



September 10, 2024

Re: SP24-01 Gillette

Dear Andover Planning Board:

The Massachusetts Sierra Club has many serious concerns about this application.

We would urge the Board to perform a more in-depth site assessment including groundwater and nearby surface water testing given that the Andover facility has manufactured a wide range of products using numerous hazardous materials and that the Boston blade operations will add significantly to the mix. Ground water mixes with storm water and enters drainage systems and surface waters.

The Andover site is sensitive due to several environmental resources in the area. The industrial zone is adjacent to the Shawsheen River and its surrounding wetlands. The sources of the town's public water systems are local. The Haggart's Pond Reservoir is 2.8 miles from the Gillette plant. Several types of PFAS have been reported in local drinking water systems that to date have been below the current regulatory limits. PFAS of unknown origin have also be detected in wetlands across the road leading to the Gillette campus.

By combining multiple public data sources, a very partial inventory of chemicals used by Gillette has been constructed. Most of these could migrate to aquatic media. Many of these are used in large quantities with maximum amount stored at the respective locations of 20-131 thousand pounds. It is expected that the Boston substances will be transferred to Andover.

Existing Andover:

- A-46- propellant consisting of a mix of propane and isobutane
- Blowing agent - Isopentane
- Glycerol - slightly flammable
- Sulfuric acid
- POLYOX™ water-soluble resins (WSR) consisting primarily of poly(ethylene oxide)
- Various mostly synthetic ingredients in personal care products that appears to include Cocamidopropyl betaine, Laureth 23 (polyoxyether of lauryl alcohol), Palmitic Acid, Sodium Lauryl Sulfate, Stearic Acid (Vegetable), Triethanolamine.
- High impact polystyrene. This solid also apparently will generate dust on site.
- PFAS - Teflon (PTFE) is used in Gillette shaving gels¹.

¹ Water-activated Gillette Series Shave Gel Extra Comfort, MATERIAL SAFETY DATA SHEET Finished Product, 2011



- liquid nitrogen

Boston additional chemicals:

- Isopropanol - a VOC used for QA/QC cleaning
- RHODASPEC - a commercial product used for cleaning steel that contains Ethoxylated Dodecyl Mercaptan, Diphosphoric acid, potassium salt (1:4), Sodium Xylenesulfonate, Sodium Metasilicate, Water.
- Chromium from blade alloys
- Nickel from blade alloys

Other Andover chemicals could be gathered from a comprehensive review of the ingredient listings of various past and current Gillette products such as the Lubrastrip found on the Gillette Sensor 3 Comfort Disposable Razors:

- PEG-115M, PEG-7M, PEG-100 - various polyethylene glycols
- Silica – possible PM
- Pentaerythrityl Tetra-Di-T-Butyl Hydroxyhydrocinnamate - an extremely complex, persistent and bioaccumulative substance²
- BHT - a phenolic compound linked to cancer
- Glycol – a class of alcohols (including PEG's), not a specific compound, some of which are toxic to mammals

Unknowns include:

- Plastic injection molding chemicals including additives (such as colorants), or processing aids, which may include PFAS.
- Oil mist mentioned in the air permit
- Blade washing chemicals

Future chemicals could include substitutes to avoid PTFE coatings may be non-fluorinated nanoparticles,³ an area of emerging concern.

Accidents are inevitable even in the best-managed plants and Gillette is no exception:

- Andover: 35 thousand gallons of diesel fuel from a tank in 2008, and 41 thousand gallons of ethanol from a valve leak in 1998.
- Boston including “VOCs” (and ongoing monitoring), “petroleum hydrocarbons” (2019) and lead (2018).

https://www.msdsdigital.com/system/files/Gillette_Series_Shave_Gel_Extra_Comfort_%2898651970%29.pdf

² See: https://www.ewg.org/skindeep/ingredients/722079-PENTAERYTHRITYL_TETRADIBUTYL_HYDROXYHYDROCINNAMATE/

³ Qian He, Eric Hanson, Edward Hughes, “A Close Shave: New PFAS-Free Alternatives to PTFE Surface Lubricating Coatings for Razor Blades Could Mean Great Shaving and a Better.” PCI, August 7, 2023 [note the authors work for coatings manufacturer]

<https://www.pcmag.com/articles/111660-a-close-shave>



There could be leakage or overflow from the sewage system that would enter the groundwater.

The Planning Board should require conditions on the storm water permit to address all of these operations and associated risks.

Sincerely,

Clint Richmond,
Conservation Chair,
clint@massachusetts.sierraclub.org
Massachusetts Sierra Club
Boston MA 02110
www.sierraclub.org/massachusetts