Environmental Status

E.F. Britten Co, Inc. owned and operated at 22-26 South Avenue West in Cranford, New Jersey, since 1967, before Cranford Harrison Developers LLC (Cranford Harrison) purchased the property in September 9, 2020. Site operations included the manufacturing of refillable and disposable carbon steel cylinders and small brass and stainless-steel needle valves for specialty gas and laboratory applications.

The Site has been the subject of environmental investigations for over two decades (2000), when a 1,000-gallon gasoline underground storage tank (UST) closure identified chlorinated volatile organic compounds (cVOCs) in soil and ground water (NJDEP PI# G000044358, Case No. 00-06-28-0038-52). The Site is subject to the New Jersey Department of Environmental Protection (NJDEP) Technical Requirements for Site Remediation (7:26E) rules and regulations. With the enactment of the Site Remediation Reform Act (SRRA) in 2009, a Licensed Site Remediation Professional (LSRP) is required to oversee all Site related activities. The LSRP retained for this site is Rob Gascoyne of Matrix New World Engineering (Matrix).

Previous investigation activities performed by others between 2000 and 2016 indicated elevated levels of cVOCs in soils and groundwater, predominately TCE and PCE. The highest concentrations of TCE was observed in soils, in sample EFB-7 at 650 mg/kg (16.5-17.0' bgs) and SB-3 at 970 mg/kg (1.5-2.0' bgs) in a former drum storage area (outdoor), located along the northern wall of the building. PCE was detected as high as 6.2 mg/kg in this area (in sample EFB-2A). The NJDEP residential direct contact soil remediation standard (RDCSRS) for TCE and PCE is 3 mg/kg and 43 mg/kg, respectively. Other general impacted areas of soils for cVOCs include the following:

- The former UST location in the southwest portion of the Site where TCE was detected at a maximum of 290 mg/kg (12.5-13.0'bgs) in sample GT-5 and 280 mg/kg (23.5 to 24.0 ft bgs) in GT-7C. PCE was detected in this area as high as 85 mg/kg in sample GT-2C (18.5-19.0' bgs).
- The former degreasing area located in the central portion of the Site, where the highest TCE concentrations were detected at 180 mg/kg (11.5-12'bgs) in TW-2 and 736 mg/kg in SB-6 (3.5-4' bgs)

An area of elevated metal concentrations (lead, zinc, and chromium) was also identified in soils within the eastern portion of the Site, between two on Site buildings in sample TW-5 (2.5-3.0 ft bgs). Lead was detected at 2,550 mg/kg, above the RDCSRS of 400 mg/kg. Total chromium was also identified at 911 mg/kg. While no standard exists for total chromium, the concentration detected exceeds the current Residential Soil Cleanup Criteria (SCC) for hexavalent chromium (240 mg/kg).

The highest concentration of TCE observed in ground water is located beneath the central portion of the building (in temporary well point SV02 at 105,000 ug/L) within an area of former degreasing operations. PCE was detected at 3,040 ug/L in this location. The second highest TCE concentrations observed in ground water was south east of SV02 at TWP15 (downgradient towards the building edge along South

Avenue West) at 101,000 ug/L. The second highest concentration of PCE was observed at 2,090 ug/L in TWP-2A, which is in the vicinity of SV02, a former location of degreasing. Investigation results have indicated that groundwater impacts have likely migrated throughout the majority of the site and are migrating off site to the south-southeast.

There are two on Site monitoring wells, MW-2 and MW-3 located in the northeast and southwest corners of the Site. Concentrations of TCE and PCE in MW-2 and MW-3 have been reported as 160 and 26 ug/L and 2.1 and 1.4 ug/L, respectively. There is one off site monitoring well, MW-4, located south of the Site at Over the Rainbow Nursery School. Prior testing indicated there were no CVOCs detected in this monitoring wells. Approximate extents of the TCE groundwater plume is shown on Figure 1. It should be noted the extents are largely based on temporary well points installed by a previous consultant.

Since concentrations of cVOCs are above vapor instruction ground water screening levels (VI GWSL) for TCE and PCE, vapor Intrusion (VI) activities were initiated at the property in 2007, 2010, and 2013. A vapor concern condition (i.e. TCE was detected above the non-residential indoor air screening levels, but below non-residential rapid action limit in the subject building) was reported to NJDEP in 2013 based on the result of additional indoor air testing. A Vapor Mitigation Plan was established to implement institutional controls to reduce exposure time (6 hours/day) and exposure frequency (158 days/year) of workers at the Site to air concentrations in on portion of the Site (former machine shop).

Based on recent results of indoor air samples collected in March 2018, TCE and all other VOCs were below the Residential and Non-residential IASLs. As groundwater remains impacted with TCE above VIGWSL, long term indoor air monitoring is required. As part of redevelopment activities, a vapor barrier and/or depressurization system will be installed to mitigate potential vapor intrusion issues in the subject building.

Off-Site Properties

E F Britten initiated off Site Vapor Intrusion investigations between 2007 and 2010, as required by NJDEP, for properties within 100 feet of the groundwater contamination on Site.

Most recently, in March 2019, NJDEP collected sub-slab soil gas (SSSG) and indoor air samples (IA) at seven (7) adjacent properties. A summary of the locations and results, with respect to the compounds of concern, TCE and PCE, are presented below. The NJDEP provided each property owner and tenant, a letter report (date May 15, 2019) documenting these results. The Cranford Health Officer (Mr. F. Michael Fitzpatrick) was included on each letter.

Address	IA Results	Near-slab Results	SSSG Results
Residence (11 Washington Place)	ND	--	ND
Rainbow Day Care (25 South Avenue West)	ND	--	ND
Commercial Strip Mall – adjacent to the Site			
Il Gabbiano Restaurant (10 South Avenue West)	ND	ND	ND
Sushi Time 898 Restaurant (12 South Avenue West)	ND	ND	ND
Town and County Cleaners* (14 South Avenue West)	--	ND	ND
UPS Store (16 South Avenue West)	ND	ND	ND
Dunkin Donuts (18 South Avenue West)	ND	ND	ND

-- = Not sampled.

* Indoor Air samples were not collected as tenant is a dry cleaning establishment and PCE is used in dry cleaning fluid.

ND=NJDEP correspondence indicates neither TCE nor PCE were detected in the sub-slab, near slab, or indoor air samples.

Township Correspondence RE: the Site

- November 15, 2007 Letter from NJDEP to EF Britten RE 2007 Indoor Air and Sub Slab results at Over the Rainbow Nursery School. cc: Cranford Health Department
- September 9, 2009 Letter from EF Britton to Amy DaSilva (NJDEP Bureau of Northern Field Operations) Re: the contamination identified on the property. cc: Cranford Municipal Clerk and Cranford Health Department.
- April 12, 2013 Letter from Environ to Service Master Clean (28 South Avenue West) RE Indoor Air Results. cc. Monika Kascova-Jencik (Township of Cranford Health Department)
- May 6, 2015, Letter from Ramboll to EF Britten RE Indoor Air Sampling. cc. Monika Kascova-Jencik (Township of Cranford Health Department)
- May 7, 2018 Letter from Ramboll to EF Britten RE Indoor Air Sampling. cc. Monika Kascova-Jencik (Township of Cranford Health Department)
- May 15, 2019 Letters from NJDEP to each property owner/tenant identified above regarding Soil Gas and Indoor Air Sampling conducted in March 2019. cc: Cranford Health Officer (Mr. F. Michael Fitzpatrick

Note – the Initial Receptor Evaluation was submitted to NJDEP within the August 30, 2011 Supplemental Remedial Investigation Results Letter report. Township should have been provided a copy, but no correspondence was located to confirm that.