STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

November 3, 2006

Mr. Kevin Fish
Coldbrook Energy, Inc.
809 Main Road North
Hampden, Maine 04444

RE: Maine Pollutant Discharge Elimination System (MEPDES) Permit # ME0002267
Maine Waste Discharge License (WDL) Application #W000563-5S-D-R
Final Permit

Dear Mr. Fish:

Enclosed please find a copy of your **final** MEPDES permit/WDL which was approved by the Department of Environmental Protection. You must follow the conditions in the permit to satisfy the requirements of law. Any discharge not receiving adequate treatment is in violation of State Law and is subject to enforcement action.

Any interested person aggrieved by a Department determination made pursuant to applicable regulations, may appeal the decision following the procedures described in the attached DEP FACT SHEET entitled "*Appealing a Commissioner's Licensing Decision.*"

If you have any questions regarding the matter, please feel free to call me at 287-7693.

Sincerely,

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality

Enc.
cc: Tanya Hovell, DEP/EMRO
Sandy Lao, USEPA

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04769-2094
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE HOUSE STATION 17 AUGUSTA, MAINE 04333

DEPARTMENT ORDER

IN THE MATTER OF

COLDBROOK ENERGY INC.		)	MAINE POLLUTANT DISCHARGE
HAMPDEN, PENOBSCOT COUNTY, MAINE		)	ELIMINATION SYSTEM PERMIT
BULK FUEL STORAGE FACILITY		)	AND
ME0002267		)	WASTE DISCHARGE LICENSE
W000563-5S-D-R	**APPROVAL**	)	**RENEWAL**

Pursuant to the provisions of the Federal Water Pollution Control Act, Title 33 USC, Section 1251, et seq., and Maine Law 38 M.R.S.A., Section 414-A et seq., and applicable regulations, the Department of Environmental Protection (Department hereinafter) has considered the application of COLDBROOK ENERGY, INC., (CBE hereinafter) with its supportive data, agency review comments, and other related materials on file, and FINDS THE FOLLOWING FACTS:

APPLICATION SUMMARY

CBE has filed a timely and complete application with the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0002267/Department Waste Discharge License (WDL)#W000563-5S-C-R, (permit hereinafter) which was issued on November 8, 2001 and is due to expire on November 8, 2006. The permit approved the discharge of treated and untreated storm water runoff from a bulk fuel storage and transfer facility to the Penobscot River, Class B, in Hampden, Maine.

PERMIT SUMMARY

This permitting action is similar to the 11/8/01 permitting action in that it is carrying forward all the terms and conditions with the following exceptions:

1. Establishing a daily maximum concentration reporting requirement for benzene for Outfall #001.

2. Increasing the daily maximum limit for total suspended solids (TSS) from 50 mg/L to 100 mg/L for the discharges from Outfall #001 to be consistent with the NPDES permits for other similar facilities permitted by the EPA in Region I - New England. In addition, this permit establishes an average limit of 50 mg/L whereby compliance is based on a 12-month rolling averaging period.

3. Reducing the monitoring frequency for all parameters (with the exception of pH) from 1/Month to 1/Quarter.

4. Requiring the permittee to maintain an up-to-date storm water pollution prevention plan (SWPPP) for the facility.

CONCLUSION

BASED on the findings in the attached Fact Sheet dated October 2, 2006, COLD BROOK ENERGY, INC. is subject to the conditions listed below and the Department makes the following CONCLUSIONS:

1. The discharge, either by itself or in combination with other discharges, will not lower the quality of any classified body of water below such classification.

2. The discharge, either by itself or in combination with other discharges, will not lower the quality of any unclassified body of water below the classification which the Department expects to adopt in accordance with state law.

3. The provisions of the State's antidegradation policy, 38 MRSA Section 464(4)(F), will be met, in that:

   (a) Existing in-stream water uses and the level of water quality necessary to protect and maintain those existing uses will be maintained and protected;

   (b) Where high quality waters of the State constitute an outstanding national resource, that water quality will be maintained and protected;

   (c) The standards of classification of the receiving water body are met or, where the standards of classification of the receiving water body are not met, the discharge will not cause or contribute to the failure of the water body to meet the standards of classification;

   (d) Where the actual quality of any classified receiving water body exceeds the minimum standards of the next highest classification, that higher water quality will be maintained and protected; and

   (e) Where a discharge will result in lowering the existing quality of any water body, the Department has made the finding, following opportunity for public participation, that this action is necessary to achieve important economic or social benefits to the State.

4. The discharge will be subject to effluent limitations that require application of best practicable treatment.

ACTION

THEREFORE, the Department APPROVES the above noted application of COLDBROOK ENERGY, INC., to discharge up to 530 gpm of treated and untreated stormwater runoff to the Penobscot River, Class B, SUBJECT TO THE ATTACHED CONDITIONS, and all applicable standards and regulations including:

1. "*Maine Pollutant Discharge Elimination System Permit Standard Conditions Applicable To All Permits,*" revised July 1, 2002, copy attached.

2. The attached Special Conditions, including any effluent limitations and monitoring requirements.

3. This permit expires five (5) years from the date of signature below.

DONE AND DATED AT AUGUSTA, MAINE, THIS 6TH DAY OF November, 2006.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAVID P. LITTELL, Commissioner

Date of initial receipt of application: September 14, 2006.

Date of application acceptance: September 15, 2006.

FILED
NOV - 6 2006
BOARD OF ENVIRONMENTAL PROT.
STATE OF MAINE

Date filed with Board of Environmental Protection _____

This order prepared by Gregg Wood, BUREAU OF LAND AND WATER QUALITY

W05635SD 11/3/06

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge treated storm water runoff to the Penobscot River. Such treated waste water discharges shall be limited and monitored by the permittee as specified below.

OUTFALL #001 – Treated storm water runoff from the tank farm, truck rack and paved areas.

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average as specified	Daily Maximum as specified	Monthly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow *[50050]*	---	530 gpm(1) *[78]*	---	---	1/Quarter *[01/90]*	Measure *[MS]*
Total Suspended Solids *[00530]*	---	---	50 mg/L(2) *[19]*	100 mg/L *[19]*	1/Quarter *[01/90]*	Grab(3) *[GR]*
Oil & Grease *[00552]*	---	---	---	15 mg/L *[19]*	1/Quarter *[01/90]*	Grab(3) *[GR]*
Benzene *[34030]*	---	---	---	Report ug/L(4) *[28]*	1/Quarter *[01/90]*	Grab(3) *[GR]*

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

OUTFALL #002 - Hydrostatic test waters.

Effluent Characteristic	Discharge Limitations				Minimum Monitoring Requirements	
	Monthly Average as specified	Daily Maximum as specified	Monthly Average as specified	Daily Maximum as specified	Measurement Frequency as specified	Sample Type as specified
Flow (Total Gallons) *[82220]*	---	---	---	1.6 EE6 gal *[57]*	1/Discharge *[01/DS]*	Measure *[MS]*
Total Suspended Solids *[00530]*	---	---	---	50 mg/L *[19]*	1/Discharge *[01/DS]*	Grab(3) *[GR]*
Oil & Grease *[00552]*	---	---	---	15 mg/L *[19]*	1/Discharge *[01/DS]*	Grab(3) *[GR]*
Total Residual Chlorine *[50060]*	---	---	---	Report mg/L *[19]*	1/Discharge *[01/DS]*	Grab(3) *[GR]*

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Footnotes:

Sampling Locations: Samples for all parameters shall be collected after the oil/water separator during the first hour of discharge.

Sampling and analysis must be conducted in accordance with; a) methods approved by 40 Code of Federal Regulations (CFR) Part 136, b) alternative methods approved by the Department in accordance with the procedures in 40 CFR Part 136, or c) as otherwise specified by the Department. Samples that are sent out for analysis shall be analyzed by a laboratory certified by the State of Maine's Department of Human Services.

(1) **Flow** - The flow through the oil/water separator shall consist of storm water runoff only. The direct or indirect discharge of liquids from petroleum product pipelines, transport tanks, vessels or storage tanks through the oil/water separator is not authorized by this permit. No chemical treatment such as dispersants, emulsifiers or surfactants may be added to the oil/water separator or any waste water discharge stream contributing flow to the separator.

At no time shall the flow through the oil/water separator exceed the design flow of 530 gpm of the separator. Flow measurement devices or calculated flow estimates via pump curves or tank volumes or other methods must be approved by the Department. Measurement of flow may be suspended upon approval from the Department in the event the permittee limits flow to the separator by installing a permanent constriction to prevent flows from exceeding the design capacity of the separator. The installation, replacement or modification of any flow measurement or constriction device requires prior approval by the Department.

(2) **Total Suspended Solids (TSS)**– The monthly average concentration limitation of 50 mg/L for TSS is based on an average over the previous twelve-month period. For the purposes of this permitting action, the twelve-month rolling average calculation is based on the test results for the most recent twelve-month period. Months when there is no discharge (no sampling) are not to be included in the calculations. See page 8 of the Fact Sheet of this permit for an example calculation.

(3) **Sample Type** - Storm water runoff from one significant storm event per calendar quarter shall be sampled for TSS, oil & grease and benzene. Significant storm event is defined as any event that is greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable storm event. Suitable size and type of samples shall be collected in accordance with 40 CFR Part 136. Grab samples will be collected within the first hour (first flush) after the diked area(s) drainage area and/or pumpout has started. Separate aliquot samples shall be taken for the analysis for each parameter.

SPECIAL CONDITIONS

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

Footnotes:

(4) **Benzene**: The Department's reporting level (RL) of detection for benzene is 5 ug/L (0.005 mg/L). All analytical test results shall be reported to the Department including results which are detected below the RL.

B. NARRATIVE EFFLUENT LIMITATIONS

1. The effluent shall not contain a visible oil sheen, foam or floating solids at any time that would impair the usages designated by the classification of the receiving waters.

2. The effluent shall not contain materials in concentrations or combinations which are hazardous or toxic to aquatic life, or which would impair the usages designated by the classification of the receiving waters.

3. The discharge shall not cause visible discoloration or turbidity in the receiving waters which would impair the usages designated by the classification of the receiving waters.

4. Notwithstanding specific conditions of this permit the effluent must not lower the quality of any classified body of water below such classification, or lower the existing quality of any body of water if the existing quality is higher than the classification.

C. OIL/WATER SEPARATOR MAINTENANCE

The permittee shall maintain an up-to-date operations and maintenance plan for the oil/water separator. The plan shall include, but not be limited to, measures to ensure the separator performs within the designed performance standards of the system, is maintained on a routine basis to maximize the design capacity and efficiency of the system, and that adequate staffing and training of personnel is provided to ensure compliance with discharge limitations. The operations and maintenance plan shall remain on site at all times and will be subject to periodic inspection by Department personnel.

For the purposes of minimizing suspended solids in the storm water directed to the separator, the permittee shall implement best management practices (BMP's) for erosion and sedimentation control. The permittee shall periodically inspect, maintain and repair erosion and sedimentation control structures as necessary.

SPECIAL CONDITIONS

D. HYDROSTATIC TEST WATER

Tanks being hydrostatically tested must be clean of product, all construction debris, including sandblasting grit, prior to testing and discharge. The discharge must be dechlorinated if test results indicate that discharged waters will violate permit limits. Hydrostatic test water from tanks that have been washed, cleaned and certified for welding need not be discharged through an oil/water separator. The permittee shall notify the Department of an intended discharge of hydrostatic test water at least three days, excluding weekends, prior to the discharge.

E. STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

The permittee shall develop, maintain and periodically update the Storm Water Pollution Prevention Plan (SWPPP) for the facility. As the site or any operations conducted on it have changed or are expected to change materially or substantially, the permittee shall modify its SWPPP as necessary to include such changes and notify the Department within 90 days of such modifications to the plan. The permittee shall maintain a copy of the SWPPP and any subsequent revisions at the terminal and shall make the plan available to Department personnel upon request.

The SWPPP requirements are intended to facilitate a process whereby the permittee thoroughly evaluates potential pollution sources at the terminal and selects and implements appropriate measures to prevent or control the discharge of pollutants in storm water runoff. The process involves the following four steps: (1) formation of a team of qualified facility personnel who will be responsible for preparing the SWPPP and assisting the terminal manager in its implementation; (2) assessment of potential storm water pollution sources; (3) selection and implementation of appropriate management practices and controls; and (4) periodic evaluation of the effectiveness of the plan to prevent storm water contamination and comply with the terms and conditions of the permit.

F. UNAUTHORIZED DISCHARGES

The permittee is authorized to discharge only in accordance with the terms and conditions of this permit and only from Outfalls 001, 003, 004 and 005 Discharges of waste water from any other point source are not authorized under this permit, but shall be reported in accordance with Standard Condition B(5)(*Bypass*) of this permit.

SPECIAL CONDITIONS

G. NOTIFICATION REQUIREMENT

In accordance with Standard Condition D, the permittee shall notify the Department of the following:

1. Any substantial change in the volume or character of pollutants being introduced into the waste water collection and treatment system.

2. For the purposes of this section, adequate notice shall include information on:

   a. The quality and quantity of waste water introduced to the waste water collection and treatment system; and

   b. Any anticipated change in the quality and quantity of the waste water to be discharged from the treatment system.

H. MONITORING AND REPORTING

Monitoring results shall be summarized for each calendar quarter and reported on separate Discharge Monitoring Report Forms provide by the Department and **postmarked on or before the thirteenth (13th) day of the month or hand-delivered to a Department Regional Office such that the DMR's are received by the Department on or before the fifteenth (15th) day of the month** following the completed reporting period. A signed copy of the Discharge Monitoring Report and all other reports required herein shall be submitted to the Department's compliance inspector (unless otherwise specified) at the following address:

Department of Environmental Protection
Eastern Maine Regional Office
Bureau of Land and Water Quality
Division of Water Quality Management
106 Hogan Road
Bangor, Maine 04401

I. REOPENING OF PERMIT FOR MODIFICATIONS

Upon evaluation of test results required by the Special Conditions of this permit, new site specific information or any other test results or information gathered during the term of this permit, the Department may, at anytime and with notice to the permittee, modify this permit to: (1) include effluent limits necessary to control specific pollutants or whole effluent toxicity where there is a reasonable potential that the effluent may cause water quality criteria to be exceeded: (2) require additional monitoring if results on file are inconclusive; or (3) change monitoring requirements or limitations based on new information.

SPECIAL CONDITIONS

J. SEVERABILITY

In the event that any provision, or part thereof, of this permit is declared to be unlawful by a reviewing court, the remainder of the permit shall remain in full force and effect, and shall be construed and enforced in all aspects as if such unlawful provision, or part thereof, had been omitted, unless otherwise ordered by the court.

MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT
AND
MAINE WASTE DISCHARGE LICENSE

FACT SHEET

Date: **October 2, 2006**

PERMIT NUMBER: **ME0002267**
LICENSE NUMBER: **W000563-5S-D-R**

NAME AND ADDRESS OF APPLICANT:

COLDBROOK ENERGY, INC.
809 Main Road North
Hampden, Maine 04444

COUNTY: **Penobscot County**

NAME AND ADDRESS WHERE DISCHARGE OCCURS:

Coldbrook Energy, Inc.
809 Main Road North
Hampden, Maine 04444

RECEIVING WATER/CLASSIFICATION: **Penobscot River/Class B**

COGNIZANT OFFICIAL AND TELEPHONE NUMBER: **Mr. Kevin Fish**
(207) 945-9465

1. APPLICATION SUMMARY

a. Application: The permittee has submitted a timely and complete application with the Department to renew combination Maine Pollutant Discharge Elimination System (MEPDES) permit #ME0002267/Department Waste Discharge License (WDL)#W000563-5S-C-R, (permit hereinafter) which was issued on November 8, 2001 and is due to expire on November 8, 2006. The permit approved the discharge of treated and untreated storm water runoff from a bulk fuel storage and transfer facility to the Penobscot River, Class B, in Hampden, Maine.

1. APPLICATION SUMMARY (cont'd)

b. Source Description & Waste water treatment

Fuel deliveries to the facility are via mobile pipeline. Fueling may also occur at the docking area on the Penobscot River however, the docking area is utilized rarely and only for supplemental deliveries. Fuel transfer to trucks and mixture of additives occur at the loading racks. The tank area and pumps are protected by a combination of concrete and earthen containment diking which surrounds the bulk storage area and isolates it from the Penobscot River. All fuel transfer operations are executed in accordance with the facility's Spill Prevention Control and Countermeasure (SPCC) Plan to minimize fuel contact with storm water runoff.

The fuel oil distribution/storage terminal contains 9 existing above ground fuel storage tanks, 4 above ground additive tanks, associated transfer piping, and a vessel docking area. Volumes and type of material stored in the storage tanks are:

Fuel tankage

Vertical #2 Fuel Oil Tank #89	⇒240,000 gallons
Vertical Gasoline Tank #90	⇒250,000 gallons
Vertical #2 Fuel Oil Tank #91	⇒252,000 gallons
Vertical #2 Fuel Oil Tank #92	⇒504,000 gallons
Vertical #2 Fuel Oil Tank #93	⇒492,000 gallons
Vertical Diesel Fuel Tank #44	⇒1,325,000 gallons
Vertical Gasoline Tank #66	⇒756,000 gallons
Vertical Kerosene Tank #35	⇒420,000 gallons
Horizontal Gasoline Additive Tank	⇒8,000 gallons
Vertical Gasoline Tank #9	⇒1,600,000 gallons
Horizontal Gasoline Additive Tank	⇒10,000 gallons
Horizontal Gasoline Additive Tank	⇒3,000 gallons
Horizontal Fuel Additive Tank	⇒3,000 gallons
Horizontal Vapor Drop Out Tank	⇒1,000 gallons

Double Walled Composite Underground Waste Oil Storage Tank 550 gallons

Miscellaneous tankage

Steel Underground Effluent Tank for Oil/Water Separator 5,000 gallons
Steel Underground Collection Tank for Oil/Water Separator 5,000 gallons
Horizontal Waste Oil Storage Tank for Oil/Water Separator 4,000 gallons
Domestic Heating #2 Fuel Oil Tank (In Coldbrook Energy Office Building)

1. APPLICATION SUMMARY (cont'd)

OUTFALL 001-Fuel spill and storm water runoff collection from the truck loading rack is performed by a lipped slab flowing to trench drains along the perimeter of truck loading rack slab. Trench drains are plumbed to provide partial sediment retention and fuel/water separation within the trench drain structure. Should spills occur while loading trucks, absorbent pads are used to contain fuel oil and trucks are cleaned prior to leaving the rack. A roof over the truck loading rack sheds most rain water off the loading rack slab. A 6" diameter pipe transfers flows from the slab trench drains to two in-series sand trap manholes connected to a 5,000 gallon collection tank. The sand trap manholes provide low flow fuel/water settling also. The 5,000-gallon collection tank contains a float operated 50 GPM sump pump which transfers flows to a Heil Model #602-RPOV 530 GPM oil/water separator. Separated fuel/oil flows to a 550-gallon underground holding tank. Effluent flows to a 5,000-gallon underground effluent tank with a float activated 300 GPM sump pump discharging storm water effluent to the 10" Outfall #001 at elevation 9.90 in the Penobscot River.

Storm water within the tank farm and tank bottom water are collected on a lined secondary containment system comprised partially of a 40 mil Morton Thiokol synthetic liner (installed in 1993) and partially of a geosynthetic clay liner (installed in 1995 in the expanded portion of the bulk storage area), and flows overland to a 41,125 gallon capacity detention pond. The detention pond is connected in series to the Heil Model #602 -RPOV oil/water separator by a single 6 inch gravity line controlled by two manually operated plug valves flowing to two 4' x 4' sand trap sumps with orifices inboard and outboard to control flows below the Heil oil/water separator capacity. The plug valves are normally closed and are opened only under the direct supervision of Coldbrook Energy personnel. Effluent from the Heil water separator flows to a 550-gallon oil holding tank and a 5,000 gallon collection tank to discharge to Outfall #001 in the Penobscot River.

Fuel oil held within the 550 gallon holding tank is manually pumped to an above ground 4,000 gallon holding tank for storage and is eventually recycled back into the tank farm storage tanks. Sludge and waste from the holding tank which is non-recycled is removed by Clean Harbors, Inc., a licensed waste removal company.

Major fuel spill containment is provided by a bermed basin of 1,900,000 gallons and licensed clean-up crews. Spill Prevention Control and Countermeasure Plans are followed for control measures.

1. APPLICATION SUMMARY (cont'd)

OUTFALL #003: This outfall discharges storm water runoff from the paved area for parking and truck traffic into and out of truck loading racks. All trucks meet MDOT spill prevention requirements. Trucks are loaded on loading racks, which have containment berms and drains for all fuel spill contingencies. All fuel spills within the loading racks are treated by the oil/water separator system. Should spills on trucks occur within the loading racks, trucks are cleaned at the racks before traveling to pavement serviced by Outfall #003. Any fuel oil spilled on paved way into and out of the loading rack will be contained with absorbent pads before entry into Town of Hampden 24" storm drain that flows to Penobscot River.

OUTFALL #004: Storm water runoff discharge from Outfall #004 is generated on a paved area for parking and truck traffic into and out of loading rack. All trucks meet MDOT spill prevention requirements. Trucks are loaded on loading racks that have containment berms and drains for all fuel spill contingencies. All fuel spills within the loading rack are treated by Outfall #001. Should spills on trucks occur within loading racks, the trucks are cleaned at the racks before traveling to pavement serviced by Outfall #004. Any fuel oil spilled on paved way into and out of loading rack will be contained by absorbent pads before entry into catch basins that drain to Town of Hampden 24" storm drain that flows to Penobscot River.

OUTFALL #005: This outfall discharges stormwater from the facility's paved entrance area. In the event of a spill all trucks involved are cleaned prior to exiting the facility. Any fuel oil spilled on the paved entrance area will be contained by absorbent pads before being discharged off site and entering into catch basins that drain to the Town of Hampden stormdrains that flow to the Penobscot River.

See Attachment A of this Fact Sheet for a location map and Attachment B for schematic diagram of the storm water runoff and structural treatment systems.

2. PERMIT SUMMARY

a. History: - The most current/relevant regulatory actions affecting the CBE facility include the following:

June 12, 1996 - The Department issued WDL #W000563-53-B-R for a five-year term.

January 12, 2001 - The Department received authorization from the EPA to administer the NPDES program in Maine. From that point forward, the program has been referred to as the MEPDES program.

2. PERMIT SUMMARY (cont'd)

November 8, 2001 – The Department issued combination MEPDES permit #ME0002267/WDL #W000563-5S-C-R for a five-year term.

September 14, 2005 – CBE submitted a timely and complete application to renew the MEPDES permit for its Hampden facility.

b. Terms and conditions - This permitting action is similar to the 11/8/01 permitting action in that it is carrying forward all the terms and conditions with the following exceptions:

1. Establishing a daily maximum concentration reporting requirement for benzene for Outfall #001.

2. Increasing the daily maximum limit for total suspended solids (TSS) from 50 mg/L to 100 mg/L for the discharges from Outfall #001 to be consistent with the NPDES permits for other similar facilities permitted by the EPA in Region I - New England. In addition, this permit establishes an average limit of 50 mg/L whereby compliance is based on a 12-month rolling averaging period.

3. Reducing the monitoring frequency for all parameters (with the exception of pH) from 1/Month to 1/Quarter.

4. Requiring the permittee to maintain an up-to-date storm water pollution prevention plan (SWPPP) for the facility.

3. CONDITIONS OF PERMITS

Maine law, 38 M.R.S.A. Section 414-A, requires that the effluent limitations prescribed for discharges, including, but not limited to, effluent toxicity, require application of best practicable treatment (BPT), be consistent with the U.S. Clean Water Act, and ensure that the receiving waters attain the State water quality standards as described in Maine's Surface Water Classification System. In addition, 38 M.R.S.A., Section 420 and Department rule 06-096 CMR Chapter 530, *Surface Water Toxics Control Program,* require the regulation of toxic substances not to exceed levels set forth in Department rule 06-096 CMR Chapter 584, *Surface Water Quality Criteria for Toxic Pollutants*, and that ensure safe levels for the discharge of toxic pollutants such that existing and designated uses of surface waters are maintained and protected.

4. RECEIVING WATER QUALITY STANDARDS

Maine law, 38 M.R.S.A., §467(A)(7) classifies the receiving waters at the point of discharge as a Class B waterway. Maine law 38 M.R.S.A., §465(3) contains the classification standards for Class B waterways.

5. RECEIVING WATER CONDITIONS

Table Category 5-A entitled, *Rivers and Streams Impaired By Pollutants Other Than Those Listed in 5-B Through 5-D (TMDL required)*, in a document entitled, State of Maine Department of Environmental Protection, 2004 Integrated Water Quality Monitoring and Assessment Report, published by the Department lists the Penobscot River main stem from Cambolasse Stream in Lincoln to the Piscatquis River in Howland as having the designates uses of aquatic life, dissolved oxygen criteria and fishing (consumption) as impaired. The table lists nutrients and dioxin from industrial, municipal and non-point sources as causing or contributing to the impairment.

The Department issued a draft report entitled, *Penobscot River Modeling Report, March 2003*, that outlined the results of a water quality study conducted during the summers of 1997 and 2001, on the Penobscot River main stem ranging from Millinocket to Bucksport (103 miles). The Department identified 51 miles of the river (all classified as Class B) as in non-attainment of the Class B dissolved oxygen standards due to the point source discharges of biochemical oxygen demand (BOD) and phosphorus as the primary cause of the non-attainment (impairment).

The report recommends significant reductions in license limits for BOD and a reduction in the quantity of phosphorus currently being discharged to meet water quality standards for dissolved oxygen established in state law. It is noted the CBE facility has not been identified as a discharger that is causing or contributing to any of the impairment issues cited above.

The Department is scheduled to perform a comprehensive evaluation of the data collected and calibrate an existing model of the river in calendar year 2007 and if necessary, prepare a total maximum daily load (TMDL) for segments of the river not attaining the standards of their assigned classification(s). If the evaluation and modeling runs determine that at full permitted discharge limits the discharge from the CBE facility is causing or contributing to the non-attainment, this permit will be re-opened per Special Condition I, *Reopening of Permit For Modifications*, to impose more stringent limitations to meet water quality standards.

6. EFFLUENT LIMITATIONS & MONITORING REQUIREMENTS

Discharges from activities associated with bulk petroleum stations and terminal operations must satisfy best conventional technology (BCT) and best available technology (BAT) requirements and must comply with more stringent water quality standards if BCT and BAT requirements are not adequate. On September 25, 1992, EPA promulgated through its General Permit for Storm Water Discharge Associated with Industrial Activity, that the minimum BAT/BCT requirement for storm water discharges associated with industrial activity is a Storm Water Pollution Prevention Plan (SWPPP) [57 FR, 44438]. In addition to a SWPPP, the Department is carrying numeric effluent limitations and or monitoring

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

requirements forward from the previous NPDES permitting and WDL action for petroleum constituents to ensure the discharge(s) do not contribute to violations of the State's water quality standards.

This permit authorizes the discharge of treated storm water and hydrostatic test waters with numeric effluent limitations which are within applicable water quality standards and requires the development and implementation of a storm water pollution prevention plan for additional protection of the environment. The effluent parameters for each waste stream are discussed in more detail below. The sections are arranged according to the effluent characteristic(s) being regulated.

a. Storm Water Runoff Only – Outfall #001

1. Flow - Typically, the treatment technology for storm water runoff employed by bulk storage petroleum terminals is an oil/water [O/W] separator. This device uses gravity to separate the lower-density oils from water; resulting in an oil phase above the oil/water interface and a heavier particulate (sludge) phase on the bottom of the O/W separator. It follows that the sizing of O/W separators is based on the following design parameters: water-flow rate, density of oil to be separated, desired percentage removal of oil, and the operating temperature range.

   The previous permitting established a daily maximum flow limit of 530 gpm that was based on information supplied by the permittee as to the design capacity of the O/W separator. The permittee has indicated the capacity has not changed from the previous permitting action and as a result is being carried forward in this permitting action.

2. Total Suspended Solids (TSS) - Total suspended solids have been limited in this permit to minimize the potential carryover of petroleum fractions to the receiving water(s) by adsorption to particulate matter or suspended solids. Both heavy metals and polynuclear aromatic hydrocarbons (PAHs) readily adsorb to particulate matter.

   The previous licensing action established a daily maximum concentration limit of 50 mg/L for TSS based on a Department best professional judgment (BPJ) of limits that were achievable for bulk fuel storage and transfer facilities located in the State of Maine. The 8/30/85 NPDES permit issued by the EPA establishing a daily maximum concentration limit of 100 mg/L based on a EPA Region I BPJ determination that the technology guidelines promulgated at 40 CFR Part *423—Steam Electric Power Generating Point Source Category*, for point source discharges of low volume waste water were appropriate to control the discharge of sediment particles and oils from bulk storage petroleum terminals in the region.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

a. Storm Water Runoff Only– Outfall #001

The Department issued WDL renewals for all the bulk fuel storage and transfer facilities in calendar years 1997 - 2000 (generally speaking) with a daily maximum concentration limit of 50 mg/L for TSS. Many of the facilities have not been able to consistently comply with the daily maximum limit of 50 mg/L after implementing the SWPPP and properly operating and maintaining the O/W separators. A number of the facilities have written to the Department requesting the Department revise the limit to be consistent with EPA's Region I BPJ limit of 100 mg/L.

The Department has reviewed the Discharge Monitoring Reports (DMR's) for all of the bulk fuel storage and transfer facilities in the State of Maine and conducted on-site inspections at many of the facilities to verify the SWPPP's are being implemented and the O/W's are being properly operated and maintained. The Department concurs that the daily maximum concentration limit is overly stringent and is not achievable on a year-round basis. The industry believes the root cause for the exceedences is that the soil types used to construct the dikes and spread on the yard areas to enhance traction in the winter (areas subject to foot and vehicular traffic) contain a high level of fine clay-like materials that do not settle out before discharge.

A permit may not be renewed, reissued or modified with less stringent limitations or conditions than those contained in the previous permit unless in compliance with the anti-backsliding requirements of the CWA [see Sections 402(o) and 303(d)(4) of the CWA and 40 CFR §122.44(l)(1 and 2)]. EPA's antibacksliding provisions prohibit the relaxation of permit limits, standards, and conditions except under certain circumstances. The anti-backsliding provisions authorizes the permitting authority to relax limits based on new information and under circumstances where the permittee has applied best practicable treatment and is unable to comply with the limit. The Department has made the determination that bulk fuel storage and transfer facilities as a whole have satisfied the Department that the Department's BPJ daily maximum concentration limitation of 50 mg/L established in the previous licensing actions is not consistently achievable even after the application best practicable treatment and implementation of the SWPPP's. Therefore, to be consistent with the EPA Region I's issuance of NPDES permits for like facilities in New England, the Department is establishing a daily maximum concentration limit of 100 mg/L and establishing a twelve-month rolling averaging period for compliance with the concentration limit of 50 mg/L. The Department has made a best professional judgment that the increase in

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

a. Storm Water Runoff Only– Outfall #001

the daily maximum limit will not cause or contribute to failure of the receiving water to meet water quality standards given the infrequent nature of the discharge. An example for calculating a 12-month rolling average is as follows:

Calendar year 2006 **Quarter #3**	
Month	Test Result
July	25 mg/L
	72 mg/L
Aug.	No Discharge
Sept.	71 mg/L
	22 mg/L
	26 mg/L

Calendar year 2006 **Quarter #4**	
Month	Test Result
Oct.	50 mg/L
Nov.	34 mg/L
	47 mg/L
	59 mg/L
Dec.	89 mg/L

Calendar year 2007 **Quarter #1**	
Month	Test Result
Jan.	15 mg/L
	53 mg/L
Feb.	31 mg/L
Mar	71 mg/L
	24 mg/L
	37 mg/L

Calendar year 2007 **Quarter #2**	
Month	Test Result
Apr.	50 mg/L
May	34 mg/L
	47 mg/L
	39 mg/L
June	No Discharge

$$\text{12-Month rolling average} = \frac{\Sigma \text{ effluent concentrations}}{\text{n results}} = \frac{896}{20} = 45 \text{ mg/L}$$

As stated in footnote #3 of Special Condition A, *Effluent Limitations and Monitoring Requirements*, of the permit, the 12-month averaging period is based on the most recent twelve month period of time. Months where no discharge took place are excluded (i.e. do not figure in a zero) in the calculation.

3. Oil and Grease (O&G) – The previous licensing action contained a daily maximum concentration limit of 15 mg/L based on Department best practicable treatment determination. Properly designed, operated and maintained oil/water separator systems are capable of complying with said limit. It is noted 15 mg/L is also a water quality based threshold the Department utilizes to protect against visible oil sheens. A review of the DMR data for period November 2001 to the present indicates the limit has consistently been achieved and is therefore being carried forward in this permitting action.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

a. Storm Water Runoff Only– Outfall #001

4. Benzene - Three gasoline compounds with the highest solubility's are: naphthalene, propylene, and benzene. Propylene and naphthalene, however, are minor constituents of gasoline. In the past, benzene has been selected as the main pollutant of concern in light distillates such as gasoline since it existed in light distillates at significant concentrations.

A traditional approach to limiting effluents contaminated with gasoline or other light distillates has been to limit the aggregate parameter of: benzene, ethylbenzene, toluene, and total xylenes (or BETXs). This approach stems from the petroleum-industry practice of determining the quality of fuels by measuring BETXs, which can be highly variable amongst gasoline products. Another reason for limiting BETXs is that EPA and the State have promulgated ambient water quality criteria (AWQC) for benzene, ethylbenzene, toluene, and the xylene(s). Of the four aromatics, benzene is by far the most soluble in water. In addition, benzene has the most stringent water quality criteria for human health. Because of its relatively high solubility in water, benzene can be considered as the "limiting pollutant parameter." Therefore, a monitoring requirement of the daily maximum concentration of benzene is being established as a screening parameter for BETX compounds in this permitting action.

Being that discharges of storm water runoff from bulk fuel storage facilities are usually short term events (0-48 hrs), the applicable ambient water quality criteria (AWQC) and dilution factors associated with the discharge are acute conditions. The acute AWQC for benzene is 5,300 ug/L. The Department establishes applicable dilution factors for the discharges in accordance with freshwater protocols established in Department Rule Chapter 530, *Surface Water Toxics Control Program*, October 2005. With the only flow limit established in the permit of 530 gpm or 0.7632 MGD as a daily maximum, the acute dilution factor can be calculated as follows:

Acute: = 2,892 cfs[1] $\Rightarrow \frac{(2{,}892 \text{ cfs})(0.6464) + (0.7632 \text{ MGD})}{(0.7632 \text{ MGD})} = 2{,}450{:}1$

¼Acute[2]: 1Q10 = 723 cfs $\Rightarrow \frac{(723 \text{ cfs})(0.6464) + (0.7632 \text{ MGD})}{(0.7632 \text{ MGD})} = 613{:}1$

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

a. Storm Water Runoff Only– Outfall #001

Footnotes

(1) Chapter 530 (4)(B)(1) states that analyses using numeric acute criteria for aquatic life must be based on 1/4 of the 1Q10 stream design flow to prevent substantial acute toxicity within any mixing zone. The 1Q10 is the lowest one-day flow over a ten-year recurrence interval. The regulation goes on to say that where it can be demonstrated that a discharge achieves rapid and complete mixing with the receiving water by way of an efficient diffuser or other effective method, analyses may use a greater proportion of the stream design, up to including all of it. Based on the lack of information about the mixing characteristics of the discharge with the receiving water, the Department has assumed the discharge does not receive rapid and complete mixing with the receiving water therefore, the default stream flow of ¼ of the 1Q10 is applicable in calculating acute limits and or in acute statistical evaluations.

To put the results to be reported into perspective, a daily maximum (acute) end-of pipe limit to protect aquatic life in the receiving water can be calculated.
Chapter 530 §4(C), states "*The background concentration of specific chemicals must be included in all calculations using the following procedures. The Department may publish and periodically update a list of default background concentrations for specific pollutants on a regional, watershed or statewide basis. In doing so, the Department shall use data collected from reference sites that are measured at points not significantly affected by point and non-point discharges and best calculated to accurately represent ambient water quality conditions." The Department shall use the same general methods as those in section 4(D) to determine background concentrations. For pollutants not listed by the Department, an assumed concentration of 10% of the applicable water quality criteria must be used in calculations.* The Department has no information on the background levels of benzene in the water column of the Penobscot River. Therefore, a background concentration of 10% is being used in the calculations of this permitting action.

Chapter 530 4(E), states "*In allocating assimilative capacity for toxic pollutants, the Department shall hold a portion of the total capacity in an unallocated reserve to allow for new or changed discharges and non-point source contributions. The unallocated reserve must be reviewed and restored as necessary at intervals of not more than five years. The water quality reserve must be not less than 15% of the total assimilative quantity*". Therefore, the Department is reserving 15% of the applicable water quality criteria in the calculations of this permitting action.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

a. Storm Water Runoff Only– Outfall #001

Therefore, an end-of-pipe (EOP) daily maximum concentration threshold for benzene can be derived as follows:

Benzene:

Acute AWQC for Benzene = 5,300 ug/L $\Rightarrow$ 5.3 mg/L
Allowable EOP concentration = [0.75 (AWQC)(dilution factor) + (0.25) (AWQC)]
Allowable EOP = [0.75(5.3 mg/l)(613) + (0.25)(5.3 mg/L)] = 2,438 mg/L

b. Hydrostatic Test Water (Outfall #002)

The previous licensing action established sampling protocols and reporting requirements for TSS, oil & grease, total iron, chemical oxygen demand (COD), pH and total residual chlorine. The permittee has indicated that hydrostatic testing of pipelines and tanks with water remains a common practice at the facility. In addition to hydrostatic testing, pipelines and tanks are tested via X-ray. The permittee would like to retain authorization to discharge hydrostatic test waters. Therefore, the authorization to discharge hydrostatic test waters is being carried forward in this permitting action in accordance with the following conditions:

1. Flow – The previous licensing action did not establish a flow limitation but did establish a reporting requirement. This permitting action is establishing a limitation of 1.6 million gallons (1.6 EE6) which is equal to the volume of the largest tank on site, 38,095 barrels.

2. Total Suspended Solids – The previous licensing action did not establish any limitations for TSS. This permitting action is establishing a daily maximum limit of 50 mg/L based on a Department BPJ of limits that are achievable given the tanks that are hydrostatically tested have been washed and cleaned in preparation for repair and testing.

3. Oil & Grease: The previous licensing action did not establish any limitations for oil & grease. This permitting action is establishing a daily maximum concentration limit of 15 mg/L that is a Department BPJ of limits that are achievable given the tanks that are hydrostatically tested have been washed and cleaned in preparation for repair and testing.

6. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (cont'd)

b. Hydrostatic Test Water (Outfall #002)

4. Total residual chlorine (TRC): The previous licensing action did not establish any limits for TRC. Municipal water supplies contain residual concentrations of TRC that may be toxic to aquatic life forms. As with benzene, acute conditions are applicable to the discharge. Pursuant Department rule Chapter 530, 10% of the AWQC is being withheld to account for background concentrations and 15% is being held in reserve in the calculations of this permitting action. Therefore, to put results of TRC the permittee is being required to report into perspective, an end-of-pipe (EOP) daily maximum concentration for TRC can be calculated. With a flow limit of 1.6 MGD (largest tank) as a daily maximum, the acute dilution factor can be calculated as follows:

¼Acute[(2)]: 1Q10 = 723 cfs $\Rightarrow \frac{(723 \text{ cfs})(0.6464) + (1.6 \text{ MGD})}{(1.6 \text{ MGD})} = 293{:}1$

Total residual chlorine:

Acute AWQC for chlorine = 19 ug/L $\Rightarrow$ 0.019 mg/L
Allowable EOP concentration = [0.75 (AWQC)(dilution factor) + (0.25) (AWQC)]
Allowable EOP = [0.75(0.019 mg/l)(293) + (0.25)(0.019 mg/L)] = 4.2 mg/L

c. Stormwater runoff from paved areas (Outfalls #003, #004, #005)- Outfalls #003, #004 and #005 discharge storm water runoff from paved parking areas within the complex and convey the storm water to the Town of Hampden's storm water collection system along the facility's northeast property line. The Department has made the determination not to regulate these outfalls in this permit as the discharges from these outfalls receive storm water from paved areas not susceptible to product contamination.

7. DISCHARGE IMPACT ON RECEIVING WATER QUALITY

As permitted, the Department has determined the existing water uses will be maintained and protected and the discharge will not cause or contribute to the failure of the waterbody to meet standards for Class B classification.

8. PUBLIC COMMENTS

Public notice of this application was made in the Bangor Daily News on or about September 13, 2006. The Department receives public comments on an application until the date a final agency action is taken on that application. Those persons receiving copies of draft permits shall have at least 30 days in which to submit comments on the draft or to request a public hearing, pursuant to Chapter 522 of the Department's rules.

9. DEPARTMENT CONTACTS

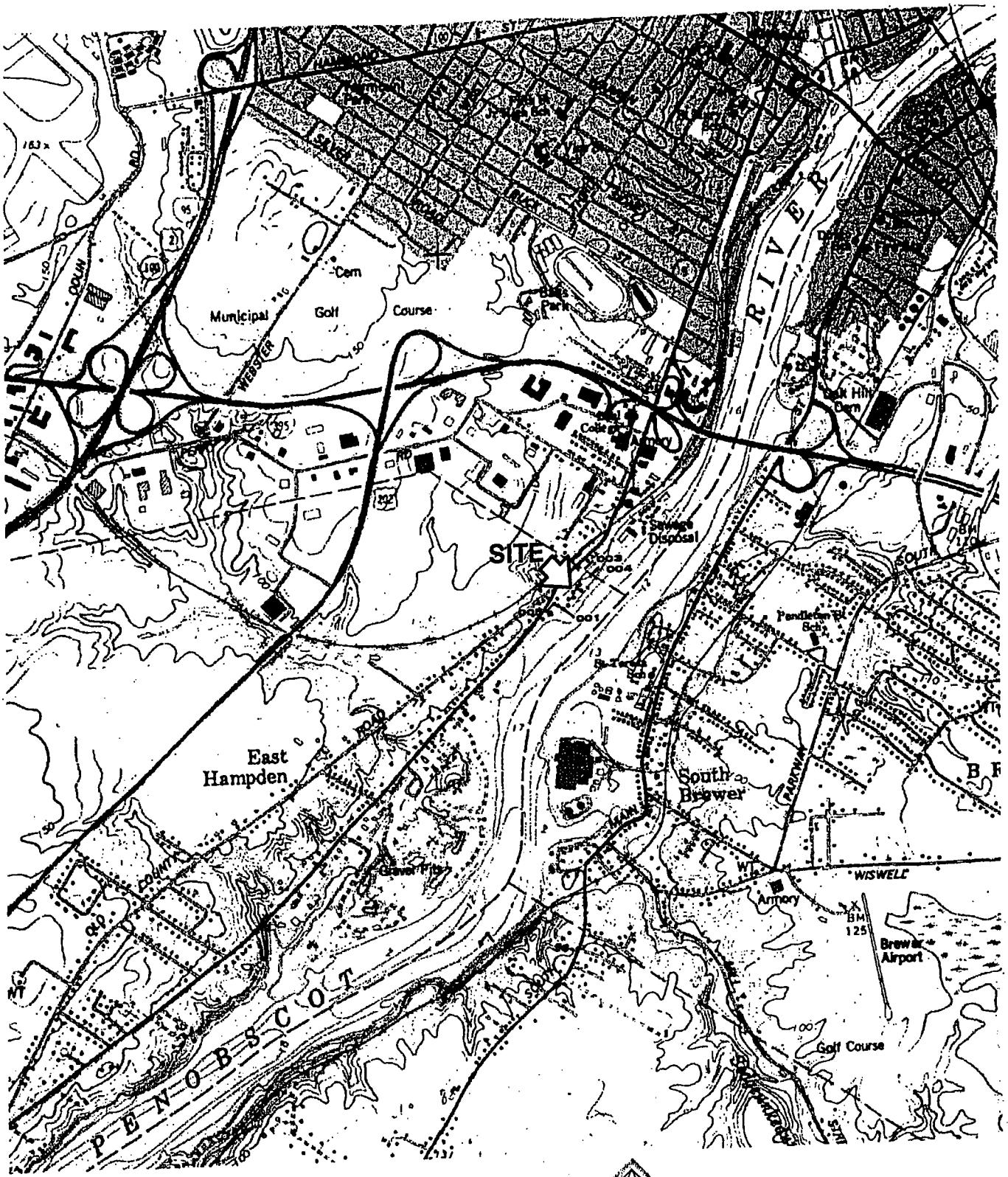
Additional information concerning this permitting action may be obtained from and written comments should be sent to:

Gregg Wood
Division of Water Quality Management
Bureau of Land and Water Quality
Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017 Telephone: (207) 287-3901
E-mail: gregg.wood@maine.gov

10. RESPONSE TO COMMENTS

During the period of October 2, 2006 through the date of issuance of this permit, the Department solicited comments on the proposed draft permit for the discharge from the permittee's facility. The Department did not receive comments from the permittee, state or federal agencies, or interested parties that resulted in any substantive change(s) in the terms and conditions of the permit. Therefore, the Department has not prepared a Response to Comments.

ATTACHMENT A



SOURCE:
U.S.G.S. TOPOGRAPHIC QUADRANGLE
BANGOR, MAINE
@ 1: 24 000

C E S 1978 LLC
ENGINEERS · SURVEYORS
465 So. Main Street P.O. Box 639 Brewer, ME 04412
Tel: 207-989-4824 FAX 207-989-4881

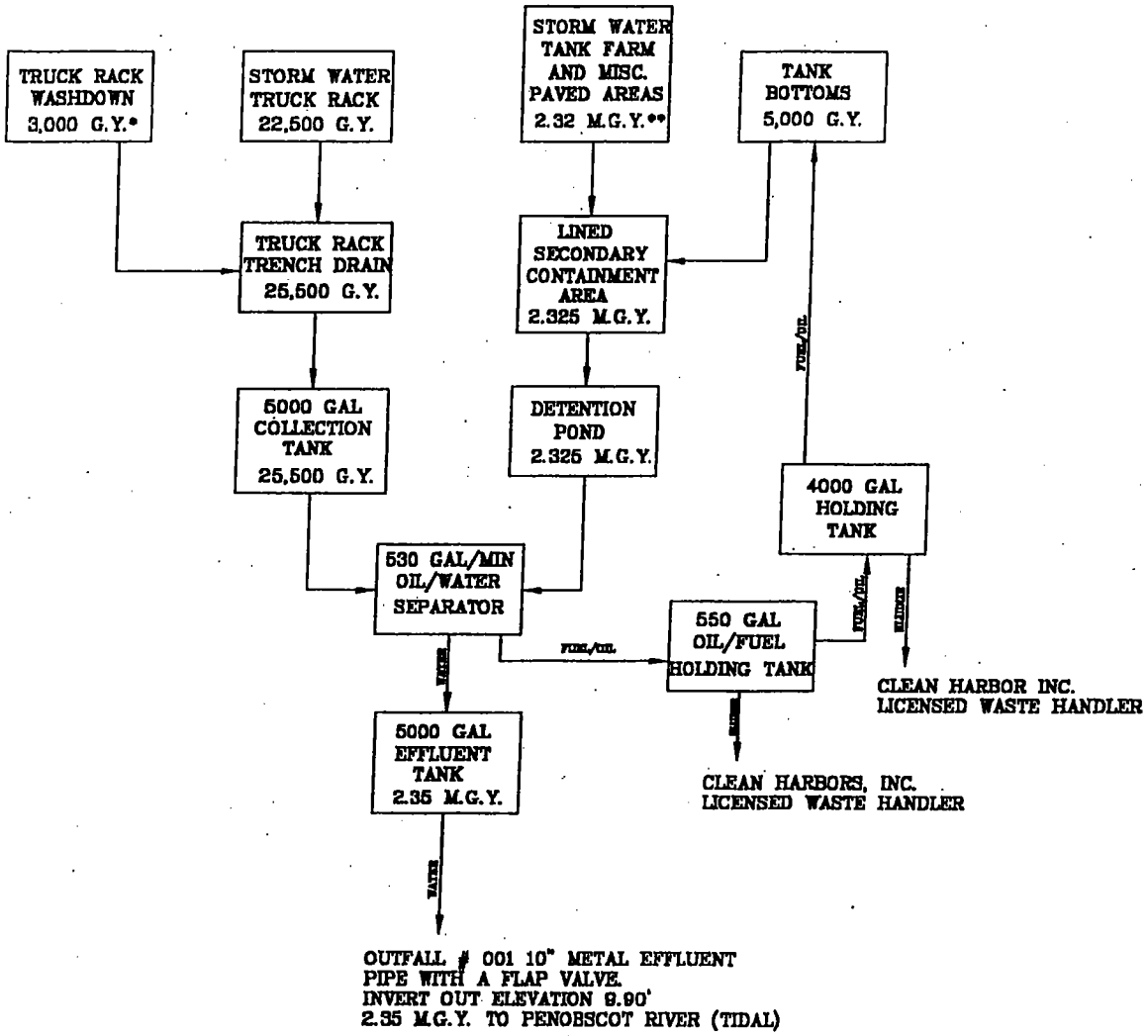
COLD BROOK ENERGY, INC.
Hampden, Maine

LOCATION MAP

DATE: 9/12/06
Jn: 4491

ATTACHMENT B

COLD BROOK ENERGY, INC.
WATER USE SCHEMATIC
OUTFALL # 001



UNITS

* G.Y. = GALLONS PER YEAR

** M.G.Y. = MILLION GALLONS PER YEAR

NOTE:
DISCHARGE VOLUME IS BASED ON
43 INCHES/YEAR AVERAGE PRECIPITATION

COLD BROOK ENERGY, INC.
WATER USE SCHEMATICS

OUTFALL # 003

STORM WATER
PAVED PARKING
AREA
305,270 G.Y.

↓

24" HAMPDEN STORM DRAIN
TO PENOBSCOT RIVER (TIDAL)

OUTFALL # 004

STORM WATER
PAVED PARKING
AREA
1,134,600 G.Y.

↓

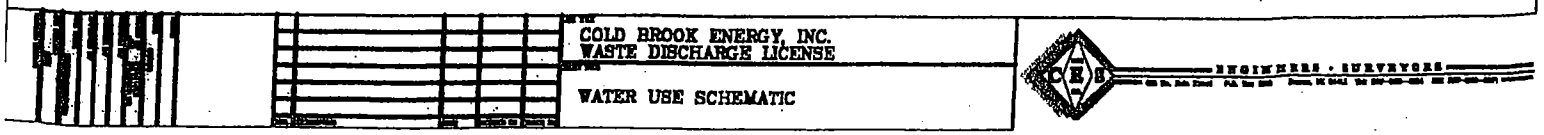
24" HAMPDEN STORM DRAIN
TO PENOBSCOT RIVER (TIDAL)

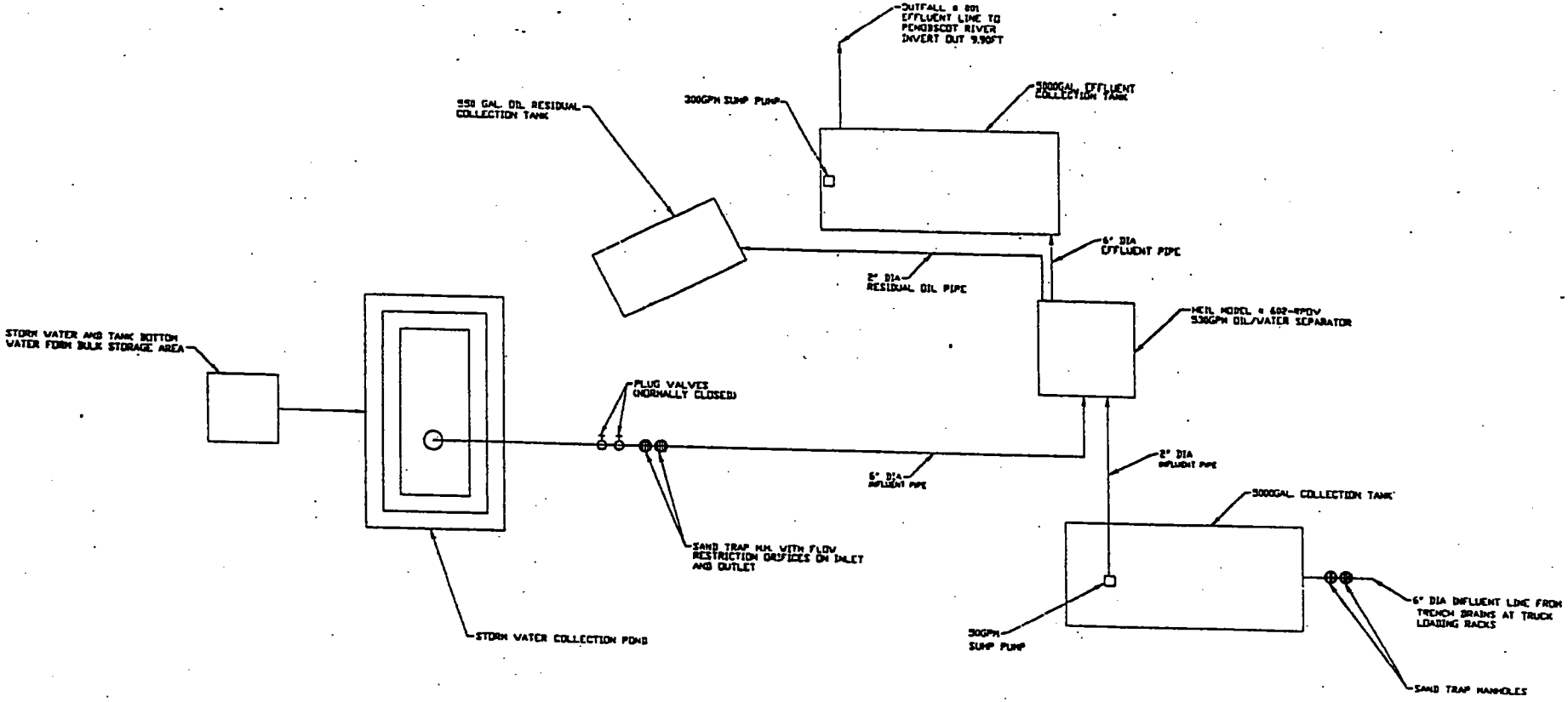
OUTFALL # 005

STORM WATER
PAVED PARKING
AREA
150,000 G.Y.

↓

24" HAMPDEN STORM DRAIN
TO PENOBSCOT RIVER (TIDAL)





TREATMENT SYSTEM SCHEMATIC
COLD BROOK ENERGY, INC.
HAMPDEN, MAINE
NTS

C E S
ENGINEERS SURVEYORS