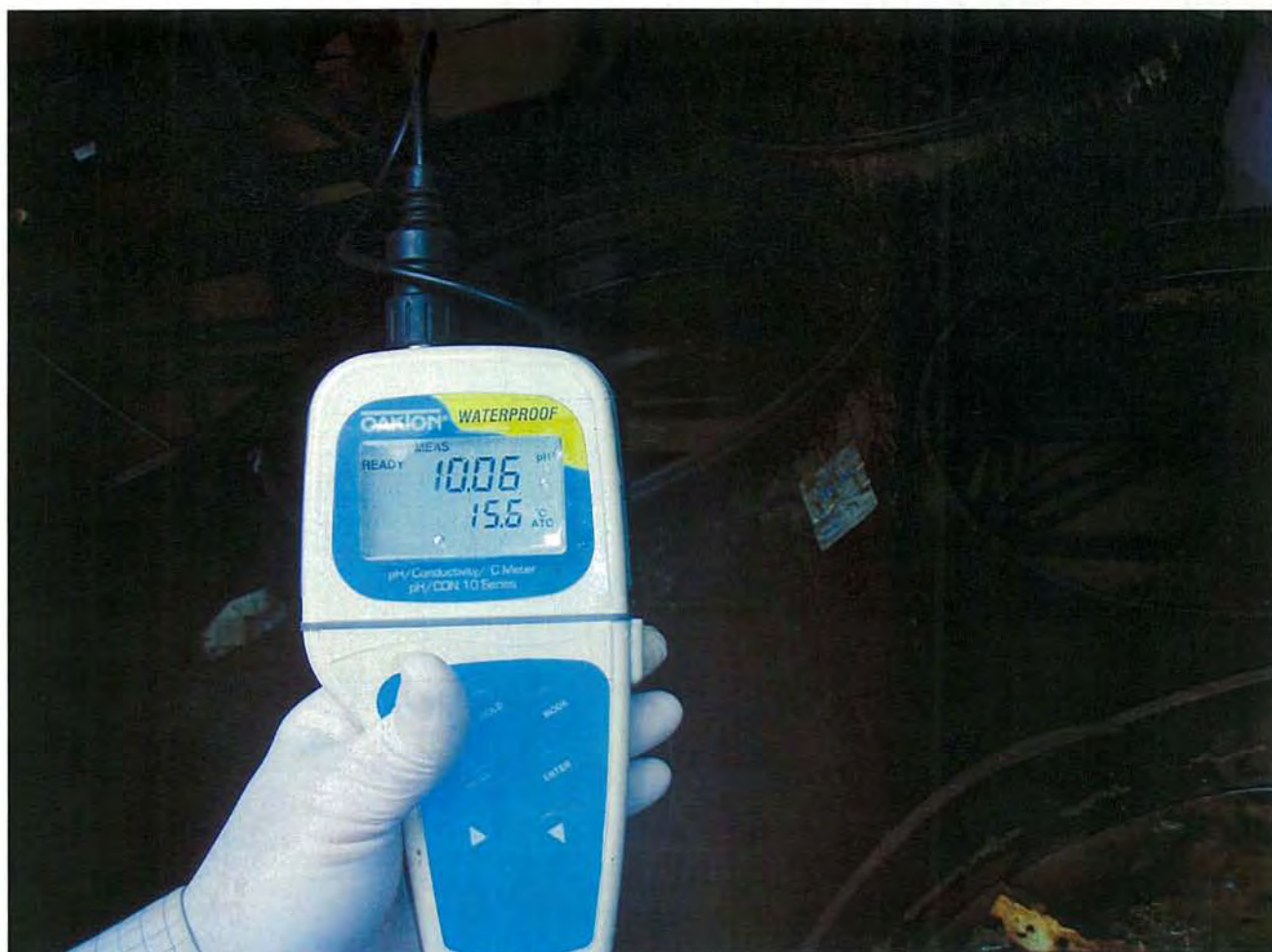
PC030122



PC030123



PC030124



PC030125



PC030126

Attachment 4

Excerpt from 2007 Tank Certification Report supplied by Electrochem Solutions, LLC on January 18, 2011

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Main Area Containment

The containment assessment determined the following:

1. The liner that underlies the containers is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.
2. The base is appropriately sloped or the containment system is otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.
3. The containment system has sufficient capacity to contain precipitation from at least a 24 hour, 25-year storm plus 10% of the aggregate volume of all containers or the volume of the largest container, whichever is greater. The system is not exposed to storms.
4. Run-on into the containment system is prevented or the collection system has sufficient excess capacity in addition to that required in (3) to contain any run on which might enter the system. The system is not exposed to run-on.
5. Procedures are documented and in force for the timely removal of spilled or leaked waste and accumulated precipitation as is necessary to prevent overflow of the collection system.

Comments

The Main Area floor is constructed of concrete, coated with epoxy and covered with a 1/8 inch polypropylene liner with sections heat fused together. The containment area was visually inspected and appeared to be free of cracks, gaps and in good condition. The containment tanks were visually inspected from the grated floor level approximately 5 1/2 feet above the containment floor and it appeared to be free of cracks, gaps and in good condition.

The containment system appeared to be installed and operated correctly.

The Main Area Containment is approximately 12' by 50' and 5 1/2' deep. The Main Area is connected with the Plating Area Containment which is 46' by 59' and is also located about 5' feet below the grated surface. Waste holding tanks, chemical storage tanks and plating tank ventilation are located within the Plating Area Containment. The total capacity of the grated area and tanks is approximately 126,636 gallons. The largest tank in the Containment Area is approximately 1,201 gallons. The total capacity of the tanks in this area is 47,052 gallons. The area must contain 10% of this total, 4,705 gallons, or the volume of the largest tank, whichever is greater. The area provides the required capacity. All tanks appeared to be surrounded by the liner. There is no storm water or run-on to deal with. Leaks can be observed and addressed. All secondary equipment is contained by the liner system.

Main Storage Containment

Tank Volumes

	Storage Tanks Under Grate	Storage Tanks Above Grate	Storage Tanks in Plating Room	Process Tanks 1	Process Tanks 2
Capacity (Gallons)	6,500.00	3,500.00	3,000.00	4,484.00	29,568.00
Total Tanks	47,052.00				

Containment volume

	Main Area	Plating Area
Side 1 (Ft)	50.00	59.00
Side 2 (Ft)	12.00	46.00
Ht (Ft)	5.60	5.00
Volume (Cu Ft)	3,360.00	13,570.00
Gallons (7.48 gal/cu ft)	25,132.80	101,503.60
Total Containment	126,636.40	

Tank volume in containment area that must be subtracted out

	Storage Tanks Under Grate	Ventilation for Plating Tanks		
Side 1 (Ft)		50.00		
Side 2 (Ft)		3.33		
Ht (Ft)		5.00		
Volume (Cu Ft)		832.50		
Gallons (7.48 gal/cu ft)	6,500.00	6,227.10		
Total Volume Displaced	12,727.10			
Total Gross Containment	126,636.40			
Minuses	12,727.10			
Net	113,909.30			
10% rule		4,705.20		
Largest tank		1,000.00		
Net Containment Requirement		4,705.20		
Percent Capacity		2421%	>100% ?	TRUE

Area has sufficient capacity

Main Area Capacity

Tanks in Treatment Area

Name	Area	Nominal Capacity (Gallons)
Precipitator	Treatment Area	500
Sludge Press	Treatment Area	4 cubic feet
Sludge Press Effluent	Treatment Area	400
Waste Nitric	Treatment Area	1000
Waste HCl	Treatment Area	1000
Evaporator 1	Treatment Area	500
Evaporator 2	Treatment Area	500
Evaporator 3	Treatment Area	500
Evaporator 4	Treatment Area	500
Portable Holding Tank	Treatment Area	500
Total		5,400

Capacity

Tanks	400	400	400
Total	1,200		

Total Gross Containment 1,200.00
 Minuses 0.00
 Net 1,200.00

10% rule 540.00
 Largest tank 1,000.00
 Net Containment Requirement 540.00
 Percent Capacity 120% >100% ? TRUE

Area has sufficient capacity

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Treatment Area Containment

The containment assessment determined the following:

1. The liner that underlies the containers is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.
2. The base is appropriately sloped or the containment system is otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.
3. The containment system has sufficient capacity to contain precipitation from at least a 24-hour, 25-year storm plus 10% of the aggregate volume of all containers or the volume of the largest container, whichever is greater. The system is not exposed to storms.
4. Run on into the containment system is prevented or the collection system has sufficient excess capacity in addition to that required in (3) to contain any run on which might enter the system. The system is not exposed to run-on.
5. Procedures are documented and in force for the timely removal of spilled or leaked waste and accumulated precipitation as is necessary to prevent overflow of the collection system.

Comments

The Treatment Area floor is constructed of concrete, coated with epoxy and covered with a 1/8 inch polypropylene liner with sections heat fused together. The room has a grate situated at the east end of the room through which any liquid drains through into one of three holding tanks in the Main Containment Area. The containment area was visually inspected and appeared to be free of cracks, gaps and in good condition. The containment tanks were visually inspected from the grated floor level approximately 5 1/2 feet above the containment floor and it appeared to be free of cracks, gaps and in good condition.

The containment system appeared to be installed and operated correctly.

The grate is approximately 10' by 2 1/2'. This drains into one of three holding tanks, each with a capacity of 400 gallons. The total capacity of the grated area and tanks is 1,249 gallons. The largest tank in the Treatment Area is 1,000 gallons. The total capacity of the tanks in this area is 5,400 gallons. The area must contain 10% of this total, 540 gallons, or the volume of the largest contain, whichever is greater. The area provides the required capacity. All tanks appeared to be surrounded by the liner. There is no storm water or run-on to deal with. Leaks can be observed and addressed. All secondary equipment is contained by the liner system.

The assessment was of a working, in place system. It does not include a review of the coating process or hidden features. Tanks and equipment were not moved to verify the integrity of the surface beneath

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them. Due to the nature of hazardous materials, hazardous wastes and the limited nature of this assessment, the containment system must be monitored and maintained on a routine basis.

Calculation sheets are attached

Tanks in Treatment Area

Name	Area	Nominal Capacity (Gallons)
Precipitator	Treatment Area	500
Sludge Press	Treatment Area	4 cubic feet
Sludge Press Effluent	Treatment Area	400
Waste Nitric	Treatment Area	1000
Waste HCl	Treatment Area	1000
Evaporator 1	Treatment Area	500
Evaporator 2	Treatment Area	500
Evaporator 3	Treatment Area	500
Evaporator 4	Treatment Area	500
Portable Holding Tank	Treatment Area	500
Total		5,400

Capacity

Tanks	400	400	400
Total	1,200		

Total Gross Containment 1,200.00
 Minuses 0.00
 Net 1,200.00

10% rule 540.00
 Largest tank 1,000.00
 Net Containment Requirement 540.00
 Percent Capacity 120% >100% ? TRUE

Area has sufficient capacity

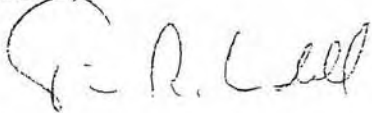
Datalab

Tank Identification	Location	Nominal Capacity (Gallons)
pH Adjustment	Below Grate	1000
Waste #1	Below Grate	400
Waste #2	Below Grate	400
Waste #3	Below Grate	400
Hydromatix Lift	Below Grate	200
Precipitator	Treatment Area	500
Sludge Press	Treatment Area	4 cubic feet
Sludge Press Effluent	Treatment Area	400
Waste Nitric	Treatment Area	1000
Waste HCl	Treatment Area	1000
Evaporator 1	Treatment Area	500
Evaporator 2	Treatment Area	500
Evaporator 3	Treatment Area	500
Evaporator 4	Treatment Area	500
Portable Holding Tank	Treatment Area	500

Individual tank assessments are attached. The following statement applies to this entire report:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Sincerely,



Timothy Lundell, PE, CIH

