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**APPENDIX 15**

**ASSET EVALUATION PROTOCOL**



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## APPENDIX 15

### ASSET EVALUATION PROTOCOL

#### 1.0 ASSET EVALUATION PROTOCOL IN GENERAL

The purpose of this Appendix is to present the protocol and procedures to be followed by the Lessee and the Lessor, with the assistance of the Lessor Engineer, to assess the existing condition of the Incineration Facilities for quantification of any changes in condition that may, from time to time, occur through the Term of the Lease Agreement and to ensure that the Lessee's maintenance program, including capital repair and replacement program, is adequate to maintain the Incineration Facilities in a condition comparable to the condition of the Incineration Facilities at the Commencement Date, as further described in this Appendix.

The Incineration Facilities evaluation effort will include the development, by the Lessee, of an Incineration Facilities Registry, which will list all equipment and structures that comprise the Incineration Facilities. This registry will also present an estimated value of all equipment along with an estimated remaining useful life. This registry, once approved by the Lessor, will be used by the Lessee to develop a Repair and Replacement Plan (RRP) which shall be sufficient, when carried out through the Term of the Lease Agreement, to properly maintain the Incineration Facilities. The RRP shall include a schedule that shall detail when specific equipment will be scheduled for replacement or refurbishment (Projected Rebuild/Replacement Schedule).

The Projected Rebuild/Replacement Schedule shall be prepared by the Lessee and approved by the Lessor prior to the Commencement Date and shall be used to assess whether the Lessee has fulfilled its rebuilding or replacement obligations. The Lessee shall produce the Projected Rebuild/Replacement Schedule, which shall be incorporated into the Lease Agreement as an attachment to this Appendix 15. The Projected Rebuild/Replacement Schedule shall represent a commitment by the Lessee to carry out a minimum level of rebuild or replacement for the maintenance of the Incineration Facilities. The goal of the Projected Rebuild/Replacement Schedule shall be to maintain Weighted Average Rebuild/Replacement Useful Life of the Incineration Facilities comparable to that which existed as of the Commencement Date.

An Exit Evaluation (as defined in Section 6 of this Appendix 15) will be carried out in year 18 or at the termination of the Lease Agreement, whichever occurs first. Year 18 of the Term is utilized so that there is sufficient time prior to the end of the Term to collect monies owed or to make the required rebuilds or replacements or repairs necessary to return the Incineration Facilities to a condition comparable to that at the Commencement Date.

In the event that the remaining Actual Weighted Average Rebuild/Replacement Useful Life (as defined in Section 5 of this Appendix 15), at the end of year 18 of the Lease Agreement

or upon termination of the Lease Agreement, whichever occurs earlier, is less than 92.5% of the Projected Weighted Average Rebuild/Replacement Useful Life presented in the Projected Rebuild/Replacement Schedule, the Lessee shall be responsible for payment for the value of such work as determined by the Lessor Engineer for such deficiency or making the necessary replacement or rebuilds.

In addition, if final inspection of the facilities carried out in year 18 of the Term, or earlier at termination of the Lease Agreement, reveals that components not included in the Projected Rebuild/Replacement Schedule have not been properly maintained and have degraded beyond that which would be expected by normal wear and tear, the Lessee shall make the needed repair or make a payment to the Lessor for the value of this work as determined by the Lessor Engineer. Any payments will be based upon reasonable estimation of the costs required to remedy non-fulfillment of the RRP.

All parties will work diligently to reach agreement on matters dealing with the Incineration Facilities Evaluation. If disputes arise which cannot be settled through informal negotiation, the procedures for dispute resolution as described in Section 14.11 of the Lease Agreement shall be used.

## **2.0 SCHEDULE**

The work described herein to develop the Incineration Facilities Registry, Projected Rebuild/Replacement Schedule, complete the Functionality and Structural Evaluations and prepare the Projected Weighted Average Rebuild/Replacement Useful Life for the Incineration Facilities shall be completed by the Lessee prior to the Commencement Date and no later than 90 days after the Contract Date, excluding review time by the Lessor Engineer.

The Exit Evaluations, as described in Section 6.0 of this Appendix 15, shall be completed within 30 days of the beginning of the 18th year of the Term of the Lease Agreement or 30 days after notice of the termination of the Lease Agreement.

## **3.0 DETERMINING THE INITIAL USEFUL LIFE OF THE SYSTEMS AND SUB-SYSTEMS OF THE INCINERATION FACILITIES**

The Lessee shall determine the useful life of each system and sub-system of the Incineration Facilities (the "Average Useful Life") using the procedures presented below. The Lessee, with approval of the Lessor, shall perform these steps sequentially and shall receive written approval of each step prior to proceeding to the next.

### **3.1 Develop Incineration Facilities Registry**

The Lessee shall develop an Incineration Facilities Registry (the "Registry") of all assets that comprise the Incineration Facilities. The Registry shall be a complete listing of all

systems and sub-systems, including all equipment, structures and facilities that constitute the Incineration Facilities, as described herein.

The Incineration Facilities Registry shall be compiled on a system and sub-system basis in a format similar to that contained in Attachment 1 to this Appendix 15. For example, all Incineration Facilities that belong to the sludge dewatering system, sludge cake receiving system, etc., shall be grouped together. Likewise, all Incineration Facilities that are part of the incinerator, ash handling system, etc., shall be grouped together. Each asset within a system or sub-system shall be assigned a unique asset number that is entered into the Registry along with a short description (name) of the asset. The asset numbers, naming conventions and nomenclature used in the Lessee's computerized maintenance management system, developed pursuant to Section 8.4 of the Lease Agreement, shall be used. To the greatest extent possible, the Registry shall also include the date the asset was initially purchased and, if appropriate, the date it was installed and its original purchase or installed cost, as appropriate.

Assets included in the spare part valuation conducted pursuant to Section 8.2 of the Lease Agreement shall not be included in the Registry. Obsolete or non-functional assets that will not be used by the Lessee in future operations shall be included in the Registry and clearly designated as being obsolete, but shall not be included in the Lessee's RRP.

For each asset listed in the Registry, an estimated replacement value will be provided. This estimate will be based on original cost (adjusted by the Adjustment Factor) or vendor quote for replacement or rehabilitation, whichever is available or deemed most representative. A component categorized as part of the Incineration Facilities that has a Replacement Value of less than \$5,000 shall be included in the Registry but shall not be included in the Lessee's Projected Rebuild/Replacement Schedule. Structures shall be included in the Registry but need not have an estimated useful life or replacement cost assigned.

As Initial Capital Improvements (ICI's) receive Acceptance they will be added to the Registry. The assigned replacement value of ICI's will be the cost of the initial improvements or an estimated refurbishment/replacement cost determined by the Lessee.

The Lessee shall compile the Registry using Microsoft Excel®, Microsoft Access® or some other computer software program mutually agreed to by the parties. The master copy of the Registry shall be prepared in hard copy form, each page of which shall be initialed by both parties. The Lessor shall keep the master copy of the Registry. The Lessee shall also provide the Lessor with an electronic copy of the Registry.

### **3.2 Estimate of Remaining Useful Life of System/Sub-System of Incineration Facilities**

The Lessor Engineer will verify the accuracy, including the proper designation of each asset, and completeness of the Registry prepared by the Lessee as described in

Section 3.1 of this Appendix 15. The Lessee will then estimate the Remaining Useful Life of all the Incineration Facilities that have a Replacement Value equal to or greater than \$5,000 listed in the Registry, with the exemption of spare parts, obsolete or non-functional assets as described in Section 3.1.

This protocol shall be carried out for all equipment and structures that can be practically inspected but will not entail the disassembly of equipment or excavation of underground utilities or buried assets. In the case of tanks that contain internal mechanical components that cannot be readily inspected, such tanks will only be drained if deemed practical by the Lessor Engineer and the Lessee, considering ongoing operations at the Incineration Facilities. In such cases, the Remaining Useful Life will be established using best available information. If it is deemed that tanks need to be emptied to inspect internal equipment, then it will be the Lessee's responsibility to provide all material, labor and equipment to carry out the tasks associated with these efforts.

Remaining Useful Life Evaluation. The Lessee will estimate the Remaining Useful Life value (in years, rounded to the nearest whole number) of all the Incineration Facilities that have a Replacement Value equal to or greater than \$5,000 listed in the Registry and are not obsolete or non-functional assets. The Remaining Useful Life of an asset shall be based upon its reliability to perform its intended function, taking into consideration its performance history, physical condition, availability, replacement costs and maintenance cost history. In determining the Remaining Useful Life of an asset, the Lessee shall not consider whether an asset is outmoded and, if replaced, would enhance the capabilities of the Incineration Facilities.

To establish the Remaining Useful Life of the Incineration Facilities, the Lessee representatives will conduct the following:

- perform a visual inspection of the Incineration Facilities;
- review information concerning equipment design life, purchase and installation dates and other records to determine actual life of the Incineration Facilities;
- consult standard references concerning typical useful lives of wastewater treatment equipment;
- monitor related instrumentation to determine the assets' physical condition and operational characteristics;
- review repair and replacement records, and consult with manufacturers and vendors that may have been involved in the maintenance of the Incineration Facilities; and



- inspect readily accessible parts and surfaces for any installation problems, excessive vibration, noise or temperature, the condition of coatings, signs of wear or corrosion, and leakage of any fluids.

These inspection activities shall be conducted while motor-driven equipment is in operation. Upon completion of these tasks, the Remaining Useful Life of the Incineration Facilities Equipment shall be added to the Registry.

Upon completion of the estimate of Remaining Useful Life, this information will be presented to the Lessor Engineer for review and approval. If requested, the Lessee will provide supporting documentation used to assess specific pieces of equipment or to determine remaining useful life. The estimate of the Remaining Useful Life of the Incineration Facilities will not be considered complete until the Lessor Engineer has provided written approval to the Lessee.

#### **4.0 PREPARATION OF A REBUILD AND REPLACEMENT PLAN**

##### **4.1 Projected Rebuild/Replacement Schedule**

One goal of the RRP will be to establish a schedule (Projected Rebuild/Replacement Schedule) for refurbishment and replacement of Incineration Facilities equipment so that the Lessor can be assured that the Incineration Facilities equipment will be returned to the Lessor at the end of the Term (or sooner upon contract termination) in a condition comparable to the condition at the Commencement Date.

The basis for the Projected Rebuild/Replacement Schedule will be the approved Incineration Facilities Registry. Items that are included in the Registry, but are not included in the RRP, are items that:

- are obsolete or non-functional assets;
- are not anticipated to receive major repair, rebuilding or replacement (such as buildings and concrete and masonry buildings or structures);
- are of insufficient value (<\$5,000) to merit inclusion in the Evaluation Date assessment;
- equipment with a useful life less than three years; and
- have been excluded from the schedule by agreement between the Lessee and the Lessor, even though the Lessee remains responsible for the function of such components at the end of the Term in accordance with maintenance and performance obligations.

The Projected Rebuild/Replacement Schedule shall provide a listing of the schedule and estimated budget of expenditures during the Term for major refurbishment, rebuilding, or replacement of each piece of equipment identified in the Registry eligible to be included in

the RRP. This will correspond to an annual RRP budget that can be tracked throughout the Term.

The budget for expenditures shall be based on the reasonably estimated cost of each component rebuild or replacement at the Evaluation Date (the "Component Rebuild Cost"). The Component Rebuild Cost shall be exclusive of on-site labor. The Component Rebuild Cost shall be amortized on a straight-line basis over the rebuild/replacement useful life of the equipment. An example of the Projected Rebuild/Replacement Schedule is presented Table 1.

**Table 1: Example Projected Rebuild/Replacement Schedule for 20-Year Contract Beginning in 2000**

1	2	3	4	5	6	7
Equipment No.	Equipment Name	Projected Rebuild/Replacement Schedule	Rebuild/Replacement Useful Life	Projected Rebuild/Replacement Useful Life at End of Term	Unamortized Component Rebuild/Replacement Cost	Annualized Component Rebuild/Replacement Cost (Amortized Basis)
IN0001	Sludge Conveyor No.1	2003, 2008, 2013, 2018	5 yrs.	3 yrs	\$50,000	\$10,000
IN0002	Sludge Conveyor No.2	2004, 2014	10 yrs.	4 yrs.	\$400,000	\$40,000
IN0003	Sludge Conveyor No.3	2004,2008, 2012, 2016, 2020	4 yrs.	4 yrs.	\$80,000	\$20,000

The columns in Table 1 are represented as follows.

Column 1 Component Number: Specific equipment numbers assigned in the Incineration Facilities Registry.

Column 2 Component Name: Specific equipment names assigned in the Incineration Facilities Registry.

Column 3 Projected Rebuild/Replacement Schedule: Listing of the calendar years in which the Lessee commits to rebuild or replace the respective component during the Term. The Projected Rebuild/Replacement Schedule shall be based on the number of years of useable service that an Incineration Facilities Rebuild/Replacement Component in "as-new condition" is expected to provide, assuming normal wear and tear, and normal maintenance. This value will differ with the type of service for which the component is used. The Projected Rebuild/Replacement Schedule shall indicate for each calendar year

listed whether a rebuild or a replacement will occur in that year.

Column 4 Rebuild/Replacement Useful Life: The average interval of time between rebuilds or replacements of each system or component on the Projected Rebuild/Replacement Schedule (in years, rounded to the nearest year).

Column 5 Projected Rebuild/Replacement Useful Life at End of Term: The interval projected to be remaining at the end of Term prior to the next anticipated rebuild or replacement of each specific component of the Incineration Facilities included in the Projected Rebuild/Replacement Schedule. This number is calculated as the difference between the Rebuild/Replacement Useful Life and the number of years between the end of Term and the last rebuild or replacement, according to the Projected Rebuild/Replacement Schedule.

Column 6 Unamortized Rebuild/Replacement Cost: Cost of the rebuilding or replacement of each specific component of the Incineration Facilities included in the Projected Rebuild/Replacement Schedule, excluding on-site labor.

Column 7 Adjusted Component Rebuild/Replacement Cost (amortized on an annual basis): The amortized cost to rebuild or replace each specific component of the Incineration Facilities included in the Projected Rebuild/Replacement Schedule after it has been amortized on a straight-line annual basis over the Rebuild/Replacement Useful Life.

As with the development of the Registry, the Projected Rebuild/Replacement Schedule shall be developed on a system and sub-system basis.

In addition to the Registry and Projected Rebuild/Replacement Schedule for Incineration Facilities existing as of the Commencement Date, there shall be separate Incineration Facilities Registries and Projected Rebuild/Replacement Schedules for each Initial Capital Improvement (ICI) and for each Capital Modification, unless excluded by mutual agreement of the Lessor and the Lessee. As ICI's and Capital Modifications are completed, all components, subject to the minimum value (<\$5,000) exclusion, shall be entered into the Incineration Facilities Registry and their Projected Rebuild/Replacement Schedule developed. The calculations of the remaining weighted average useful life of the Incineration Facilities associated with the ICI's (the "Weighted Average Rebuild/Replacement Useful Life") and any resulting compensation due the Lessor at the end of the contract Term, or earlier upon termination of the Lease Agreement, shall be totally independent of the calculations for the Incineration Facilities existing as of the Commencement Date.

If Capital Modifications are carried out by the Lessee that entail the installation of equipment of a value of \$5,000 or more, this equipment will be added to the Registry and a separate Projected Rebuild/Replacement Schedule will be developed in the same manner as the ICI's.

All components that are permanently removed from service at the plant shall also be deleted from the Incineration Facilities Registry and the Projected Rebuild/Replacement Schedule. Components that are removed from service for an extended period of time but left in place shall be deleted from the Projected Rebuild/Replacement Schedule unless and until they are returned to service, but shall continue to be shown in the Incineration Facilities Registry. During any period of time that a Incineration Facilities component is removed from service, no time shall be deemed to have passed in connection with the useful life of the rebuild/replacement, e.g., in the event that a rebuild with a Rebuild/Replacement Useful Life of five years is performed five years prior to the Evaluation Date and, after two years of service, the Incineration Facilities Rebuild/Replacement Component is taken out of service, the rebuild will be deemed to have three years of useful life remaining at the Evaluation Date.

#### 4.2 Functionality Evaluation

All equipment not included in the Projected Rebuild/Replacement Schedule will be subject to a Functionally Evaluation as described herein. This evaluation will be performed by the Lessee and recorded on a system and sub-system basis. The Functionality Evaluation shall determine if the assets operate properly and perform the function for which they were intended. All such determinations will be made in consultation with the Lessor Engineer. Assets to be evaluated, as part of the Functionality Evaluation shall include:

- all exposed piping;
- all exposed pipe valves together with hydraulic system gates and weirs;
- instrumentation and control equipment not included in the Projected Rebuild/Replacement Schedule; and
- minor electrical/mechanical process equipment and systems including any asset/component whose installed cost is less than \$5,000 or whose expected useful life is less than three years.

All motorized and manually operated equipment, together with electrical equipment shall be observed by the Lessee's representative and the Lessor Engineer for proper operation. Pipes shall be checked for overall condition and visible leakage.

As part of the Functionality Evaluation of these systems and/or sub-systems, each applicable system and/or sub-system of the Incineration Facilities will be placed into 1 of 3 categories. These categories will be as follows:

1. Good to excellent overall condition: asset fully functional as designed with little to no visible defects or wear.
2. Fair overall condition: asset functions as needed for current operating conditions, visible sign of moderate defects and expected wear.

3. Poor overall condition: asset operable, but does not function as needed for current operating conditions, or asset is inoperable: visible signs of major defects, wear is more than expected and there may be personnel safety issues.

The results of the Functionality Evaluation shall be included in a separate section of the RRP. The results of this evaluation will be included in tabular form as depicted in Table 2. For comparative purposes, a similar evaluation will be made at the end of year 18 of the Lease Agreement or upon termination of the Lease Agreement, whichever occurs first.

**Table 2 Functionality Evaluation**

Asset Number	Asset Description	Functionality Defect(s)	Rating
EX0010	Incinerator Room Safety Shower	None	Good
EX0015	Sludge Room Lighting	Minor Wear	Good
EX00020	Polymer Piping	Leaking Sludge Pumping Valves (Total: 6)	Fair
EX00062	Office Air Conditioner	Moderate wear	Fair
EX0078	Sludge room Sump Pump	Sump Pump Inoperative Motor	Poor

The Functionality Evaluation shall be subject to review and approval of the Lessor Engineer.

### 4.3 Structural Evaluation

The Structural Evaluation, as defined herein, shall include visual inspection supported by photographic and video recording of all of the structures which comprise the systems and sub-systems of the Incineration Facilities, including, but not limited to:

- All accessible buildings and concrete structures, both above and visible structures below ground level, including doors, hatches, stairways, and windows;
- Walkways, roads and other paved areas;



- Structural components associated with Incineration Facilities Equipment (e.g. slabs, pits, supports etc.) not included in the Projected Rebuild/Replacement Schedule;
- Fencing, drainage structures, utility structures;
- Finish system – paint, sealants and other liquid applied finishes; and
- Floor, ceiling, roofs and wall systems – tiles, carpeting, raised floors and drop ceilings.

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Structures and paved areas shall be checked for structural defects and damage, such as cracks and concrete deterioration that could reduce their useful life. Finish systems shall be visually inspected to assure that they provide adequate coverage and afford the desired protection. Occurrence of flaking, corrosion, rot and inadequate coverage should be noted. Floor, ceiling, roofs and wall systems should be visually inspected for excess wear and damages.

As part of the Structural Evaluation of these structures, each structure will be rated in 1 of 3 categories utilizing the following criteria:

1. Good to excellent overall condition: asset fully functional as designed with little or no visible defects or wear or structural defects.
2. Fair overall condition: asset functions as needed for current operating conditions, visible sign of moderate defects and expected wear.
3. Poor overall condition: asset operable, but does not function as needed for current operating conditions, or asset is inoperable: visible signs of major defects, wear is more than expected and there may be personnel safety issues.

The results of the Structural Evaluation shall be included in a separate section of the RRP. The results of this evaluation will be included in tabular form as depicted in Table 3.

**Table 3 Structural Evaluation**

Asset Number	Asset Description	Structural Defect(s)	Ranking
EX0010	Foundation Sludge Building	None	Good
EX0015	Sludge Thickener Exterior Walls	Minor Cracks, No Leaks	Good
EX00020	Stairs to Primary Sludge Control Building	Severe Wear, Rebar Showing	Poor
EX00062	Coating Sludge Thickener	Minor Peeling	Good
EX0078	Foundation Incineration Building	Moderate Cracks	Fair

The Structural Evaluation shall be performed by the Lessee and shall be subject to review and approval of the Lessor Engineer.

#### **4.4 Excluded Incineration Facilities**

The ICI Incinerator Vessel and components integrally connected to it are excluded from applicability to this Appendix 15. However, these specifically excluded Incineration Facilities must always conform to Applicable Law. In addition, the Lessee shall also develop and execute throughout the Term of the Lease, an operations and maintenance plan for these Incineration Facilities, as described in Appendix 14, Section 4.1, so that their condition is maintained throughout the Term accounting for wear and tear from the intended usage.

#### **5.0 WEIGHTED AVERAGE REBUILD/REPLACEMENT USEFUL LIFE**

The Weighted Average Rebuild/Replacement Useful Life is used as a baseline to quantify the remaining weighted average useful life of the equipment rebuilds and replacements of the Incineration Facilities that will remain at the end of the Term. This is accomplished by comparing the Projected Weighted Average Rebuild/Replacement Useful Life Value from the Rebuild/Replacement Schedule to the Actual Weighted Average Rebuild/Replacement Useful Life Value as calculated using the procedures described in this Section 5. As with the development of the Rebuild/Replacement Schedule, the Actual Weighted Average Rebuild/Replacement Useful Life evaluation will be carried out on a system and sub-system basis.

The initial evaluation to establish the Projected Weighted Average Rebuild/Replacement Useful Life along with the initial Functionality and Structural Evaluations, all carried out prior to the Commencement Date, shall be termed the "Baseline Asset Evaluation". The evaluation to quantify whether the Incineration Facilities have been properly maintained that will take place in year 18 of the Term, or at the termination of the Lease Agreement, whichever occurs first, shall be termed the "Exit Evaluation".

The Lessee covenants that at the end of the Term or upon earlier termination, the Actual Rebuild/Replacement Useful Life for each of the Incineration Facilities, on a system and subsystem basis, will be equal to 92.5% or more of the Projected Weighted Average Rebuild/Replacement Useful Life developed as of the Commencement Date. The comparison of the Weighted Average Rebuild/Replacement Useful Lives shall also be used to determine the need for rebuild or replacement activities and evaluate any compensation that the Lessee may owe the Lessor, should the Lessee fail to meet this performance standard.

The Projected Weighted Average Rebuild/Replacement Useful Life is the weighted average of the remaining lives of each component of the Incineration Facilities included in the Rebuild/Replacement Schedule, adjusted to account for the differences in component costs and useful lives. The weighting shall reflect the Rebuild/Replacement Cost for each component, as listed in the Projected Rebuild/Replacement Schedule, with the value of the Rebuild/Replacement Cost adjusted to the end of Term. In the case of the last rebuild/replacement for a particular component prior to the end of the Term, the cost of the rebuild/replacement used in the evaluation of the Projected Weighted Average Rebuild/Replacement Useful Life will be the actual cost of the repair, rebuild, replacement or refurbishment, excluding Lessee on-site labor.

The Actual Weighted Average Rebuild/Replacement Useful Life is calculated utilizing the information presented in the Projected Rebuild/Replacement Schedule. As with the Projected Rebuild/Replacement Schedule, the Actual Weighted Average Rebuild/Replacement Useful Life will be evaluated on a subsystem basis (e.g. sludge dewatering, sludge incineration, ash handling, etc.). The first step in determining the Actual Weighted Average Rebuild/Replacement Useful Life is to multiply the Adjusted Component Rebuild/Replacement Cost (annualized cost) for each component by the Projected Remaining Rebuild/Replacement Useful Life at the end of the Term to determine the Projected Component Remaining Useful Life Value at the end of the Term.

Next, the Actual Remaining Useful Life Value at the end of the Term for each component is calculated by subtracting the years since the last rebuild/replacement from the Projected Rebuild/Replacement Useful Life. For evaluations carried out in year 18 of the Term, two years will be subtracted from this value to account for the difference between year 18 and the end of the Term. For evaluations carried out as a result of termination of the Lease Agreement, the actual value at the date of termination will be used.



The Actual Remaining Useful Life Value at the end of the Term is the Actual Remaining Useful Life multiplied by the Adjusted Component Rebuild/Replacement Cost. The Projected Weighted Average Rebuild/Replacement Useful Life is found by dividing the sum of the Projected Useful Life Values for all components by the sum of the Adjusted Component Rebuild/Replacement Costs. The Actual Weighted Average Rebuild/Replacement Useful Life is calculated by dividing the sum of the Actual Component Remaining Useful Life Values for each component by the sum of the Adjusted Component Rebuild/Replacement Costs.

An example of the calculation of the Projected Weighted Average Rebuild/Replacement Useful Life and Actual Weighted Average Rebuild/Replacement Useful Life can be found in Table 4.

**Table 4 Weighted Average Rebuild/Replacement Useful Life**

1	2	3	4	5	6	7
Equipment No.	Equipment Name	Annualized Component Rebuild/Replacement Cost	Projected Rebuild/Replacement Useful Life at End of Term	Projected Useful Life Value	Actual Remaining Useful Life at End of Term	Actual Remaining Useful Life Value
EX0001	Sludge Conveyor No.1	\$10,000/yr	3 yrs.	\$30,000	3 yrs	\$30,000
EX0002	Sludge Conveyor No.2	\$40,000/yr	4 yrs.	\$160,000	3 yrs.	\$120,000
EX0003	Sludge Conveyor No.3	\$20,000/yr	4 yrs.	\$80,000	3 yrs.	\$60,000
Totals		\$70,000/yr		\$270,000		\$210,000
<b>Projected Weighted Average Useful Life</b> (Total column 5 ÷ total column 3)				3.86 yrs.		
<b>Actual Weighted Average Useful Life</b> (Total column 7 ÷ total column 3)						3.0 yrs.

In this example, the Projected Weighted Average Rebuild/Replacement Useful Life Value is greater than that of the Actual Weighted Average Rebuild/Replacement Useful Life; therefore, implementation of the RRP was not sufficient to allow the Incineration Facilities to be maintained to a level projected in the development of RRP. The Actual Weighted Average Useful Life was 0.86 years less than that projected.

## 6.0 EXIT EVALUATION OF INCINERATION FACILITIES

Pursuant to Section 8.2 of the Lease Agreement, the Lessee shall perform an Exit Evaluation of the Incineration Facilities assets included in the Projected Rebuild/Replacement Schedule and make any payments to the Lessor if there was a failure to properly maintain such assets of the Incineration Facilities. The Exit Evaluation will be conducted for all Incineration Facilities, including the assets at the Commencement Date, Initial Capital Improvements and Capital Modifications. The Exit Evaluation shall be an evaluation utilizing the protocols and procedures described in this Appendix 15, Section 5 for the calculation of Projected and Actual Weighted Average Rebuild/Replacement Useful Lives. The purpose of Exit Evaluation shall be to quantify the difference in the condition of the Incineration Facilities from the Commencement Date to the end of the Term. The Exit Evaluation shall be conducted at year 18 of the Term, or at termination of the Lease Agreement whichever occurs first.

In addition to the Exit Evaluation carried out by the Lessee for the Incineration Facilities assets included in the Projected Rebuild/Replacement Schedule, the Lessee and the Lessor Engineer will inspect the facilities at the end of the Term, or at the termination of the Lease Agreement, whichever comes first, to determine if any of the components not included in the Projected Rebuild/Replacement Schedule have been degraded to a condition beyond that which would be expected by normal wear and tear. The Lessee shall prepare and submit to the Lessor a report of its findings of the inspection.

### 6.1 Weighted Average Useful Life Costs

The Incineration Facilities shall be returned to the Lessor in a condition and state of repair such that, at the end of the Term, the Actual Weighted Average Rebuild/Replacement Useful Life of each system/sub-system of the Incineration Facilities is equal to or greater than 92.5% of the Projected Weighted Average Rebuild/Replacement Useful Life of the systems/sub-systems of the Incineration Facilities determined through the Baseline Asset Evaluation conducted pursuant to Section 8.2 of the Lease Agreement. In satisfying this requirement, the Lessee shall not arbitrarily replace a single item of a system/sub-system of the Incineration Facilities for the sole purpose of creating a weighted average useful life of each system/sub-system of the Incineration Facilities equal to or greater than the weighted average useful life of the system/sub-system of the Incineration Facilities determined through the Baseline Asset Evaluation.

The Weighted Average Rebuild/Replacement Useful Life for each subsystem, projected to exist at the end of the Term (Projected Weighted Average Rebuild/Replacement Useful Life) shall not change throughout the Term. The Actual Weighted Average Rebuild/Replacement Useful Life may not be the same as the Projected Weighted Average Rebuild/Replacement Useful Life, if the Projected Rebuild/Replacement Schedule is not implemented as planned. A comparison of the Actual Weighted Average Rebuild/Replacement Useful Life to the Projected Weighted Average Rebuild/Replacement Useful Life will be carried out in year 18 of the Lease Agreement, or earlier upon

termination of the Lease Agreement. If the results of this comparison indicate that the Actual Weighted Average Rebuild/Replacement Useful Life for each subsystem exceeds or equals 92.5% of the Projected Weighted Average Rebuild/Replacement Useful Life, there will be no adjustment.

If the results of this comparison indicate that the Actual Weighted Average Rebuild/Replacement Useful Life for any subsystem is less than 92.5% of the Projected Weighted Average Rebuild/Replacement Useful Life for that subsystem, the Lessee shall make a one-time payment to the Lessor to account for the deficiency. The amount of this payment will be equal to the amount which would be needed to be added to the sum of the Actual Remaining Useful Life Values so that the Actual Weighted Average Rebuild/Replacement Useful Life is equal to 92.5% or more of the Projected Weighted Average Rebuild/Replacement Useful Life. For the example depicted in Table 4, this value would be calculated as follows.

Projected Weighted Average Rebuild/Replacement Useful Life = 3.86 yrs  
 $3.86 \text{ yrs} \times 92.5\% = 3.57 \text{ yrs}$

Actual Weighted Average Rebuild/Replacement Useful Life = 3.0 yrs

Weighted Average Rebuild/Replacement Useful Life, in years, to be made up by Lessee:  $3.57 \text{ yrs} - 3.0 \text{ yrs} = 0.57 \text{ yrs}$

Payment due from Lessee to Lessor equals (years to be made up) X (sum of adjusted Component Rebuild/Replacement Cost (\$70,000 in example))

Amount due  $0.57 \text{ yrs} \times \$70,000 = \$39,990$

In cases where the Lessee's RRP was found to be deficient, the Lessee has the option to carry out the rebuild or replacement in lieu of making payment to the Lessor.

## 6.2 Costs for Degradation Beyond Normal Wear and Tear

Any components not included in the Projected Rebuild/Replacement Schedule which are not functional or have been degraded to a condition beyond that which would be expected by normal wear and tear shall be repaired or replaced by the Lessee or the Lessee shall make a payment to the Lessor equivalent to the value of this work as determined by the Lessor Engineer through the use of outside contractors. If a dispute arises, the procedures for dispute resolution as described in Sections 14.11 and 14.12 of the Lease Agreement shall be used.

## 7.0 REPORTING AND UPDATES

The Lessee shall update the Registry at least once per year. All newly added assets shall be entered in the Registry together with their evaluation designators, installation date, and

installed cost. All assets that are removed from the Incineration Facilities as the result of the ICI's or Capital Modifications being brought on line shall be deleted from the Registry if they are removed from site for disposal. Assets that are removed from service but left on site shall continue to be shown in the Registry as "obsolete". These assets shall be designated as not included in the evaluations. The Lessee shall provide the Lessor a computer-readable form of all updated Registry listings along with a written summary of the changes made in the Registry since it was last updated.

Every three (3) years throughout the Term, the Lessee shall calculate the Actual Weighted Average Rebuild/Replacement Useful Life and compare it to the Projected Weighted Average Rebuild/Replacement Useful Life. This comparison will be presented to the Lessor in report form. If the Actual Weighted Average Rebuild/Replacement Useful Life is less than 92.5% of the Projected Weighted Average Rebuild/Replacement Useful Life, the Lessee shall provide written explanation as to why the Lessee's RRP is not meeting the Lessee's commitment for maintenance of the Incineration Facilities and present a plan of action to remedy the situation.

The Exit Evaluation carried out in year 18, or earlier in the case of termination of the Lease Agreement, shall use the Asset Evaluation Protocol described in this Appendix 15 and as may have been modified by mutual agreement by both the Lessee and the Lessor during the initial evaluation.

A final inspection of Incineration Facilities will be conducted by the Lessee and the Lessor at the end of the Term to verify compliance with the RRP.

## ATTACHMENT 1

### EXAMPLE MANAGED ASSETS EQUIPMENT LIST BY SYSTEM AND SUB-SYSTEM

The following is a partial list of the Incineration Facilities provided to demonstrate how the Incineration Facilities Registry is to be developed. The Lessee is to provide a complete list, including all electrical devices, as part of the evaluation of Incineration Facilities.

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#### Sludge Handling

##### Gravity Thickener System

- Gravity Thickener Rake Mechanism
- Scum Pump
- Gravity Thickener Plunger Pumps (2)
- Gravity Thickener Plunger Pumps (2)
- Gravity Thick Scum Collector

##### WAS Thickening System

- Thickening Centrifuges (2)
- Thickening Centrifuges (2)
- Centrifuge Polymer Feeders (2)
- Centrifuge Polymer Feeders (2)

##### Sludge Blending and Storage

- Sludge Blending Tank Mixers (2)

#### Sludge Dewatering System

- Belt Filter Presses (3)
- Belt Press Flocculator Tanks and Mixers (3)
- Belt Filter Feed Pumps (3)
- Belt Filter Grinders (3)
- Belt Press Filter Wash Pumps (3)
- Sludge Conveyor with Weight Scale
- Sludge Chutes
- Pug Mill system
- Polymer Feeder (Small)

#### Polymer system

- Polymer Processing systems (2)
- Concentrated Polymer Transfer Pump

Polymer Mixing Tanks (2)  
Polymer Feed Tanks (2)  
Polymer Feed Pumps (4)  
Polymer Dilution Water Pumps (2)  
Sump Pump

#### **HVAC/Plumbing Incineration Facilities**

Hot Water Boiler (Lab/Office Bldg)  
Gas Fired Unit Heater (Garage)  

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Hot Water Heater in Sludge Building  
Hot Water Recirculating Pumps (Lab/Office Bldg) (2)  
Room Air Conditioners (5)  
Hot Water Recirculating Pumps (Operations Building) (8)  
Hot Water Unit Heaters (22)  
Air Handling Units (8)  
Hydropneumatic Tank Effluent/Service (2)  
Effluent Flushing Water Pumps (2)  
Effluent Flushing Water Strainer

#### **Odor Control**

Activated Carbon Tanks (Sludge Dewatering Building)