CITY OF SOUTH PORTLAND - DRAFT ORDINANCE COMMITTEE

RECOMMENDATIONS

PART 1 – RECOMMENDED ORDINANCE CHANGES

JULY 1, 2014

Section 1. Short Title

This Ordinance may be cited as the "South Portland Clear Skies Ordinance."

Section 2. Findings

Whereas, the City of South Portland (hereinafter "the City"), as a result of its location on Portland Harbor and Casco Bay, a body of water that has been designated an "estuary of national significance" under the United States Environmental Protection Agency's National Estuary Program, has a long history of supporting a diverse variety of marine-dependent industries including shipping and transportation, commercial and recreational fishing, recreational boating, other recreational uses and tourism; and

Whereas since 1967, the City has engaged in a deliberative and formal ongoing long-range planning process by which citizens create and periodically update a direction and framework for managing future development of the City; and

Whereas, in 2012 in order to plan for its future growth and development, the City adopted an update of the City's Comprehensive Plan (hereinafter "the Plan"), which continues the City's established long-range planning process, and creates a framework for managing future development; and

Whereas, Chapter Four of the Plan, entitled "Community Vision" sets forth "Our Vision for the Future of South Portland," relevant provisions of which state (all emphasis in the original document):

- "South Portland is a community where people want to live, raise a family, to retire... South Portland is also a place that is a destination – a place where people want to visit to enjoy the waterfront or to be involved in recreational or athletic activities that utilize the City's outstanding facilities. South Portland is a DESIRABLE COMMUNITY – it is a DESTINATION!"
- "South Portland offers its residents a variety of lifestyles and livable, walkable neighborhoods... These neighborhoods accommodate older households as well as being attractive to younger people including families with children – anyone who wants a good place to live. South Portland is a City of LIVABLE, WALKABLE NEIGHBORHOODS."
- "South Portland provides its children with quality education for the 21st Century in up-to-date facilities utilizing the latest technology…. [T]he community's educational focus is also on creating a City of lifelong learners through ongoing adult education and collaboration with Southern Maine Community College. We are an EDUCATION COMMUNITY."
- "South Portland is a GREEN CITY. Trees, parks, and open spaces bring nature into the community and make it readily accessible to all residents, including those with disabilities. It is also a community that is focused on minimizing its impact on the environment."

- "South Portland remains a WATERFRONT COMMUNITY. The waterfront is the reason the City developed as it did and remains an important element of the community. While much of the shoreline remains a working waterfront, the public's access to the water expands. As older industrial and transportation uses of the waterfront become obsolete or are relocated or upgraded, the shoreline evolves as more of a mixed-use area preserving the opportunity for traditional marine uses while accommodating recreational, business, and even residential uses. The City and its residents continue to be connected to the waterfront."; and

Whereas, the City intends to protect these elements of its Community Vision as set forth in the Plan, and to promote future development in harmony with the basic elements of its Community Vision – a vision that embraces a diverse mixed-use waterfront community; a green city that protects its air quality; an education community where schools and a waterfront college campus are not impacted by incompatible adjacent uses, including new or expanded sources of significant air pollution; and a city that is a desirable destination and a desirable, livable community; and

Whereas, the Plan identifies the Eastern Waterfront as an area that "continues to evolve to become a marine, mixed-use area that capitalizes on the access to the waterfront and spectacular views of the harbor and inner Casco Bay;" and

Whereas, the Plan has a fundamental land use objective of expanding public access and

diversity of uses in the Eastern Waterfront while maintaining marine activities, and recognizes that mixed use and diversified development and redevelopment of the Eastern Waterfront represent a significant opportunity to "enhance the City's image as a desirable community that is a destination for both residents and visitors while at the same time expanding the City's tax base;" and

Whereas, the Plan recognizes that in the short term, existing operations at the marine terminals are maintained with the stipulation that "[i]n the longer term, if demand for these facilities declines or the type of activity needs to change and the owners of these facilities desire to explore other uses for these facilities, the City, in conjunction with the owners, should reevaluate the best use of these waterfront sites;" and

Whereas, the City has established a Shoreland Area Overlay District, applicable to the first 250 feet from the upland edge of a coastal wetland, in order to restrict development that would adversely affect scenic and natural values, among other values; and

Whereas, a portion of the City's waterfront is designated as the Shipyard District, which has as its purpose "to promote the Shipyard area in South Portland as a robust waterfront center for office complexes, commercial uses, marine uses, and light industrial activities;" and

Whereas, bulk loading crude oil onto marine tank vessels is neither a traditional marine use nor a light industrial use; and

Whereas for over 70 years the area now designated as the Shipyard District has been used for offloading crude oil from marine tank vessels; and

Whereas, in 2009, the Portland Pipeline Corporation (PPLC) sought and obtained an air emission license from the Maine Department of Environmental Protection (Maine DEP), that required the installation of a vapor control system to convey vapors displaced by bulk loading of crude oil onto marine tank vessels to vapor combustion units; and

Whereas, in 2009, PPLC sought and obtained site plan approval from the City for new modifications of its facilities (including the addition of 2 breasting dolphins supported by 16 new pilings; installation of 8 additional pilings to support 2 new above-pier vapor transfer arms that would be part of a new vapor recovery system, consisting of 2 new vapor combustion units – i.e., "combustion stacks" – both 12 feet in diameter and 70 feet high; and at a PPLC tank farm location, construction of a new pump building to house 2 new vertical pumps, with ancillary piping modifications to the piping network); and

Whereas, although the air emission license for bulk crude oil loading activities was voluntarily surrendered in 2013, the proposed bulk crude oil loading operation would have constituted a new land use, which has never been a traditional land use within the City, and which would have significantly impacted future development of the City's waterfront, air quality, scenic ocean views, and land-use planning vision; and

Whereas, during the entire history since inception of all of the City's commercial, shipyard, or marine industrial uses and facilities, no such uses or facilities have ever included

operations for the bulk loading of crude oil onto marine tank vessels or the related installation of vapor control systems to convey vapors displaced by marine tank vessel crude oil loading operations to vapor combustion units; and

Whereas, the City under its traditional land use authority and general police powers as otherwise provided by law, has the authority to impose reasonable restrictions, conditions, and limitations on development, for the benefit of the public health and welfare; and

Whereas, the City intends to protect its citizens and visitors from harmful effects caused by air pollutants; and

Whereas, air pollutants associated with storage and bulk loading of crude oil onto marine tank vessels include particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide, hazardous air pollutants (also known as HAPs), and volatile organic compounds; and

Whereas, crude oil contains several HAPs, including benzene, ethyl benzene, hexane, toluene, and xylenes, among others; and

Whereas, the bulk loading of crude oil onto marine tank vessels would likely result in an increase in emissions of HAPs and volatile organic compounds from oil storage tank facilities within the City, including the 19-tank facility on Hill Street and storage tank facilities located on Preble Street and Front Street, that would diminish the City's air quality; and

Whereas, HAPs include substances which are known to be, or may reasonably be anticipated to be, acutely or chronically toxic, carcinogenic, mutagenic, teratogenic, or neurotoxic; and through inhalation or other routes of exposure present, or may present, a threat of adverse environmental and ecological effects and serious human health effects, including cancer, reproductive dysfunction, or birth defects; and

Whereas, bulk loading of crude oil onto marine tank vessels in the Shipyard District, Commercial District, or Shoreland Area Overlay District would emit 39 tons of volatile organic compounds or more annually after implementing air pollution controls; and

Whereas, volatile organic compounds are precursors to the formation of ground level ozone, and emissions from the bulk loading of crude oil onto marine tank vessels would increase such precursor concentrations; and

Whereas, the American Lung Association State of the Air 2014 report gives Cumberland County a “C” grade for ozone air quality; and

Whereas, breathing ozone can cause adverse health effects, including increased frequency of asthma attacks, increased susceptibility to lung infection, inflammation and damage to the airways, which lead to increased school absences, greater medication use, more visits to doctors and emergency rooms, and hospital admissions; and

Whereas, children are more likely to have asthma than adults, and are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be

active outdoors when ozone levels are high, which increases their exposure to ozone and other air pollutants; and

Whereas, South Portland residents, visitors, and tourists would likely be exposed to high concentrations of ground level ozone in addition to increased levels of hazardous air pollutants and volatile organic compounds associated with emissions from the bulk loading of crude oil onto marine tank vessels; and

Whereas, emissions from the bulk loading of crude oil onto marine tank vessels are likely to cause an increase in airborne concentrations of volatile organic compounds and hazardous air pollutants in other areas of the city, including schools and residential areas already located adjacent to oil storage tank facilities and their associated air quality impacts; and

Whereas, the oil storage tank facility on Hill Street is located near or adjacent to predominantly residential districts, elementary schools and preschools, the South Portland High School and athletic fields, and the South Portland Community Center, and the bulk loading of crude oil onto marine tank vessels would likely require more storage of crude oil and a resultant increase in hazardous air pollutants (HAPs) in direct proximity to school children and area residents; and

Whereas, additional oil storage tank facilities on Preble Street and Front Street, and the pier on which the new combustion stacks required for the bulk loading of crude oil onto marine tank vessels would be constructed are in close proximity to the waterfront campus of Southern Maine Community College, a large senior citizen housing facility, and

residential districts; and

Whereas, new or expanded use of petroleum storage tank facilities for the purpose of bulk loading crude oil onto marine tank vessels would involve a new and significant increase in air pollution; and

Whereas, marine tank vessel loading operations are required by law to control emissions of hazardous air pollutants and volatile organic compounds; and in South Portland, such controls would likely include two 70-foot tall combustion stacks or similar structures in the Shipyard District, Commercial District, or Shoreland Area Overlay District; and

Whereas, such combustion stacks would likely be among the tallest industrial structures on the South Portland waterfront and, due to their size and character, would negatively impact waterfront scenic values and property values; and

Whereas, such combustion stacks would be located in close proximity to city parks with diverse recreational uses, including Bug Light Park, Willard Beach, Fisherman's Point, and the Greenbelt Walkway; and

Whereas, negative impacts on waterfront scenic values and air quality would occur as a result of the normal operation of vapor combustion units; and

Whereas, emissions of hazardous air pollutants and impacts on waterfront scenic values associated with bulk loading of crude oil onto marine tank vessels could continue for

decades and impact several generations of South Portland residents, visitors, and tourists; and

Whereas, new and expanded land use and facilities for the bulk loading of crude oil onto marine tank vessels would adversely impact the balance of mixed-uses on the waterfront – a current balance including uses arising from four marinas, a yacht club, other recreational marine uses, other commercial fishing or light industrial uses, other adjacent expanding residential or mixed-use districts, and the recreational and scenic use of the publicly-accessible beaches, parks, and open spaces that are currently a part of the City's waterfront community; and

Whereas, developing facilities for bulk loading of crude oil onto marine tank vessels would be inconsistent with the Plan, including the fundamental objective for the Eastern Waterfront and the City's Community Vision, which provisions are a vital part of the City's policies and goals for future economic development; and

Whereas, development of facilities for the bulk loading of crude oil onto marine tank vessels would increase emissions of hazardous air pollutants in the City, and result in the construction or installation of new structures and/or equipment adversely impacting waterfront scenic values, public access to the shoreline, the balance of mixed uses and recreational activities along the waterfront, and further adversely affect South Portland residents and visitors for generations to come.

Section 3. Purpose.

This Ordinance is enacted, consistent with the City's traditional land use authority, to protect the health and welfare of its residents and visitors and to promote future development consistent with the City's Comprehensive Plan by prohibiting within the City the bulk loading of crude oil onto marine tank vessels, and also by prohibiting construction or installation of related facilities, structures, or equipment that would create significant new sources of air pollution, adversely impact or obstruct ocean views and scenic view-sheds, and impede or adversely impact the City's land use and planning goals.

Section 4. Amendments to Chapter 27, "Zoning," of the "Code of Ordinances of the City of South Portland, Maine" (additions are underlined; deletions are struck out)

ARTICLE I. Administrative Provisions

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GENERAL PROVISIONS

Sec. 27-111. Purpose.

This zoning ordinance is designed for all the purposes of zoning embraced in Title 30-A of the Maine Revised Statutes and has been drafted as an integral part of the Comprehensive Plan for the City of South Portland, Maine. Among other things it is designed to encourage the most appropriate use of land throughout the municipality; to

promote traffic safety; to provide safety from fire and other elements; to protect citizens and visitors from harmful effects caused by air pollutants; to implement Part 1 of the recommendations of the City Council-appointed *ad hoc* Draft Ordinance Committee dated July 1, 2014; to provide adequate light and air; to prevent overcrowding of real estate; to promote a wholesome home environment; to prevent housing development in areas with significant environmental and other constraints; to provide an adequate street system; to promote the coordinated development of unbuilt areas; to encourage the formation of community units; to provide an allotment of land area in new developments sufficient for all the requirements of community life; to conserve natural resources; and to provide for adequate public services.

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Sec. 27-118. Applicability date of amendments to implement Part 1 of the recommendations of the Draft Ordinance Committee dated July 1, 2014.

Notwithstanding the provisions of 1 M.R.S.A. § 302 or any other law to the contrary, the amendments to this ordinance evidenced by Ordinance #1-14/15, when enacted, shall govern any use involving bulk loading of crude oil onto any marine tank vessel and any facility, structure or equipment used for the purpose of bulk loading of crude oil onto any marine tank vessel for which an application has not been submitted and acted on by the Code Enforcement Officer and/or Planning Board, as applicable, prior to November 6, 2013.

Secs. 27-119~~8~~ - 27-130. Reserved.

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ARTICLE II. Definitions

Sec. 27-201. Definitions.

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Crude oil. A naturally occurring mixture consisting predominantly of hydrocarbons and/or sulfur, nitrogen, and oxygen derivatives of hydrocarbons that is removed from the earth in a liquid state or is capable of being so removed; unrefined oil sands/tar sands oil products; diluted bitumen; and synthetic crude oil; but does not mean gasoline, diesel, biodiesel, ethanol, kerosene, No. 2 fuel oil, jet fuel, aviation gasoline, home heating oil, asphalt, distillate, waste oil, lubricants, or other refined petroleum products.

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Marine tank vessel. Any tank ship or tank barge that transports crude oil in bulk, including lighters or lightering operations for transfer of crude oil in bulk onto a marine vessel. The term does not mean any oil spill response barge or vessel, or any marine vessel used in oil spill response operations.

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ARTICLE VII. Mixed Use/Commercial Districts

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COMMERCIAL DISTRICT C

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Sec. 27-780. Permitted uses (C).

(a) Retail businesses and service establishments including warehousing and wholesale distribution related thereto, but exclusive of junkyards, salvaging operations; outdoor sales and services.

(b) Business and professional offices.

(c) Fully enclosed places of assembly, amusement, culture and government.

(d) Clubs, hotels and motels, and restaurants.

(e) Transportation termini.

(f) Storing and handling of petroleum and/or petroleum products, excluding automobile filling stations which are governed by Sec. 27-781(d), and as noted in Sec. 27-1517; provided, however, that any such storing and handling of petroleum and/or petroleum products shall not include the bulk loading of crude oil onto any marine tank vessel.

(g) Residential uses in air space above the preceding permitted uses and at net densities not less than ten (10) or more than seventeen (17) dwelling units per acre. The minimum space and bulk regulations of a G District shall apply.

(h) Accessory buildings and uses, including telecommunication antennas, except that such antennas may not be placed on exempt towers.

(i) Any use permitted in Limited Business District L-B Zone.

(j) Recreational or community activity buildings, grounds for games or sports, except those operated for a profit.

(k) Charitable and philanthropic organizations.

(l) Child, adult or combined day care centers.

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Sec. 27-786. Prohibition related to implementation of Part 1 of the recommendations of the Draft Ordinance Committee dated July 1, 2014.

Notwithstanding the provisions of Sec. 27-1517, Standards for Above Ground Storage Tanks, there shall be no installation, construction, reconstruction, modification, or alteration of new or existing facilities, structures, or equipment, including but not limited to those with the potential to emit air pollutants, for the purpose of bulk loading of crude oil onto any marine tank vessel in the Commercial District or Shoreland Area Overlay District.

Secs. 27-787~~6~~ - 27-789. Reserved.

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ARTICLE IX. Industrial Districts

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SHIPYARD DISTRICT S

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Sec. 27-922. Permitted uses (S).

The following uses are permitted in the Shipyard District S:

(a) Business and professional offices and office complexes.

(b) Business services.

(c) Financial services.

(d) Hotels, motels, and inns.

(e) Restaurants and other places for the serving of food or beverages, provided, however, such facilities may not be open between the hours of 1:00 a.m. and 6:00 a.m.

(f) Light industrial uses.

(g) Petroleum storage tank farms and accessory piers, pumping & distribution facilities as governed by all applicable sections of the Code.

(h) General bottled gas distribution and bottling of non-flammable and non-toxic gases.

(i) Marine uses.

(j) Piers and wharves used for permitted uses of this zoning district.

(k) Accessory buildings and uses, including child, adult or combined day care centers, and including telecommunication antennas, except that such antennas may not be placed on exempt towers, and provided that no premises shall be used for both the washing of motor vehicles and the sale or dispensing of gasoline or any flammable liquids.

(l) Municipal parks.

(m) Public utility buildings, including substations, pumping stations and compressor stations.

(n) Storing and handling of petroleum and/or petroleum products subject to the provisions of ~~Ord.~~ Sec. 27-1517, excluding automobile filling stations; provided, however, that any such storing and handling of petroleum and/or petroleum products shall not include the bulk loading of crude oil onto any marine tank vessel.

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Sec. 27-930. Prohibition related to implementation of Part 1 of the recommendations of the Draft Ordinance Committee dated July 1, 2014.

Notwithstanding the provisions of Sec. 27-1517, Standards for Above Ground Storage Tanks, there shall be no installation, construction, reconstruction, modification, or alteration of new or existing facilities, structures, or equipment, including but not limited to those with the potential to emit air pollutants, for the purpose of bulk loading of crude oil onto any marine tank vessel in the Shipyard District or Shoreland Area Overlay District.

Sec. 27-931~~0~~ — 27-940. Reserved.

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INDUSTRIAL DISTRICT I

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Sec. 27-944. Prohibited uses (I).

No building or structure shall be erected, altered, enlarged, rebuilt, or used and no premises shall be used for any of the following specified trades, industries or uses:

(1) Ammonia, bleaching powder or chlorine manufacture or refining.

(2) Asphalt manufacture or refining.

(3) Blast furnace.

(4) Bulk loading of crude oil onto any marine tank vessel.

(5~~4~~) Cement, gypsum, lime, or plaster of Paris manufacture.

(6~~5~~) Coke manufacture.

(7~~6~~) Creosote manufacture.

(8~~7~~) Dextrine, glucose or starch manufacture.

(9~~8~~) Distillation of bones, coal or wood, or manufacture of any of their by-products.

(10 ~~9~~) Dye manufacture.

(11~~10~~) Explosives or fireworks manufacture, or storage in excess of five hundred (500) pounds.

(12~~11~~) Fat, grease, lard or tallow manufacture, refining or rendering.

(13~~12~~) Fertilizer manufacture.

(14~~13~~) Gas (fuel or illuminating) manufacture in excess of one thousand (1,000) cubic feet per day, or storage in excess of ten thousand (10,000) cubic feet, except that plants for the manufacture, compression and storage of acetylene gas in cylinders and plants for storage and charging of liquefied petroleum gas (defined as any material which is composed predominantly of any of the following hydrocarbons or mixtures of them: Propane, propylene, butane, and butylene) into cylinders may be operated in buildings, on structures, and in storage spaces designed, constructed, and installed in accordance with the Building Code and located not nearer than one hundred (100) feet from the nearest street line, property line, or tidewater, nor nearer than fifty (50) feet from a railroad right-of-way, without the foregoing limitations as to quantities thereof stored or manufactured.

(15~~14~~) Gelatin, glue or size manufacture.

(16~~15~~) Hair processing.

(17~~16~~) Hot rolling mill.

(18~~17~~) Hydrochloric, nitric, picric, sulfuric, or sulphurous acid manufacture.

(19~~18~~) Incineration, cremation, or reduction of dead animals, garbage, offal, or refuse except by the City, or its agents, and except when accumulated and consumed on the same premises without the emission of odor.

(20~~19~~) Lampblack manufacture.

(21~~20~~) Linoleum or oilcloth manufacture.

(22~~21~~) Match manufacture.

(23~~22~~) Metal or ore reduction or smelting.

(24~~23~~) Refining of petroleum or other flammable liquids or the manufacture of petroleum products or other flammable liquids.

(25~~24~~) Pyroxylin manufacture, manufacture of articles thereof, or storage in excess of five hundred (500) pounds unless in a vault approved by the inspector of buildings.

(26~~25~~) Rubber manufacture or treatment involving offensive odor.

(27~~26~~) Slaughtering, except as permitted by the Director of Health.

(28~~27~~) Stockyards.

(29~~28~~) Tanning, curing, or storage of raw hides or skins.

(30~~29~~) Tar distillation or manufacture.

(31~~30~~) Turpentine or varnish manufacture.

(32~~31~~) Any other trade, industry, or use that is injurious, noxious, or offensive to a neighborhood by reason of the emission of fumes, dust, smoke, vibration, or noise to a degree in excess of the performance standards as set forth in Article XV of this Chapter.

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NON-RESIDENTIAL INDUSTRIAL DISTRICT INR

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Sec. 27-964. Prohibited uses (INR).

No building or structure shall be erected, altered, enlarged, rebuilt, or used and no premises shall be used for any of the following specified trades, industries, or uses:

(1) Ammonia, bleaching powder, or chlorine manufacture or refining.

(2) Asphalt manufacture or refining.

(3) Blast furnace.

(4) Bulk loading of crude oil onto any marine tank vessel.

(5~~4~~) Cement, gypsum, lime, or plaster of Paris manufacture.

(6~~5~~) Coke manufacture.

(7~~6~~) Creosote manufacture.

(8~~7~~) Dextrine, glucose, or starch manufacture.

(9~~8~~) Distillation of bones, coal, or wood, or manufacture of any of their by-products.

(10 ~~9~~) Dye manufacture.

(11~~10~~) Explosives or fireworks manufacture, or storage in excess of five hundred (500) pounds.

(12~~11~~) Fat, grease, lard, or tallow manufacture, refining or rendering.

(13~~12~~) Fertilizer manufacture.

(14~~13~~) Gas (fuel or illuminating) manufacture in excess of one thousand (1,000) cubic feet per day, or storage in excess of ten thousand (10,000) cubic feet, except that plants for the manufacture, compression, and storage of acetylene gas in cylinders and plants for storage and charging of liquefied petroleum gas (defined as any material which is composed predominantly of any of the following hydrocarbons or mixtures of them: Propane, propylene, butane, and butylene) into cylinders may be operated in buildings, on structures, and in storage spaces designed, constructed, and installed in accordance with the Building Code and located not nearer than one hundred (100) feet from the nearest street line, property line, or tidewater, nor nearer than fifty (50) feet from a railroad right-of-way, without the foregoing limitations as to quantities thereof stored or manufactured.

(15~~14~~) Gelatin, glue or size manufacture.

(16~~15~~) Hair processing.

(17~~16~~) Hot rolling mill.

(18~~17~~) Hydrochloric, nitric, picric, sulfuric, or sulphurous acid manufacture.

(19~~18~~) Incineration, cremation, or reduction of dead animals, garbage, offal, or refuse except by the City, or its agents, and except when accumulated and consumed on the same premises without the emission of odor.

(20~~19~~) Lampblack manufacture.

(21~~20~~) Linoleum or oilcloth manufacture.

(22~~21~~) Match manufacture.

(23~~22~~) Metal or ore reduction or smelting.

(24~~23~~) Refining of petroleum or other flammable liquids or the manufacture of petroleum products or other flammable liquids.

(25~~24~~) Pyroxylin manufacture, manufacture of articles thereof, or storage in excess of five hundred (500) pounds unless in a vault approved by the Building Inspector.

(26~~25~~) Rubber manufacture or treatment involving offensive odor.

(27~~26~~) Slaughtering, except as permitted by the Director of Health.

(28~~27~~) Stockyards.

(29~~28~~) Tanning, curing, or storage of raw hides or skins.

(30~~29~~) Tar distillation or manufacture.

(31~~30~~) Turpentine or varnish manufacture.

(32~~31~~) Any other trade, industry, or use that is injurious, noxious, or offensive to a neighborhood by reason of the emission of fumes, dust, smoke, vibration, or noise to a degree in excess of the performance standards as set forth in Article XV of this Chapter.

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CITY OF SOUTH PORTLAND - DRAFT ORDINANCE COMMITTEE (DOC)

RECOMMENDATIONS

PART 2 – FURTHER RECOMMENDATIONS - ZONING IMPLEMENTATION OR AMENDMENTS OF THE 2012 UPDATE OF THE COMPREHENSIVE PLAN

JULY 1, 2014

Hill Street Tank Farm:

The Draft Ordinance Committee recommends that the two references to "the Portland Pipe Line tank farm off Hill Street" on pages 6-33 and 6-34 of the Plan, within the Chapter 6 "Working Waterfront" section be amended, and that Figure 6.8 on page 6-35 depicting the Marine Industrial District be amended, to exclude the tank farm off Hill Street from the "Marine Industrial District."

The tank farm is not located directly on the waterfront, as page 6-33 of the Plan recognizes. It is located within, and bounded by, the Pleasantdale-Elm/Hill Neighborhood Center to Evans Neighborhood Center (see Figure 6.4) and the established single-family neighborhoods (see Figure 6.10) which include South Portland High School, several other schools or pre-schools, and the South Portland Community Center.

The tank farm should therefore be designated a nonresidential Nonconforming Use, located within the established single-family neighborhoods depicted on Figure 6.10. In accordance with Article III of the South Portland Code on Nonconformance, the tank farm would continue as a lawful use, and any transfer to a new owner may continue the nonconforming activity subject to the provisions of Article III. Current Sec. 27-302 governs continuation and provides that the use may be "maintained and improved" until the use is terminated, converts to another conforming use, or under certain conditions changes to another nonconforming use. See Sec. 27-302(a)-(e).

Shipyard Development District/Pickett Street Neighborhood Center

The Draft Ordinance Committee recommends that the Shipyard Development District described on page 6-21, within the Chapter 6 "Eastern Waterfront" section of the Plan, be amended, and that Figure 6.5 on page 6-24 depicting the Shipyard Development District and the Picket Street Neighborhood Center be amended. The amendment should remove the vacant portion of the Portland Pipe Line property at the corner of Broadway and Pickett Street from the Shipyard Development District, and depict the vacant portion as part of the Pickett Street Neighborhood Center area.

As stated on page 6-21 of the "Eastern Waterfront" section of Chapter 6:

"The City's broad vision is that this area is developed/redeveloped in a way that

> expands the City's property tax base, and creates economic benefits for the *entire community* while being *compatible with the surrounding neighborhood.*" [Emphasis added]
>
> "Within this area, the City's development regulations should continue to allow existing marine and oil facilities to upgrade or expand *on parcels that are already used for this purpose*." [Emphasis added]

The large vacant portion at the corner of Broadway and Pickett Street is not already used for existing marine and oil facilities.

The City's Broad Vision (page 6-20) envisions that the Eastern Waterfront will continue "to evolve to become a marine, mixed-use area that capitalizes on the access to the waterfront and spectacular views of the harbor and inner Casco Bay," that "Southern Maine Community College continues to improve its campus primarily within its existing borders," and that "*the underutilized former industrial properties are redeveloped into mixed-use areas that attract people to live and work in the area and to enjoy the waterfront* [emphasis added]."

The Pickett Street Neighborhood Center, on the other hand, which is adjacent to the vacant land in issue, is described in the Plan at page 6-23 as a neighborhood center:

> "[I]ntended to provide services to the surrounding neighborhood, SMCC students, nearby workers, and mariners using the various marine facilities. The center is a compact, local commercial area that effectively balances pedestrian accessibility and safety with the need to maintain vehicular mobility. These areas contain neighborhood-serving retail, convenience, service, and professional office businesses, as well as moderate- to high-density housing."

The Pickett Street Neighborhood Center is next to the SMCC College Institutional Area. Because the City's "basic policy is to encourage good quality development in this area" (page 6-21) which is compatible with the surrounding neighborhood, the vacant portion at the corner of Broadway and Pickett Street should be included as part of the Pickett Street Neighborhood Center adjacent to the SMCC College Institutional Area. Figure 6.5 on page 6-24 should therefore be redrawn to move the vacant portion at the corner of Broadway and Pickett Street out of the Shipyard Development District area and into the Pickett Street Neighborhood Center area.

CITY OF SOUTH PORTLAND - DRAFT ORDINANCE COMMITTEE (DOC)

RECOMMENDATIONS

PART 3 – FURTHER RECOMMENDATIONS – FINANCIAL ASSURANCE MECHANISMS FOR TERMINAL OPERATORS

JULY 1, 2014

Maine's Financial Assurance Rule

The Maine Oil Discharge Prevention and Pollution Control Regulation (06-096 CMR Chapter 600) requires marine terminal facilities with storage capacity greater than 63,000 gallons to document that operators have at least $2 million worth of financial assurance to pay for proper closure of the oil storage terminals.

The financial assurance requirement of Chapter 600 states at Section 9 (C) (5):

> *Financial Responsibility Requirements. The Commissioner requires* ***evidence of financial responsibility in the amount of $2 million per facility*** *[Emphasis added] as a condition of an operating license to ensure proper closure of facilities. Financial responsibility may be established, subject to the approval of the Commissioner, by any one, or by any combination, of the following: insurance, guarantee, surety bond, letter of credit, trust fund or qualification as self-insurer. In determining the adequacy of evidence of financial responsibility, the Commissioner shall consider the criteria in 40 CFR, Sections 280.95 through 280.99 and 280.102 through 280.103(revised as of July 1, 1998). Any bond filed must be issued by a bonding company authorized to do business in the United States.* ***The Commissioner may change the amount of financial responsibility required if an engineering assessment of probable closure costs indicates such a change in the requirement would be appropriate. [Emphasis added]***

Financial Assurance Rule Applicability

Several oil companies own and operate oil facilities in South Portland. Each facility has total capacity greater than 63,000 gallons. For example, the combined capacity of the Portland Pipe Line Corporation's three oil tank storage facilities (located on Hill Street, Preble Street, and Front Street) is approximately 160 million gallons. Therefore, all companies are subject to DEP's financial responsibility requirement.

Maine's Chapter 600 financial assurance rule *does not* apply to PPLC's transmission pipeline, mainline valves and other discrete elements located in South Portland.

All the oil companies operating in South Portland meet DEP's criteria to demonstrate that they have the liquidity to meet the so-called "balance sheet tangible net worth" test. The tangible net worth test calls for the terminal operator to prove (for each facility) that it has:

- Tangible net worth of a minimum of $10 million; and either:
    a. Tangible net worth at least 10 times greater than the regulatory financial responsibility amount; or
    b. Net working capital at least 6 times greater than the financial responsibility requirement.

The term "proper closure" is defined in Section 12 (D) of the Chapter 600 rule. This section describes general requirements for closure design, reporting and regulatory approvals. More specifically, this section stipulates that "all regulated substances have been removed or cleaned up to the satisfaction of the Department."

Other Chapter 600 Requirements

DEP treats the subject of risk management separately from closure financial assurance. The Chapter 600 rule does not directly address the need for insurance or self-insurance to cover the risks of unforeseen accidents, such as a tank or pipeline spill.

Section 9 (C) (5) of the Chapter 600 rule references the federal regulations at 40 CFR 280.95-99, which address liability coverage requirements for "underground tanks", not aboveground tanks. DEP's financial assurance forms – which borrow from the federal scheme – include a line item stipulating that storage terminal operators subject to the Chapter 600 rule must demonstrate they have at least $2 million in general liability coverage for accidents or third party liability. The $2 million amount has not changed since the mid-1990s. Assuming it was a conservative number then, it probably does not represent a realistic amount to manage the risks associated with a marine terminal accident today.

DOC Information Request to Maine DEP

On April 30, 2014, the DOC sent an information request to Melanie Loyzim, Maine DEP, asking the following questions about DEP's financial assurance requirements:

1. How does DEP (or the legislature) know that $2 million is sufficient to close, demolish, clean up, and monitor facility site conditions ("proper closure")?

2. Where did the $2 million number originally come from?

3. Why did DEP (or the legislature) not opt to be consistent with the State's solid waste program financial assurance requirements, which require an engineering estimate of clean-up and post-closure care costs?

4. How does DEP itself classify the pipeline segment between the Hill Street tank farm and the loading pier? Is the pipeline considered part of the terminal facilities, and therefore subject to State financial assurance requirements?

5. What or who would trigger the engineering assessment called for in the Chapter 600 rule?

6. If DEP's terminal permit is not an "Enforceable by State only" provision, could a private citizen or municipality call for an engineering assessment?

7. Does State law or regulation prevent a municipality from requiring financial assurance in addition to or in excess of the State's requirements as stated in Chapter 600?

As of June 19, 2014, the DOC has not received any response from DEP.

The DOC recommends City Council should evaluate financial assurance mechanisms for proper closure of marine terminals

South Portland officials cannot independently verify privately held corporations' representation that they have the capability to pay $2 million for proper closure, much less the *actual* costs of proper closure based on an

independent engineering assessment of decommissioning, demolition, clean up and post-clean up monitoring once operations have been discontinued. This point cannot be overstated – it is not a question of if, but when proper closure will occur. These facilities will not be here forever.

South Portland residents have only to look a few hours north to the Lac-Megantic/Montreal, Maine and Atlantic Railway tragedy to understand what could happen to a community if a petroleum-related tragedy struck. These are very real risks to life and property. The railroad did not have giant multi-national corporations as shareholders. The accident forced the railroad into bankruptcy. Virtually all damages and clean-up costs fells on the shoulders of Provincial and Canadian taxpayers. South Portland must ask whether they should trust private owners or corporate shareholders to step up in the event of an accident and pay 100% of the damage costs.

Regardless of how City Council and South Portland citizens address DOC's proposed ordinance changes, the financial assurance issue is of critical importance to the City. Not only is the proper closure financial assurance issue critical to the public health of our citizens, but the current inadequate financial assurance mechanism could condemn significant areas of the City to grim "brownfield" status, leaving South Portland to depend upon taxpayer-funded programs (which today fund only site assessments and not clean-ups).

Assuming DEP eventually responds to DOC's questions, City Council and municipal staff should use that information to address this important issue on behalf of all South Portland residents. DOC recommends that City Council consider the following important public health matters:

1. Maine's financial assurance rule should be predicated on ***realistic*** costs for proper closure of marine terminal facilities, not the arbitrary $2 million amount currently set forth in the Chapter 600 rule. If the state won't take the steps needed to make its rules reflect reality, then South Portland should act to protect the public health of its citizens.

2. Each oil storage tank facility constitutes a separate facility under the DEP's Marine Oil Storage Rule, and should be treated as such for financial assurance purposes.

3. South Portland residents are justifiably proud of the emergency response capabilities of its Fire Department. However, we must also have concrete assurances that oil companies have insurance and financial resources to respond adequately to realistic worst case scenarios involving a marine terminal accident. This capability needs to be independent of any obligation to establish adequate financial assurance mechanisms to properly close facilities within the City.

4. South Portland should establish financial assurance mechanisms which ensure its residents (and all Maine taxpayers) do not incur closure and clean-up costs even if an oil company eventually ceases operations.

CITY OF SOUTH PORTLAND – DRAFT ORDINANCE COMMITTEE (DOC)

RECOMMENDATIONS

PART 4 – FURTHER RECOMMENDATIONS – SOUTH PORTLAND SHOULD REQUIRE INSTALLATION OF AN AMBIENT AIR MONITORING SYSTEM TO PROTECT PUBLIC HEALTH

JULY 1, 2014

Summary and Recommendations

Portland Pipe Line Corporation (PPLC) received a DEP air emission license on August 25, 2009 as part of the proposed project for storage and bulk loading of Syncrude® and Cold Lake crude at PPLC's Hill Street storage facility and Pier 2 marine vessel loading facility. The South Portland Planning Board issued its Finding of Fact and Decision, also on August 25, 2009, approving PPLC's Site Plan application with conditions. Condition 2 called for PPLC to provide the Director of Planning and Development with copies of the new DEP air license for the project and PPLC's existing Part 70 Air License. The DOC did not receive any documents or reports indicating the Code Enforcement Officer reviewed or commented on the DEP license prior to the Planning Board's vote to approve PPLC's Site Plan.

DEP's and the City's 2009 permit and plan approval processes revealed several regulatory gaps that could have placed South Portland residents at risk. Air license application information was incomplete, and there was a lack of actual air quality data supporting the application.

The 2009 permitting process exposed systemic risks that can – and should – be addressed by South Portland. The DOC's mission was not to judge whether PPLC's emission estimates in the application were "high or low", right or wrong. Nonetheless, what became apparent in public comment and in DOC review of supporting information, was the public concern that any new project proposal would not only on its own result in increases in air pollution, but might also have additional, incremental significant public health effects when combined with existing permitted emissions from other nearby air emission sources. In other words, the combined impact of the project in relation to other emission sources was as much a public concern as the project viewed in isolation. Further, the close proximity of the crude oil storage tank facility to adjacent uses – schools, single-family neighborhoods, senior citizen housing, etc. – underscored the significance of this public concern about air quality in the City as it relates to hazardous air pollutants (HAPs).

The DOC recommends that City Council consider the following to ensure protection of the public health of its citizens and nearby communities:

1. Ambient air monitoring – City Council should work with local, state and federal agencies to establish an effective ambient air quality monitoring program to ensure that point source and fugitive emissions from crude oil storage terminals have no undue

adverse impact on public health. Specifically, South Portland should consider adopting a so-called "Next Generation for Air Monitoring" program.

2. Rigorous site plan review process whenever public health and air quality is potentially impacted – City Council should establish a review process within the City's own site plan approval procedures, which, at a minimum, verifies that DEP emissions licenses are based on technically accurate information that: (a) correctly estimates potential to emit for criteria pollutants and hazardous air pollutants; (b) correctly applies emission factors, assumptions and methodologies used to derive estimates for pollutants of concern; and (c) identifies all regulated processes, including point sources and sources of fugitive emissions.

Ambient Air Monitoring

The DOC received public comments expressing concern that bulk loading of crude oil would increase air emissions of volatile organic compounds (VOCs)[1] and hazardous air pollutants (HAPs)[2] in the neighborhoods, schools, and other buildings surrounding the Hill Street (19 tanks), Portland Street (two tanks), and Preble Street (two tanks) storage terminals.

DEP currently monitors ambient air quality throughout Maine in cooperation with U.S. EPA, by maintaining a number of permanent air monitoring stations. However, there are no monitoring stations located in South Portland. The stations closest to South Portland are located in Portland (Deering Oaks and State Street) and Cape Elizabeth (Two Lights State Park).

City Council should work with all of the South Portland terminal operators to design, install and operate an ambient air quality monitoring network. The technology has evolved rapidly over the past decade, with cost-effective, reliable monitoring systems being developed under the so-called Next Generation Air Monitoring programs.[3] The DOC is aware of at least one other oil terminal permitting process in New York where U.S. EPA has recommended the installation of a "NextGen" monitoring system to provide real data on the impact of fugitive emissions on nearby communities.[4]

Site Plan Review Process

The DOC received public comments regarding the basis for potential VOC and HAPs emission estimates PPLC used in its 2009 application. The DOC recognizes that we are not experts in air emissions, air permitting or air pollution control engineering. Nevertheless, in an effort to grasp the basis for the public concern over potential health impacts associated with air emissions, we reviewed the background documentation along with public permitting documents, including DEP's August 25, 2009 Finding of Fact and Order (DEP Finding).

[1] 40 CFR 51.100(s) Definitions – Volatile Organic Compounds (VOCs).
[2] Clean Air Act, Section 112; Hazardous Air Pollutants; http://www.epa.gov/ttn/atw/orig189.html
[3] U.S. EPA Next Generation Air Monitoring Program; http://www.epa.gov/research/airscience/air-sensor-research.htm.
[4] Letter from Steven Riva (EPA Region 2) to Donald Spencer (NY DEC) commenting on Global Companies LLC Albany, NY terminal; April 28, 2014.

The following list highlights the primary issues about the 2009 permitting process concerning VOC and HAPs emissions estimates:

1. *Would not storage of Syncrude or Cold Lake crude in the tank farms result in significantly different fugitive emissions levels versus those fugitive emission levels currently resulting from the heavy crude imports PPLC now handles?* In its February 11, 2009 license application, PPLC assumed 100% vapor capture by the VCUs at the Pier 2 location and no increase in (or changes in chemical composition of) fugitive emissions from any of the tank farm facilities (p. 3-3). PPLC's existing Part 70 air license allows for up to 220 tons per year of VOCs without mention of HAPs. Neither PPLC's application nor the DEP Finding addressed potential increased volatility associated with diluent levels in the 30-60% range for some tar sands/oil sands products. The DEP Finding simply stated "the project does not involve any changes to the storage tanks or their operation, and will not increase the throughput capacity of the tank farm" (p. 3). But the project would clearly have involved a marked increase in use of the current storage capacity, or at least clearly held the potential for such increased use (i.e., restoring or retrofitting to use what is a currently significant unused capacity – and doing so with notably different product).

2. *When calculating annual VOC emissions after controls, why did PPLC's permit application consultant deviate from the decision to use maximum barrel/day throughput assumptions with worst case VOC emission factors?* Parts of PPLC's application appear to contradict this fundamental decision rule (p. 3-5 and Appendix C). Had PPLC's consultant adhered to that approach, potential VOC emissions (and possibly HAPs emissions) would likely have been calculated to exceed 40 tons per year, which would have placed the project into the category of a "major" modification, hence triggering significantly more stringent regulatory permitting requirements.

3. *Is it reasonable to conclude that the only increase in HAPs emissions would be associated with the proposed VCU units at Pier 2?* PPLC's consultant stated there were no Material Safety Data Sheets (MSDSs) or other data available on HAPs concentrations in Syncrude or Cold Lake crude, and therefore assumed that HAPs concentration in those new products would be the same as HAPs in the crude oil already being handled by PPLC (p. 3-8 and 3-9). Therefore, PPLC estimated incremental HAPs emission tonnages by multiplying HAPs percentages in regular crude oil by "calculated" tons of VOCs emitted at Pier 2 (39 tons per year – see the above issue), apparently disregarding potential HAPs in fugitive emissions from the three storage tank facilities. DEP did not question this rationale in its Findings.

Therefore, during the City's site plan review of projects requiring DEP air emissions license approval or amendments, the City of South Portland should implement procedures to take a closer look at air emissions assumptions and methodologies. This will allow the City to have a clearer understanding from the applicant about the scope and nature of a project and the air quality impacts of a given project impacting public health. Site Plan review within the City's

Zoning Code of Ordinances, for those industrial or marine industrial zones most likely to be involved in projects of his nature, uniformly includes already the City's assessment of a project for "annoying or dangerous emissions detectable at lot boundaries" (See Sec. 27-929, Shipyard District Site Plan Review). This regulatory criterion would provide a current basis for the City to strengthen site plan review of projects involving hazardous air pollutants or volatile organic compound air emissions.

As of 3/31/2009

SOURCE: http://www.epa.gov/ttn/naaqs/ozone/ozonetech/def_voc.htm

40 CFR 51.100(s) - Definition - Volatile organic compounds (VOC)

(s) "Volatile organic compounds (VOC)" means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions.

(1) This includes any such organic compound other than the following, which have been determined to have negligible photochemical reactivity:

a) methane
b) ethane
c) methylene chloride (dichloromethane)
d) 1,1,1-trichloroethane (methyl chloroform)
e) 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113)
f) trichlorofluoromethane (CFC-11)
g) dichlorodifluoromethane (CFC-12)
h) chlorodifluoromethane (HCFC-22)
i) trifluoromethane (HFC-23)
j) 1,2-dichloro 1,1,2,2-tetrafluoroethane (CFC-114)
k) chloropentafluoroethane (CFC-115)
l) 1,1,1-trifluoro 2,2-dichloroethane (HCFC-123)
m) 1,1,1,2-tetrafluoroethane (HFC-134a)
n) 1,1-dichloro 1-fluoroethane (HCFC-141b)
o) 1-chloro 1,1-difluoroethane (HCFC-142b)
p) 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
q) pentafluoroethane (HFC-125)
r) 1,1,2,2-tetrafluoroethane (HFC-134)
s) 1,1,1-trifluoroethane (HFC-143a)
t) 1,1-difluoroethane (HFC-152a)
u) parachlorobenzotrifluoride (PCBTF)
v) cyclic, branched, or linear completely methylated siloxanes
w) acetone
x) perchloroethylene (tetrachloroethylene)
y) 3,3-dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)
z) 1,3-dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)
aa) 1,1,1,2,3,4,4,5,5,5-decafluoropentane (HFC 43-10mee)
bb) difluoromethane (HFC-32)
cc) ethylfluoride (HFC-161)
dd) 1,1,1,3,3,3-hexafluoropropane (HFC-236fa)
ee) 1,1,2,2,3-pentafluoropropane (HFC-245ca)
ff) 1,1,2,3,3-pentafluoropropane (HFC-245ea)
gg) 1,1,1,2,3-pentafluoropropane (HFC-245eb)
hh) 1,1,1,3,3-pentafluoropropane (HFC-245fa)
ii) 1,1,1,2,3,3-hexafluoropropane (HFC-236ea)
jj) 1,1,1,3,3-pentafluorobutane (HFC-365mfc)
kk) chlorofluoromethane (HCFC-31)

ll) 1-chloro-1-fluoroethane (HCFC-151a)
mm) 1,2-dichloro-1,1,2-trifluoroethane (HCFC-123a)
nn) 1,1,1,2,2,3,3,4,4-nonafluoro-4-methoxy-butane ($C_4F_9OCH_3$ or HFE-7100)
oo) 2-(difluoromethoxymethyl)-1,1,1,2,3,3,3-heptafluoropropane ($(CF_3)_2CFCF_2OCH_3$)
pp) 1-ethoxy-1,1,2,2,3,3,4,4,4-nonafluorobutane ($C_4F_9OC_2H_5$ or HFE-7200)
qq) 2-(ethoxydifluoromethyl)-1,1,1,2,3,3,3-heptafluoropropane ($(CF_3)_2CFCF_2OC_2H_5$)
rr) methyl acetate
ss) 1,1,1,2,2,3,3-heptafluoro-3-methoxy-propane (n-$C_3F_7OCH_3$ or HFE-7000)
tt) 3-ethoxy-1,1,1,2,3,4,4,5,5,6,6,6-dodecafluoro-2-(trifluoromethyl) hexane (HFE-7500)
uu) 1,1,1,2,3,3,3-heptafluoropropane (HFC 227ea)
vv) methyl formate ($HCOOCH_3$)
ww) 1,1,1,2,2,3,4,5,5,5-decafluoro-3-methoxy-4-trifluoromethyl-pentane (HFE-7300)
xx) dimethyl carbonate
yy) propylene carbonate
zz) and perfluorocarbon compounds which fall into these classes:
- (i) cyclic, branched, or linear, completely fluorinated alkanes,
- (ii) cyclic, branched, or linear, completely fluorinated ethers with no unsaturations,
- (iii) cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations, and
- (iv) sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

(2) For purposes of determining compliance with emissions limits, VOC will be measured by the test methods in the approved State implementation plan (SIP) or 40 CFR Part 60, Appendix A, as applicable. Where such a method also measures compounds with negligible photochemical reactivity, these negligibly-reactive compounds may be excluded as VOC if the amount of such compounds is accurately quantified, and such exclusion is approved by the enforcement authority.

(3) As a precondition to excluding these compounds as VOC or at any time thereafter, the enforcement authority may require an owner or operator to provide monitoring or testing methods and results demonstrating, to the satisfaction of the enforcement authority, the amount of negligibly-reactive compounds in the source's emissions.

(4) For purposes of Federal enforcement for a specific source, the EPA shall use the test methods specified in the applicable EPA-approved SIP, in a permit issued pursuant to a program approved or promulgated under Title V of the Act, or under 40 CFR Part 51, Subpart I or Appendix S, or under 40 CFR Parts 52 or 60. The EPA shall not be bound by any State determination as to appropriate methods for testing or monitoring negligibly-reactive compounds if such determination is not reflected in any of the above provisions.

(5) The following compound(s) are VOC for purposes of all recordkeeping, emissions reporting, photochemical dispersion modeling and inventory requirements which apply to VOC and shall be uniquely identified in emission reports, but are not VOC for purposes of VOC emissions limitations or VOC content requirements: t-butyl acetate.

(6) For the purposes of determining compliance with California's aerosol coatings reactivity-based regulation, (as described in the California code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 8.5, Article 3), any organic compound in the volatile portion of an aerosol coating is counted towards that product's reactivity-based limit. Therefore, the compounds identified in paragraph (s) of this section as negligibly reactive and excluded from EPA's definition of VOCs are to be counted towards a

product's reactivity limit for the purposes of determining compliance with California's aerosol coatings reactivity-based regulation.

(7) For the purposes of determining compliance with EPA's aerosol coatings reactivity based regulation (as described in 40 CFR Part 59 – National Volatile Organic Compound Emission Standards for Consumer and Commercial Products) any organic compound in the volatile portion of an aerosol coating is counted towards the product's reactivity-based limit, as provided in Part 59, Subpart E. Therefore, the compounds that are used in aerosol coating products and that are identified in paragraph (s) of this section as negligibly reactive and excluded from EPA's definition of VOC are to be counted towards a product's reactivity limit for the purposes of determining compliance with EPA's aerosol coatings reactivity-based national regulation, as provided in Part 59, Subpart E.

Hazardous Air Pollutants (Section 112, Clean Air Act, as amended);
http://www.epa.gov/ttn/atw/orig189.html

CAS Number	Chemical Name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
71432	Benzene (including benzene from gasoline)
92875	Benzidine
98077	Benzotrichloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
156627	Calcium cyanamide
105602	Caprolactam(See Modification)
133062	Captan
63252	Carbaryl
75150	Carbon disulfide
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
133904	Chloramben
57749	Chlordane
7782505	Chlorine
79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene
1319773	Cresols/Cresylic acid (isomers and mixture)
95487	o-Cresol
108394	m-Cresol
106445	p-Cresol

98828	Cumene
94757	2,4-D, salts and esters
3547044	DDE
334883	Diazomethane
132649	Dibenzofurans
96128	1,2-Dibromo-3-chloropropane
84742	Dibutylphthalate
106467	1,4-Dichlorobenzene(p)
91941	3,3-Dichlorobenzidene
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756	1,3-Dichloropropene
62737	Dichlorvos
111422	Diethanolamine
121697	N,N-Diethyl aniline (N,N-Dimethylaniline)
64675	Diethyl sulfate
119904	3,3-Dimethoxybenzidine
60117	Dimethyl aminoazobenzene
119937	3,3'-Dimethyl benzidine
79447	Dimethyl carbamoyl chloride
68122	Dimethyl formamide
57147	1,1-Dimethyl hydrazine
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
106898	Epichlorohydrin (l-Chloro-2,3-epoxypropane)
106887	1,2-Epoxybutane
140885	Ethyl acrylate
100414	Ethyl benzene
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Aziridine)
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine

7647010	Hydrochloric acid
7664393	Hydrogen fluoride (Hydrofluoric acid)
7783064	Hydrogen sulfide(See Modification)
123319	Hydroquinone
78591	Isophorone
58899	Lindane (all isomers)
108316	Maleic anhydride
67561	Methanol
72435	Methoxychlor
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
78933	Methyl ethyl ketone (2-Butanone)(See Modification)
60344	Methyl hydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert butyl ether
101144	4,4-Methylene bis(2-chloroaniline)
75092	Methylene chloride (Dichloromethane)
101688	Methylene diphenyl diisocyanate (MDI)
101779	4,4'¬-Methylenedianiline
91203	Naphthalene
98953	Nitrobenzene
92933	4-Nitrobiphenyl
100027	4-Nitrophenol
79469	2-Nitropropane
684935	N-Nitroso-N-methylurea
62759	N-Nitrosodimethylamine
59892	N-Nitrosomorpholine
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	p-Phenylenediamine
75445	Phosgene
7803512	Phosphine
7723140	Phosphorus
85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (Aroclors)
1120714	1,3-Propane sultone
57578	beta-Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2-Dichloropropane)
75569	Propylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
91225	Quinoline
106514	Quinone
100425	Styrene

96093	Styrene oxide
1746016	2 ,3,7,8-Tetrachlorodibenzo-p-dioxin
79345	1,1,2,2-Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium tetrachloride
108883	Toluene
95807	2,4-Toluene diamine
584849	2,4-Toluene diisocyanate
95534	o-Toluidine
8001352	Toxaphene (chlorinated camphene)
120821	1,2,4-Trichlorobenzene
79005	1,1,2-Trichloroethane
79016	Trichloroethylene
95954	2,4,5-Trichlorophenol
88062	2,4,6-Trichlorophenol
121448	Triethylamine
1582098	Trifluralin
540841	2,2,4-Trimethylpentane
108054	Vinyl acetate
593602	Vinyl bromide
75014	Vinyl chloride
75354	Vinylidene chloride (1,1-Dichloroethylene)
1330207	Xylenes (isomers and mixture)
95476	o-Xylenes
108383	m-Xylenes
106423	p-Xylenes
	Antimony Compounds
	Arsenic Compounds (inorganic including arsine)
	Beryllium Compounds
	Cadmium Compounds
	Chromium Compounds
	Cobalt Compounds
	Coke Oven Emissions
	Cyanide Compounds1
	Glycol ethers2
	Lead Compounds
	Manganese Compounds
	Mercury Compounds
	Fine mineral fibers
	Nickel Compounds
	Polycylic Organic Matter
	Radionuclides (including radon)
	Selenium Compounds