

content of each coating, the amount used daily, the as-applied VOC content, the amount of solvent and identity of solvent added to each coating, and the as-applied VOC content of each solvent. This restriction continues.

Currently, SWOAPCA is processing Paintyme's expired Permit to Install (PTI) with modifications regarding it's aluminum architectural coatings. A Permit to Operate will not be issued until Paintyme is operating under the modified PTI.

9) Queen City Barrel

Queen City Barrel (QCB), founded in 1927, is a subsidiary of Astro Container Group headquartered in Evandale, Ohio. Astro owns one additional drum reconditioning plant, Allied Drum Services, Inc., in Louisville, Kentucky, as well as four drum manufacturing companies: Astro Container Co. and Astro Fibre Drum, Inc. in Ohio, and Clarion Fibre Drum Corp. and Marion Steel Barrel Co. in Pennsylvania. Astro also owns Personnel Data Inc., a Lower Price Hill based temporary employment agency. Astro Container Group is owned by Albert Paul, Sr. and son, Edward Paul, president of Queen City Barrel. Walter Archinal, general manager of Queen City Barrel,⁴ has also been OEPA's contact person for Astro Container Company.

QCB reconditions used steel drums. Its OEPA Hazardous Waste Storage Permit application states Queen City Barrel's primary business is the "reconditioning of empty steel drums". Generally, drums are by law considered empty when they contain one inch or less of hazardous material. An exception is that of barrels containing "acute hazardous waste". These barrels are empty if the container or inner liner has been cleaned by prescribed means or if the liner has been removed.⁵

Also according to the permit application, QCB's secondary nature of business is "[c]onsolidation of paint and/or ink wastes from drums which are not empty. These wastes are removed from the drums, consolidated, and after separation into liquid and solid components are shipped to permitted disposal facilities. Liquids are shipped in bulk, solids in drums".

QCB has thirteen air pollution permits, one for its drum reclamation incinerator, one for its liquid waste underground storage tank, four for drum painting and coating, six for its abrasive blasting sources and one for its four gas-fired boilers.

⁴OEPA Division of Hazardous Materials Management 1986 Generator Annual Report.

⁵40 C.F.R. 261.7.

Pollution from QCB has created considerable controversy over its years of operation (Appendix A Chronology). The drum reclamation incinerator, the permit for which expired without renewal in November 1986, has been a major focus of concern. This incinerator, installed in 1953, was first issued a permit to operate in 1978. That permit expired in 1981. QCB did not reapply for its incinerator permit until 1983, after a warning notice from SWOAPCA indicating the incinerator was in violation of both permit and emissions regulations. The permit was granted.

QCB was again notified of its incinerator's noncompliance with air pollution rules in July 1985. On April 23, 1986, six months before the new permit's expiration date, the incinerator was again found to be in violation of visible emission regulations. In initial meetings between QCB and SWOAPCA, QCB indicated its belief that the problem stemmed in part from its customers' failure to ship to QCB only drums with less than one inch of residue. QCB informed SWOAPCA at meetings in June and November 1986 that it had begun fining customers who left over one inch of residue in their drums. QCB also indicated that it would only accept these non-empty drums if its OEPA hazardous waste permit allowed handling of the specific material.⁶

Despite the eventual inclusion of OEPA in attempt to resolve these violations (in May or June 1987, when an Enforcement Action Request was submitted by SWOAPCA to OEPA), apparently no note was ever made of the discrepancy between this statement and QCB's actual permit application, which indicated that wastes are removed from non-empty drums prior to reconditioning.⁷

In later meetings, QCB indicated that the temperature of the furnace, rather than the material in the drums, was the source of the problem.⁸ Violations continued and, as a result, OEPA in November 1986 failed to reissue QCB's drum reclamation incinerator permit.

From August 1986 through September 1987, QCB was found to be in violation of OEPA visible emissions regulations on eighteen occasions (Appendix C, Table 3). During this period, a new compliance plan was agreed upon that included modification to the incinerator: the installation of an air pollution control device (a scrubber); the installation of new burners and the adjustment

⁶Internal SWOAPCA memos 6/3/86 and 11/4/86.

⁷Revised hazardous waste permit application, 10/9/85.

⁸Internal SWOAPCA memos, 6/3/86, 11/4/86, and 3/20/87.

of the existing burns⁹, although previous modifications to the burners had failed.¹⁰ In regard to the scrubber, there had been questions raised regarding such device's ability to solve the problem, particularly if the particulate emissions from QCB were fine, rather than coarse.¹¹ (Particulate size testing done in April 1989 does, in fact, indicate fine particulates from the incinerator, i.e., primarily less than 10.0 micro-meters).¹² In fact, the scrubber, when installed was burned out.¹³

Subsequent to this, SWOAPCA expressed to OEPA "serious concerns on the ability of the [incinerator] to achieve compliance. Various modifications to the system have been tried over the years and none have worked . . . When the complete situation is considered we are not confident that the compliance plan [another burner modification program] will work".¹⁴

A new compliance plan was agreed to on February 4, 1988 which included maintaining a certain air flow rate and temperature within the incinerators and replacing the burners with completion by March 22, 1988.¹⁵ However, from April 1988 until April 1989, QCB was found to be in violation of OEPA visible emissions regulations on twenty-two occasions. (Appendix C, Table 4).

Simultaneously, QCB's drum painting operation was also producing unacceptable levels of emissions. While the permits for this equipment were ultimately renewed, correspondence between QCB and SWOAPCA regarding noncompliance of QCB's coating operation continued.

On July 13, 1989, nearly three years after expiration of the incinerator permit, USEPA filed suit against QCB for violations of the Clean Air Act. The complaint alleged that QCB violated the Clean Air Act in its operations of its drum incinerator, both

⁹QCB Compliance Time Schedule, 5/11/87.

¹⁰Letter from QCB to SWOAPCA, 2/18/87.

¹¹SWOAPCA Memo RE: Meeting with QCB to Discuss Visible Emissions Violations, 6/3/86.

¹²Letter to QCB from PEI Associates, Inc., 4/26/89.

¹³Letter from QCB attorney to OEPA attorney, 10/9/87.

¹⁴Record of telephone conversation from OEPA to SWOAPCA, 12/15/87.

¹⁵OEPA Director's Final Findings and Orders, 2/4/88.

by exceeding opacity standards and by exceeding emission standards.

On the same day, the State of Ohio also filed suit against QCB; that case was heard jointly with the USEPA case. The State's lawsuit, like the federal lawsuit, alleged that QCB's operation of its drum incinerator exceeded opacity and emission standards; in addition, the State claimed that QCB was operating its incinerator without a permit since at least November, 1986, and that QCB was creating a public nuisance because of the vapors and odor it was emitting.

Simultaneously with the filing of the complaints, the parties filed a consent decree, entered by the Court on July 13, 1989. The consent decree obligated QCB to install a new air pollution control device, another scrubber, on its drum reclamation incinerator for the purpose of decreasing emissions, and to apply for a new permit by March 28, 1990 for that device. In addition, QCB was to modify its fume collection system (for its drum coating lines) by enclosing the spray booths, modifying the hoods on the ovens, and installing an incinerator for the drum coating lines. QCB was to submit a revised application for a permit to operate this system by March 28, 1990.

QCB has exceeded the consent decree deadlines in both areas. In terms of the installation of a drum coating line incinerator with heat recovery, QCB was to conduct an emission test, demonstrating the attainment of the mandated design parameters and maximum reasonable capture by January 1, 1990. This was delayed approximately two weeks. The test results were to be submitted to the plaintiffs by February 1; this was also delayed, but has been received. Those test results show actual capture efficiency of 38.8% rather than the 75% required. Control efficiency, however, was acceptable.

The coating line incinerator was retested on March 19, 1990. The results of that test showed unacceptable capture of VOCs, in SWOAPCA's view: the capture averaged 67%, instead of the required 75%. SWOAPCA has provided this information to the Ohio Attorney General, for a determination on how to proceed under the consent decree.

In terms of the drum reclamation incinerator, QCB was to install the pollution control device (the scrubber) and begin its operation by January 28, 1990. Due to contractual difficulties, this was not completed until February 12. Then, QCB was to conduct emission tests on the incinerator by February 28 with compliance in terms of emissions and opacity achieved by the end of February. However, the required emission test showed actual emission rates (0.217 lb/100 lb) to be twice that allowed by the consent decree (0.1 lb/100 lbs).

The drum reclamation incinerator was retested on April 26 and 27, 1990. The incinerator did not pass that test, having an emission rate of .14 lbs. per 100 lbs. an hour, compared to the allowable rate of .1 lbs./100 lbs. per hour. The incinerator was re-tested on May 21; the results will not be known for a few more weeks, according to SWOAPCA.

This lawsuit against QCB is arguably the result of considerable community pressure regarding the company. In 1987, the Lower Price Hill community elicited the assistance of Thomas A. Luken, chairperson of the Transportation and Hazardous Materials Subcommittee of the U.S. House of Representatives and U.S. Representative of the neighborhood's Congressional district. In the fall of 1987, Congressman Luken began contacting USEPA regarding OEPA's investigative and enforcement activities around QCB compliance with RCRA (hazardous waste) and Clean Air Act regulations.

On November 20, 1987, Congressman Luken requested USEPA to "Order compliance or bring civil action" against QCB "with reference to the outstanding violation of the condition of the Queen City air permit."¹⁶ On December 24, 1987, USEPA did in fact issue a notice of violation to QCB for violations August 4, 1986 through September 22, 1987 (listed in Appendix C, Table 3), initiating USEPA involvement which ultimately resulted in the aforementioned consent decree.

In December, 1988, Congressman Luken conducted a hearing before his subcommittee regarding "Environmental Violations at Queen City Barrel Company". The hearing included testimony of officials from USEPA, OEPA, SWOAPCA, Metropolitan Sewer District (MSD), Cincinnati Fire Department and the Cincinnati Health Department, as well as Cincinnati City Council members, the Lower Price Hill Community Council vice-president, employees of the Price Hill Health Center and the president of Queen City Barrel. This hearing appears at this point to be the last action taken by Congressman Luken regarding QCB.

"Because of the concerns expressed by nearby residents about vapors going off site,"¹⁷ USEPA requested its Technical Assistance Team (TAT) to implement an air sampling program in Lower Price Hill. The sampling program selected was to monitor concentrations in the air surrounding QCB.

The initial samples for use in the monitoring were collected on December 5, 1988. The specific contaminants detected were

¹⁶Letter from Thomas A. Luken to Valdas V. Adamkus, 11/20/87.

¹⁷Valdas V. Adamkus, USEPA Region V Administrator, at hearing before Luken's Subcommittee, 12/16/88.

methylene chloride, benzene, toluene, styrene, acetone, tetrachloroethene, methyl ethyl ketone, ethyl benzene, trichloroethene, methyl isobutyl ketone and xylene (p, o and m isomers).¹⁸

In its initial report, the TAT noted that the concentration of the contaminants were below those considered to have an adverse effect on workers regularly exposed over a 40-hour work week. "the Lower Price Hill area . . . includes residential areas, restaurants and local businesses where the exposure is likely to be greater than that experienced during a standard, 40-hour work week". The TAT concluded that because of possible health threats, "the TAT recommends that the analytical results be forwarded to the USEPA Agency for further review" and "to assess fully the potential health threats posed by the site" further sampling should be conducted.¹⁹

The analytical results of this sampling were, in fact, sent to the Agency for Toxic Substances and Disease Registry (ATSDR) for further review. Using cancer as the toxicological endpoint interest, ATSDR determined that three of the four of the suspect carcinogens (perchloroethylene, trichloroethylene and benzene) were below standards considered significant from a public health standpoint. The fourth (methylene chloride) suggested to ATSDR that "some type of intervention strategy to reduce emissions from the facility or otherwise reduce potential exposures to the public may be appropriate."

However, ATSDR went on to question the assumption of chronic exposure to this carcinogen stating: "it is our understanding methylene chloride may not be a chemical handled routinely at [QCB]" and concluding that "these data in the aggregate do not appear to represent a significant risk to public health".²⁰ Apparently, no analysis was done to determine the level of risk for diseases other than cancer.

Further, ATSDR's basis for its understanding of QCB's non-routine use of methylene chloride is not made clear. Other air monitoring in the Lower Price Hill area in June 1988 (requested by ZBA, Inc., the company under contract to install activated

¹⁸Queen City Barrel Company Air Monitoring Activities Cincinnati Ohio. Prepared for USEPA, Region V by Western-Major Program TAT Region V. July 1989.

¹⁹Letter from TAT to Emergency Response Section, USEPA, 1/10/89.

²⁰Letter from Barry L. Johnson, Ph.D., Associate Administrator, ATSDR to Valdus V. Adamkus, Regional Administrator, USEPA Regional V., April 24, 1989.

charcoal filters on the outdoor air intake for the Price Hill Health Center) also indicated the presence of methylene chloride in the outdoor and indoor air at that time.²¹ Further, QCB itself has reported the release of methylene chloride as fugitive emissions in 1987 (Appendix C, Table 5).

TAT air monitoring continued May 9 through June 26, 1989. However, the analyzer used during this period recorded only the cumulative VOC concentration rather than specific compounds. In its summary of these results, the TAT stated that "if it is assumed that the specific organic compounds detected ... during the six monitoring periods May 9 through June 26, 1989, are the same organic chemicals detected ... on December 5, 1988 the ... data suggest that the chemical concentrations are within the OSHA [Occupational Health and Safety Administration] 8 hour TWA [time weighted average] limits.... The only exception to this generalization is benzene, which may have exceeded the ... limit ...; however, such an occurrence could not be substantiated."²²

No mention was made in the TAT's final summary of concerns regarding Lower Price Hill's exposure to contaminants over a period of time greater than a forty-hour work week. Also left unanswered is the question of the accuracy of the assumption that the specific compounds detected in December 1988 are identical to those present in the air in May through June 1989. Given QCB's varied inventing of "empty" barrels, the assumption seems suspect.

All TAT-related air monitoring activities ceased after June 1989. USEPA's Air and Radiation Division assumed responsibility for QCB air monitoring at that time. The Task Force is not aware of any subsequent air monitoring analysis conducted by USEPA.

There have also been concerns regarding QCB's other active air contaminant source, the underground storage tank. In March 1985, SWOAPCA received complaints of emissions traced to this tank²³ which, although built and in use since 1980, and permitted by OEPA as a hazardous waste storage tank since December 29, 1981, had not been issued an air pollution permit. These complaints came from approximately thirty employees of the nearby F.H. Lawson Company. One of the employees' doctors verified chemical burns in that employee's lungs. In response to these complaints, SWOAPCA informed QCB of the necessity of making

²¹Determination of Volatile Organic Compounds in the Outdoor/Indoor Air at the Price Hill Health Center Cincinnati, OH. Prepared for ZBA, Inc. by Data Chem., July 1988.

²²Id., footnote 18.

²³Letter from SWOAPCA to OEPA, 3/22/85.

application for both a permit to install and permit to operate for this source. The PTI was granted in December 1985, the PTO a year later (six years after the tank's installation).

Pursuant to the March 1985 incident, F.H. Lawson requested a National Institute for Occupational Safety and Health (NIOSH) investigation pursuant to the incident, citing repeated episodes of "eye, nose, throat and chest irritation, nausea, dizziness, and headaches" sporadically occurring for several years. NIOSH concluded that "unfortunately, the transient nature of the incidences prevented identification of the substances causing the odor or the source(s) of these substance(s)." ²⁴

In October 1989, OEPA inspected QCB for hazardous waste violations. At that time, the funnel to the tank was plugged with waste open to the air and the tank was not covered by the nitrogen blanket required by the PTO, as QCB was out of nitrogen. OEPA contacted SWOAPCA regarding a potential air pollution violation as a result of the funnel malfunction. ²⁵ While the SWOAPCA inspector assigned to QCB is not aware of specific agency action in response to OEPA's report, he believed the potential of an air pollution violation as a result of the clogged funnel to be low. ²⁶

OEPA did not inform SWOAPCA of the absence of the nitrogen blanket as the inspector was at the time unaware that the nitrogen blanket was required by QCB's air pollution permit. ²⁷

10) USEPA Test and Evaluation Facility

This facility has been located at MSD's Gest Street site since 1987. It applied to OEPA through SWOAPCA for a permit to test experimental hazardous waste and submitted a toxic safety substance plan. SWOAPCA decided that while technically permits for this facility are in fact required, none are necessary due to low emissions. The internal memo also indicated that while the site will be handling many types of waste, the in-stock concentration is under applicable standards. ²⁸

²⁴Letter from NIOSH to F.H. Lawson re: Health Hazard Evaluation 85-263, 1/6/85 (sic).

²⁵OEPA telephone Memorandum, 10/24/89.

²⁶Brad Miller, SWOAPCA, to Pauletta Hansel, 6/7/90.

²⁷Frank Bryant, OEPA, to Pauletta Hansel, 5/25/90.

²⁸Internal SWOAPCA memo, 3/17/87.

Currently, this facility has one permit, in Registration Status, for an oil fired boiler. In 1989, the facility did file a permit to install. Documents submitted subsequent to the application support the facility's claim of negligible emissions. SWOAPCA has determined that, pursuant to OAC 3745-31-05, no additional control of emissions is warranted.

b. EMISSIONS IN LOWER PRICE HILL AREA

Pursuant to federal law (Title III of the Superfund Amendments and Reauthorization Act of 1986, SARA 313), every manufacturing company with ten or more employees using certain quantities of toxic chemicals listed in that Act (chemicals chosen by USEPA based on threat to health and environment) are required to annually file forms with USEPA and (in Ohio) OEPA which report, among other items, "the annual quantity of a chemical entering air, water, soil, public sewage treatment plants and off-site treatment or disposal facilities."²⁹ Locally, this information is compiled and analyzed by Ohio Citizen Action (formerly Ohio Public Interest Campaign).

The threshold for reporting 1987 releases in 1987 was 75,000 pounds for manufacturers or processors and annual use of 10,000 pounds for others using (but not manufacturing or processing) the listed chemicals.³⁰

For 1987, 182,400 pounds of chemicals were reported released into the air in the Lower Price Hill area (zip code 45204) and included in Ohio Citizen Actions' 1988 report. Of the twenty-eight zip codes containing companies reporting emissions, Lower Price Hill ranked eleventh.

Queen City Barrel accounted for the total amount of chemicals reported released in Lower Price Hill. The top ten zip codes had an average of five companies reporting per zip code (although two of those zip codes also had only one company reporting).

Of the ninety Hamilton County companies reporting, Queen City Barrel ranked fourteenth.³¹ Specifically, Queen City Barrel reported releases into the air of the chemicals hydrochloric

²⁹Toxic Chemical Releases in Hamilton County, prepared by Roxanne Qualls and Sue Collins, Cincinnati Office of Ohio Public Interest Campaign, 9/26/88.

³⁰The list is available from the Emergency Planning and Community Right to Know Hotline, 1-800-535-0202.

³¹Id., footnote 29.

acid, methyl ethyl ketone, methylene chloride, sodium hydroxide (solution), toluene, xylene and n-butyl alcohol (Appendix C, Table 5).

Filing late for 1987 and thus not included in the Ohio Citizen Action's 1988 report were Metal Treating, Inc. - Evans Street, and Metal Treating, Inc. - Burns Street.

The threshold for reporting releases in 1988 was 50,000 pounds for manufacturers and processors, and annual use of 10,000 pounds for others using the listed chemicals.

Queen City Barrel did not report releases for 1988, indicating that the company considered itself no longer required to report (i.e., annual use of less than 10,000 pounds of listed chemicals). Further, for 1988, USEPA no longer required the reporting of QCB's primary chemical released in 1987, sodium hydroxide.

According to Ohio Citizen Action, "[n]either the USEPA nor the Ohio EPA have determined if all industries required to file forms [reporting toxic releases] have complied with the law or if they have complied correctly.³²

Metal Treating, Inc. - Evans Street and Metal Treating, Inc. - Burns Street did report releases for 1988. The chemicals reported released into the air by these companies were ammonia, methanol (both companies), barium, cyanide compounds (Evans Street), and 1, 1, 1 - Trichloroethane (Burns Street) (Appendix C, Table 5).

Of the toxics reported released into the air in Lower Price Hill in 1987 and 1988, USEPA Office of Toxic Substances describes xylene, hydrochloric acid, methyl ethyl ketone, n-butyl alcohol and ammonia as chronic toxins, potentially causing a variety of diseases, including birth defects, nervous system disorders, and liver and kidney diseases should exposure occur over an extended period of time. Hydrochloric acid and ammonia are also considered acute toxins, exposure to which, even in the short term, can cause injury or death. Xylene is also a developmental toxin, as is 1,1,1 - trichloroethane and methyl ethyl ketone, causing birth defects and damage to fetuses. 1,1,1-trichloroethane, methyl ethyl ketone and xylene are reproductive toxins as well, causing infertility and other reproductive problems. Methanol and methyl ethyl ketone are neurotoxins, damaging to humans' central nervous system. Ammonia, sodium

³²Our Industrial Neighbors: The Good, The Bad and the Ugly. A Report on Toxic Chemical Releases in Hamilton County, prepared by Ohio Citizens Action, written by Roxanne Qualls and Sue Collins, 1990.

hydroxide, toluene and n-butyl alcohol are also environmental toxins, toxic to fish and wild life, as are cyanide compounds.

Specific health effects including burning and irritation of the eyes, nose and throat (ammonia, toluene, methylene chloride, n-butyl alcohol, methyl ethyl ketone and xylene); breathing difficulties (ammonia); dizziness, nausea and light-headedness (1,1,1-trichloroethane, methanol, methylene chloride, methyl ethyl ketone); headaches (toluene, n-butyl alcohol, methyl ethyl ketone); and, at high levels, unconsciousness (toluene, methylene chloride, n-butyl alcohol) and death (toluene, 1,1,1-trichloroethane, methylene chloride and xylene).³³

SWOAPCA also maintains information regarding annual emissions from some Lower Price Hill companies. Table 7 in Appendix C contains information known to the Task Force regarding emissions from Lower Price Hill companies. It does not present a complete picture of emissions in Lower Price Hill. Complete information is not currently available due in part to the fact that many Lower Price Hill air pollution sources are on Registration only, and to the fact that even companies with PTOs and PTIs are not required to report full emissions.

Additional emissions as reported to or summarized by SWOAPCA include nickel, chromium, arsenic, beryllium, cadmium, manganese, sulfur dioxide, carbon monoxide, volatile organic compounds (VOC) and particulate emissions. Nickel, chromium and cadmium (emitted by MSD) are described by the USEPA Office of Toxic Substances as carcinogenic.³⁴

2. HAZARDOUS AND TOXIC SUBSTANCES

Companies in Ohio which handle hazardous wastes are subject to regulations under the Resource Conservation and Recovery Act (RCRA) as well as to Ohio law. OEPA has the responsibility to issue RCRA permits to such companies as well as to inspect for and enforce compliance with applicable regulations. In 1980, all currently operating hazardous waste facilities were required to apply for Part A RCRA permits, and issued such permits if they demonstrated they were in and would continue to be in substantial compliance with applicable EPA statutes. Facilities were to then make application for a Part B permit, a lengthier process, prior to expiration of the Part A permit. In the Lower Price Hill area, there are two companies currently operating under RCRA permits, Queen City Barrel and the USEPA Testing and Evaluation

³³Ibid.

³⁴Ibid.

Center. MSD also held a RCRA permit when it operated the Hazardous Waste Liquid-Fluid Incinerator.

Generators, transporters and others handling hazardous waste must also comply with applicable Comprehensive Environmental Response Compensation and Liability Act (CERCLA), or Superfund, regulations. There are three sites in Lower Price Hill on OEPA's CERCLA list, which indicates that prior to June 9, 1981, hazardous waste had been stored or disposed there. These sites are MSD, QCB and the Chesapeake and Ohio Railway Company Brighton Yard (on State Street).³⁵ OEPA has determined that the Chesapeake and Ohio site has no hazardous substance problem and thus is not subject to further inspection. OEPA found little evidence indicating hazardous substance problems on the MSD site, and thus gave it low priority for follow-up inspections. QCB has not yet been given priority, although the initial assessment has occurred as discussed below.

a. HAZARDOUS WASTE TREATMENT STORAGE AND DISPOSAL SITES

1) Queen City Barrel

As with air pollution, QCB is Lower Price Hill's obvious focus of concern regarding hazardous waste. As a Treatment, Storage and Disposal site, QCB managed 52.5 tons of hazardous waste in 1986 as compared to the other currently operating Lower Price Hill site's (USEPA Test and Evaluation Facility) 7.5 tons.³⁶

According to OEPA Division of Hazardous Materials 1986 Generator Annual Report, QCB in 1986 generated 1107.5 tons of hazardous waste, placing the company sixth in the list of Hamilton County generators (ninety-eight in all). According to the 1987 report, QCB generated 2,000,121 pounds of hazardous waste in 1987.

a) Hazardous Waste Permit

QCB's Hazardous Waste Permit Part A permit was initially approved on December 29, 1981. The revised permit was issued April 9, 1986, and remains in effect until "renewed, withdrawn,

³⁵OEPA Unregulated Sites Master List, 12/8/89.

³⁶OEPA Division of Hazardous Materials Management 1986 TSD List.

suspended or revoked."³⁷ According to this revised permit, QCB has a drum storage capacity of 9000 gallons, a tank storage capacity of 8500 gallons (this same storage tank has an air pollution permit for a capacity of 8000 gallons), and treatment (solidification in drums) capacity of 150 gallons per day. (The initial permit application indicated treatment in tank capacity of 2500 gallons per day; this was deleted from the revised permit).

Also according to the revised permit application, QCB handles the following wastes:³⁸

- D001 (a waste that is ignitable, but not listed as a specific hazardous waste), in an estimated annual quantity of 1,600,000 pounds
- D006 (Cadmium)
- D007 (Chromium)
- D008 (Lead)
- D009 (Mercury)
- F003 (xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, methanol as well as certain spent solvents and solvent mixtures) in an annual quantity of 300,000 pounds
- F005 (the following spent solvents: toluene, methyl ethyl ketone (MEK), carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol and 2-nitropropane, and certain spent solvents and spent solvent mixtures) in an estimated annual quantity of 160,000 pounds per year
- K086 (lead, hexavalent chromium) in an estimated annual capacity of 25,000 pounds.

As part of the Part B application, QCB submitted closure plans for their drum storage pad, which is located behind the QCB offices between Boston and Whately Streets. This pad is used for the storage of hazardous waste drums. According to this plan, a maximum of 150 drums can be stored by the current permit. The plan indicated that the material contained in the drums carries a classification of F003/F005 or of D007/D008 if the paint waste has high metal content. The concentration of the solvents and paints in the drums is dependent upon waste picked up. In

³⁷Letter from OEPA to QCB re: Revised Hazardous Waste Permit, 4/9/86.

³⁸Descriptions of listings found in 40 C.F.R. Subparts C and D.

general, the contents typically contain MEK, toluene and xylene in various concentrations.

In early 1989, OEPA conducted a completeness review of Queen City Barrel's Part B application. Thirty-four deficiencies were noted.³⁹ While some deficiencies were in the area of adequate documentation as required with the application (example: failure to include required topographical map, failure to provide certification letter), other deficiencies were more substantive in nature. Several deficiencies were in regard to failure to analyze and identify the hazardous waste stored, treated and generated at the facility.

QCB also failed to provide a professional assessment of the structural integrity and suitability of the underground tank for handling hazardous waste. This tank, permitted both under RCRA law and as an air contaminant source, was initially installed in 1980 for use other than handling hazardous waste and was altered. In regard to the tank, QCB also failed to provide information on the external corrosion protection, secondary containment for the tank and its ancillary equipment, and detection of leaks.

Regarding its procedures to prevent hazards, QCB failed to demonstrate data gathered from types of monitoring and/or leak detection equipment including daily inspections of the tank. QCB also failed to demonstrate that the facility had adequate volume and pressure to supply water or other methods of fire control. Further, QCB failed to describe the methods used to prevent contamination of water supply.

The Part B application procedure includes many closure and post-closure requirements, including how facilities will assure clean-up in the event of closure and as parts of their facilities become obsolete. QCB's closure and post-closure plans were found to be deficient in eleven areas. These include failure to include information about QCB's maximum inventory of waste ever on site over active life of facility and to discuss methods for removing, transporting, treating, storing or disposing of all hazardous wastes, including the identification of off-site management waste units to be used. Other deficiencies in these areas include cost estimates and financial assurance mechanism for post-closure care.

OEPA detailed these deficiencies and three others, indicating that "failure to submit a complete permit application or to correct deficiencies in the application may result in . . . 1) revocation of your existing . . . permit, 2) denial of your application for a renewal permit, 3) referral of the matter to

³⁹Completeness Review Comments attached to OEPA internal memo dated 4/6/89.

the Ohio Attorney General's office for appropriate enforcement action, or 4) the application for a renewal permit may be returned to you as incomplete."⁴⁰ QCB decided to submit a redrafted Part B application rather than try to mark up the existing document. Regarding concerns about the tank, QCB indicated its intent to either install a secondary containment for the existing tank or replace it with a double wall tank.⁴¹ Queen City Barrel has not yet resubmitted the Part B Application. At this point, OEPA is not taking specific action about this failure to resubmit, but rather has incorporated several of the application issues into other enforcement actions against QCB, as discussed below.

b) Hazardous Waste Inspections

QCB, like other hazardous waste facilities, is subject to two unannounced OEPA inspections per year. Additional inspections are conducted in response to complaints. Currently, routine inspections of QCB are conducted by OEPA's Southwest District Office, and complaint investigations by OEPA's Special Investigations Unit.

OEPA stated in early 1989 that approximately 15 unannounced visits over a three year period uncovered only "minor paperwork violations which have been corrected within the allotted time."⁴² A similar statement could not be made today. Eight inspections since September 6, 1988 uncovered forty-three hazardous waste violations, some of which are not yet corrected.⁴³ Several of these violations were, in fact, regarding "paperwork" related to the Part B application as described above. Most, however, were related to QCB's actual management of their hazardous waste.

On May 8, 1990, the State of Ohio filed suit against QCB alleging thirteen claims which included violations noted in each of the six inspections from September 6, 1988, through March 2, 1990.

⁴⁰Letter from Mr. E.A. Kitchen, Division of Solid and Hazardous Waste Management, OEPA, to QCB, 8/25/89.

⁴¹Letter from QCB to Mr. E.A. Kitchen, Division of Solid and Hazardous Waste Management, OEPA, 10/9/89.

⁴²Letter from Richard Robertson, Division of Solid and Hazardous Waste, OEPA, to Erik Hermes, Cincinnati, Ohio, dated 2/22/89.

⁴³Correspondence between OEPA (District Office and Special Investigations Unit) and QCB regarding inspections; internal OEPA memos regarding same.

In the complaint, the State has requested an injunction requiring compliance with each regulation cited, payment of fines in the amount of \$10,000 per day for each day of violation before and after the filing of the complaint and Court review of QCB compliance with the Court's order.

The specific claims and events from which they stem are as follows:

Failure to evaluate waste generated by QCB (three claims):

These claims stemmed from violations noted in inspections on September 6, 1988, May 23, 1989, and March 2, 1990.

Wastes generated by QCB include its incinerator ash (also called burner drag out), shot dust (material from the sand blasting of the drums) and the combination of the two. OEPA also considers the combined sludges from RCRA-empty barrels to be a new waste stream generated by QCB⁴⁴, and that such wastes must be evaluated in order to determine whether the wastes are hazardous. On at least the three dates above, QCB has failed to evaluate the waste it generates.

(These claims are similar to the deficiencies noted by OEPA in its September 18, 1984 inspection: 1) analyses of waste in drums were not conducted and documented as specified in waste analysis plan and as required by OAC 3745-63-13 and -73; and 2) hazardous waste generated on site was not recorded in the operating record as required by OAC 3745-65-73. QCB submitted documentation of correcting these deficiencies on October 19, 1984, which OEPA found satisfactory.)⁴⁵

Improper disposal of non-evaluated waste (one claim):

During its May 23, 1989 inspection, OEPA took samples of waste QCB allowed to accumulate in a dumpster (the same waste referenced above). OEPA instructed QCB not to dispose of the waste pending analysis. However, the waste was disposed of as

⁴⁴Letter from Scott Shane, Special Investigations Unit, OEPA, 3/14/89.

⁴⁵Letters from OEPA to QCB, 9/24/84 and 10/30/84. Letter from QCB to OEPA, 10/19/84.

non-hazardous waste. OEPA found its sample to be D001 (ignitable).⁴⁶

QCB has disagreed, stating the accumulated waste comes from the burning of drum residues (i.e. incinerator ash) and was unlikely to be ignitable.⁴⁷ It admits to disposing of the waste, albeit due to a mistake by King Container Co.⁴⁸

Failure to minimize the possibility of fire, explosion or unplanned release which could threaten human health or the environment (two claims);

Failure to record in an inspection log malfunctions which increase such a possibility (two claims);

Failure to implement the required contingency plan when such a malfunction occurs (one claim);

These five claims stemmed from two separate malfunctions at QCB. On October 24, 1989, OEPA observed that the funnel leading to the underground hazardous waste storage tank was plugged and full of F003 and F005. According to QCB, it had been plugged for approximately one week. QCB pumped the liquid from the funnel into the tank. Although OEPA instructed QCB to discontinue use until repaired, it was not clear QCB would comply.⁴⁹ According to the complaint, QCB continued to add waste into the funnel system, thus increasing the possibility of fire or explosion. QCB disputed OEPA's assessment that the plugged funnel represented a fire hazard.

Also on October 24, 1989, OEPA observed the second malfunction, a leak in the containment system (a curb around a concrete area which holds the "empty" drums) under the hazardous waste drum conveyer. As a result, liquid containing hazardous waste or hazardous waste constituents ran from the system into a sewer off-site. (The leak was reported and analysis of the sample of the liquid was sent to MSD on January 3, 1990.⁵⁰ MSD has stated in their inspection on May 10, 1990, that the leak had

⁴⁶Letter from Frank Bryant, OEPA, to QCB, 7/17/89.

⁴⁷Letter from QCB to OEPA, 8/15/89.

⁴⁸Letter from QCB to OEPA, 7/6/89.

⁴⁹OEPA inter-office memo, 10/27/89.

⁵⁰Letter from OEPA to John Trapp, MSD, 1/3/90.

been repaired and that liquid in the containment system was processed in QCB's pretreatment facility prior to going on to MSD.)⁵¹

QCB also argued that the containment system in question was not subject to inspection as it surrounded an area containing "empty" drums and thus neither the drums nor the area were subject to the RCRA permit.⁵² OEPA disagreed as the conveyor over the area was subject to the permit.⁵³

Upon discovery of these malfunctions QCB, according to the complaint, failed both to note them in the daily inspection log and to implement its required contingency plan.

Failure to keep hazardous waste containers closed during storage, except when necessary to add or remove waste (one claim):

OEPA observed open containers of hazardous waste on five occasions:

- September 6, 1988, in open containers outside the fence line on the southwest corner of the facility;
- January 20, 1989, in approximately fifteen open containers along the fence line of the waste management area;
- May 23, 1989, in open containers near the open head paint booth;
- October 24, 1989, in open containers near the open head paint booth;
- February 8, 1990, in an open container on the sidewalk on Summer Street.

QCB has disputed whether the drums were in fact open (11/8/89) and whether the material was hazardous (1/20/89).⁵⁴

⁵¹John Trapp, in telephone conversation with Barbara Cook, 5/11/90.

⁵²Letter from QCB to OEPA, 11/8/89.

⁵³Letter from OEPA to QCB, 11/29/89.

⁵⁴Letters from QCB to OEPA, 2/27/89 and 11/8/89.

Inadequate operating records (one claim):

OEPA has alleged that QCB has failed to keep adequate operating records from at least May 23, 1989 until August 22, 1989 regarding regular inspections for malfunctions, deterioration, operator errors and discharges.

Accumulation of waste in barrels not labeled hazardous waste (one claim):

During its inspection on May 23, 1989, OEPA noted that areas and containers used for accumulated QCB-generated hazardous waste were not labeled as hazardous waste. OEPA was not satisfied with QCB's response, which addressed related personnel training issues⁵⁵ and issued a Notice of Violation to QCB on January 19, 1990 which addressed this concern.

Inadequate personnel training program (one claim):

OEPA alleges that from May 23, 1989 until the present, QCB has not developed and implemented an adequate hazardous waste training program.

Specifically, OEPA was concerned that training is conducted only for supervisory staff and that "employees such as fork lift operator, maintenance and paint room personnel and others described in the hazardous waste handling procedures are not included in training."⁵⁶

In regard to QCB's inadequate training plan, QCB received 14 Occupational Safety and Health Administration (OSHA) citations in less than a two-year period for 23 violations, including 10 serious and/or repeat citations (Appendix D, Table 1). Two of these citations involved exposure of live electrical wires.

Other issues noted during inspections but not addressed in the complaint are:

September 6, 1988 inspection and January 20, 1989 follow-up:
Inadequate aisle space in the RCRA drum storage area; minor spills in the empty drum storage area and standing water in the

⁵⁵Letter from OEPA to QCB, 9/26/89.

⁵⁶Letter from Kathy Fox, OEPA, to QCB, 6/6/89.

dike area by the underground tank⁵⁷ and, on January 20, standing water in the RCRA drum storage area and the contained area adjacent to it.⁵⁸

May 23, 1989 inspection: Noted during the inspection (but not as a violation) is that "per Cincinnati Fire Prevention Bureau 5/21/89, 20:03 hours, fire in duct work from spray paint booth caused by welder's torch - no loss reported."⁵⁹

October 24, 1989, October 30, 1989 and March 2, 1990 inspections: Subsequent to the first of the inspections, QCB reported to OEPA that the underground storage tank had no nitrogen blanket as the company was out of nitrogen.⁶⁰ The inspector also observed no nitrogen pressure on October 30, 1989.⁶¹ The blanket was reinstalled by November 8, 1989.⁶²

In addition to violating QCB's RCRA permit, the absence of a nitrogen blanket was a violation of QCB's air pollution permit (Appendix C, Table 1) although, as stated earlier, this was not reported to SWOAPCA.

Also during the October 24, 1989 inspection, OEPA observed drums of shot dust stored on the corner of Summer and South Streets. While QCB maintains this section of South Street is QCB rather than public property,⁶³ OEPA noted in the follow-up inspection an old man searching through trash cans in the same area the drums had been observed.⁶⁴

During the October 24, 1989 inspection, OEPA took samples from a dumpster which a QCB staff person stated contained material originating from an excavation near some railroad tracks. Analysis of the material indicated it to be a solid waste and possibly a hazardous waste. OEPA requested

⁵⁷Letter from OEPA to QCB, 9/15/88.

⁵⁸Letter from OEPA to QCB, 1/27/89.

⁵⁹RCRA Interim Status Inspection Form, 5/23/89.

⁶⁰Internal OEPA memo, 10/24/89.

⁶¹Handwritten OEPA inspection notes, 10/30/89.

⁶²Letter from QCB to OEPA 11/8/89.

⁶³Letter from QCB to OEPA, 11/8/89.

⁶⁴Handwritten OEPA inspection notes, 10/30/89.

documentation regarding the material, including where it originated, how it became contaminated and how QCB disposed of other material from that site.⁶⁵

QCB responded that the material sampled came from clean-up of the ground west of the incinerator near the railroad tracks. QCB's analytical results from sampling this material did not match OEPA's.⁶⁶

In its March 2, 1990 inspection, OEPA noted "black sludge/liquid" near the railroad tracks behind QCB.⁶⁷

April 26, 1990 inspection and May 2, 1990 follow-up:
Subsequent to the filing of the complaint, OEPA notified QCB of ten violations documented during its April 26, 1990 inspection.⁶⁸ Three of these violations were related to the funnel leading to the underground storage tank once again becoming plugged. The waste itself was open to the air, representing (again) a fire hazard, and was also exposed to a loaded moving drum conveyor. Additionally, a QCB employee was observed stirring the hazardous waste on the funnel grating in an attempt to get the waste to flow through, thus increasing the risk of fire as well as the risk of release of hazardous waste into the air. The employee, though carrying a respirator, was wearing neither it nor protective clothing. That the waste had been placed in the funnel resulting in the funnel's malfunction was considered a separate violation.

Other violations were: unmarked barrels of hazardous waste; revision in QCB contingency plan without submission to emergency authorities (i.e. police, fire department, etc.); the routine postponement of signing incoming hazardous waste manifests; the observation of three open drums of hazardous waste (two on May 2, 1990); three leaking drums of hazardous waste in the hazardous waste storage area and the failure of QCB's closure plans to include certification of closure by an independent engineer and provision for removal of contaminated soil.

As of the reinspection on May 2, 1990, the issues regarding the stirring of waste, the contingency plan and manifests and closure plans had not been resolved, nor had the issue of a personnel training program and QCB's waste analysis plan raised

⁶⁵Letter from OEPA to QCB, 12/28/89.

⁶⁶Letter from QCB to OEPA, 1/16/90.

⁶⁷Handwritten inspection notes, 3/2/90.

⁶⁸Letter from OEPA to QCB, 5/11/90.

in OEPA's October 24, 1990 inspection (the latter addressed in the May 8, 1990 complaint).

c) Barrel Storage Sites

Congressman Luken, in his 1987 letters and 1988 hearing, expressed considerable interest in QCB's hazardous waste operation as well as its air pollution. Of particular concern then as now is QCB's storage of what it calls "RCRA empty drums". As previously stated, QCB's primary nature of business, according to its permit, is to recondition empty drums. Federal law states that drums containing hazardous waste are considered empty and thus not subject to RCRA regulations when they contain one inch or less of hazardous material not considered acute. Barrels containing "acute hazardous waste" are empty if the container or inner liner has been cleaned by prescribed means or if the liner has been removed. QCB, the media and regulatory officials, however, have all used the term "empty drums" as synonymous with drums containing less than one inch. According to OEPA it is, in fact, unlikely that QCB has drums containing acute hazardous waste, as these wastes are not generally stored in the 55 gallon drums used by QCB.⁶⁹

In addition to drum storage on its South Street site, QCB has or had at least seven additional drum storage sites. All inspected by OEPA were found to contain only RCRA empty drums.

Lower Price Hill area: QCB has four known off-site storage facilities in Lower Price Hill. Three are open lots, two on Evans Street and one on Gest Street.⁷⁰ QCB also uses a warehouse at 621 Evans Street to accept tall rectangular sealed containers.⁷¹

One of the three open lots is adjacent to a playground. The lot, although fenced, has a ground level opening large enough for children to enter.⁷² According to a February 1, 1988 letter from Valdas Adamkus, USEPA Region V Administration, to Congressman

⁶⁹Tom Winston, OEPA, to Pauletta Hansel, 5/25/90.

⁷⁰Memo to Mayor Charles Luken from Stanley Broadnax, Health Commissioner, 5/7/90.

⁷¹Memo to Bobbie Sterne from Scott Johnson, City Manager, 4/23/90.

⁷²Letter from Thomas A. Luken to Valdas V. Adamkus, 11/20/87.

Luken, USEPA investigated these two lots on January 5, 1988 and confirmed OEPA's previous findings that the open lot drum storage areas were not regulated under RCRA as they contained "empty" drums. USEPA did find the drums to be stored in an unsafe manner and, according to Adamkus, referred the problem to the Cincinnati area office of OSHA, who agreed to investigate the two storage areas. However, William Murphy, area director of OSHA, has stated that a review of OSHA files does not show the receipt of such a referral from USEPA, nor do records reflect any investigation prompted by the USEPA concerning the issue of drums stored in an unsafe manner.⁷³

611 Lincoln Avenue (corner of Reading & Lincoln, Avondale): OEPA received an anonymous report in November 1989 that QCB is storing many drums with labels such as "benzene", "ethanol", "toxic waste", "radioactive waste" in a warehouse at 611 Lincoln. According to the complainant, while the company claims barrels are empty, employees who have moved them ended up soaked with material and that some employees became ill. OEPA inspected the site and observed only RCRA empty drums.⁷⁴

2795 Sharon Road (Astro Container Corporation Headquarters, Evandale): On January 20, 1989, OEPA responded to a complaint regarding storage of Queen City Barrel drums behind its parent company's corporate headquarters. Upon inspection, OEPA found one drum half-full of an unknown material. OEPA advised Astro Container to remove the drum, sample it and, if hazardous, to dispose of it properly according to all applicable regulations. Astro Container was told to send the analytical results to OEPA.⁷⁵

3345 River Road (Riverside): QCB began using this lot in the flood plains between River Road and the Ohio River as early as summer, 1989, when the Cincinnati Health Department was alerted to it. On January 19, 1990, OEPA investigated the lot in response to a complaint. OEPA estimated 50,000 drums on the site as well as 100 trailers from QCB, Astro Container and Astro Fibre Drum also containing drums. While the drums checked by the investigators were considered "RCRA empty", the investigators did note spillage.⁷⁶

⁷³Letter from William Murphy, OSHA to Pauletta Hansel, 4/25/90.

⁷⁴OEPA Initial Pollution Incident Report and handwritten inspection notes, 11/14/89.

⁷⁵Letter from OEPA Special Investigations Unit to Harry Strawser, Astro Container, 1/27/89.

⁷⁶OEPA Inter-Office Communication, 1/1990.

Riverside residents became aware of the site after news coverage by Channel 12 in late February. A protest was organized and later cancelled after Edward Paul, President of QCB signed a statement that he expected to remove the barrels in 90 to 120 days as construction for improvement, including environmental upgrading was completed.⁷⁷

Neighborhood concern included the condition of the barrels, many of which were leaking, uncovered, upside down and/or crushed; the spillage and odor in the area; the volume of material (more than one inch) in many of the barrels; and the fact that the area was unfenced and unguarded and thus accessible to children.⁷⁸ Estimating that one inch of residue in a 55 gallon drum equals a gallon of material, the neighborhood was also concerned that 50,000 "empty" barrels may themselves be a hazard.⁷⁹

Community concern apparently generated local governmental interest, as by March 9, 1990, the Cincinnati Zoning Board had issued QCB an order to discontinue use due to the RF2 zoning of the land. (Land zoned RF2 can only be used for industry related to use of the river).

OEPA reinspected the site on March 2, 1990 and noted "brown viscous substance on top of drum labeled Alkanolamine and laying on ground, fiber drums with liners" questioning "would they be RCRA empty [P]iles of red substance (sludge on ground)".⁸⁰

OEPA's official statement was "There was some evidence of sloppy operations but there was no hazardous waste violations"⁸¹ OEPA responded negatively to Cincinnati Health Department's request for intervention and instead advised the Health Department to look to its own nuisance laws.⁸² OEPA has,

⁷⁷Letter from Edward Paul to Riverside Community, 3/4/90.

⁷⁸Article, "Queen City Barrel Co. is in Riverside", Riverside - Sedamsville Community News, April, 1990.

⁷⁹Mary Lou Krull, Riverside Civic Club member at Riverside Civic Club Meeting, 3/13/90.

⁸⁰Handwritten OEPA inspection notes, 3/2/90.

⁸¹Tom Winston, OEPA quoted in Cincinnati Enquirer, 3/6/90.

⁸²Tom Rotte, Senior Sanitarian, Bureau of Environmental Health at Riverside Civic Club Meeting, 3/13/90.

however, indicated its willingness to assess the area after the barrels have been removed.⁸³

Currently, the barrels remain although QCB has not appealed the Zoning Board's order. QCB has indicated the barrels will be gone by July 3, 1990, but refused in an April meeting to test for soil and ground water contamination as the RCRA empty status of the drums allegedly exempted the lot from such requirements. The Health Department urged City Council to bring a nuisance suit against QCB stating, "They are playing games with us."⁸⁴

QCB later agreed to hire a firm to take soil samples⁸⁵ and disputed the Health Department's "characterizations of the drum storage as a nuisance and the reference to the River Road site as being illegal."⁸⁶

As of May 1, 1990, Bobbie Sterne, Chairperson of City Council's Intergovernmental Affairs Committee, indicated that a nuisance lawsuit may be premature.⁸⁷

In regard to the Riverside and other barrel storage sites, OEPA maintains that it currently has no ability to regulate sites which contain only "empty barrels" and barrels of non-hazardous materials, as do QCB's sites.

OEPA does anticipate future enforcement ability in regard to at least the on-site "empty" barrel storage area. An amendments to RCRA in 1986 called HSWA (Hazardous and Solid Waste Amendments) gave USEPA the authority to implement or authorize states to implement a Corrective Action Program to clean up solid waste management units at any site currently or previously under RCRA permit or interim status. In citing this as a potential avenue toward regulating the "empty" barrels, OEPA is considering the material in the RCRA empty barrels to be solid waste.

However, OEPA questions whether the off-site barrel storage sites such as the ones on River Road, Evans Street and Gest

⁸³Tom Winston, OEPA at Cincinnati Environmental Advisory Committee, 5/16/90

⁸⁴Al Olverson, Director of Environmental Health Services, Cincinnati Health Department quoted in Cincinnati Enquirer, 5/1/90.

⁸⁵Letter from QCB to Al Olverson, 4/30/90.

⁸⁶Letter from QCB attorney to Bobbie Sterne, 5/1/90.

⁸⁷Cincinnati Enquirer, 5/1/90.

Street will fall under this program as the sites themselves have never been RCRA permitted.⁸⁸

d) USEPA Preliminary Review/Inspection

As referenced at the beginning of this section, the initial inspection for the purpose of determining QCB's priority status for hazardous waste clean-up and follow-up inspections was conducted on February 6, 1989.⁸⁹ The process included file reviews at USEPA and OEPA, an interview with QCB's general manager, and a walk-through of the facility. These activities and the subsequent report were done by USEPA's Field Investigation Team (FIT). The purpose was to evaluate the risk to the environment using five pathways (groundwater, surface water, air, fire and explosion, and direct contact) of migration for USEPA's target compounds and analysis. FIT concluded that potential for both groundwater and air contamination existed at QCB. Potential for groundwater contamination exists due to a 1983 spill that occurred from the underground storage tank (spillage of several hundred gallons of material due to accidental overflow during an interlock valve failure) and also should another spill occur. Groundwater contamination is also affected by the tank's lack of secondary containment (see discussion of Part B application). According to FIT, "[c]racks in the concrete storage pad also present a potential for release to groundwater." (Although FIT noted no visible signs of previous spillage on the pad at the time of inspection, OEPA noted standing water in that area on January 20, 1989.)

FIT noted that there are approximately 1600 people using private groundwater wells within a three mile radius of QCB.

In regard to groundwater, FIT recommendations were that:

- surface sampling and borings be conducted to assess the ground near the underground tank;
- pressure testing be conducted to assess the integrity of the tank;
- if contamination exists or the tank is found to be unsound, monitoring wells should be installed to assess groundwater contamination; and

⁸⁸Frank Bryant, OEPA, to Pauletta Hansel, 5/25/90 and 6/4/90.

⁸⁹Preliminary Review/Visual Site Inspection and Preliminary Assessment Report for Queen City Barrel Company, Field Investigation Team, Zone II, April 13, 1990.

- the cracks in the concrete drum storage pad should be repaired.

FIT also concluded that a potential for air contamination exists "based on the volatile nature of wastes handled by QCB and the operation history of the incinerator."

In regard to air contamination, the FIT recommendations were that:

- air monitoring of incinerator emissions should be continued for OEPA;
- follow-up inspection should be conducted to ensure the modifications to the incinerator are completed; and
- air monitoring to assess the effectiveness of the modifications may be necessary.

FIT determined that the potential for surface water contamination was low, due to the lack of discernable slope and to the intervening streets and buildings between QCB and the Ohio River, as well as to the fact that "all surface water at the facility is collected and sent to the on-site wastewater treatment center" (see discussion of City of Cincinnati's lawsuit against QCB relevant to this treatment center in Section III.C.4.a).

In regard to potential for fire and explosion, FIT stated that QCB is, according to the Cincinnati Fire Prevention Bureau, in compliance with all fire ordinances and is inspected regularly. (Not noted is QCB's history of non-compliance with Fire Department regulations in regard to its sprinkler system and blockage of fire hydrants).⁹⁰

In regard to potential for direct contact contamination, FIT stated that the "QCB facility is partially fenced and has a 24-hour security system."

The FIT report also mentions the existence of a caustic cleaning solution recycling system consisting of two 12,000 gallon tanks, one used to store clean caustic (50% sodium hydroxide) and the other to clarify caustic previously used to clean drums, and of associated piping. Although FIT determined the system to be a RCRA regulated unit, the report states that "currently no RCRA permit is associated with this unit."

⁹⁰Memo to MSD from Cincinnati Fire Chief, 10/24/88.