# THERMALDYNE, LLC
# PORT ALLEN PLANT

## PORT ALLEN, LOUISIANA

# VARIANCE REQUEST FOR VERIFIED RECLAMATION FACILITY AGENCY INTEREST NO. 198467

***October 2017***

**CK Project No. 14798**

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Mr. Elliot Vega, Assistant Secretary
Louisiana Department of Environmental Quality
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Re: Variance Request for Verified Reclamation Facility
Thermaldyne, LLC – West Baton Rouge Parish
Agency Interest No. 198467

Dear Mr. Vega:

Thermaldyne, LLC (Thermaldyne) is proposing a facility to receive and process oil-bearing hazardous secondary material (OBHSM) generated at petroleum refineries and related oil and gas operations, such as pipeline systems and tank terminals. Thermaldyne intends to reclaim the oil contained in the OBHSM via centrifuge and thermal desorption processes. The recovered oil will be transferred back to refineries for reinsertion into the refining process or sold as fuel in the fuel blending market. Thermaldyne hereby requests that the Louisiana Department of Environmental Quality (LDEQ) grant a variance pursuant to LAC 33:V.105.O.2.d to authorize the proposed operation as a verified reclamation facility. Five copies of this request are provided.

Pursuant to LAC 33:V.105.D.1, LDEQ may grant a request for a variance from classifying as a solid waste those hazardous secondary materials that are transferred for reclamation to a verified reclamation facility. A verified reclamation facility is a facility that has been granted a variance under LAC 33:V.105.O.2.d. In this request, Thermaldyne seeks a variance to operate a new verified reclamation facility at a "greenfield" location in Port Allen, Louisiana.

The OBHSM to be reclaimed at Thermaldyne is specifically eligible for this variance. As stated in LAC 33:V.105.R.6.c.vi, "*oil-bearing hazardous secondary materials that are generated at a petroleum refinery and recovered oil (LAC 33:V.105.D.1.l) that are reclaimed at a facility other than a refinery are eligible for exclusion under LAC 33:V.105.D.1.x or y.*" The same OBHSM has historically qualified for the exclusion under LAC 33:V.105.D.1.l.

Thermaldyne requests that LDEQ grant a variance based on Thermaldyne's responses to the criteria described in LAC 33:V.105.O.2.d.i-vi, which are provided herein. This request to be declared a verified reclamation facility includes an overview of the facility, a description of the reclamation process, and the facility design and operation. In support of this request, an Operation Description, which provides details about the proposed facility and its operations, is provided in **Attachment 1**, along with other supporting documentation.

## FACILITY OVERVIEW

The proposed facility will be located at 2325 North Line Road in Port Allen, Louisiana (West Baton Rouge Parish). A Site Location Map is provided in **Attachment 1** as **Figure 1**. The area in which the facility will be located is zoned *industrial, moderate*, which is consistent with this type of operation. There is no residential housing adjacent to the site.

Approximately seven acres of the 28.2-acre site will be used to process material. The processing area of the site will be surrounded by a buffer zone exceeding 200-feet and the entire site will be fenced and secure.

Primary access to the facility will be from Interstate I-10, exiting south and proceeding approximately one mile on Louisiana Highway 1, then proceeding west on North Line Road. North Line Road may only be accessed from Highway 1. The Louisiana Department of Transportation and Development (DOTD) does not foresee adverse impacts to transportation or roadways from the operation of this facility. Documentation from DOTD is provided in **Appendix B** of **Attachment 1**.

## PROCESS OVERVIEW

Thermaldyne will use a centrifuge process and/or a thermal desorption process to reclaim the oil from OBHSM. Centrifuges will be used to initially process low solids OBHSM, which consists of mostly water (i.e., 70 – 90%). Thermal desorption will be used to process high solids OBHSM, which consists of mostly solids (i.e., 40 – 70%), with the remaining volume consisting of oil and water. Details of the reclamation process are provided in **Section 3.0** of **Attachment 1**. A brief description of the process is provided below.

All low solids OBHSM will be screened over a High G linear shaker and then fed to one of three 3-phase tricanting centrifuges. Water, oil, and solids will be separated into individual streams. Oil will be further conditioned and treated for market. The water will be processed through the onsite wastewater treatment plant and then discharged or disposed. The solids will be conveyed to the Thermal Desorption Unit (TDU) for further processing and recovery.

The thermal desorption operation will utilize an indirect-fired (natural-gas fueled) TDU and associated equipment to process high solids OBHSM. In the indirect heating process, heat is applied to the exterior of the heating chamber and transferred through the wall of the chamber to the OBHSM. Neither the burner flame nor the combustion gases will be in direct contact with the OBHSM or the off-gases. Hydrocarbons are separated from the substrate material by increasing the temperature above the boiling point of the hydrocarbons (approximately 900$^{o}$ F). Heavier materials, such as metals and inert matter, are removed from the dryer in solid form. The hydrocarbons are then processed through a Vapor Recovery Unit (VRU) that is designed to maximize recovery of the volatilized material from the off-gases. In this process, the majority of hydrocarbons contained in the OBHSM feed are recovered, not destroyed.



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Both the centrifuge process and the TDU process are proven technologies that are currently used to reclaim oil from oil-containing materials at many commercial facilities. The technology is also used to reclaim OBHSM at several petroleum refineries in the United States, including refineries in Louisiana.

**DESIGN AND OPERATION OVERVIEW**

Thermaldyne will implement stringent material acceptance procedures (see **Appendix G** of **Attachment 1**). The facility will limit the OBHSM that it receives to those generated at petroleum refineries and related operations such as distribution facilities and pipelines.

All processing of OBHSM will occur upon concrete pads with secondary containment to prevent impacts to the soil and groundwater. A synthetic liner will also be installed below the concrete in process areas. The receiving area for the OBHSM will be located inside an enclosed building and is not subject to run-on/runoff. The entire perimeter of the OBHSM-handling area will have an 8-inch curb to prevent surface drainage through the operating areas of the facility.

Residuals generated during the reclamation process will include wastewater, air emissions, and solids. All residuals will be managed in accordance with applicable regulations and in a manner protective of human health and the environment. The facility will operate as a minor source of air emissions pursuant to Air Permit No. 3120-00116-00.

Thermaldyne will collect all wastewater, *i.e.*, water not recycled into the reclamation process or contact stormwater, in containers (*e.g.*, frac tanks) prior to treatment in an onsite wastewater treatment system. Treated wastewater will be discharged in accordance with Thermaldyne's LPDES permit (application to be submitted). Wastewater that is not recycled in the process or treated in the onsite system will be collected in containers and shipped offsite for treatment or disposal at a permitted facility in accordance with applicable regulations.

Thermaldyne will install a thermal oxidizer to control emissions (*i.e.*, vent streams not recycled into the reclamation process) from the TDU vent, API separator, and storage tanks at the facility. The air pollution control system is designed to operate with greater than 99.9% destruction efficiency.

Residual solids will be containerized and transferred offsite for treatment, and/or disposal in accordance with applicable regulations. None of the residual solids will be disposed on site.

Thermaldyne will operate under stringent regulatory standards. As such, Thermaldyne will:

- Operate under a 10-year term. Thermaldyne will need to submit another variance request if it would like to continue its operation. Among other criteria, LDEQ will consider Thermaldyne's operating history in determining whether to renew the variance.



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- Submit detailed design and operating descriptions of its process to LDEQ (see **Attachment 1**).

- Provide financial assurance. The financial assurance will guarantee that funds are provided to close the facility based on LDEQ approved cost estimates. The cost estimates assume a worst-case scenario. Thermaldyne will also maintain liability insurance at or above the requirements described in 40 CFR 261.147.

- The contingency plan describes the specific emergency preparedness and response procedures to that will be implemented while managing the OBHSM.

- Prepare a contingency plan for any emergencies involving OBHSM (see **Appendix I** of **Attachment 1**).

**REVIEW OF REGULATORY CRITERIA**

LAC 33:V.105.O.2.d sets forth the criteria that LDEQ uses to evaluate variance requests related to hazardous secondary materials transferred to and managed by a verified reclamation facility. Thermaldyne has reviewed each of the criteria and determined that all criteria will be satisfied by the proposed facility. Each criterion is reviewed separately below.

Legitimacy Criteria (LAC 33:V.105.O.2.d.i)

Verified reclamation facilities are required to ensure that the reclamation process is legitimate. LAC 33:V.105.O.2.d.i states: *"the reclamation facility or intermediate facility shall demonstrate that the reclamation process for the hazardous secondary materials is legitimate pursuant to LAC 33:V.105.R;"* Section 105.R establishes four factors that must be satisfied for recycling of hazardous secondary materials to be considered legitimate. A description of how Thermaldyne intends to satisfy each of the four factors is discussed below.

Factor 1: Legitimate recycling shall involve a *hazardous secondary material* that provides a *useful contribution* to the recycling process or to a product or intermediate of the recycling process.

*Hazardous Secondary Material*

"Hazardous secondary material" is defined in LAC 33:V.109 to mean "a secondary material (*e.g.,* spent material, by-product, or sludge) that when discarded, would be identified as hazardous waste under LAC 33:V.Supbpart 1." "Oil bearing" hazardous secondary material is not defined in the federal or state hazardous waste regulations. However, in the preamble to the final rule establishing the OBHSM exclusion in 40 CFR 261.4(a)(12)(i) (the federal counterpart to LAC 33:V.105.D.1.l.i), EPA stated that OBHSM must contain "some amount of



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recoverable oil." Specifically, EPA stated that OBHSM may include "...any oil-bearing material generated at a petroleum refinery, including oil-bearing wastes currently regulated as listed hazardous wastes...that are suitable for insertion into normal petroleum refining operations." (*See*, 63 Fed. Reg. 42,118.) While the secondary material must contain some amount of recoverable oil, EPA did not specify a minimum oil content in secondary materials since "...it would be counter to the overall efficiency of the petroleum refining process." (*See*, 63 Fed. Reg. 42,127)

Thermaldyne will accept and recover oil from materials that are identical to that which is already excluded under LAC 33:V.105.D.1.l. The OBHSM accepted by Thermaldyne may include the following types of oil-bearing materials generated by a petroleum refinery (SIC code 2911):

- Dissolved air float (DAF)
- Slop oil emulsion solids
- Heat exchanger bundle cleaning sludge
- API separator sludge
- Tank bottoms (leaded)
- Crude oil tank sediment
- Clarified slurry oil tank sediment and/or in-line filter/separation solids
- Primary refinery oil/water/solids separation sludge
- Secondary (emulsified) oil/water/solids separation sludge
- Any other oil-containing secondary material (*e.g.*, spent material, by-product, or sludge)

Thermaldyne will also accept similar OBHSM from distribution operations related to petroleum refineries such as petroleum pipelines and terminal facilities. This OBHSM will consist of materials that meet the same acceptance criteria for recoverable oil.

*Useful Contribution*

In accordance with LAC 33:V.105.R.2, a hazardous secondary material provides a useful contribution to the recycling process if it:

(i) Contributes valuable ingredients to a product or intermediate; or
(ii) Replaces a catalyst or carrier in the recycling process; or
(iii) Is the source of a valuable constituent recovered by the recycling process; or
(iv) Is recovered or regenerated by the recycling process; or
(v) Is used as an effective substitute for a commercial product.

The OBHSM recovered in Thermaldyne's process will provide a useful contribution since it will be the source of a valuable constituent (oil). In fact, both the centrifuge and TDU processes are well-established as efficient means to recover oil from OBHSM. For many years, they have been used for that purpose at petroleum refineries in the United States, including in Louisiana (*e.g.*, the Shell refinery located in Norco, LA and the Marathon refinery located in Garyville, LA).

Thermaldyne will have the capability of processing up to approximately 500 tons of OBHSM per day. Thermaldyne anticipates that the OBSHM accepted will contain an average of 30% recoverable oil. The proposed facility will not accept any hazardous secondary materials that do not contain recoverable oil. If operating at maximum capacity and assuming OBHSM with an average content of recoverable oil, this process could result in the recovery of over 1,000 barrels of oil equivalent per day, depending on the specific gravity of the oil.

Factor 2: The recycling process shall produce a *valuable product or intermediate*.

In accordance with LAC 33:V.105.R.3, a product is valuable if it is:

(i) Sold to a third party; or
(ii) Used by the recycler or the generator as an effective substitute for a commercial chemical product or as an ingredient in an industrial process.

The oil that will be recovered in the Thermaldyne recycling process will either be sold to third parties or returned to the generator for use as an ingredient in an industrial process.

Oil not returned to petroleum refineries will be sold to third parties. In this scenario, the oil will be sold as a fuel stock at prices determined by the fuel blending market. The price will be determined based on the specifications of the recovered oil and the current price of similar materials on the fuel blending market. The oil will have similar chemical and physical characteristics to the oil currently sold to the fuel blending market.

As noted, oil may also be returned to a petroleum refinery (SIC 2911). In this case, the refinery will reinsert the oil as a feed material or ingredient into their refining process. This oil recovered in Thermaldyne's process will have similar chemical and physical properties to the oil recovered from OBHSM on site at petroleum refineries.

Factor 3: The hazardous secondary material must be managed as a *valuable commodity*.

Thermaldyne will manage OBHSM as a valuable commodity. All OBHSM processed at the Port Allen facility will be contained in units that are in good condition and are designed to handle OBHSM. The units will be constructed of materials

compatible with OBHSM. The units will be inspected daily to ensure that there are no leaks or spills outside of containment. Most of the processing of OBHSM will occur in an enclosed building. All OBHSM handling will take place on a concrete pad with a subsurface liner and surrounded with secondary containment curbs or rollover berms. Any OBHSM placed on the concrete pad will be immediately recovered and reinserted into reclamation process. The physical management of the OBHSM will meet or exceed industry standards for similar raw materials.

As with any valuable commodity, Thermaldyne will also ensure the OBHSM meets appropriate criteria before acceptance. As noted, Thermaldyne will implement stringent material acceptance procedures as outlined in **Appendix G** of **Attachment 1**). Thermaldyne will maintain receiving and inventory records regarding the types and quantities of OBHSM received and processed at the site as well as the quantities of recovered oil.

Factor 4: The product of the recycling process must be *comparable* to a legitimate product or intermediate.

Where there is an analogous product or intermediate, the product of the recycling process is comparable to a legitimate product or intermediate if:

- The product of the recycling process does not exhibit a hazardous constituent as defined in LAC 33:V.4903 that analogous products do not exhibit; and
- The concentration of any hazardous constituents found in LAC 33:V.3105.Table 1 that are in the product or intermediate are at levels that are comparable to or lower than those found in analogous products or at levels that meet widely-recognized commodity standards and specifications, in the case where the commodity standards and specifications include levels that specifically address these hazardous constituents; or...

The product of the Thermaldyne recycling process will be recovered oil. The recovered oil will be used for reinsertion into the petroleum refining process or sold as fuel.

To be reinserted into the petroleum refining process, the recovered oil must meet widely-accepted commodity physical and chemical specifications. The specifications, however, will vary depending on the individual refinery receiving the oil and their needs at the time.

If the reclaimed oil is not returned to a petroleum refinery, it will be sold as fuel to the fuel blending market. To be bought by the fuel market, the oil must meet widely-accepted commodity specifications set by the market.

Even though the oil will not be reclaimed from hazardous waste, the oil recovered from the OBHSM in the Thermaldyne process will meet the standards of oil recovered from oil-bearing hazardous waste. As such, Thermaldyne will ensure that the recovered oil meets the used fuel oil specifications in LAC 33:V.4005 and shall not exceed any of the allowable levels of the constituents and properties shown in Table 1.

**Table 1 - Used Oil Not Exceeding Any Allowable Level Shown Below is Not Subject to LAC 33:V.Chapter 40 When Burned for Energy Recovery**

| Constituent/Property | Allowable Level |
|---|---|
| Arsenic | 5 ppm maximum |
| Cadmium | 2 ppm maximum |
| Chromium | 10 ppm maximum |
| Lead | 100 ppm maximum |
| Flash Point | 100°F minimum |
| Total Halogens | 4,000 ppm maximum |

In accordance with LAC 33:V.4105.A.1.d.iii, oil recovered from hazardous waste may be classified as a recyclable material that is not subject to hazardous waste regulation since it would be "[o]il reclaimed from oil-bearing hazardous waste from petroleum refining, production, and wastes from petroleum refining, production, and transportation practices, which reclaimed oil is burned as a fuel without reintroduction to a refining process, as long as the fuel meets the used oil fuel specification under LAC 33:V.4005."

Even though oil recovered by Thermaldyne will originate from OBHSM, not hazardous waste, Thermaldyne will nevertheless comply with the most stringent standards for similar materials.

Financial Assurance Criteria (LAC 33:V.105.O.2.d.ii)

With respect to financial assurance requirements, LAC 33:V.105.O.2.d.ii states: *"The reclamation facility shall satisfy the financial assurance as required under Subpart H of 40 CFR part 261, July 2015..."*

Thermaldyne shall satisfy the financial assurance requirements described in 40 CFR Part 261, Subpart H. In accordance with 40 CFR 261.142, Thermaldyne has prepared a detailed written estimate, in current dollars, of the cost of disposing any hazardous secondary material as listed

hazardous waste, and the potential cost of closing the facility as a treatment, storage, and disposal facility. The cost estimate is provided in **Attachment 1, Appendix K**. Thermaldyne requests that it be allowed to submit documentation of financial assurance for closure and liability insurance after approval of the variance request and at least 60 days prior to receiving OBHSM.

Enforcement History (LAC 33:V.105.O.2.d.iii)

With respect to prior enforcement actions, LAC 33:V.105.O.2.d.iii states: *"The reclamation facility or intermediate facility shall not be subject to a formal enforcement action in the previous three years and not be classified as a significant non-complier under RCRA Subtitle C...."*

Thermaldyne is not classified as a significant non-complier under RCRA Subtitle C and has not been subject to a "formal enforcement action" as that term is described in the Preamble to the relevant EPA regulations (*See,* 80 Fed. Reg. 1714). The proposed facility is not yet constructed, and therefore, has not operated. Additionally, Thermaldyne has not operated a similar facility at any other location.

Thermaldyne notes that an expedited penalty in the amount of $250 was paid to LDEQ to resolve the late submittal of a NOC-1 form due to a name change that occurred in 2015 (*See,* LDEQ Tracking No. AE-XP-16-00097). However, Thermaldyne does not believe this expedited process meets the criteria referenced above. Regardless, measures have been taken to prevent a recurrence. It should also be noted that the paperwork discrepancy was not directly relevant to the proper management of HSM. On November 9, 2016, LDEQ determined, in writing, that the issue had been adequately addressed.

Safety and Emergency Preparedness (LAC 33:V.105.O.2.d.iv)

With respect to training and safe management of hazardous secondary materials, LAC 33:V.105.O.2.d.iv states: *"The intermediate or reclamation facility shall have the equipment and trained personnel needed to safely manage the hazardous secondary material and shall meet the emergency preparedness and response requirements under 40 CFR part 261 subpart M, July 2015..."*

Employees involved in operation of the TDU and associated equipment at the facility will be fully trained at hiring and periodically thereafter. Initial and subsequent training will include updates and/or changes in policies, procedures, and onsite equipment. A training plan has been developed to ensure appropriate training is conducted and documented. A description of the training plan is provided in **Attachment 1, Section 8.0.**

A detailed description of the equipment that will be used to safely manage the OBHSM is provided in **Attachment 1, Sections 2.0 – 5.0**.

Thermaldyne has prepared a Contingency Plan to meet the requirements of 40 CFR Part 261, Subpart M. 40 CFR 261.400(b) requires that a verified reclamation facility operating pursuant to a variance issued under 40 CFR 260.31(d) that accumulates more than 6,000 kg of hazardous secondary material at any time must comply with 40 CFR 261.410 and 261.420. Thermaldyne will accumulate more than 6,000 kg of OBHSM. A Contingency Plan has been prepared to comply with 40 CFR 261, Subpart M and is provided in **Attachment 1, Appendix J**.

Management of Residual Material (LAC 33:V.105.O.2.d.v)

With respect to management of residuals generated from the reclamation process, 33:V.105.O.2.d.v states: *"If residuals are generated from the reclamation of the excluded hazardous secondary materials, the reclamation facility shall have the permits required (if any) to manage the residuals, have a contract with an appropriately permitted facility to dispose of the residuals or present credible evidence that the residuals will be managed in a manner that is protective of human health and the environment."*

Residuals generated during the reclamation process will include wastewater, air emissions, and solids. These materials will be managed in a manner that is protective of human health and the environment. A brief description of the residual management is provided below. More detailed information is provided in **Attachment 1, Section 5.0**.

*Wastewater*

Thermaldyne will collect all wastewater, which includes water not recycled into the reclamation process and contact stormwater. Wastewater will be stored in containers (*e.g.,* frac tanks) prior to treatment in its onsite wastewater treatment system. Treated wastewater will be discharged in accordance with Thermaldyne's LPDES permit (application to be submitted). If wastewater is not recycled or treated in the onsite system, it will be collected in containers and shipped offsite for treatment or disposal at a permitted facility in accordance with applicable regulations.

*Air Emissions*

Thermaldyne will install a thermal oxidizer to control emissions (i.e., vent streams not recycled into the reclamation process) from the TDU vent, API separator, and storage tanks at the facility. The control system is designed to operate with greater than 99.9% destruction efficiency. LDEQ issued Air Permit No. 3120-00116-00 to authorize air emissions from the facility.

*Solids*

Residual solids exiting the TDU will be transferred to roll-off containers. The residual solids from each batch of OBHSM being reclaimed will be characterized in accordance with approved EPA methods. Based on this analysis, these solids will be classified as

either industrial solid waste or hazardous waste, and managed accordingly. Management will include storage of residual solids in appropriate containers, proper labeling, manifesting, offsite disposal, and recordkeeping.

Other miscellaneous solids related to the reclamation process will also be generated at the site. These solids will include filter bags, screened debris, carbon filter media, and empty used containers. All residual solids will be properly characterized and disposed offsite in accordance with applicable regulations. No waste will be disposed onsite.

Risk to Proximate Populations (LAC 33:V.105.O.2.d.vi)

33:V.105.O.2.d.vi states: "*The intermediate or reclamation facility must address the potential for risk to proximate populations from unpermitted releases of the hazardous secondary material to the environment (i.e., releases that are not covered by a permit, such as a permit to discharge to water or air), which may include, but are not limited to, potential releases through surface transport by precipitation runoff, release to soil and groundwater, wind-blown dust, fugitive air emissions, and catastrophic unit failures), and must include consideration of potential cumulative risks from other nearby potential stressors.*"

In the preamble to the DSW rule, EPA states that "[t]he steps the petitioner would take to address this criterion would depend on case-specific circumstances. For example, a facility that is recycling a hazardous secondary material that is not particularly mobile in the environment (*e.g.*, a non-liquid material that does not pose a risk of wind-blown dust) and is not located near population centers would simply need to document these facts in order to meet this criterion." (*See*, 80 Fed. Reg. 1715.)

The hazardous secondary material that Thermaldyne will recycle, OBHSM, is not mobile and, thus, does not have a high potential to adversely impact nearby populations if it were released. Nevertheless, Thermaldyne will employ numerous preventative measures to further reduce the already low risk to proximate populations from unpermitted releases of OBHSM. Potential release of any material through precipitation runoff, release to soil and groundwater, wind-blown dust, fugitive air emissions, or from catastrophic failure of units from the operation is minimal. A description of these measures is provided below.

*Precipitation Runoff*

The OBHSM-handling area will be located upon a raised concrete pad. The TDU will be located within an enclosed building. A synthetic liner will be placed under the concrete in the building. The entire perimeter of the uncovered OBHSM-handling areas will have an 8-inch curb or berm to prevent surface drainage through the operating areas of the facility.

The runoff control system for the uncovered handling areas is designed to manage the rainfall from a 24-hour/25-year storm event, i.e., nine inches (based on the Rainfall Frequency /Magnitude Atlas for the South-Central United States, published in 1997).

Runoff from inside the curbed area will be collected and drained into a sump where it will then be pumped into frac tanks for holding. From there, it may be recycled into the reclamation process, treated in the onsite wastewater treatment system and discharged in accordance with an LPDES permit, or transported offsite to a permitted wastewater treatment or disposal facility.

*Soil and Groundwater Protection*

As described above, the OBHSM handling area will located upon a raised and synthetic-lined concrete slab, which will protect the underlying soil and groundwater. All tanks, vessels and containers containing reclamation residues and recovered oil will be located upon concrete with secondary containment that will meet the requirements of Thermaldyne's Spill Prevention Control and Countermeasures (SPCC) Plan.

An additional description of the measures that will be taken to protect the aquifer (as well as the underlying soil) is provided in **Attachment 1, Appendix E**

*Wind Blown Dust*

The only source of wind blow dust will be from the residual solids generated during the reclamation process. Water quenching will be conducted to keep the residual solids cool and control dust. Recovered water that has been treated in the onsite wastewater treatment system will be reused on-site to suppress dust emitted from the treated waste material before or after it exits the treatment plant.

*Fugitive Air Emissions*

The thermal treatment process will be conducted in a sealed chamber to minimize air ingress and to prevent the release of fugitive emissions. Negative pressure will be maintained in the enclosed receiving building to reduce fugitive emissions. Solid residuals will be stored in closed containers. As noted, it is extremely unlikely that residual material will be released to the environment and, therefore, will not pose a risk to offsite receptors.

*Catastrophic Unit Failures*

Thermaldyne will implement a comprehensive inspection and maintenance program to ensure that the reclamation equipment is properly maintained. The program will follow the procedures recommended by the vendor. Not only will this significantly decrease the risk of catastrophic failure, it will maintain system availability and efficiency. Containers



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holding residuals will be inspected on a regular basis to ensure that they are maintained in good condition (e.g., no rusting or apparent structural defects) and not leaking. If any containers holding residuals are found to be leaking or in poor condition, the contents will be transferred to a container that is in good condition.

*Nearby Potential Stressors*

A Phase I Environmental Site Assessment (ESA) was conducted on the Thermaldyne site by an independent, third party. One of the objectives of the ESA was to determine if nearby activities presented a risk of a recognized environmental condition[1] (REC) to the site. In addition to contacting various state and local authorities, an environmental database search was conducted, in part, to assess the likelihood that the property was affected by any activities in the area that would result in an REC. The database search radii extended up to a mile from the property depending on the database. The assessment did not find any location within the ASTM radii that indicated a risk of a REC to the property. A copy of the ESA report is provided in **Attachment 2.**

The absence of RECs in the area in addition to the safeguards that will be implemented at the facility indicate that there will be no significant addition to the cumulative risk to the proximate population from Thermaldyne's operations.

**CONCLUSION**

As demonstrated in this request and the attached supplemental documents, Thermaldyne's proposed facility meets all criteria required to be granted a variance to operate as a verified reclamation facility. Approval of this variance request will encourage the reclamation of OBHSM by providing more management options for petroleum refineries since it will increase the capacity for reclamation of OBHSM. This will not only likely lower the cost of the reclamation, as a result of increased competition, but it will reduce the timing constraints of many projects that generate the OBHSM (e.g., tank cleaning) since the refineries will not have to wait for reclamation capacity to become available.

As EPA has stated, the purpose of amendments to the definition of solid waste, among which established the verified recycler exclusion, was to encourage reclamation of hazardous secondary materials, such as OBHSM, in a manner that does not result in an increased risk to human health and the environment from discarded hazardous secondary material (*See,* 80 FR 1694). Approval of this variance request will fulfill this purpose and result in a net increase in the protection of

[1] The term REC is defined by the American Society for Testing and Materials (ASTM) Standard E 1527-13 as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, material threat of a release of any hazardous substances or petroleum products into structures of the property or into the ground, groundwater or surface water of the property.



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human health and the environment. For these reasons, Thermaldyne respectfully requests that LDEQ approve this variance.

If you have any questions concerning this request, please do not hesitate to contact Ricky Cates of Thermaldyne at 337.288.4600, Kyle Beall at 225.336.8450, or Brooks Ray of CK Associates at 225.755.1000 or brooks.ray@c-ka.com.

Sincerely,
CK Associates

Brooks Ray

Bill Greenwich

Brooks Ray
Sr. Environmental Scientist

Bill Greenwich
Sr. Environmental Scientist

Attachment 1 – Operation Description
Attachment 2 – Environmental Site Assessment (ESA) Report



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# ATTACHMENT 1

# OPERATION DESCRIPTION

# VERIFIED RECLAMATION FACILITY OPERATION DESCRIPTION

Thermaldyne, LLC
Port Allen Facility
Port Allen, Louisiana

OCTOBER 2017

## EXECUTIVE SUMMARY

This Operation Description is intended to provide detailed information in support of the Thermaldyne, LLC (Thermaldyne) request for a variance to operate as a Verified Reclamation Facility under LAC 33:105.O.2.d. The Operation Description includes information regarding the facility location, design, operations, and compliance with applicable regulations.

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# 1.0 FACILITY OVERVIEW

Thermaldyne, LLC (Thermaldyne) owns and will operate the Port Allen Verified Reclamation Facility. The facility reclaims oil from oil-bearing hazardous secondary material (OBHSM) by utilizing a 3-phase centrifuge process and an indirect thermal desorption (ITD) process. The OBHSM consists of sludges, byproducts, spent or other oil-bearing materials generated at petroleum refineries and other related operations. The oil that is reclaimed is returned to petroleum refineries for reinsertion into the refining process or sold as a raw material for fuel production. Residuals generated by the process are managed in an environmentally sound manner in accordance with applicable regulations.

## 1.1 Site and Facility Description

### 1.1.1 Location

The facility is located upon approximately 28.2 acres at 2325 North Line Road in Port Allen, Louisiana in West Baton Rouge Parish. A Site Location Map is provided as **Figure 1.**

### 1.1.2 Location Area Information

Zoning

The area in which the facility is located is zoned "industrial, moderate", which is consistent with this type of operation. Documentation is provided in **Appendix A.**

Land Use

A Land Use Map showing land use within a two-mile radius of the facility is provided as **Figure 2.** As noted on the map, which is based on the National Land Cover Database (2011), the land use within the radius is approximately 70 percent undeveloped.

The estimated population within the two-mile radius is 6,663 based on the most recent U.S. Census data. The population within a one-mile radius is 477 based on the same data.

Traffic

Primary access to the facility is from Interstate I-10, exiting south and proceeding approximately one mile on Louisiana Highway 1, then proceeding west on North Line Road. North Line Road may only be accessed from Highway 1. Approximately 25 trucks containing OBHSM may be received at the facility each day, when operating at full capacity. All loads are expected to be within legal limits. The Louisiana Department of Transportation and Development (DOTD) does not foresee any significant adverse traffic impacts from the operation of this facility. Documentation from DOTD is provided in **Appendix B.**



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Environmental Characteristics

The facility is not located within 1,000 feet of any critical/sensitive environmental sites, wetlands, estuaries, wildlife-hatchery areas, habitats of endangered species, archaeological sites, historic sites, publicly-owned recreation areas, or similar critical environmental areas. Documentation is provided in **Appendix C**.

### 1.1.3 Facility Characteristics

Approximately seven acres of the 28.2-acre site is used to process OBHSM. A Site Plan is provided in **Figure 3** of this document.

Buffer Zone

The processing area of the facility will be surrounded by a buffer zone exceeding 200-feet to the nearest property boundary. Documentation is provided in **Appendix D**.

Perimeter Barrier

The entire facility will be fenced. Entry point(s) will be gated and continuously manned or monitored during operating hours. Gates will be closed and secured when they are not manned or monitored. The fenceline is depicted on **Figure 3**.

Surface Hydrology

The majority of the operating area will be located inside an enclosed building and will not be subject to run-on/runoff. The entire perimeter of the OBHSM-handling area will have an 8-inch curb to prevent surface drainage through the operating areas of the facility. Runoff from inside the curbed area will be collected and drained into a sump where it will then be pumped into frack tanks for holding before treatment or off site disposal. The runoff control system is designed to manage the rainfall from a 24-hour/25-year storm event, i.e., nine inches (based on the Rainfall Frequency /Magnitude Atlas for the South-Central United States, published in 1997).

Aquifer Protection

The facility is located within an aquifer recharge area as shown in **Appendix** E. The entire OBHSM handling area will be located upon a raised concrete slab with a subsurface synthetic liner. **Figure 3** depicts the location of the concrete slab. A description of the liner and the measures that site preparation measures that will be taken to protect the aquifer (as well as the underlying soil) are also described in **Appendix E**.



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Flood Zone

The facility is located outside of the 100-year floodplain. Documentation is provided in **Appendix F.**

## 1.2 Processing Operations

OBHSM contains valuable resources that are recovered in the 3-phase centrifuges and/or the ITD process and used within the petroleum refining process or as fuel (e.g., oil and hydrocarbons). Basic steps in the process include OBHSM acceptance, OBHSM storage and preparation, OBHSM reclamation, management of recovered oil, and residual handling. A process flow diagram depicting these steps is provided as **Figure 4**.

### 1.2.1 OBHSM Acceptance

Thermaldyne has established a Material Acceptance Plan (MAP) to ensure that only qualified OBHSM is accepted at the facility. A copy of the MAP is provided in **Appendix G.**

### 1.2.2 OBHSM Preparation

OBHSM preparation involves the physical handling and preparation of the materials prior to insertion into the centrifuge and/or IDT process. The methods used to prepare the OBHSM are described in Section 2.0 of this document.

### 1.2.3 OBSHM Reclamation

Following OBHSM preparation, the material will be inserted into the centrifuge and/or IDT process for reclamation. The reclamation process is further described in Section 3.0 of this document.

### 1.2.4 Recovered Oil Management

Recovered oil will be stored in appropriate tanks or containers until transferred offsite. Additional information on the recovered oil is provided in Section 4.0 of this document.

### 1.2.5 Residual Management

The reclamation process will generate several residuals including solids, wastewater and air emissions. Management of residuals is further described in Section 5.0 of this document.



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## 2.0 OBHSM STORAGE AND PREPARATION

After the OBHSM has been accepted in accordance with the MAP, it will be unloaded and contained in the Receiving Area.

To facilitate materials handling and preparation, OBHSM will be classified into two separate categories prior to unloading: low solids OBHSM and high solids OBHSM.

All OBHSM will be held in containment units, designated as the Liquids Containment Area and the Solids Containment Area, that meet the following criteria:

- Each unit in good condition, with no leaks or other continuing or intermittent unpermitted releases of the OBHSM to the environment, and is designed, as appropriate for the OBHSM, to prevent releases of OBHSM to the environment. Unpermitted releases are releases that are not covered by a permit (such as a permit to discharge to water or air) and may include, but are not limited to, releases through surface transport by precipitation runoff, releases to soil and groundwater, wind-blown dust, fugitive air emissions, and catastrophic unit failures;
- Each unit is properly labeled or otherwise has a system (such as a log) to immediately identify the OBHSM in the containment unit; and
- Each unit holds OBHSM that is compatible with other OBHSM placed in the unit
- Each unit is constructed of materials compatible with OBHSM and addresses any potential risks of fires or explosions.

### 2.1 Low Solids OBHSM

Low solids OBHSM consists of mostly water (i.e., 70 – 90%) with the remaining mixture consisting of various oil and solids. Low solids OBHSM is typically received in vacuum trucks or vacuum containers and pumped into the Liquid Containment Area.

The Liquid Containment Area will include a concrete lined pit measuring approximately 40' x 12' x 8'. If full, the pit will hold approximately 28,726 gallons of low solids OBHSM. The Liquid Containment Area, including the pit, will be located within an enclosed building to prevent rainwater from coming into contact with the material. Design drawings of the pit are provided in **Appendix H**

The OBHSM will be transferred from the pit to the dewatering system via a submersible slurry pump for screening through High G Shakers and then sent through the centrifuge process.



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### 2.2 High Solids OBHSM

High solids OBHSM consists of mostly solids (i.e., 40 – 70%), with the remaining volume consisting of oil and water. High solids OBHSM are typically received in roll-off boxes or other containers. High solids OBHSM is offloaded into the Solids Containment Area.

## 3.0 OBHSM RECLAMATION

OBHSM will be reclaimed via a centrifuge process and/or an indirect heated thermal desorption process. A description of the process and equipment involved is provided below.

### 3.1 Centrifuge Process

All low solids OBHSM will be screened over a High G linear shaker and then fed to one of three 3-phase tricanting centrifuges. Water, oil, and solids will be separated into individual streams. Oil will be further conditioned and treated for market. The water will be processed through the wastewater treatment plant and then discharged or disposed. The solids will be conveyed to the Thermal Desorption Unit (TDU) for further processing and recovery.

### 3.2 Thermal Desorption Process

Thermaldyne will use an indirect TDU to reclaim the OBHSM. Indirect thermal desorption is a non-incineration technology designed to separate hydrocarbons from various matrices including oilfield waste, soil, sludge, sand, filter cake, tank and tanker bottoms, and contaminated soil. Thermaldyne will limit OBHSM that it receives to that generated at petroleum refineries and associated operations such as pipelines and tank terminals. This proven thermal desorption technology is currently used to reclaim oil from oil-containing materials within petroleum refineries and at numerous commercial facilities.

In the indirect heating process, heat is applied to the exterior of the heating chamber and is transferred through the wall of the chamber to the OBHSM. Neither the burner flame nor the combustion gases come in contact with the OBHSM or the off-gases. This type of TDU is designed to maximize the recovery of the volatilized contaminants from the off-gases.

#### 3.2.1 Feed System

The main components of a feed system will include single or dual-feed hoppers for waste material storage. The hoppers are furnished with variable speed screw auger systems in the bottom for discharge of difficult to convey material. This mechanism of discharge is also known as the "live bottom" design. Each hopper is furnished with a walking platform



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around top for cleaning and maintenance of the feed hopper. The feed hopper can be loaded using a front-end loader or crane operated clam-shell type bucket.

After material is discharged from the hopper it travels via single or dual enclosed conveyors to the inlet of the TDU. The TDU feed rate is controlled by adjusting the speed of the rotation of the screw-auger system in the feed hopper bottom while all other conveying components operate at constant speed. Material preparation and pre-treatment might be necessary during certain projects to assure good material conveying and oil reclamation.

### 3.2.2 Indirectly-Heated Rotary Drum

The primary function of the indirectly heated rotary drum is to vaporize the hydrocarbons and the moisture from the incoming material. The indirectly-heated drum is critical to this operation and is fabricated with heat and corrosion resistant stainless steel alloy to accommodate design furnace service temperatures ranging in 1,200°F –1,600°F. The rotary drum is heated from outside where several burners provide the necessary process heat. The natural gas-fired unit will operate at up to 30 MMBTU per hour.

As the drum shell is heated, energy is transferred to the OHBSM inside the rotary drum through conduction. The materials inside are also heated through radiation from the rotary drum's interior shell surface. The rotary drum shell material and the furnace burner capacity are designed to elevate the OBHSM temperature up to 900°F, although these higher operating temperature ranges are rarely necessary for material processing under normal conditions. By having the burners located inside the furnace the materials inside the rotary drum do not come in contact with the products of combustion from the burners. The drum's material inlet and discharge are controlled via two airlocks designed to minimize air (oxygen) leakage into the drum. The inlet and discharge end of the rotary drum are equipped with custom designed seals to prevent air leakage.

The OBHSM residence time through the rotary drum is controlled by the slope of the unit, the number and location of the internal lifters, and the rotational speed of the rotary drum. Typically, the drum slope and the position and number of lifters are fixed; the rotational speed of the drum is the key feature that controls the retention time of the material inside the rotary drum. The required retention time inside the rotary drum for optimum reclamation is highly dependent on the free and bound moisture content of the OBHSM, the physical characteristics of the material such as particle size distribution, type of organic and inorganic compounds present in the OBHSM, and the vapor pressure of the hydrocarbons.

During the reclamation process, as the OBHSM progresses through the rotary drum, the hydrocarbons and water undergo the evaporation (desorption) process while generating very dry solid residuals. The processed solids are conveyed at a high temperature into a conveyor where it is mixed with water for cooling before being discharged.



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The OBSHM temperature is continuously monitored by thermocouples at the inlet and the discharge points of the rotary drum. The shell temperature is monitored at several points along the length of the unit to prevent overheating. The furnace stack gas discharge temperature is monitored very closely. A combination of the stack gas exit temperature, material exit temperature from the TDU and the shell temperature are typically used to achieve optimal fuel consumption rate during plant operation. The atmosphere inside the rotary drum is under continuous negative pressure by the plant's induced draft (ID) fan. The desorbed vapors are transported from the rotary drum into the system's Vapor Recovery Unit (VRU). The TDU is furnished with access doors for easy access for inspection, cleaning and maintenance of the lifters inside the rotary drum.

### 3.2.3 Treated Solids Cooling

The hot treated solids discharged from the rotary drum may be cooled with treated wastewater as they are conveyed into containers.

### 3.2.4 Vapor Recovery Unit

The main function of the Vapor Recovery Unit (VRU) is to condense and recover the desorbed hydrocarbons, water vapor and the solid particles present in the gas stream exiting the rotary drum. The VRU includes several main components, including a quench section, venturi scrubber, separator, mist eliminator section, induced draft fan and condenser. In the quench section, the gas stream is cooled by direct contact with finely atomized water droplets via multiple nozzles. The water spray system also removes additional solids from the gas stream.

As the gas temperature is reduced, most of the hydrocarbons are condensed before gases exit the quench section. The VRU is equipped with an integrated variable throat venture scrubber, which removes fine solid particles from the gas stream. The dust-laden gas stream and the process water collide, dispersing the liquid into droplets that the particles impact and become entrapped within. These droplets, containing the fine solid particles, are removed from the gas stream in a horizontal cyclonic separator downstream of the venture scrubber. The venturi scrubber is designed with an adjustable throat to maintain the desired pressure drop across the throat as the gas volume changes. This feature assures that the same particulate removal efficiency is maintained as operating parameters change in the system.

The gas exiting the cyclonic separator passes through a mist eliminator to remove entrained water droplets before reaching the system ID fan. The mist eliminator can be easily removed for regular maintenance cleaning. The process ID fan is equipped with a variable speed controlled drive, designed to maintain sufficient draft through the system to continuously transfer the vent gas through the process and control equipment. After the



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vent gas reaches the condenser (indirect heat exchanger), the gas temperature is reduced to less than 300°F to remove residual hydrocarbon vapors (the lighter hydrocarbons) from the gas stream.

After gas exits the condenser, it is routed through a flame arrester before being discharged into the thermal oxidizer for final polishing prior to discharge to the atmosphere.

### 3.2.5 API Separator

The condensates, residual fines/sediments, and the water collected inside the VRU will be treated in an above ground API-type primary oil/water separator. Depending on the type of OBHSM being processed by the TDU, the separator can produce water containing sediments and oil concentrations in the range of approximately 50 –200 mg/liter. The API separator is a gravity separation device that works on the principle of Stokes Law, which defines the rise velocity of an oil particle based on its density and size. The oil droplets float to the top and the sediments settle in the bottom of the separator tank. The recovered oil is collected using a stationary skimmer. The collected oil is continuously pumped into an above ground storage tank. At this point, the reclaimed oil can be reinserted into the refining process without major pretreatment. If the reclaimed oil is to be used as fuel, it can undergo filtration or centrifuging to remove sediments and moisture.

The recovered sediments/sludge is pumped from the API separator using a pneumatic pump and is recycled back into the TDU process. After the oil and suspended solids are removed from the influent in the API separator, the middle phase (water) is then pumped to an on-site storage tank for recycling.

A portion of the recovered water is pumped into a plate and frame heat exchanger where it is cooled and reused as cooling process water for the VRU unit. The cooling media for the plate and frame heat exchanger is also water. A portion of the water recaptured in the process will be processed through the wastewater treatment plant and also used to rehydrate residue from the thermal process.

The water is continuously cooled inside a small cooling tower. The cooling tower can be equipped with inlet air filtration system to minimize solids and slat particles from entering the unit; therefore, lowering the water-blow down rate and water makeup. The outlet of the cooling tower can be equipped with demisters to further reduce water loss.

The API separator includes a fixed cover for VOC emission control. To minimize potential issues associated with the oil emulsions in the separator, certain additives and/or chemical treatment may be used during certain campaigns for proper phase separation.



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## 4.0 RECOVERED OIL

Oil recovered during the reclamation process will be transferred to onsite storage tanks or containers prior to transport to customers. The storage tanks and associated secondary containment shall comply with applicable Spill Prevention Control and Countermeasure (SPCC) requirements.

## 5.0 RESIDUAL MANAGEMENT

Residuals generated during the reclamation process will include wastewater, air emissions, and solids. All residuals will be managed in accordance with applicable regulations and in a manner protective of human health and the environment.

### 5.1 Wastewater

Thermaldyne will collect all wastewater, i.e., water not recycled into the reclamation process or contact stormwater, in containers (e.g., frac tanks) prior to treatment in its onsite wastewater treatment system. Treated wastewater will be discharged in accordance with Thermaldyne's LPDES permit (application to be submitted). If wastewater is not recycled or treated in the onsite system, it will be collected in containers and shipped offsite for treatment or disposal at a permitted facility in accordance with applicable regulations.

### 5.2 Air Emissions

Thermaldyne will utilize a thermal oxidizer and other equivalent control devices (e.g., carbon canisters) to control emissions from vent streams not recycled into the reclamation process. The control system is designed to operate with better than 99.9% destruction efficiency. LDEQ issued Air Permit No. 3120-00116-00 to the facility as a minor source.

OBHSM will be stored within suitable physical enclosures provided with appropriate dust/vapor control measures to prevent and minimize potential fugitive emissions. Dust curtains will be used to contain potential fugitive releases, preventing release of particulate matter outside of the product receiving building. When totally enclosed, the building will have a negative pressure draft created by the vapor recovery unit (VRU). Regulation of building temperature will further minimize hydrocarbon emissions from the building.

### 5.3 Solids

The bulk of the residual solids generated at the facility will consist of processed OBHSM. Treated solid material will be representatively sampled and analyzed on-site for residual contaminants and other potential compounds of concern, including treated volatile contaminants and inorganic contaminants (e.g. heavy metals). If possible, sampling of the waste will be carried out before any water is added to the material.



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Post-handling of the solid waste material typically entails water quenching to help cool the solids, control dust and aid handling. Water will be applied to the treated material in a gradual and controlled manner to achieve an appropriate consistency and to prevent leaching of residual contaminants.

The inert residual solids will be transferred to roll-off containers and stored on site until transported to an offsite disposal facility. As an original point of waste generation, these residual solids will be characterized in accordance with approved methods. Based on this analysis, the solids will be classified as either industrial solid waste or hazardous waste, and managed accordingly (e.g., appropriate containers, labeling, manifesting, disposal, recordkeeping, etc.).

Other miscellaneous solid waste related to the reclamation process will also be generated at the site. This material will include bag house cake, filter bags, screened debris, carbon filter media, and empty used containers. None of these solid residuals will be disposed of onsite. These residual solids will be managed in accordance with applicable regulations.

## 6.0 HEALTH AND SAFETY

Safety will be of prime importance at the Thermaldyne facility. All appropriate measures will be implemented to identify, assess, and manage the potential hazards and associated risks posed by the activities carried out on site.

Thermaldyne has developed a health and safety plan to help ensure that personnel are protected from risks associated with the reclamation operations. Thermaldyne will require that the plan be followed. Key health and safety procedures include:

- Employees will undergo appropriate screening for any existing medical conditions, which may affect their employment status.
- Employees will be provided with all necessary safety equipment appropriate to their job classification. They will be instructed in its proper use and failure to properly use it may be grounds for dismissal.
- All visitors and contractors will undergo a site-specific safety orientation prior working onsite.

## 7.0 EMERGENCY RESPONSE

Thermaldyne will meet the same emergency preparedness regulations that are applicable to large quantity generators of hazardous waste. Thermaldyne will maintain appropriate emergency equipment on site, will have alarm systems in place, and will make arrangements with local emergency response authorities. A Contingency Plan describing these and other measures to be implemented during an emergency involving OBHSM or hazardous waste at the facility is provided in **Appendix I**.



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## 8.0 TRAINING

Employees involved in the operation of the facility will be trained in operating procedures and company policies in accordance with their job description. All employees will be trained in the emergency procedures described in the Contingency Plan, as applicable. If classified as large quantity generator of hazardous waste, Thermaldyne will also comply with the training requirements described in LAC 33:V.1515.

## 9.0 NOTIFICATION AND RECORDKEEPING

Notification and recordkeeping requirements must be followed to comply with the variance. These requirements are described below.

### 9.1 Notification

Facilities managing hazardous secondary materials under the verified reclamation facility variance must send a notification to LDEQ prior to operating and by March 1 of every even numbered year thereafter using Hazardous Waste Activity Form HW-1. A copy of the completed form will be included as **Appendix J** upon approval of the variance.

If Thermaldyne subsequently stops managing HSM, it must notify LDEQ within 30 days using Form HW-1. Thermaldyne will have stopped managing HSM if it no longer generates, manages and/or reclaims HSM and does not expect to manage any amount of HSM for at least one year.

If any information changes in the Hazardous Waste Activity Form HW-1, Thermaldyne must notify LDEQ within seven days.

### 9.2 Records of Shipments

Thermaldyne must maintain records of OBHSM sent or received when operating pursuant to the verified recycler exclusion. The records must include the following information for each shipment:

- Name of transporter
- Date of shipment
- Name and address of the OBHSM generator (or reclaimer or intermediate facility which the OBHSM was received from)
- Type and quantity of OBHSM sent or received
- If the OBHSM is subsequently transferred off-site for further reclamation, the name and address of the subsequent reclaimer and, if applicable, the name and address of each intermediate facility to which the HSM was sent.



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These recordkeeping requirements may be satisfied by maintaining routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations).

### 9.3 Confirmation of Receipt

Thermaldyne will send a confirmation of receipt to the OBHSM generator for all off-site shipments of OBHSM. Confirmations of receipt shall include:

- Name and address of Thermaldyne
- Type and quantity of the OBHSM
- Date which the OBHSM was received

These recordkeeping requirements may be satisfied by maintaining routine business records (e.g., financial records, bills of lading, copies of DOT shipping papers, or electronic confirmations).

### 9.4 Certification Statement for Legitimate Recycling that Does Not Meet Factor 4

If the oil reclaimed from the OBHSM has levels of hazardous constituents that are not comparable or unable to be compared to oil that is not reclaimed from OBHSM, the recycling still may be shown to be legitimate if Thermaldyne conducts the necessary assessment and prepares documentation showing why the recycling is legitimate. The recycling can be shown to be legitimate based on lack of exposure from toxics in the product, lack of the bioavailability of the toxics in the product, or other relevant considerations that demonstrate the recycled product does not contain levels of hazardous constituents that pose a significant human health or environmental risk. The documentation must include a certification statement that the recycling is legitimate and must be maintained on-site for three years after they recycling operation has ceased. Thermaldyne must also notify LDEQ of this activity using the Hazardous Waste Activity Form HW-1.

### 9.5 Speculative Accumulation

OBHSM may not be accumulated speculatively. A material is not accumulated speculatively if it can be shown that:

- The material is potentially recyclable;
- Thermaldyne has the feasible means to recycle the material; and
- During the calendar year (commencing January 1), the amount of material that is recycled, or transferred to a different site for recycling, equals to at least 75% by weight or volume of the amount of that material accumulated at the beginning of the period.



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Material must be placed in a storage unit with a label indicating the first date that the material began to be accumulated. If placing a label on the storage unit is not practicable (such as where material is stored in batch tanks, continuous flow tanks, waste piles, or containment buildings), the accumulation period must be documented through an inventory log or other appropriate method. In calculating the percentage of turnover, the 75% requirement is to be applied to each material of the same type (e.g., OBHSM) that is recycled the same way (via the Thermaldyne reclamation process).

### 9.6 Retention of Records

Shipping records must be maintained for no less than three years. Documentation of legitimate recycling (see Section 9.4 for requirements) must be maintained for no less than three years after the recycling operation has ceased.

### 9.7 Financial Assurance

Thermaldyne shall satisfy the financial assurance requirements described in Subpart H of 40 CFR part 261 for both closure and liability.

#### 9.7.1 Closure

Thermaldyne will obtain and maintain financial assurance to directly demonstrate that it will not abandon the OBHSM, it will properly decontaminate equipment, and it will clean up any unacceptable releases, even if events beyond its control make its operations uneconomical. The financial assurance also helps demonstrate that Thermaldyne is financially sound and will not discard the OBHSM by setting aside funds to address any issues in closing the facility.

Thermaldyne will submit documentation of financial assurance upon approval its variance request. The financial assurance shall satisfy the requirements in40 CFR Part 261, Subpart H.

In accordance with 40 CFR 261.142, Thermaldyne has prepared a detailed written estimate of the cost of disposing of any OBHSM as hazardous waste, and the potential cost of closing the facility as a treatment, storage, and disposal facility. This cost estimate, which must be maintained on site, is provided in **Appendix K**. The cost estimate:

- Equals the cost of conducting the above closure activities at the point when the extent and manner of the facility's operation would make the activities the most expensive;
- Is based on the costs to Thermaldyne of hiring a third party to conduct these activities; and



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- Does not incorporate any salvage value that may be realized with the sale of OBHSM, or hazardous or non-hazardous wastes (if applicable), facility structures, land, or other assets associated with the facility.

During the active life of the facility, Thermaldyne will adjust the cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to demonstrate financial assurance. If using the financial test or corporate guarantee, the cost estimate will be adjusted within 30 days of the close of Thermaldyne's fiscal year.

During the active life of the facility, Thermaldyne will revise the cost estimate no later than 30 days after a change in the facility Operations Plan or design would increase the costs of conducting the closure activities or no later than 60 days after an unexpected event which increases the cost of those activities.

### 9.7.2 Liability Requirements

Prior to receiving OBHSM and in accordance with 40 CFR 261.147, Thermaldyne will:

- provide documentation demonstrating financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. Thermalydyne will have and maintain liability coverage for sudden accidental occurrences in the amount of at least $1 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs.

- maintain liability coverage for nonsudden accidental occurrences in the amount of at least $3 million per occurrence with an annual aggregate of at least $6 million, exclusive of legal defense costs.



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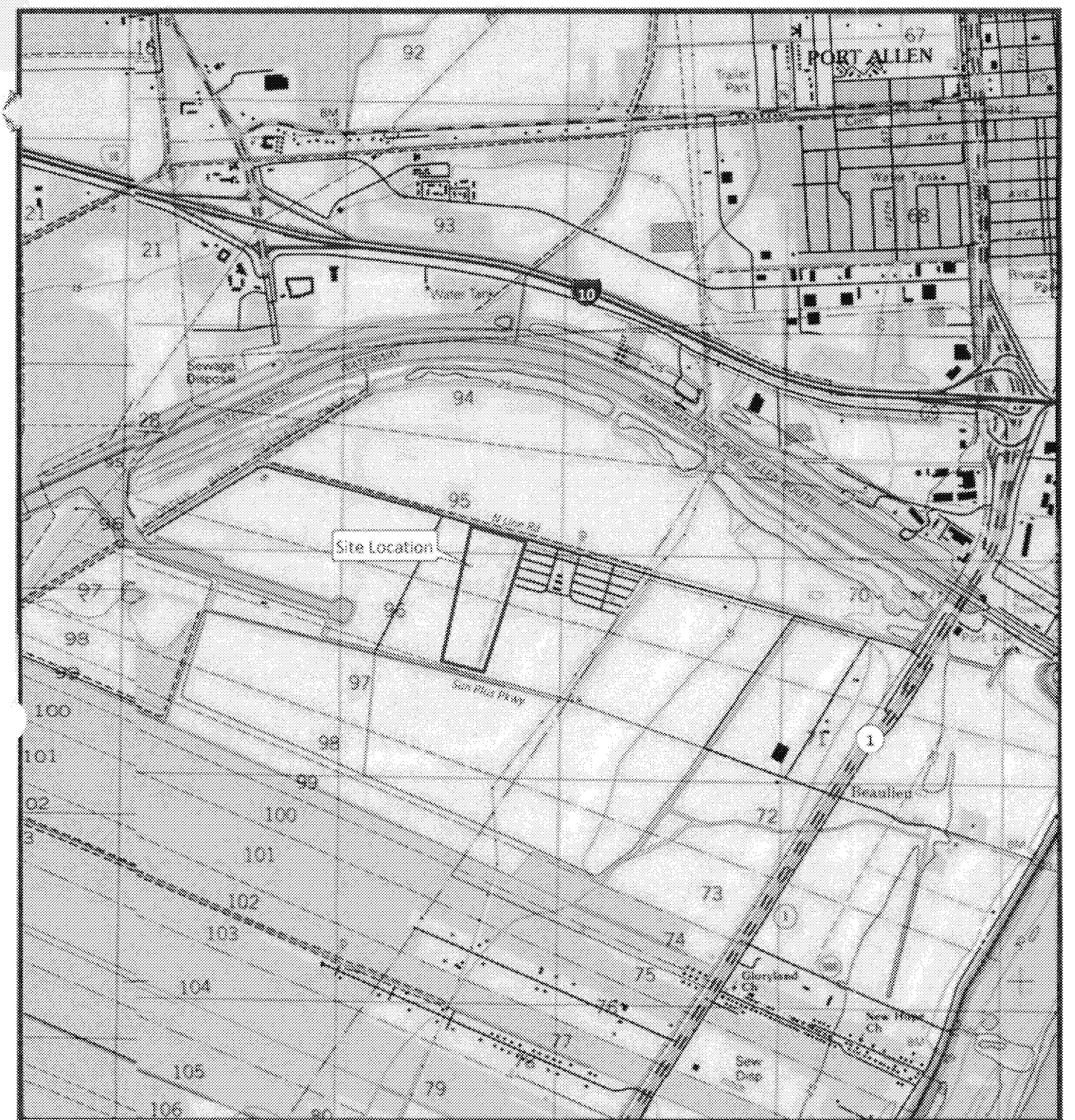
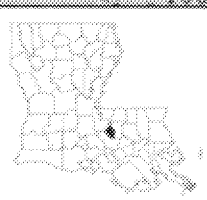
# FIGURES

# FIGURE 1

# SITE LOCATION MAP



West Baton Rouge Parish

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Feet

USGS 24K Series Quad Map, Baton Rouge West, LA.

esri Partner Network

**Thermaldyne, LLC**
Port Allen, Louisiana

Port Allen Facility

## Site Location Map

West Baton Rouge Parish

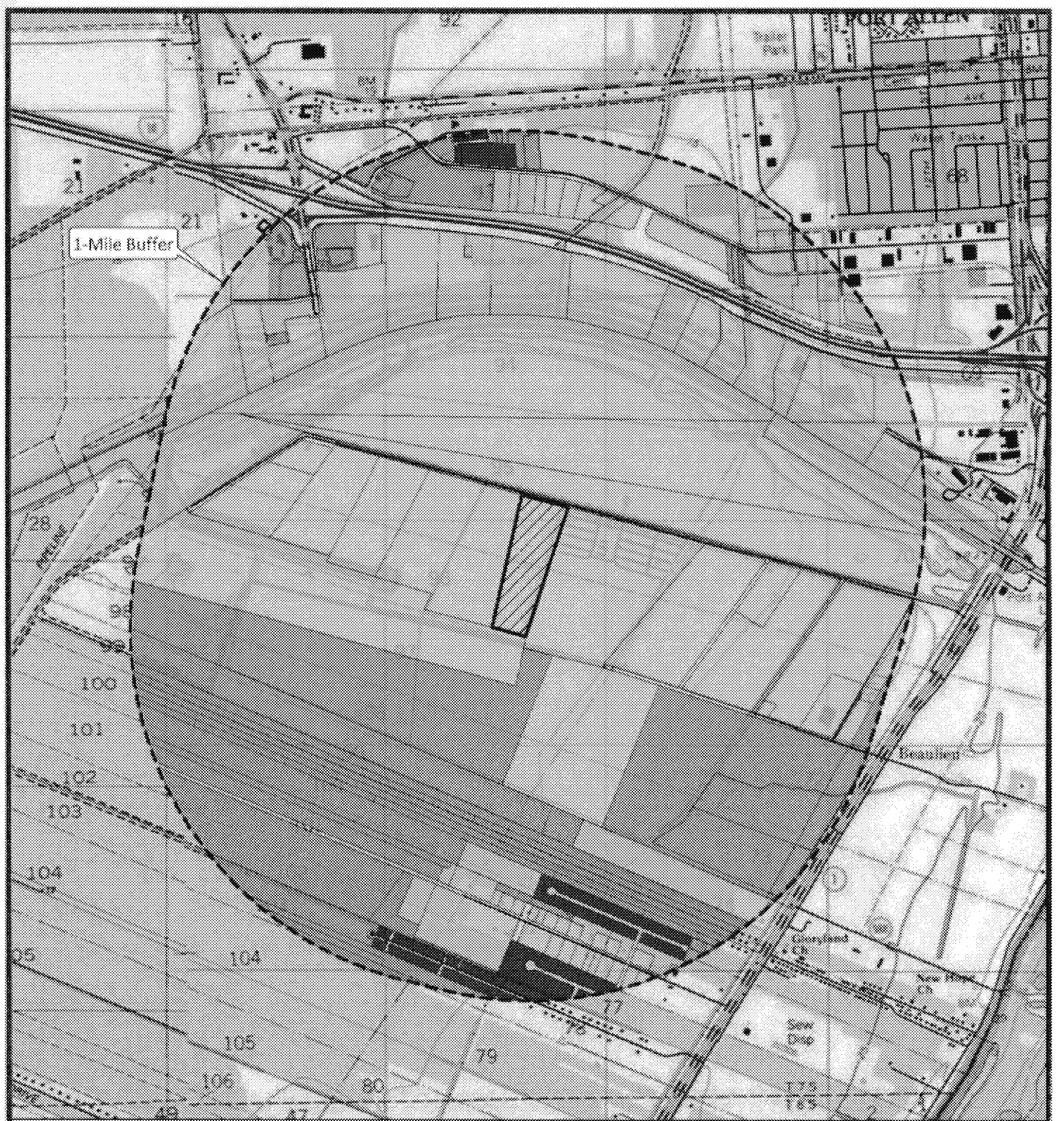
CK ASSOCIATES Environmental Consultants

| | |
|---|---|
| Drawn: | CAL/AMSD.S |
| Checked: | BHR |
| Approved: | BHR |
| Date: | 06/16/17 |
| Dwg. No.: | A14798-01 |

**Figure1**

# FIGURE 2

# LAND USE MAP




Property Boundary

1-Mile Buffer

Zoning (General Categories)

Agricultural

Commercial

Industrial

Residential

USGS 24K Series Quad Map, Baton Rouge West, LA.
Zoning from West Baton Rouge Parish Assessor Digital Map Website

0 2,000
Feet

esri Partner Network Silver

**Thermaldyne, LLC**
Port Allen, Louisiana

Port Allen Facility

## Zoning and Land Use Map

West Baton Rouge Parish

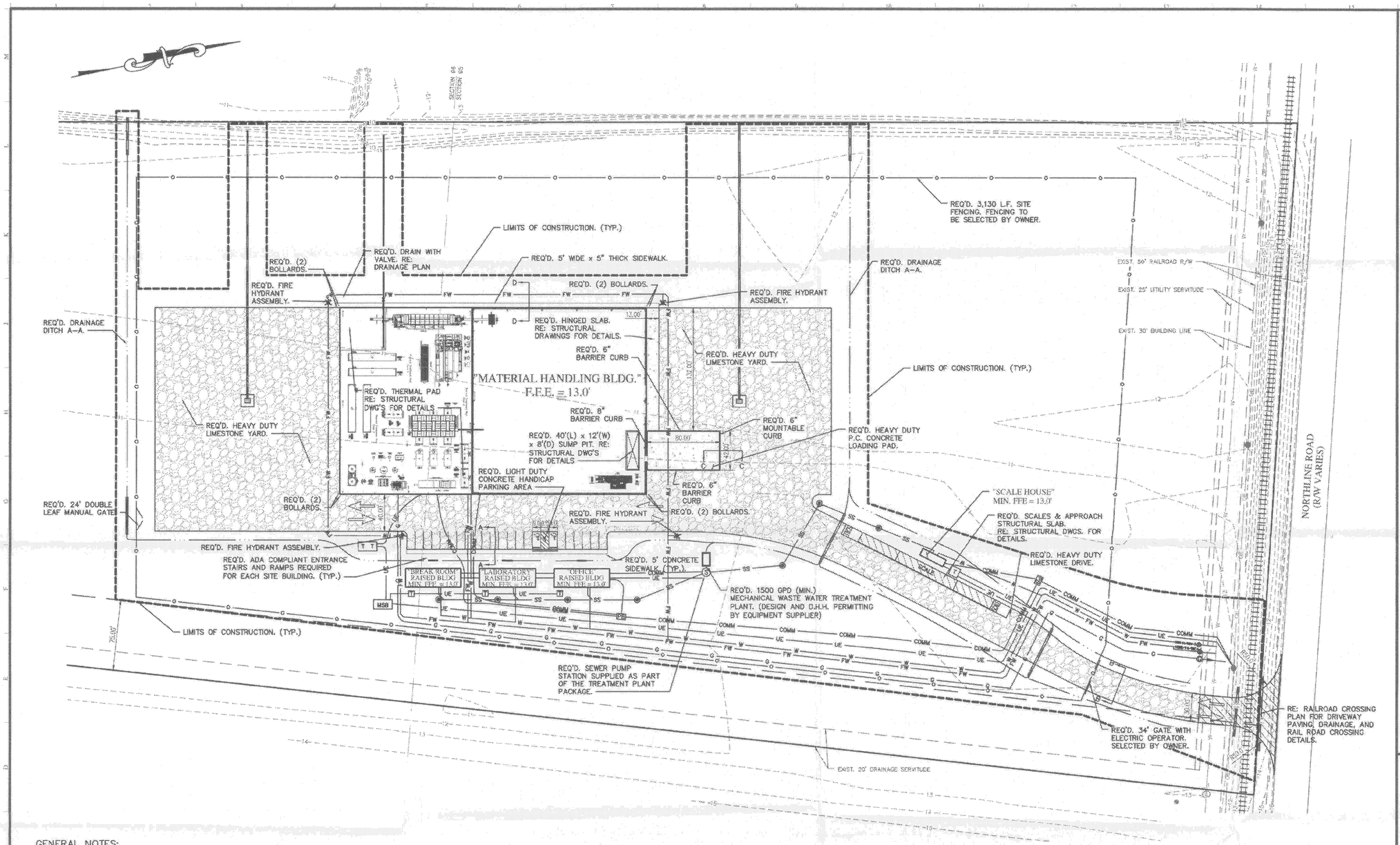
CK ASSOCIATES Environmental Consultants

| | |
|---|---|
| Drawn: | CAL/AM10.5 |
| Checked: | BHB |
| Approved: | BHB |
| Date: | 10/13/17 |
| Dwg. No.: | A14798-05 |

**Figure 2**

# FIGURE 3

# SITE PLAN




## GENERAL NOTES:

ACCORDING TO THE FEDERAL EMERGENCY FLOOD INSURANCE MAP No. 22121 C 0165 D DATED JULY 16, 2014 THIS PROPERTY IS LOCATED IN FLOOD ZONE "X".

BASE FLOOD ELEVATIONS ARE SUBJECT TO CHANGE AND THE CURRENT BASE FLOOD ELEVATION SHOULD BE VERIFIED WITH THE ENGINEERING DIVISION OF THE DEPARTMENT OF PUBLIC WORKS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH AND SIZE OF ALL UNDERGROUND UTILITIES AND STRUCTURES AND SHALL BE LIABLE FOR ANY DAMAGE CAUSED BY FAILURE TO COMPLY WITH THESE INSTRUCTIONS.

ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF THE WEST BATON ROUGE PARISH DEPARTMENT OF PUBLIC WORKS.

REFER TO ELECTRICAL PLANS FOR SITE LIGHTING.

FOR ACCESSIBLE ROUTES, CROSS SLOPES ON SIDEWALKS SHALL NOT EXCEED 2%. RUNNING SLOPE SHALL NOT EXCEED 5%.

SIGNAGE AND PAVEMENT MARKINGS ARE TO COMPLY WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAY STANDARDS.

REFER TO SHEET C6.1 FOR SECTIONS.

50 0 50 100
SCALE IN FEET

EVANS-GRAVES ENGINEERS, INC.
ENGINEERING CONSULTANTS 8029 JEFFERSON HWY. BATON ROUGE, LA. 70809 (225)926-1620

## EXISTING LEGEND:

- WATER METER
- WATER LINE
- UTILITY POLE
- OVERHEAD ELECTRIC LINE

## REQ'D. LEGEND:

- WASTEWATER TREATMENT PLANT
- SANITARY SEWER LINE
- SANITARY SEWER CLEANOUT
- DOUBLE GRATE INLET
- DRAINAGE SWALE
- DRAINAGE PIPE
- ELECTRICAL TRANSFORMER
- ELECTRIC CONDUIT (3) 3" SCH 80 PVC
- COMMUNICATION PULL BOX
- COMM. CONDUIT (3) 3" SCH 80 PVC
- FIRE HYDRANT
- WATER METER
- BACK FLOW PREVENTER
- 8" C-900 PVC FIRE WATER LINE
- 2" CL160 PVC WATER LINE
- GAS METER
- 2" PE 2306, SDR 11 GAS LINE
- FENCING

## GENERAL NOTES:

ZONING: I-2

SIZE: 28.2 ACRES

PROPOSED USE: INDUSTRIAL

PROPOSED MINUMUM SETBACKS:
FRONT: 30'
SIDES: 10'
REAR: 20'

THERMALDYNE
ARKEL Constructors

| No. | Revision/Description | Date |
|---|---|---|
| B | REVISED ISSUED FOR APPROVAL | 07/13/17 |
| A | ISSUED FOR APPROVAL | 06/30/17 |

CRUMPWILSON ARCHITECTS

Project: THERMALDYNE FACILITY PROJECT
PORT ALLEN, LOUISIANA

Drawing: ENLARGED SITE PLAN

Seal

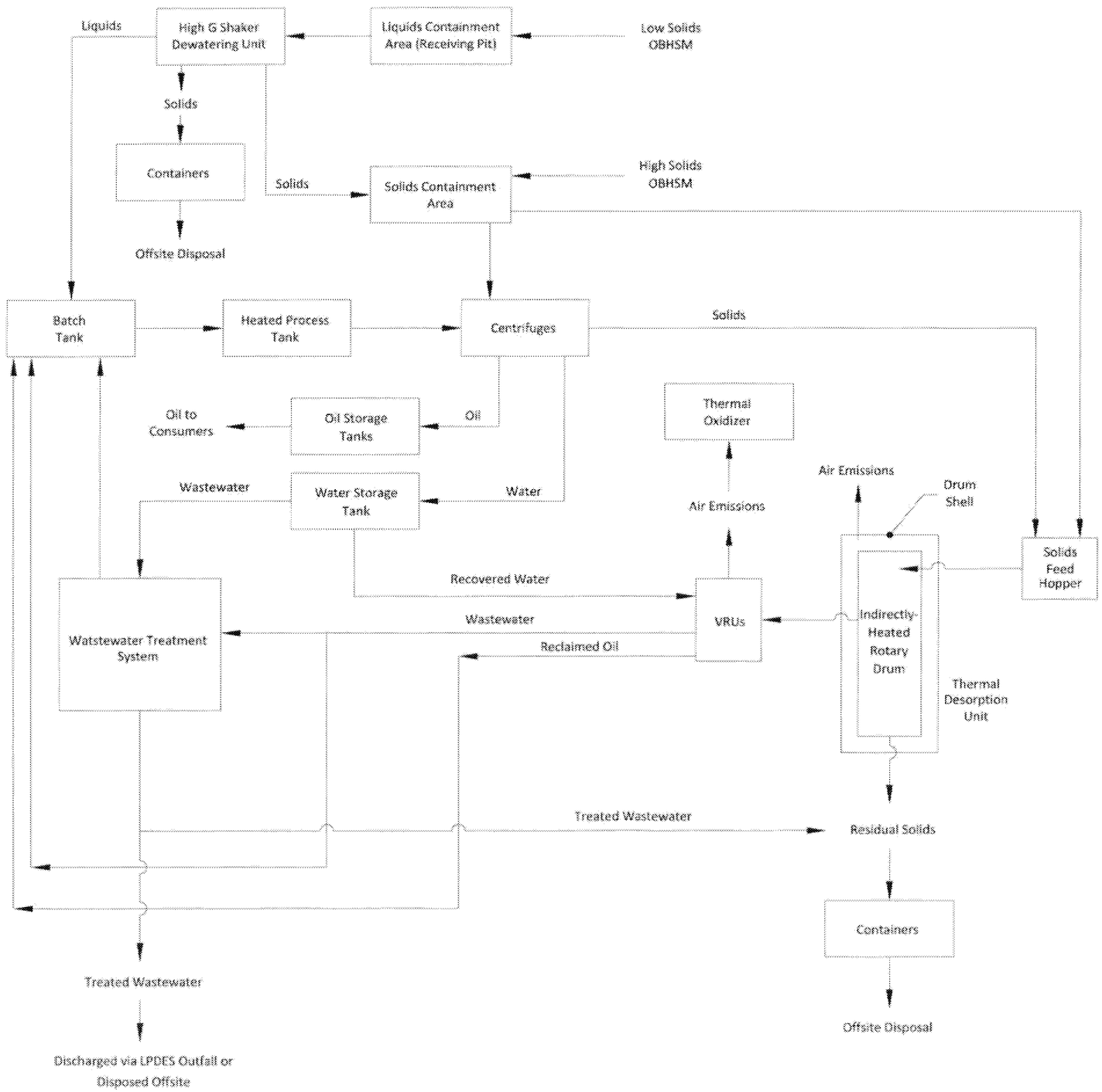
| | |
|---|---|
| Project Number | 15-004 |
| File Name | T15C02 |
| Drawn By | CBG |
| PM/PIC | CRW/RSW |
| Date | 06/30/17 |

C1.2

Drawing name: F:\00_PROJECTS\15-004\Sheet_Sets\Construction\15004s102.dwg – Oct 11, 2017 – 8:23am

# FIGURE 4

# PROCESS FLOW DIAGRAM




**Thermaldyne, LLC**
Port Allen, Louisiana

Port Allen Facility

## Process Flow Diagram

West Baton Rouge Parish

CK Associates Environmental Consultants

| | |
|---|---|
| Drawn: | CPL/ACAD |
| Checked: | BHR |
| Approved: | BHR |
| Date: | 10/25/17 |
| Dwg. No.: | B14798-04 |

**Figure 4**

# APPENDICES

# APPENDIX A

# ZONING DOCUMENTATION

WEST BATON ROUGE

OFFICE OF COMMUNITY PLANNING & DEVELOPMENT

THE HONORABLE
RILEY "PEE-WEE" BERTHELOT
PARISH PRESIDENT

KEVIN DURBIN, PE, AICP
Director of Public Works
Office Coordinator
Building Official
Zoning Administrator
Complaint Investigator
Floodplain Administrator

LYNN CLINE
Asst. Coordinator for Planning, Subdivision and Zoning Matters
Secretary, Planning & Zoning Commission

KACI DAIGLE
Asst. Coordinator of Building Permits & Contractor Registrations
Grass Cutting Complaint Investigator

MALLORIE DAVIS
Building Permit Technician
Public Service Contact

HUEY MARANTO
Chief Building Inspector

JIMMY TALBOT
Building Inspector

880 N. Alexander Ave.
P.O. Box 757
Port Allen, LA 70767

(225) 336-2434
(225) 336-1840 (Fax)

Office Hours:
M – Th 8:00 – 5:00
F 8:00-12:00

ZONING
•
PLANNING
•
SUBDIVISIONS
•
BUILDING PERMITS
•
PREMISE COMPLAINTS
•
FLOODPLAIN MANAGEMENT

June 18, 2015

**Via email to** edie@brac.org **and** ccaaga@bellsouth.net

Ms. Michel and Mr. Yawn:

I have received your request for a Zoning Determination and I am happy to provide that determination herein. I have determined that the proposed site should be classified as "industrial, moderate". Based upon the wording in the definition of "industrial, moderate" - specifically the verbiage mentioned below – I find it reasonable to conclude that moderate industrial might very well be an appropriate classification for the proposed uses of the Thermaldyne process as presented to me. The specific verbiage that I am referring to includes, but is not limited to, the following phrases taken from the definition of "industrial, moderate":

> **Industrial, moderate means a use engaged in any one of the following:**
> **(1) Scrap, salvage or recycling operations engaged in the storage, sale, dismantling, or other processing of used, source separated, or waste materials which are not intended for reuse in their original form…**
> **(3) An operation engaged in the storing or manufacturing processes which potentially involves hazardous or commonly recognized offensive conditions…" (WBR Code of Ordinances, Chapter 101, Definitions, highlighted emphases mine)**

This determination is made pursuant to West Baton Rouge Parish Code Section 111-68 which states that "..the zoning administrator or designee shall have the authority to determine the appropriate (use) classification…" The determination was made using the "Detailed Summary" that was provided by Ms. Edie Michel. **It is important to note that the LaDEQ Air Permit application that you provided was not consulted in this determination, so if there is any discrepancy between the air permit application and the "Detailed Summary" provided by Ms. Michel, then you need to advise me of that as soon as practical.** I also consulted the complete list of land uses available to me in the definitions of Chapter 101 of the West Baton Rouge Parish Code of Ordinances, Unified Development Code.

Based on my determination, let me state that the Table of Permitted Uses (Appendix A of Chapter 104 in the same Code) allows said use(s) in zoning district classifications of: I-2, moderate industrial.

Let me finally state that if any of my determinations above have aggrieved you or your client, you have the right to file an appeal with the West Baton Rouge Parish Board of Adjustments.

Sincerely,

*Kevin Durbin*

Kevin Durbin, PE, AICP
Zoning Administrator
West Baton Rouge Parish Government

# APPENDIX B

# DOTD LETTER

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

**Office of Engineering/District 61**
PO Box 831 | Baton Rouge, LA 70821-0831
phone: 225-231-4131 | fax: 225-231-4108

**John Bel Edwards**, Governor
**Shawn D. Wilson, Ph.D.**, Secretary

August 28, 2017

Mr. Brooks Ray
Environmental Specialist
CK Associates Environmental Consultants
17170 Perkins Road
Baton Rouge, LA 70810

Subject: Traffic Impact Letter Request
Thermaldyne LLC
2325 North Line Road
Port Allen, Louisiana 70767
CK Project Number 14798

Dear Mr. Ray:

This is in response to your request for comments on the above referenced item. We do not foresee any significant adverse impacts on the area roadways that would result from the operation of this facility provided that all loads delivered to the site are within legal limits.

Should you have any questions, please contact my office at (225) 231-4100.

Very truly yours,

Chad Vosburg, P.E.
District Engineer Administrator

PC: Mr. M. Todd Donmyer, P.E.
Mr. Christopher Ewing, P.E
Mr. Keith Palermo, P.E
Files

CK ASSOCIATES
Environmental Consultants

17170 PERKINS ROAD
BATON ROUGE, LA 70810
PHONE (225) 755-1000
FAX (225) 751-2010
www.c-ka.com

HOUSTON, TX
PHONE (281) 397-9016
FAX (281) 397-6637

LAKE CHARLES, LA
PHONE (337)625-6577
FAX (337)625-6580

SHREVEPORT, LA
PHONE (318) 797-8636
FAX (318) 798-0478

August 23, 2017

Mr. Chad Vosburg, P.E.
District 61 Engineer Administrator
Louisiana Department of Transportation and Development
Post Office Box 831
Baton Rouge, Louisiana 70821-0831

**Re: Traffic Impact Letter Request**
**Thermaldyne LLC**
**2325 North Line Road**
**Port Allen, Louisiana 70767**
**CK Project Number 14798**

Dear Mr. Vosburg:

Our client, Thermaldyne LLC, is proposing to construct a facility located about one mile south of the Interstate I-10 intersection of North Line Road and Highway LA-1, West Baton Rouge Parish (see enclosed Figure 1). Thermaldyne requests confirmation that DOTD does not foresee any significant adverse impacts on the traffic flow of area roadways and that the construction, maintenance, or proposed upgrading of such roads is adequate to withstand the weight of the vehicles area roadways that would result from the operation of this facility which is described below.

Oil-bearing hazardous secondary materials (OBHSM) will be transported to facility via truck. The material will be processed onsite to recover the oil contained in the materials. At maximum operational capacity, approximately 25 trucks containing OBHSM may be entering the facility each day. The maximum weight of each vehicle will not exceed the limit allowed by law. The location of the proposed facility is indicated on the enclosed map.

Please note that your office favorably responded to a previous request on November 16, 2016. However, that request had estimated the number of trucks to be approximately 10 trucks per day. A copy of that correspondence is also enclosed for your reference.

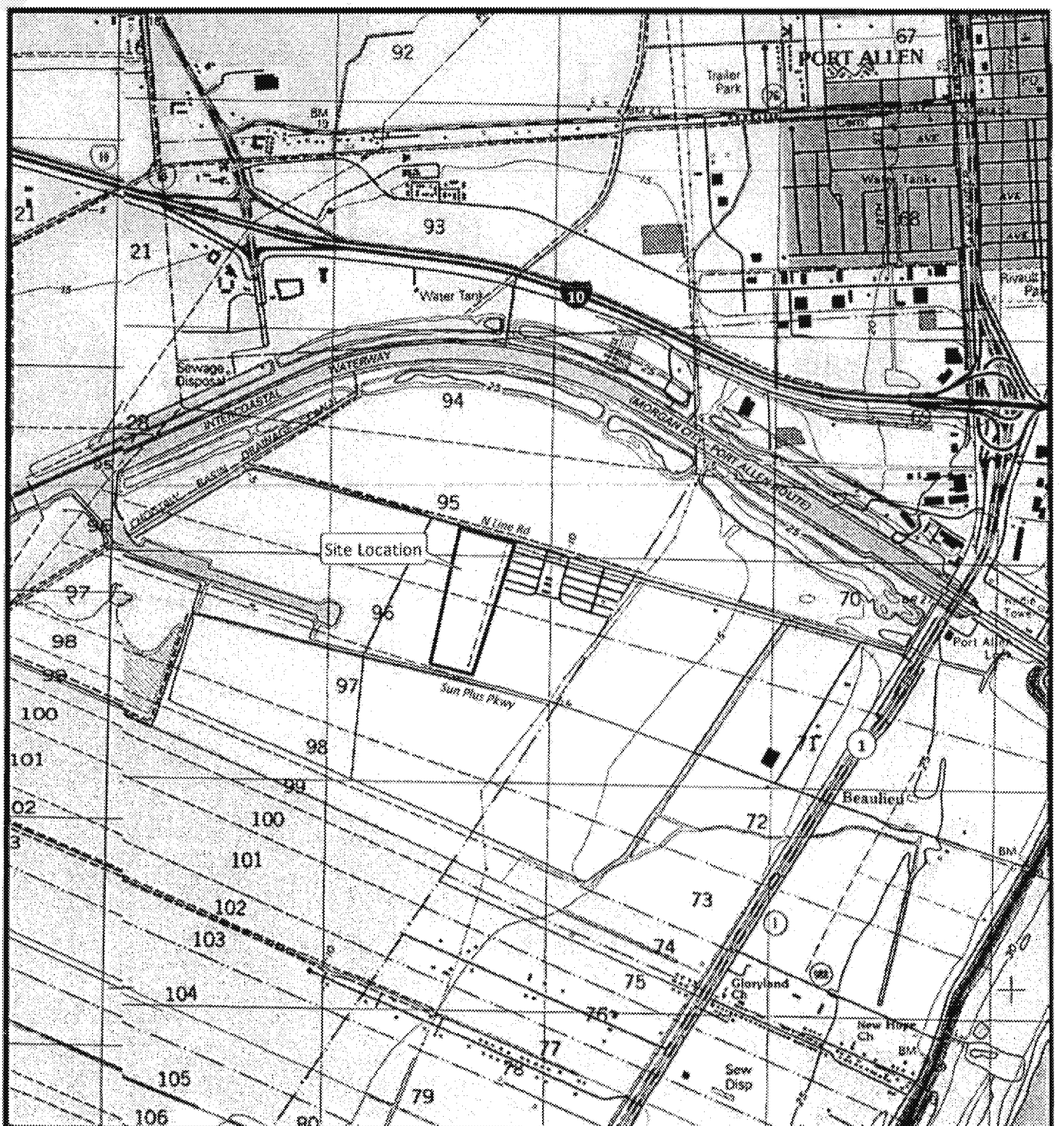
If you have any questions or require further information, please contact me at (225) 755-1000.

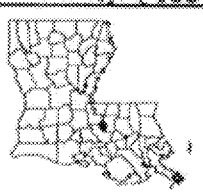
Sincerely,
CK Associates

Brooks Ray

Brooks Ray
Environmental Scientist

Encl: As stated

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Feet

USGS 24K Series Quad Map, Baton Rouge West, LA.

**Thermaldyne, LLC**
Port Allen, Louisiana

Port Allen Facility

## Site Location Map

West Baton Rouge Parish

CK Associates Environmental Consultants

| | |
|---|---|
| Drawn: | CAL/AM10.5 |
| Checked: | BHR |
| Approved: | BHR |
| Date: | 06/16/17 |
| Dwg. No.: | A14798-01 |

**Figure1**

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

**Office of Operations/District 61**
8100 Airline Highway Baton Rouge, LA 70815
P. O. Box 831 Baton Rouge, LA 70821-0831
Phone: (225)231-4100

Bobby Jindal, Governor
Sherri H. LeBas, P.E., Secretary

November 16, 2015

Ms. Sarah Bozyk
Environmental Specialist
Eagle Environmental Services, LLC
18379 Petroleum Drive
Baton Rouge, LA 70809

Subject: Traffic Impact Letter Request
Solid Waste Permit Application
Thermaldyne, LLC
2325 North Line Road
Port Allen, Louisiana

Dear Ms. Bozyk:

This is in response to your request for a letter of confirmation for the above referenced location. We do not foresee any significant adverse impacts on the area roadways that would result from the operation of this facility provided that all loads delivered to the site are within legal limits.

Also be advised that a DOTD Access Connection Permit will be required before any work is done on DOTD right of way.

Should you have any questions, please contact my office at (225) 231-4100.

Very truly yours,

Chad Vosburg

Chad Vosburg, P.E.
District Engineer Administrator

PC: Mr. Ronnie Robinson
Mr. Chris Ewing
Mr. Keith Palermo
Files

E·A·G·L·E
ENVIRONMENTAL SERVICES, INC.
18379 Petroleum Drive
Baton Rouge, Louisiana 70809

October 30, 2015

Mr. Chad Vosburg
District 61 Engineer Administrator
Louisiana Department of Transportation & Development
P.O. Box 831
Baton Rouge, Louisiana 70821-0831

**RE: Thermaldyne, LLC**
**2325 North Line Road**
**Port Allen, Louisiana 70767**
**West Baton Rouge Parish**
**Eagle Project No. 271-15-0002**

Dear Mr. Vosburg:

Our client, Thermaldyne, LLC, is proposing to construct a processing facility located about one mile south of the Intersate I-10, intersection of North Line Rd. and Highway LA-1 West Baton Rouge Parish. We respectfully request a letter of confirmation regarding the following matter.

Waste will be transported via truck to the proposed waste processor building site. This will require approximately 10 trucks per day. The maximum weight of each vehicle will not exceed the limit allowed by law.

In accordance with Louisiana Solid Waste Regulations, specifically LAC 33:VII.521 B.3, applicants for Solid Waste Permits must provide "a letter from an appropriate agency concerning the traffic flow for facilities receiving waste generated off-site." The letter should state that the facility will not have a significant adverse impact on the traffic flow of area roadways, and that the construction, maintenance, or proposed upgrading of such roads is adequate to withstand the weight of the vehicles.

The location of the proposed facility is indicated on the enclosed map of the area.

Should you have any questions or require further information, please do not hesitate to contact me at (225) 757-0870.

Sincerely,

Sarah Bozyk
Environmental Specialist

Enc: As stated.

# APPENDIX C

# ENVIRONMENTAL LETTERS

E·A·G·L·E
ENVIRONMENTAL SERVICES, INC.
18379 Petroleum Drive
Baton Rouge, Louisiana 70809

October 30, 2015

Department of the Army
New Orleans District Corps of Engineers
Surveillance and Enforcement Section
P.O. Box 60267
New Orleans, LA 70160-0267

Attention: Brian Oberlies

RE: Presence of Jurisdictional Waters
Thermaldyne, LLC
AI 195964
Port Allen, West Baton Rouge Parish, Louisiana

Dear Sir:

On behalf of our client Thermaldyne, LLC, Eagle Environmental Services, Inc. (Eagle) is requesting a current letter clarifying whether this property is in a wetland subject to Corps jurisdiction. Currently, Eagle is assisting Thermaldyne in the process of applying for a solid waste permit application from the Louisiana Department of Environmental Quality.

In order for Eagle to address all the regulatory requirements of LAC 33:VII, a letter is required from your office. Please refer to the enclosed documentation. The site is located in Sections 95 and 96, West Baton Rouge Parish Louisiana. The coordinates for the center of the site are 30.432089 latitude and -91.233869 longitude.

If you have any questions, please contact me at 225.757.0870 or sarah.bozyk@eaglered.com. I have included maps and other documentation to assist you in your determination. Thank you so much.

Sincerely,

Sarah Bozyk
Environmental Specialist

## Sarah Bozyk

**From:** Bennett, Andrew J MVN <Andrew.J.Bennett@usace.army.mil>
**Sent:** Tuesday, December 29, 2015 2:40 PM
**To:** Sarah Bozyk
**Subject:** RE: Inquiry regarding Thermaldyne solid waste facility property, Port Allen, LA (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Hi Ms. Bozyk,

Thanks for getting back to me. I just returned from out of town. That is the info I needed, no need for anything from the parish.

However could you please send a map of the property that is more zoomed in? We prefer to use the requestors' maps to make our determination maps and I could use one with greater detail.

Just off-hand, the property should be all non-wetland except for the ditches, and the official letter and map should be sent out in a couple weeks.

Thanks again

Andrew

-----Original Message-----
From: Sarah Bozyk [mailto:sarah.bozyk@eaglered.com]
Sent: Tuesday, December 22, 2015 12:27 PM
To: Bennett, Andrew J MVN <Andrew.J.Bennett@usace.army.mil>
Subject: [EXTERNAL] RE: Inquiry regarding Thermaldyne solid waste facility property, Port Allen, LA (UNCLASSIFIED)

Hello Mr. Bennett,

This is the response I received, "On the West side of property that ditch is on our property, however the Parrish maintains control and maintenance over that ditch. On the East side of property that is neighbors ditch. Our property stops about 40' North of Sun Burst Road (gravel road) and there are drainage ditches at front of our property by rail spur that discharge under North Line road. Those ditches must be under Parrish control. So, to clarify it appears that any concerns that the Corps may have is under Parrish control and has been for some time. Do I need a letter from Parrish outlining their position in regards to ditches?"

Please let me know whether you need any kind of information from the parish regarding this information.

Thank you,

Sarah Bozyk

-----Original Message-----
From: Bennett, Andrew J MVN [mailto:Andrew.J.Bennett@usace.army.mil]
Sent: Tuesday, December 08, 2015 8:00 AM

To: Sarah Bozyk <sarah.bozyk@eaglered.com>
Subject: Inquiry regarding Thermaldyne solid waste facility property, Port Allen, LA (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Hi Ms. Bozyk,

I am currently reviewing the JD request for the proposed Thermaldyne facility on North Line Road in Port Allen (N 30.432089, W 91.233869). I had a question regarding the property.

The Corps has a previous determination for portions of site which were determined to be non-wetland, with exception of the drainage ditches along North Line Rd. and Sun Plus Parkway.

My question is whether your JD request includes the ditches on the east and west boundaries of the property. There's a potential these are jurisdictional and it may require a brief site visit.

Thanks!

--

Andrew Bennett

Botanist
USACE New Orleans District
PO Box 60267
New Orleans, LA 70160
(504) 862-2227

CLASSIFICATION: UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

E·A·G·L·E
ENVIRONMENTAL SERVICES, INC
18379 Petroleum Drive
Baton Rouge, Louisiana 70809

October 30, 2015

Jeff Weller, Field Supervisor
Louisiana Ecological Services
Fish and Wildlife Service
646 Cajundome Blvd.
Suite 400
Lafayette, LA 70506

RE: Thermaldyne, LLC
West Baton Rouge Parish
Agency Interest Number 195964

Dear Mr. Jeff Weller:

On behalf of the above referenced client, Eagle Environmental Services, Inc. (Eagle) respectfully requests an evaluation of their property located in West Baton Rouge Parish. This property is located in Sections 95 and 96; Township 7S and Range 12E. The coordinates at the center of the facility are 30.432089° N and -91.233869° W.

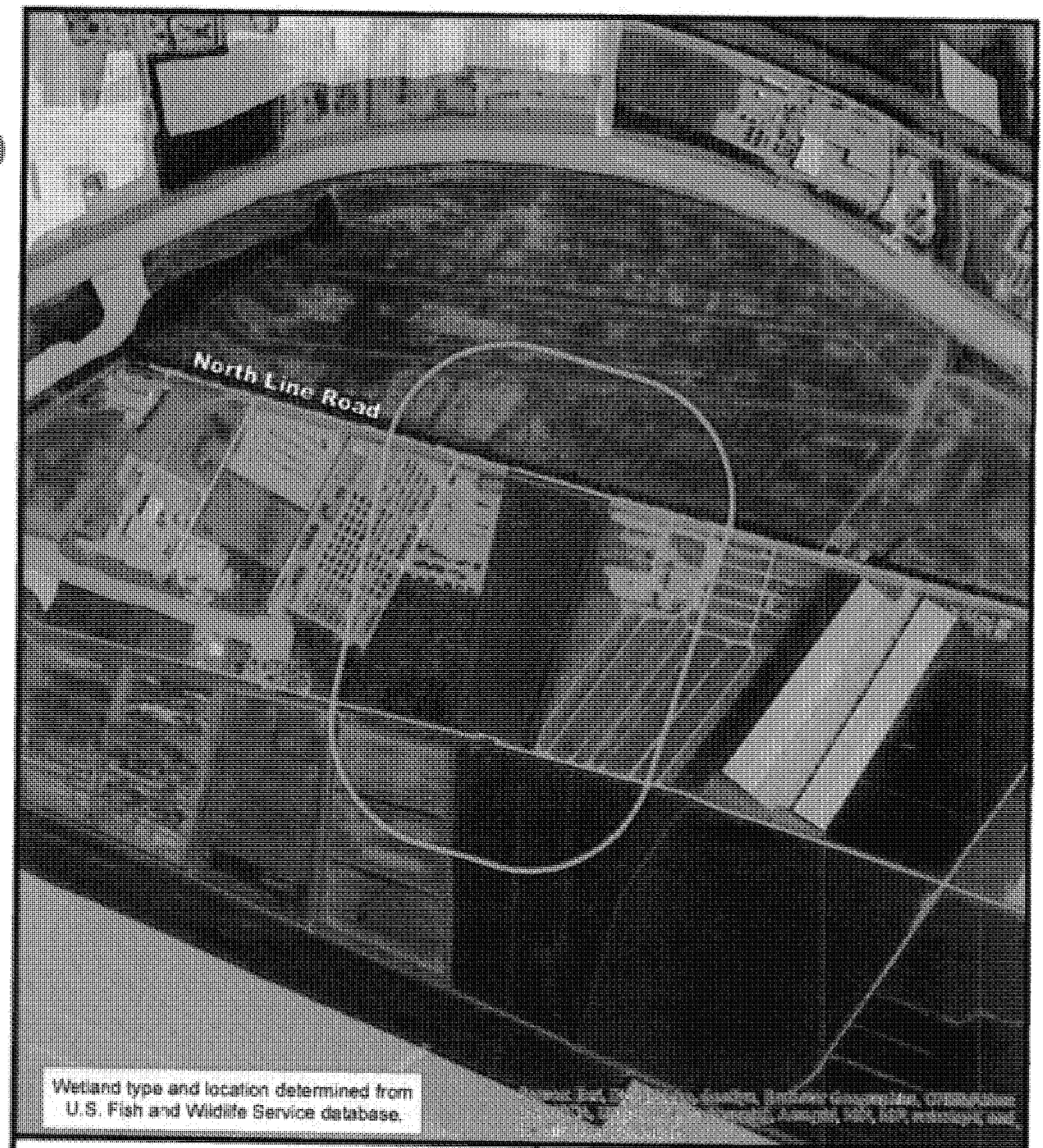
In accordance with the Louisiana Solid Waste Regulations, applicants must provide a list of all the critical/sensitive environmental sites within 1,000 feet of the facility. Thermaldyne is seeking a new application of a solid waste permit for the inital operation of their Port Allen Facility.

Enclosed is a site map indicating the area that includes 1,000 feet from the outermost boundary of the facility. Should you have any further questions or require further information, please contact me at 225.757.0870 or by email at sarah.bozyk@eaglered.com.

Sincerely,

Sarah Bozyk
Environmental Specialist

Attachment as stated




## Legend

Property Boundary

1,000 Foot Radius Line

Wetland Type

Freshwater Forested/Shrub Wetland

Riverine

0 600 1,200 2,400 3,600 Feet

**Thermaldyne, LLC**
**Port Allen, Louisiana**

## Wetland Location Map

West Baton Rouge Parish

E·A·G·L·E

| | |
|---|---|
| Drawn: | JP |
| Checked: | SS |
| Approved: | SS |
| Date: | 10/24/13 |
| Dwg. No.: | 271-15-0002-A10-1 |

**Attachment 10-1**

E·A·G·L·E
ENVIRONMENTAL SERVICES, INC.
18379 Petroleum Drive
Baton Rouge, Louisiana 70809

RECEIVED
NOV 23 2015
FISH & WLDL. SERV
LAFAYETTE, LA.

November 23, 2015

Jeff Weller, Field Supervisor
Louisiana Ecological Services
Fish and Wildlife Service
646 Cajundome Blvd.
Suite 400
Lafayette, LA 70506

RE: Thermaldyne, LLC
West Baton Rouge Parish
Agency Interest Number 195964

Dear Mr. Jeff Weller:

On behalf of the above referenced client, Eagle Environmental Services, Inc. (Eagle) respectfully requests a further review of our proposed project, including an evaluation of their property located in West Baton Rouge Parish. This property is located in Sections 95 and 96; Township 7S and Range 12E. The coordinates at the center of the facility are 30.432089° N and -91.233869° W. Construction should begin April 2016 and end April 2017.

In accordance with the Louisiana Solid Waste Regulations, applicants must provide a list of all the critical/sensitive environmental sites within 1,000 feet of the facility. Thermaldyne is seeking a new application of a solid waste permit for the inital operation of their Port Allen Facility.

Enclosed is a site map indicating the area that includes 1,000 feet from the outermost boundary of the facility. Also enclosed is a pre-development report. Should you have any further questions or require further information, please contact me at 225.757.0870 or by email at sarah.bozyk@eaglered.com.

Sincerely,

Sarah Bozyk
Environmental Specialist

Attachment as stated

This project has been reviewed for effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973 (Act). The project, as proposed,
(✓) Will have no effect on these resources
( ) is not likely to adversely affect these resources.
This finding fulfills the requirements under Section 7(a)(2) of the Act.

Karen Boileau 12/23/15
Acting Supervisor Date
Louisiana Field Office
U.S. Fish and Wildlife Service

E·A·G·L·E
ENVIRONMENTAL SERVICES, INC.
18379 Petroleum Drive
Baton Rouge, Louisiana 70809

October 30, 2015

Ms. Pam Breaux
State Historic Preservation Officer
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-44247

RE: Thermaldyne, LLC
AI # 195964
West Baton Rouge Parish

Dear Ms. Breaux:

On behalf of the above referenced client, Eagle Environmental Services, Inc. (Eagle) respectively requests a cultural resources assessment for their property in West Baton Rouge, Louisiana. Thermaldyne is seeking a solid waste permit for the operation of a processing facility near Port Allen, Louisiana. This property is located in sections 95 and 96; Township 7S and Range 12E. The coordinates at the center of the property are 30.432089° N and 91.233869° W.

Enclosed is a site map indicting the area that includes 1,000 feet from the outermost boundary of the facility. Should you have any further questions or require further information, please contact me at 225.757.0870 or by email at Sarah.bozyk@eaglered.com.

Sincerely,

Sarah Bozyk
Environmental Specialist

Attachment as stated.

E·A·G·L·E
ENVIRONMENTAL SERVICES, INC.
18379 Petroleum Drive
Baton Rouge, Louisiana 70809

October 30, 2015

Ms. Pam Breaux
State Historic Preservation Officer
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-44247

RE: Thermaldyne, LLC
AI # 195964
West Baton Rouge Parish

Dear Ms. Breaux:

On behalf of the above referenced client, Eagle Environmental Services, Inc. (Eagle) respectively requests a cultural resources assessment for their property in West Baton Rouge, Louisiana. Thermaldyne is seeking a solid waste permit for the operation of a processing facility near Port Allen, Louisiana. This property is located in sections 95 and 96; Township 7S and Range 12E. The coordinates at the center of the property are 30.432089° N and 91.233869° W.

Enclosed is a site map indicting the area that includes 1,000 feet from the outermost boundary of the facility. Should you have any further questions or require further information, please contact me at 225.757.0870 or by email at Sarah.bozyk@eaglered.com.

Sincerely,

Sarah Bozyk
Environmental Specialist

Attachment as stated.

No known historic properties will be affected by this undertaking. This effect determination could change should new information come to our attention.

Phil Boggan 11-23-15
Phil Boggan Date
Deputy State Historic Preservation Officer

E·A·G·L·E
ENVIRONMENTAL SERVICES, INC.
18379 Petroleum Drive
Baton Rouge, Louisiana 70809

Dwight Landreneau
Assistant Secretary
Office of State Parks
P.O. Box 44426
Baton Rouge, LA 70804-4426

RE: Thermaldyne, LLC
AI # 195964
West Baton Rouge Parish

Dear Mr. Landreneau:

On behalf of the above referenced client, Eagle Environmental Services, Inc. (Eagle) respectively requests an evaluation of their property in West Baton Rouge Parishes. This property is located in sections 95 and 96; Township 7S and Range 12E. The coordinates at the center of the property are 30.432089° N and -91.233869° W.

In accordance with the Louisiana Solid Waste Regulations, applicants must provide a list of all the critical/sensitive environmental sites within 1,000 feet from the outermost boundary of the facility. Thermaldyne is seeking a solid waste permit for the beginning operation of their Facility.

Enclosed is a site map indicting the area that includes 1,000 feet from the outermost boundary of the facility. Should you have any further questions or require further information, please contact me at 225.757.0870 or by email at Sarah.bozyk@eaglered.com.

Sincerely,

Sarah Bozyk
Environmental Specialist

Attachment as stated.

JAY DARDENNE
LIEUTENANT GOVERNOR

# State of Louisiana

OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF STATE PARKS

CHARLES R. DAVIS
DEPUTY SECRETARY

DWIGHT LANDRENEAU
ASSISTANT SECRETARY

November 6, 2015

EAGLE Environmental Services, Inc.
18379 Petroleum Drive
Baton Rouge, LA 70809

Re: Thermaldyne, LLC

Dear Sarah Bozyk:

The Office of State Parks has no parks, sites or other recreational areas located within 1,000 feet of the Thermaldyne, LLC facility in West Baton Rouge Parish.

Best regards,

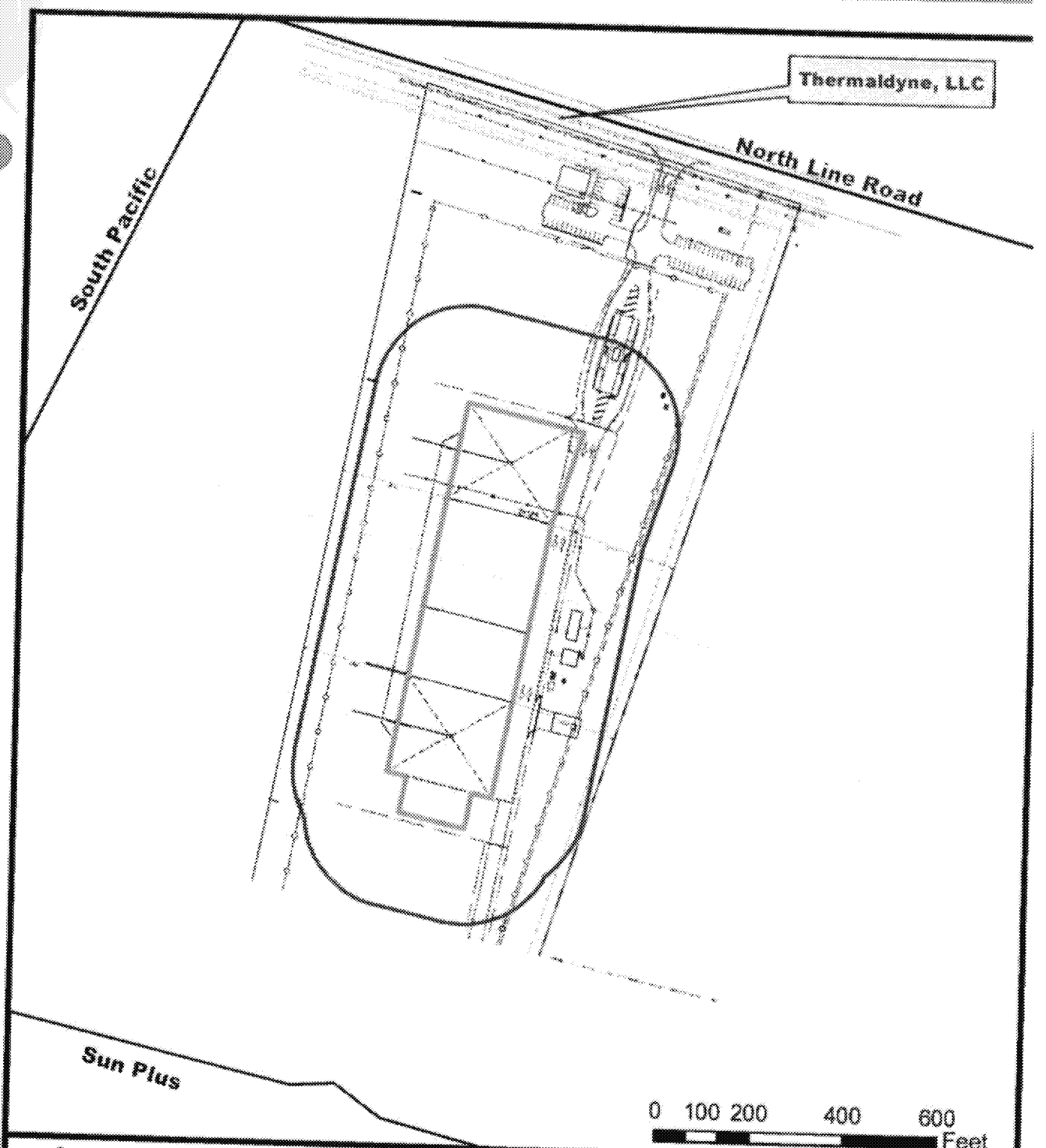
Britt Evans
Natural Resources Manager

BE: be

P.O. BOX 44426 • BATON ROUGE, LOUISIANA 70804-4426 • PHONE (225) 342-8111 • FAX (225) 342-8107 • WWW.CRT.LA.GOV

# APPENDIX D

# BUFFER ZONE




## Legend

- Road System
- Proposed Permitted Facility
- 200 Foot Buffer of Proposed Permitted Facility
- Property Boundary

N W E S

**Reference**

Engineering Drawing provided by Client drawn by Evans-Graves Engineers, Inc.

**Thermaldyne, LLC**
**Port Allen, Louisiana**

**200 Foot Buffer Zone Processing Area**

West Baton Rouge Parish

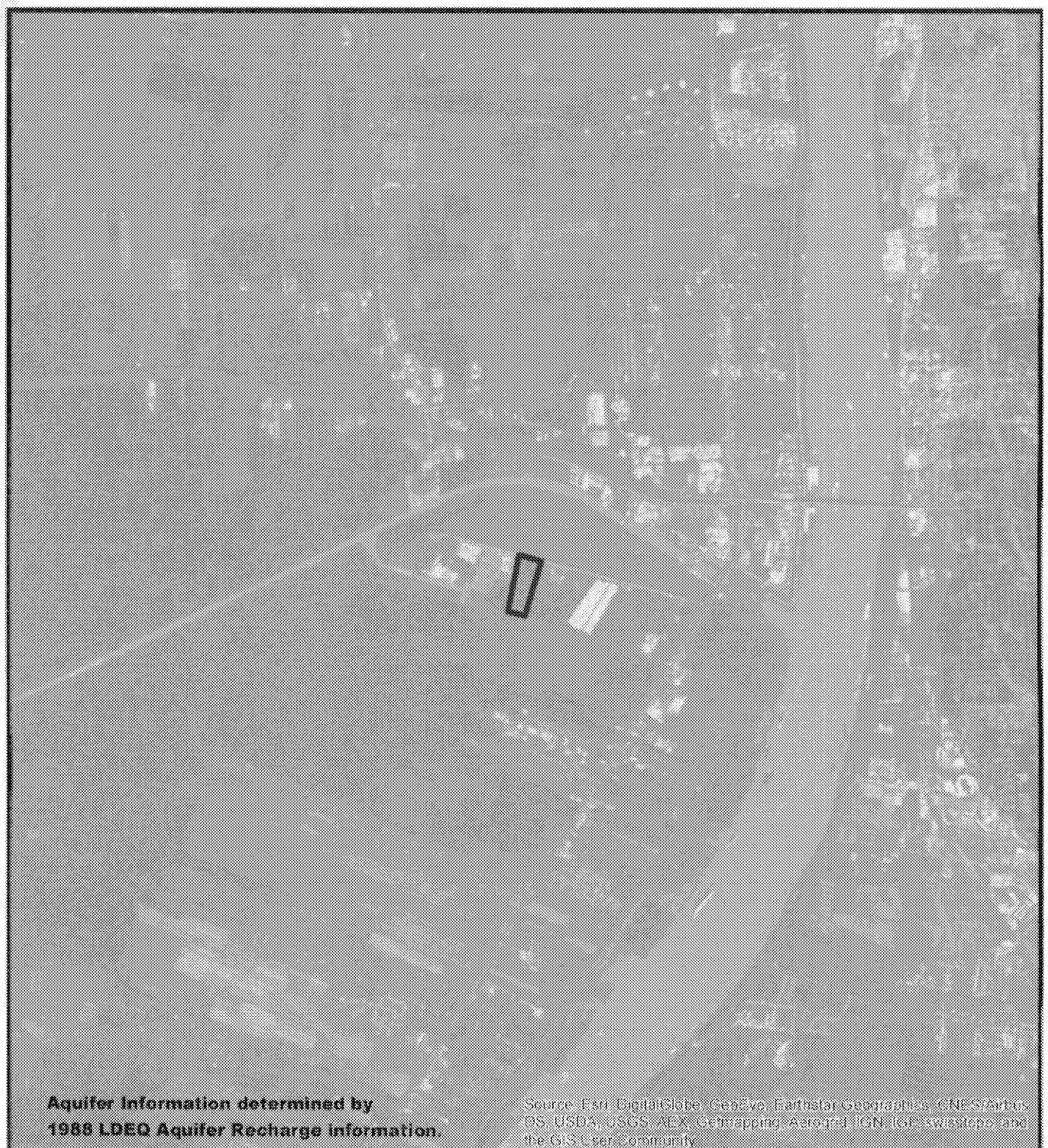
E·A·G·L·E

| | |
|---|---|
| Drawn: | JP |
| Checked: | SB |
| Approved: | SB |
| Date: | 11/12/15 |
| Dwg. No.: | 271-15-0002-A7-7 |

**Attachment 7-7**

# APPENDIX E

# AQUIFER RECHARGE PROTECTION



**Aquifer Information determined by 1988 LDEQ Aquifer Recharge information.**

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

## Legend

Property Boundary

**AQUSYS**

ALLUVIAL (No Recharge)

SOUTHEAST LOUISIANA (Low recharge)

0 2,750 5,500 11,000 16,500 Feet

**Thermaldyne, LLC**
**Port Allen, Louisiana**

## Aquifer Recharge Potential Map

West Baton Rouge Parish

E·A·G·L·E

| | |
|---|---|
| Drawn: | JP |
| Checked: | SB |
| Approved: | SB |
| Date: | 10/26/15 |
| Dwg. No.: | 271-15-0002-A23-1 |

**Attachment 23-1**

Baton Rouge Office
11638 Sun Belt Court
Baton Rouge, LA 70809
Tel: (225) 751-1227
Fax: (225) 752-1467
www.sesearth.com

SOUTHERN EARTH SCIENCES, INC.
Geotechnical, Environmental & Construction Materials Testing

November 9, 2015

**Thermaldyne, LLC**

Attention: Mr. Mike Yawn

c/o: **Arkel Constructors, Inc.**
1048 Florida Street
Baton Rouge, Louisiana 70802
Attention: Mr. Derek Fife

Re: **Rigid Pavement Sections Recommendations**
Proposed Thermaldyne Desorption Facility
Port Allen, Louisiana
SESI File No: B15-313

Dear Mr. Fife:

As requested, SESI has evaluated rigid pavement sections for the above referenced project. The project site is located within the Port of Greater Baton Rouge, situated adjacent to and along the south side of N Line Road in Port Allen, Louisiana. It is understood that approximately two (2) feet of fill material will be required to achieve design grade.

We appreciate the opportunity to be part of this project and look forward to continued participation during the design and construction phases of this project.

If you have any further questions pertaining to this report, or if we may be of further service, please contact our office.

Respectfully submitted,
**Southern Earth Sciences, Inc.**

Mike Juneau, P.E., MBA
Baton Rouge Branch Manager