NASSAU COUNTY DEPARTMENT OF HEALTH ARTICLE XV PLAN

REVIEW CHECKLIST FOR ABOVEGROUND PBS TANKS

NCHD Facility Id. #: _____ Date: _____

Name: _____

Address: _____

Owner's name, address, phone #: _____

List The Capacity & Contents of The Tank(s) This Plan is Being Submitted for:

_____

YES	NO	A. APPLICATIONPACKAGE:
____	____	1. Is the application for a Toxic or Hazardous Materials Storage Facility Permit Form #1 & Form #2 filled out completely?
____	____	2. Are four (4) folded copies of the plans provided?
____	____	3. Is literature / specifications for the tank & major equipment provided?
____	____	5. Does each page of the plans bear an Original Seal & signature by a NYS Professional Engineer or Registered Architect?
____	____	6. Is a check attached for the proper plan review fee?
____	____	7. Owner's Letter provided.
____	____	8. Engineer's Letter provided.
____	____	9. SEQR Form provided.
____	____	10. Provide a 6-inch by 6-inch blank space in the lower right corner of the first page of the plans for NCDH approval stamps.

The Following check list Contains general information required for an aboveground tank to be installed in Compliance with the Article XV of the Nassau County Public Health Ordinance. Not all situations are covered here, and there may be additional comments not listed on this checklist for a particular installation. All information must be provided on the submitted plans.

References:

( ) Article XV Regulations of the Nassau County Public Health Ordinance.

[ ] National Fire Protection Association, Publication # 31. 1992.

YES	NO	B. SITE PLAN:
____	____	1. Is there a key map provided identifying the location of the facility within the community? (15-1.9(i)(5)(i)(e)(2))
____	____	2. Are the plans of a standard drawing size of either 18" X 24" or 24" X 36"? (15-1.9(i)(5)(i)(d))
____	____	3. Do the plans show the facility name, street address, section, block, and lot number, and have an appropriate title. (15-1.9(i)(5)(i)(3))
____	____	4. A plot plan showing and identifying all property lines and the location and use of all existing and proposed buildings. (15-1.9(i)(5))i)(1))
____	____	5. Are all pertinent dimensions provided? (15-1.9(i)(5)(i)(6))
____	____	6. Location of all existing and proposed tank(s) and piping shown & identified with capacity/contents and any action relative to the tank. (continued use, abandonment in place, removed, etc.) (15-1.9(i)(5)(i)(7))
____	____	7. Site Plan drawn to scale and provides a topographical contour of the facility. (15-1.9(i)(5)(i)(c))
____	____	8. Location of oil burner shown and identified.
____	____	9. Tanks at least five (5) feet away from the oil burner. [2-3.4]
____	____	10. Identify locations where fill and vent pipes terminate. [2-3.8]
____	____	11. Show distance from tank fills to the nearest building and property line.
____	____	12. Location of the water line shown from building to the street (Must be at least ten (10) feet away from the tank). (15-1.9(i)(5)(i)(10))
____	____	13. Any water supply well(s) within 100 feet of the tank(s)? (15-1.9(i)(5)(i)(10))

YES NO

___ ____ 14. Show location of sewer line from building to street. If not connected to public sewers, show the on-site sanitary system. (15-1.9(i)(5)(i)(10))

____ ____ 15. Show storm drains and drywells. If none exist, please state so on the plan. (Must be ten (10) feet away from the tank) (15-1.9(i)(5)(i)(10))

____ ____ 16. Tank and piping cannot be located in any right of way.

____ ____ 17. Location of interior building floor drains shown. If none exist, please state so on the plan. (15-1.9(i)(5)(i)(9))

____ ____ 18. Are the streets next to the property shown and identified?

____ ____ 19. Is a North reference provided on the plan?

____ ____ 20. Is the depth from grade to groundwater & historical maximum/minimum groundwater levels provided? (15-1.9(i)(5)(i)(13))

C. TANK:

____ ____ 1. Is a new tank being installed?

____ ____ 2. is the tank Constructed to an acceptable design and manufacturing standard? (15-4.1(b)(1)(ii)(b)(l))

____ ____ 3. Are steel tanks used for petroleum products? (15-4.1(b)(ii))

____ ____ 4. Identify the tank as "____ gallon aboveground double wall steel UL-142 approved ____ oil tank manufactured by ____"

** OR **

"___ gallon aboveground steel UL-142 approved ___ oil tank manufactured by ___ in a (steel, concrete, or other) Secondary containment dike.."

____ ____ 5. Provide cross-section sketches showing two (2) views of the tank installation. Show a side view and an end view showing and identifying the concrete floor or concrete support pad, channels supporting the tank, the tank and secondary containment, pipes, and all peripheral equipment (fill box, gauge, vents, etc.) (15-1.9(i)(5)(iii)(a))

YES	NO	
_____	_____	6. Provide a plan view, and identify all tank fittings. (vent, emergency vent, fill, fill box, gauge, product piping, etc.) Also show product piping, oil burner, & remote fills if any exist. (15-1.9(i)(5)(iii)(a))
_____	_____	7. Is the tank protected against corrosion? (Exterior surfaces of steel tanks must be painted with a primer, bond and two coats of paint?) (15-4.1(b)(2)(iii))
_____	_____	8. Tank protected against physical damage & traffic hazards? (15-4.1(b)(4)(iii))
_____	_____	a. If yes, show Crash posts on the site plan & detail of a crash post.
_____	_____	b. If no, add note "tank installed in a non-traffic area, and not exposed to physical hazards."
_____	_____	9. All tanks must be protected against floatation or lateral movement from flooding (double wall tanks & steel dikes must be anchored to the concrete pad, or tanks may be strapped down, etc.) (15-4.2(e))
_____	_____	10. Tanks installed above a concrete pad or concrete floor? (15-4.1(b)(4)(ii))
_____	_____	11. Provide the dimensions for the concrete pad. (at least one (1) foot longer & wider than the tank/dike, and at least four (4) inches thick.) Omit if using a concrete floor.
_____	_____	12. Do steel tanks and steel dikes resting directly on a concrete pad have cathodic protection? (15-4.1(b)(1)(iv))
_____	_____	13. Are all steel dikes and tanks supported by steel channels a minimum of 1.5 inches above the concrete pad? (if not, see # 12 above.) (15-4.3(a)(l)
_____	_____	14. Are all steel tanks supported by steel legs or steel saddles minimum of 4 inches above the bottom of the dike? (If not, see # 12 above.)
_____	_____	15. Tank provided with a gauge or translucent / open top? (15-4.1(b)(3)(i))
_____	_____	16. Provide elevations for the following: (15-1.9(i)(5)(iii)(a))
_____	_____	a. Concrete floor or support pad. (may be a reference point = 0).
_____	_____	b. Top of the tank
_____	_____	c. Top of the fill pipe
_____	_____	d. Top of the vent pipe
_____	_____	e. Product supply piping (if any)
_____	_____	17. No more than two tanks may be siphoned together. [2-3.2.3]

YES NO

_____ _____ 18. Fill port provided with spill containment? (Diesel/Kerosene tanks must have a 5 gallon locking spill box) (15-4.1(b)(3)(ii))

_____ _____ 19. Tank & remote fill port labelled with the tank contents, design capacity, working capacity and tank identification number? (15-4.2(a)(3))

D. PIPING:

_____ _____ 1. All components of the piping system shall be indicated (i.e. impact valves, product control valves, check valves, submersible pumps, anti-siphon valves, shear valves, etc.). If practical, some of the piping and components detail may be indicated in the tank installation detail. (15-1.9(i)(5)(iii)(a))

_____ _____ 2. Location of all existing and proposed dispensing islands shown on plans.

_____ _____ 3. Show the locations, sizes, and class of all fire extinguishers to be provided. A minimum of two (2) 10 lbs. class BC fire extinguishers are required to be within 75 feet of each end use point.

_____ _____ 4. Indicate the method of the liquid withdrawal system and provide the manufacturer and model number of the withdrawal equipment. Indicate the end use point or point of discharge.

_____ _____ 5. Are all piping runs shown and indicated on the Site Plan? (15-1.9(i)(5)(iii)(a))

_____ _____ 6. ls the diameter and material provided for all pipes. (fill and vent must be 2" steel (galvanized steel outdoors), Supply pipe may be copper or galv. steel (15-4.1(b)(2)(ii))

_____ _____ 7. Does the fill pipe terminate above the top of the tank? If not, a check valve is required at the fill port. (15-4.1(b)(5)(iii))

_____ _____ 8. Can the fill port easily be reached without a ladder?

_____ _____ 9. What is the elevation of the fill port above the floor or grade? If the fill port is more than 5 feet above the floor or grade, a platform or relocation of the fill port is required.

_____ _____ 10. Does the tank have a primary vent? [2-6.6]

_____ _____ 11. Diesel & Kerosene tank vents must be at least 12’ above grade and 5’ from any building, property line, lighted signs, lights, or ignition sources.

_____ _____ 12. Are aboveground vent pipe risers protected against traffic hazards

_____ _____ 13. Are UL-142 Approved tanks provided with emergency venting in the primary and secondary tank?

_____ _____ 14. Is aboveground piping protected against corrosion? (Galvanized steel) (15-4.1(b)(2)(ii))

YES NO

_____ _____ 15. All piping aboveground & visible? Underground piping, piping in contact with the ground, and piping installed above non-paved areas, must be doublewalled pipe, with UL approval for the intended use, have leak detection and corrosion protection. (15-4.1(b)(2)(i))

_____ _____ 16. Is all new piping being connected to the tank? If not, does the existing piping comply with all of the requirements for new piping? (15-4.1(b)(2)(l)(c))

_____ _____ 17. Does all belowground piping slope toward a collection sump with electronic leak detection? (599.14(a)(2)(vi)}

_____ _____ 18. In installations where the piping is installed in a manner that would allow a siphon condition to exist, provide a side elevation of the piping with all components shown at their relative elevations. Show the installation of an anti-siphon valve, and include the valve type, manufacturer, and model #.

_____ _____ 19. If a new Oil/Water separator is to be connected to the existing floor drains, all existing floor drain piping must be tested as a condition of approval, or replacement of all floor drain piping is required.

E. SECONDARY CONTAINMENT:

_____ _____ 1. Does the tank have secondary containment without any drains? (doublewall tank or dike?) (15-4.1(b)(1)(vi)(a))

_____ _____ 2. FOR DOUBLE WALL TANKS ONLY: primary vent pipe and the secondary vent pipe must be teed together so overfills will be directed to a secondary containment system: UNLESS: Positive shut off is provided at fill. (i.e. automatic waste oil fill pump shutoff, etc.) (15-4.1(b)(3)(iii))

_____ _____ 3. FOR DOUBLE WALL DIESEL TANKS ONLY: Multiple inspection ports?

4. IF NOT INSTALLING A DOUBLE WALL TANK: (15-4.1(b)(1)(vi))

_____ _____ a. Provide material of the dike and dimensions. (length, width, height)

_____ _____ b. The dike must contain 110% of the largest tank or manifolded tanks

_____ _____ c. Indicate the capacity of the dike & show calculations.

_____ _____ d. If concrete or concrete block is used it must be epoxy coated.

_____ _____ e. Is sufficient clearance provided between tanks, dike walls, and building walls for inspection? (A minimum of 15 inches is required).

_____ _____ f. If building walls are used as part of the dike, clarity they are constructed of concrete or concrete block with an epoxy coat.

YES NO

_____ _____ g. Are Concrete dikes constructed with water stops on all seams?

_____ _____ h. Are Concrete dikes free of all drains, and constructed with a sump cast integrally with the floor and a manually controlled pump or siphon for removal of spills or precipitation that could accumulate inside of the dike?

_____ _____ i. Can the manually controlled sump pump or siphon be operated from outside of the diked area?

F. OUTDOOR TANKS:

_____ _____ 1. Is the tank and dike protected with a roof so rain will not accumulate inside of the dike. Iif not, how will stormwater in the dike be disposed of? (Drains are not allowed) (15-4.1(b)1(vi)(d))

_____ _____ 2. is the product in the outdoor tank protected from freezing?

3. Separation distances for outdoor tanks: [2-5.2]

_____ _____ 275 gal. & less (Heating oil) - Adjacent to building & 5 feet to property line

_____ _____ 276-650 gallons (Heating oil) – Adjacent to building & 10 feet to property line

_____ _____ 651 gallons & up (Heating oil) - 5 feet to building & 15 feet to property line.

_____ _____ Waste oil tanks must be at least 5 feet from building & 5 feet to property lines.

_____ _____ Diesel Tanks 275 gal. or less - 5 feet to building & 5 feet to property lines.

Diesel Tanks 276 – 750 gallons - 5 feet to building & 10 feet to property lines.

Diesel Tanks 751 – 12,000 gallons - 5 feet to building & 15 feet to property lines.

_____ _____ 4. Request that outdoor tanks be fenced for security.

G. TRANSFER STATIONS:

_____ _____ 1. Do tanks used for distribution purposes (filling containers or other small tanks) have spill protection for filling the distribution tank? (concrete pad, curb and roofed without any drains where the distribution tank is filled). For additional information see Transfer Stations under Chemical Storage Tanks (Section "S")

_____ _____ 2. Does the filling of containers or tanks from a distribution tank take place within an indoor or roofed secondary containment system without any drains?

YES NO

_____ _____ 3. Is the transfer station designed so that all possible points of overflow are visible to the operator during the loading and unloading operations?

_____ _____ 4. Are all dispensing ports at transfer stations properly labelled with their contents? (598.4(b)(8)}

H. LEAK MONTORING:

_____ _____ 1. Can you monitor for leakage between the tank bottom and the secondary containment system? (15-4.3(a)(1))

_____ _____ 2. Is the method of leak detection explained? (visual inspection & logbook, electronic monitoring, etc.) If electronic monitoring is used, is the location of the alarm panel shown on the plans in a supervised area?

3. All underground piping systems connected to an aboveground tank must have an electronic monitoring system in place that includes the following: (15-4.3(a)(2))

_____ _____ All piping under pressure must have an automatic line leak detector. (15-4.3(a)(2)(i))

_____ _____ All suction piping must have electronic leak monitoring. (15-4.3(a)(2)(ii))

_____ _____ Indicate the type of leak detector to be installed in a remote pumping system.

_____ _____ Indicate the system listing by a Nationally Recognized Testing Laboratory.

_____ _____ Indicate if the system will detect the presence of water and/or stored product in the annular space.

_____ _____ Graphically indicate the alarm panel on the drawing indicating alarm status (water and product) indicators, reset, test, and normal indicators.

_____ _____ Indicate alarm annunciation location at the site.

I. OVERFILL PROTECTION:

_____ _____ 1. Waste oil tanks pump filled must have an automatic pump shut-off interlocked with an audible and visible high level alarm. (15-4.1(b)(3)(iv))

_____ _____ 2. Is a method of overfill protection provided? (whistle in vent with fill and vent close together (for heating oil 550 gal. max), manually filled at the tank (for waste oil tanks), electronic audible and visible alarm, translucent or open top tanks whose liquid level is visible to an operator filling the tank at all times, etc.). (15-4.1(b)(3)(iv)).

_____ _____ 3. Overfills must be directed into a secondary containment system. (15-4.1(b)(3)(ii))

YES NO

_____ _____ 4. IF USING AN ELECTRONIC OVERFILL ALARM: show the location of the alarm panel & the fill port on the site plan. (15-4.1(b)(3)(a)(2))

_____ _____ 5. All diesel, and kerosene tanks require an audible and visible high level alarm and a fill limiter valve in the filler drop tube. (15-4.1(b)(3)(iv))

_____ _____ 6. ls the overfill alarm location audible and visible from the fill port? (15-4.1(b)(3)(a)(2))

J. SPECIFICATIONS:

_____ _____ 1. Is a description of the materials, products, and other related information for all aspects of the tank system including but not limited to the tank, piping materials, electronic monitoring systems for leak detection and high level alarm systems, gauges, pumping systems, etc. provided to show conformance with the requirements of this Article? (15-1.9(i)(5)(e)(15))

_____ _____ Is the manufacturer, materials and model numbers provided on the plans for the following items?

_____ _____ Tank

_____ _____ Gauge

_____ _____ emergency vent

_____ _____ spill box

_____ _____ overfill probe

_____ _____ overfill alarm panel

_____ _____ pumps for filling waste oil tanks with an automatic shutoff device

_____ _____ automatic delivery shut off devices

_____ _____ leak detection probe

_____ _____ leak detection alarm panel

K. NOTES REQUIRED ON THE PLAN:

_____ _____ 1. Are all of the notes on pages 13 and 14 of this checklist included on the plans?

L. FOR HEATING OIL TANKS:

_____ _____ 1. Show product piping from the tank to the oil burner. (15-1.9(i)(5)(iii)(a))

_____ _____ 2. The fill and vent pipes must terminate outdoors. [2-3.8]

_____ _____ 3. Is the fill port color coded green? (15-4.2(a)(4))

YES NO

M. FOR FRESH MOTOR OIL TANKS:

_____ _____ 1. Provide details about supply piping, & explain how the oil is dispensed. (15-1.9(i)(5)(iii)(a))

N. FOR WASTE OIL TANKS:

_____ _____ 1. The tank must be steel, UL-142 approved, and can be located indoors; or outdoors 5 feet away from the building & 5 feet away from the property line. Please clarify this on the site plan. [NFPA #30 Table 2-5]

O. INDOOR HEATING OIL TANKS LARGER THAN 660 GALLONS:

_____ _____ 1. Are details provided about the 3-hour fire rated room? [2-4.5]

_____ _____ 1 a. Is the floor concrete without any drains?

_____ _____ 1 b. Are all the walls concrete or concrete block with epoxy?

_____ _____ 1 c. Is the ceiling concrete or other 3-hour fire rated construction?

_____ _____ 2. Note: 'Tank is located inside of a 3-hour fire rated room'

_____ _____ 3. Is the fire rated room for the tank only? (No other general storage)

_____ _____ 4. Is there a self-closing 3 hour (class A) fire rated door? [2-4.8]

_____ _____ 5. Calculations provided for secondary containment?

_____ _____ 6. Provide the elevation in the room that corresponds to 110% of tank capacity. If greater than 6 feet above the floor, a steel ladder is required at the access door.

_____ _____ 7. Note: "There shall be no penetrations in the tank room containment area less than four (4) feet above the floor."

_____ _____ 8. Note: "Tank room is epoxy coated up to four (4) feet above the floor."

_____ _____ 9. Is the tank UL-142 approved?

_____ _____ 10. Tank supported on steel saddles at least 4 inches above the floor? [2-4.6]

_____ _____ 11. Separation distance between saddles less than 8 feet? [2-4.6]

_____ _____ 12. Is at least 15 inches of clearance provided between the tank and the walls and ceiling of the room for inspection & maintenance purposes? [2-4.6]

_____ _____ 13. Are all pipe connections through the top of the tank? [2-4.7]

_____ _____ 14. Is the tank room free of water supply lines?

_____ _____ 15. Is ventilation provided in the tank room? [2-4.9]

YES NO

_____ _____ 16. Are elevations provided for:

_____ _____ Bottom of the fire door?

_____ _____ Bottom of the ventilation louvre?

_____ _____ 17. Electronic overfill alarm panel located outside near the fill?

_____ _____ 18. No more than two tanks may be siphoned together

Q. STATIONARY COMBUSTION ENGINES

_____ _____ 1. All plans for the installation of a liquid fueled stationary engine (for pumps, emergency generators, etc.) shall indicate sufficient information so as to reflect compliance with Article II of the Nassau County Fire Prevention Ordinance and with the National Fire Protection Association Standard 37-1984 and Standard 30 1984.

_____ _____ 2. All of the information required to indicate compliance with the aforementioned Standards and Ordinances shall be shown on the plan. When a manufacturer's specification sheet will provide relevant information pertaining to the equipment to be installed, one specification sheet per plan copy shall be submitted with the plans.

3. Show and identify the following:

_____ _____ Engine location, horsepower, safety devices, supports, etc.

_____ _____ Piping runs, including material of construction and sizes for flexible connector locations, supply, return, vent, fill lines, valves, etc.

_____ _____ All tank locations and sizes including supply tanks, day tanks and integral tanks.

_____ _____ Liquid withdrawal/transfer systems, emergency switches, remote valves, remote high-level indicators and shut off switches, anti-siphon valves, fuel control devices, etc.

_____ _____ Any required construction details that may be required.

_____ _____ All required distances.

_____ _____ Emergency lighting.

_____ _____ 4. Indicate the type fuel to be used (i.e. Diesel).

_____ _____ 5. Provide a side elevation of the installation indicating the relative elevations of all component parts of the system, including all piping. floor levels shall be indicated and labeled.

ABOVEGROUND PBS STORAGE TANK NOTES

1. Secondary containment is provided by_____. (double wall tank, tank in a concrete or steel dike.)

2. The tank is filled by _____. (explain how the tank Is filled)

3. The tank is provided with _____ as means of preventing an overfill condition.

4. All pipes are aboveground and visible for inspection. (If not, omit this note and provide details for secondary containment, leak detection, and corrosion protection)

5. There are no surface waters within 100 feet of the tanks (If surface waters exist omit this note and show them on the site plan and dimension how far they are away from the tanks).

6. Tank and remote fills shall be labeled with its contents, design capacity, working capacity, tank identification number, and installation date.

7. The tank installation conforms to Article XV of the Nassau County Public Health Ordinance, the New York State Uniform Fire Prevention and Building Code, and all applicable fire codes.

8. The tank, piping and all ancillary equipment shall be installed in accordance with the manufacturer's recommendations.

9. The owner/operator shall obtain a Building Permit for the tank installation if required from the local Building Department.

10. The tank(s) and piping must be a minimum of 100 feet from all water supply wells.

11. The engineer/tank installer shall notify the NCHD to schedule inspections five (5) days prior to the beginning of the tank and piping installation, and all testing.

12. If dewatering is required, all necessary permits shall be obtained from the New York State Department of Environmental Conservation and any other agency having jurisdiction.

13. The tank(s) and all piping shall be tested for tightness using a method approved by the NCDH.

14. The overfill alarm panel shall be visible and audible from the fill port.

15. The fill port shall be color coded in accordance with the American Petroleum Institute.

16. All tanks must be a minimum of 10 feet away from all water lines.

17. The exterior surface of steel tank(s) will be protected by a primer coat, bond coat, and at least two final coats of paint.

18. A certification letter and "As-Built "plans prepared by a professional engineer must be submitted to the Health Department after the tank system is installed and tested.

19. The Installation and placement of the tank and piping shall conform with NFPA # 30, NFPA #30A, NFPA # 31, and NFPA # 37.

20. The tank shall be anchored to prevent floatation and lateral movement due to flooding.

21. No floor drains shall be in the secondary containment area.

22. Dikes and doublewall tanks shall not have any drain openings.

23. The discharge of contaminants to floor drains connected to drywells is prohibited unless a permit for such discharge Is obtained from the Underground Injection Control (UIC) Office of the United States Environmental Protection Agency.

24. Floor drains and drywells at this site are subject to inspection by the Nassau County Department of Health and/or the USEPA to determine the points of contaminant discharges. As a result of such Inspection the property owner or operator may be required by the USEPA to investigate and remediate contamination resulting from past contaminant discharges.

25. Chemical Fire Suppression Systems must be field installed by an installer licensed by the Nassau County Fire Marshal and tested in the presence of a representative of the Fire Marshal.

26. All new tank systems installed must be tested, certified by a professional engineer and approved by the Health Department prior to being placed in service.

27. All electrical equipment and ancillary equipment associated with the tank, piping, monitoring systems, pumping and dispensing systems shall be UL approved for the intended use.

Additional Notes for Diesel & Kerosene Tanks:

28. "No Smoking "signs shall be posted at all tanks and dispensers.

Please be aware that if the required information requested in this checklist is not included on your revised plans, additional fees will be charged for future plans submitted in conjunction with this project.

I certify that all of the required information in the attached checklist is included in my plans, and the proposed tank installation complies with Article XV of the Nassau County Public Health Ordinance, and all applicable building and fire codes.

Print name: _____

Signature: _____

Date: _____ _____

Professional Seal

FOR NCHD COMPLETION:

1st Review by: _____ Date:

2nd Review by: _____ Date: